



AI for youth in Edo- Implementation Toolkit for Teachers

Part 2: Handbook for teachers on the use of AI in the classroom

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1. Recap of Part One of the Toolkit

The short videos, part of your required material to complete, should have provided you with the following key main ideas:

- Introduction to key concepts such as GenAI and LLMs, which will be expanded upon in this Handbook.
- Initial understanding on why this technology could be gamechanger for education, as long it is at the service of teachers and students and guided by a strong pedagogical design.
- Ideas on how GenAI can be used to enhance teaching and learning, while being mindful of its limitations.

2. Purpose

Artificial intelligence (AI) may have caught the public's attention in late 2022 with the advent of tools like ChatGPT, but it is highly likely that you've been using AI-powered applications more often than you realize. AI seamlessly runs in the background of numerous everyday applications.

Box 1: AI in your everyday life

Did you know that it is AI technology that recognizes your face to unlock your smartphone? and it's AI that curates your social media feeds on platforms like Facebook or Instagram.

Even routine tasks, such as avoiding the traffic in Benin City, are enhanced by AI; Google Maps and similar navigation apps use AI to track live traffic conditions and offer alternative routes to bypass gridlocks.

After seeing the current excitement about AI in the news you might find yourself wondering: What exactly is AI? What is ChatGPT? How do I use it? When to use it and when not to use it? And if you are, you are not alone. Most teachers and students across the world have not had much or any education in AI and its potential use to enhance teaching and learning. This Handbook aims to become your best friend, aiming to be a simple, concise, and clear guideline on concepts, proper use, your pivotal role to guide and mentor students, and some principles that can help you when deciding to use AI. Let's start this journey!

3. A quick primer on concepts – Demystifying Artificial Intelligence

Artificial Intelligence is not magic. Magic is enigmatic and cannot be understood or controlled. AI is neither of these things. The more we look to understand the concepts behind AI, the better we will be able to control it and use it for constructive purposes in education. AI can enhance efficiency and accuracy in many areas, from administrative tasks to personalizing learning. It's also important to

remember that AI is not human intelligence; it does not possess emotions, consciousness, or inherent ethical judgment.



Figure 1: Will AI help us have more time for human connection? Photo by Commonsense media

A growing knowledge about AI improves safety, responsible use, and supports understanding of potential inaccuracies and biases that may reflect in their outputs. AI literacy has appeared as a skillset for teachers and students to use, understand, evaluate, and reflect on how AI could be integrated in their lives and in the classrooms.

In this section we will tackle key concepts to help you continue your learning journey in AI.

3.1 Artificial intelligence (AI)

It is often difficult to get computer scientists and experts in the field to agree on a common definition as it is a field in expansion, but for the purpose of the guideline we will use the following:

AI is a machine-based system that, for specified objectives, infers, from the input it receives, how to generate outputs which can be predictions, content, answers, recommendations, among others. These systems use hardware, algorithms, and data to replicate certain characteristics of human intelligence. (Adapted from definitions of [OECD](#) and [UNESCO, 2023](#))

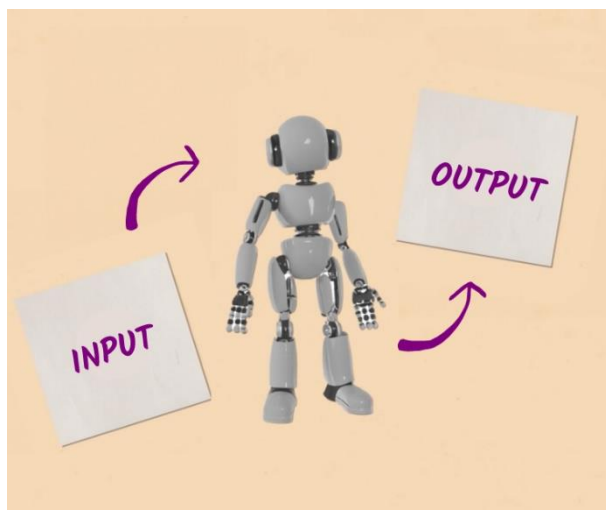
Curious to learn more? You can also access [three alternative definitions developed by the United States Office of Edtech](#)

2.2 Generative AI (GenAI)

For this concept let's try to keep in mind a keyword: *generator*, the possibility of AI to generate content.

Generative AI can generate new content such as text, images, audio, and video that resembles what humans can produce. It is effective at recognizing patterns (in video, audio, text or images) and emulating them when tasked with producing certain task or output. (Adapted from the [Australian Framework for Generative Artificial Intelligence \(AI\) in Schools, 2024](#))

2.3 Large Language Models (LLMs) and examples of their use



For this concept picture the vast amount of data that GenAI needs to produce content.

Large language models form the foundation for GenAI systems. They are trained on billions of language examples from diverse sources like books, articles, and websites, which help systems to respond with facts, grammatically correct text, argumentation, and a semblance of creativity. GenAI systems include some chatbots and tools including OpenAI's ChatGPT, Meta's Llama, Google's PaLM and Gemini, and Microsoft's Copilot, to name a few. (Adapted from [Ruiz and Fusco, 2024](#))

Figure 2: Photo from Commonsense media

Box 2: how will this Handbook help me in the implementation of “AI for Youth” in Edo?

- The “**AI for Youth in Edo Program**” will require your leadership and guidance to ensure that students safely use Copilot (a type of GenAI system) to enhance their English lessons. You are the main conductor of this learning exercise!
- **Interoperability:** the use cases, risks, limitations, and principles and all information present in this document are applicable across different GenAI models such as ChatGPT, Claude, Gemini, Llama, etc.
- This Handbook will supply guidance on **uses of AI for students** as it is key for implementing the program.
- It will also provide guidance on **uses of GenAI for educators**, which you may incorporate into your practice but that are optional in terms of the program implementation.

2.4 Human Centered Artificial Intelligence

A human-centered perspective sees AI systems working to support people and communities and helping to enhance human skills and learning. People should always play a leading role in education, and AI systems cannot replace teachers as students learn via interactions, intrinsic to human nature.

Generative AI tools can make certain written tasks quicker and easier but cannot replace the judgement and deep subject knowledge of a human expert. It is more important than ever that our education system ensures pupils get knowledge, expertise, and intellectual capability. ([UK Department of Education, 2023](#))

2.5 AI Literacy

AI literacy encompasses the knowledge and skills that support people, including teachers and students, to ensure safe, ethical, and meaningful use and assessment of AI systems. (Adapted definition from [Digital Promise](#) and [UNESCO, 2023](#))

3. AI in the classroom: potential benefits and risks

3.1 Why learn about using AI for Education?

GenAI has immense potential to assist teaching and learning in Edo State. The continued growth in the use of AI and its impact on of society requires equipping our students with the adequate knowledge and skills to engage with AI systems thoughtfully and responsibly.

Box 3: Preparing the youth to access better opportunities

- As AI continues to shape various industries, students who understand AI fundamentals will be better prepared for future careers. AI literacy is already becoming a valuable skill across many fields.
- Building a foundational understanding of how AI systems work and produce output not only prepares students for future careers in computer science and other Science, Technology, Engineering and Mathematics (STEM)related fields, but it also ensures that all students enter the workforce understanding the basics of AI.
- Students with knowledge of AI can harness this technology to address real- world challenges and innovate.
- A strong conceptual understanding of AI empowers students to adapt and contribute to an evolving workforce with high demand for these skills.

Teachers should guide this learning process as students will need to be supported in understanding and appropriately managing a range of safety and ethical considerations. Some risks include the potential for errors and algorithmic bias in generative AI content; the misuse of personal or confidential information; and the use of generative AI for inappropriate purposes, such as to discriminate against individuals or groups, or to undermine the integrity of student assessments.

Today most students are experts in the use of digital devices such as smartphones, but they must also be digitally literate to thrive in the post AI era. Knowing how AI processes data and generates outputs enables students to think critically about the results AI systems provide. They, supported by teachers, can question, and evaluate the information they receive and make informed decisions. Educators and students are encouraged to use AI to encourage and not inhibit critical thinking. An understanding of AI supports learners in finding inaccuracies, questioning AI outputs, and recognizing potential bias.

3.2 Benefits for Student Learning

Just like with any recent technology, education systems should equip learners with the skills needed to effectively use AI tools and critically evaluate their outputs. AI has numerous applications in education, with the potential to transform learning experiences. Some of the ways AI can help education include:

Potential benefit	Description	Examples
Tutoring	Virtual teaching assistants powered by AI can provide engaging and interactive support to enhance the classroom experience, support homework, and other tasks. GenAI systems such as Copilot, ChatGPT, Claude and others can be asked to act as a tutor. There are also specific chatbots that have and are being developed for use in education systems. An example of this is EdChat in Australia. Generative AI, if fed deliberately designed and structured prompts, has the potential to give every student a personalized tutoring experience on any topic.	You can recommend that a student use AI as a tutor when they are confused about a concept or would otherwise be looking up something on the internet. There are prompts to ask GenAI systems to act as a tutor. A note of caution: large language models (LLMs) “know” more about some topics and less about others (some argue that they are more prone to errors in math, for instance). They may produce outputs with partially or incorrect information. It’s important to test and guide students in assessing outputs. You will lead the use of Copilot as a tutor for your students as part of this program (detailed information provided in Part 3 of this Toolkit).
Supporting creativity	Provides interactive communication and immediate feedback to learners, helping them jump-start the creative process and improve learning outcomes.	You may for example recommend that a student ask a GenAI system to suggest a structure for an essay. While it is likely the results will be just a starting point, it may encourage your student by supplying a base where they can add and improve upon.
Developing personalized and accessible content	Following the principles of Universal Design for Learning (UDL), AI can help generate personalized study materials, summaries, quizzes, and visual aids, help students (including those with disabilities) access, and develop tailored resources to meet their specific needs, and help students organize thoughts and review content.	AI-powered tools like read aloud, dictation, translation, and captioning can support the needs of students with disabilities. Also, AI-driven language translation tools such as DeepL can break language barriers, making educational content accessible to multilingual learners.
Enhancing critical thinking and other 21st century skills	Students who learn about how AI can develop computational thinking skills to break down complex problems, analyze data critically, and evaluate the effectiveness of solutions. It is well-known that generative AI can “hallucinate” (create and provide incorrect or non-existing information), aim to apply some healthy skepticism: by asking GenAI	For example, if you are using ChatGPT or Copilot to help you craft a persuasive message (like some talking points to prepare for a debate on climate change and how it can affect Benin City), ask yourself how it went. Did it produce what you wanted? What elements seemed to align with your thinking? and which didn’t? Making sure you stop to explore these questions in your own

	for more sources for claims you see, particularly ones that seem inconsistent.	interactions will help make you a stronger critical thinker when dealing with the output of AI systems.
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Box 4: Spotlight – GenAI as Personal Tutor

As teachers we know that many of our students would benefit from having one on one interactions with a personal tutor to help them catch up or to provide further resources, however constraints such as cost, and availability make this option not possible for most.

Generative AI, if fed deliberately designed and structured prompts (which we will cover in Part 3 of the Toolkit), has the potential to give every student a personalized tutoring experience on any topic, such as English grammar for instance. This technology shows great promise as a scalable, accessible way of helping increase student comprehension. Some key takeaways:

- **Set the right tone:** We know that good tutors [ask questions and scaffold students' thinking](#) rather than just giving them answers or explanations.
- **Interactivity:** Great tutors create interactive dialogue, prompting students to respond actively; they [check for understanding](#) and guide students to construct their own knowledge building on their experiences.
- **AI tutor prompts should include these elements:**
 - Establish a clear role (an expert, motivational, upbeat tutor, etc.) and the main goal (to help students understand concepts and ideas providing explanations and checking for comprehension by asking students questions).
 - Meet students where they are by asking them about the topic they would like to learn about, and what they already know about the topic.
 - Provide explanations, examples, and analogies to clarify concepts, since students learn best through tailored explanations and diverse and contextualized examples.
 - Supply sources to support its advice and orientation so that students and teachers can check accuracy of the information provided.
 - Guide students in an open-ended way and asks leading questions so that students must explain their thinking.
 - Adjust to student performance. If a student is struggling, it can offer added support.
 - End its responses with questions so that students can keep generating ideas.
 - Asks students to explain the concept in their own words because being able to explain something yourself ensures understanding.

Source: [Harvard Education, 2023](#)

3.3 Potential risks for student learning and how to mitigate them

Having awareness of limitations and understanding risks about the use of GenAI in the classroom is a main component of AI literacy. Most GenAI systems such as Copilot, ChatGPT, Llama, and Claude include a disclaimer pointing out that the user should check for accuracy of information as these systems may

produce incorrect, biased, and even “hallucinate” content. This subsection aims to provide you with some on the main risks in the use of this technology and how to mitigate them.

It is also important to note that this is probably the worst quality GenAI that you will use in your lifetime, as there are continuous improvements made in these systems, Nevertheless, teachers as critical users must keep abreast of these limitations to identify them and report them.

Risk	Risk Mitigation Strategies	Example (s)
Overreliance: AI models can lead to bypassing students’ natural learning process by providing quick answers that don’t require much thinking on their part. Students may excessively trust AI outputs, especially when AI is seen as having human-like characteristics. However, it is important to highlight the need not to overuse GenAI systems (refer to principle 1 in the next section).	• Establish appropriate uses at the classroom level, for example a recommendation can be to use Gen AI not to bypass our thinking process but to feed it. Ask them to think when encountering a task or question, why use AI? Would I be better served not using it? • The key is to figure out how to make GenAI work either like a research assistant or as a tutor or coach.	• A way to use GenAI to feed our thinking process could be to ask for a sample structure for an essay and build upon that. • Ask GenAI to provide sources for certain points on a debate in any topic, for example climate change, and then review these resources and evaluate the points provided, are they relevant for the context in Edo?
Misinformation: can be produced by generative AI tools and disseminated at scale, leading to widespread misunderstanding.	• Students should learn how to critically evaluate all AI-generated content and taught about the responsible development and sharing of content. • This is why as part of the AI for Youth in Edo Program we include a reflection exercise to evaluate the outputs provided (See part 3 of this toolkit)	• Targeted use of AI for a specific topic such as English grammar with the support of a teacher can help find any incorrect or partially incorrect information. • When students are using GenAI for a topic they do not have previous knowledge or don’t have the support of a teacher they should ask for the sources that support GenAI’s answers and verify their accuracy.
Plagiarism can occur when students copy from generative AI tools without approval or adequate documentation and send AI-generated work as their original work.	• Be extremely clear on assignment instructions, telling if the use of AI is allowed, and in what way, or not allowed. • Prioritizing assessment in the classroom without access to devices. • Using oral examinations (viva voce).	• Openly discuss with students that using AI without showing it, it’s equivalent to not citing the sources of reading material used (plagiarism). • As part of the disclosure, students may choose to cite their use of an AI system using one of the following resources: ○ MLA Style - Generative AI

		○ APA Style - ChatGPT ○ Chicago Style - Generative AI
Data Protection and Privacy: It is important to caution students not to share personal or sensitive information while using GenAI. This includes data such as assessments and grades.	• Parents, guardians, and students need to be informed of specific data collection initiatives, and where applicable, consent should be looked for. • Schools might approve a list of AI tools. Unauthorized AI tools might not adhere to our data privacy standards.	• Develop at school and state levels guidelines for the use of AI in the classroom. • Always remind students not to input personal information into any GenAI tool.
Digital divide: unequal access to AI tools worsens the digital divide between students with independent and readily available internet and device access at home and those who rely on school or community resources.	If an assignment permits or calls for the use of AI tools, the tools must be made available to all students during or after school hours, considering that some may already have access to such resources outside of school.	• Given the limitations and risks associated to the use of GenAI, the AI for Edo Youth program is focused on targeted use once a week during school hours. This way it is available to all under equal conditions and students benefit from learning from the teacher, the outputs from GenAI and their peers.
Biased information: GenAI draws from LLMs which are trained on unbalanced datasets from the internet, so they reflect those imbalances back at us. Risks include reinforcing racial and gender stereotypes and recommending educational interventions that are inappropriate.	• Incorporate critical thinking in the evaluation of GenAI outputs such as content and images. • Report any harmful, racist, or sexist content. All GenAI systems allow for this. • Getting rid of biases in GenAI outputs starts by having more diverse teams in technology companies. • Having more women and more African young professionals leading AI research and development is paramount. This is one of the reasons why is important for your students to be AI literate as it may spark interest in the field and lead to job opportunities.	• Include this topic in one of your reflection exercises part of the AI for youth in Edo program. • Alert your students to raise any type of harmful and stereotypical content they encounter and report it. • You may also suggest students to ask GenAI how to mitigate bias in AI and evaluate its responses. • Mitigating bias is a multistakeholder and multidisciplinary endeavor. Policy and regulation should promote and ease the use of quality and robust datasets for training, development and use of AI systems

Bullying and harassment: by using AI tools to manipulate content to impersonate others and harm students' well-being.	Students should be taught about the responsible development and sharing of content generated by AI. Do no harm should be a key principle. Bullying and harassment should be prohibited regardless of modality (online, AI, in person).	• In the same way that in the school, explain to the students that bullying is not allowed in at outside the classroom. • Instruct students to contact you in the event they experience bullying and harassment whether enabled or not by AI.
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3.4 Benefits of using AI for teaching

In the same way that GenAI may help students it can also support teachers. Some of the ways AI can help educators include:

Potential benefit	Description	Examples
Content and lesson plan development	GenAI can assist educators by supplying ideas and content for lesson plans, generating diagrams and charts and various materials to enhance their practice. When AI tools generate instructional content, it's vital for teachers to verify that this content aligns with the curriculum standards and learning objectives.	In India teachers are using Shiksha Copilot, a generative AI digital assistant that draws up lesson plans – including activities, videos and quizzes – in minutes. (find more information here)
Continuous professional development	GenAI can guide educators by recommending teaching and learning strategies based on student needs, personalizing professional development to teachers' needs, and offering simulation-based training scenarios such as teaching a lesson or managing a parent/teacher conference.	AI coaching for teachers, as for students, is a great supplement – not a substitute for – in-person coaching and TPD programs. A district in Colorado (US) is using an AI Coach program to receive feedback on videos of their teaching (more info here).
Assessment enhancement	Gen AI can support enhancing assessments by supporting question creation targeted to various levels of learners. Teachers are ultimately responsible for evaluation, feedback, and grading, and determining and assessing the usefulness of AI in supporting their grading work.	GenAI might help with supplying initial questions for quizzes, ideas for take away assignments, and may also help develop rubrics and criteria for grading. Find mote information here.

Support with administrative work	Gen AI may support freeing some teachers' administrative workload to focus more of their time on instruction and support their students.	For example, AI systems can help teachers track and process student attendance , which, in turn, has been shown to minimize teachers' workload and enhance student learning
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3.5 Potential risks of using AI for teaching and how to mitigate them

The risks highlighted for students are also applicable to teachers, it is important to avoid overreliance, misinformation, biased information, and ethical concerns. Teachers guide students in their learning journey and are responsible to achieve the learning goals highlighted in the curriculum. Using GenAI should be focused on enhancing learning outcomes for students and releasing more time for instruction, supporting with administrative and routine workload. While generative AI presents useful assistance to amplify teachers' capabilities, these technologies should be a supporting tool to augment their ability, not replace it.

4. Six Guiding Principles to use AI in the classroom

In this concluding section we will focus on providing you with a set of guiding principles that you can use to decide when, how, and why to use GenAI in teaching and learning.

I. **Think about the learning goal you want to achieve and reflect if AI may be helpful or not**

If technology is the answer, what is the question? Considerations on the use of education technology should focus on learning and not just on the technology (World Bank, 2020). This is one of the World Bank's Edtech Principles called "Ask Why" which can help shed some light into the use of GenAI in Benin City and Edo State, Nigeria.

The program AI for Youth in Edo aims to enhance and complement learning of English lessons among senior secondary school students by assessing the use of Copilot, a type of GenAI, as a tutor for students. The program will be guided by teachers who will receive learning materials (this three-part toolkit and an orientation session). Is the use of Gen AI justified? These are some sample questions that you might find useful when using GenAI:

- **Are you able to test the prompts that students will be using beforehand?** You will have the chance to do this while completing part 3 of this training and during the orientation session.
- **What is the role that GenAI will play? Can you supervise that is giving correct answers?** GenAI will function as a tutor and students will have a two hour session where two students share a device (laptop or PC) in the school's computer lab to use of Copilot. Teachers and monitors will supervise the use and support students. Therefore, this exercise is taking place in a controlled

environment to minimize risks and to have experts supporting students if they face any barriers or if outputs are not correct.

- **Will there be space to detect inaccuracies or report hallucinations? Can students share their experience in the use of AI?** Each session will dedicate from 10 minutes to share experiences, reflect and report back on things they like, dislike, questions, and possible misinformation. Teachers will play a role in detecting inaccurate information.
- **Will student data be protected? Can you instruct students not to enter any personal and sensitive information?** Most computer labs use Office suite (Microsoft 365) which allows for data protection during the use of Copilot. Regardless, teachers must remind students not to enter any sensitive or personal data when interacting with GenAI. This risk should be very low as GenAI will be used as a tutor tied to specific weekly English lessons.

You can apply these questions beyond this program. You will notice that we are applying here several of the risk mitigation strategies discussed above.

II. Use AI to support with learning processes and not final products - Support a human centered approach to the use of AI

GenAI is not an oracle, and we should not use it as one. Remember that your skills, knowledge, and judgment should guide the use of these systems and not the other way around. We started this Handbook with some concepts and mentioned that AI replicates certain characteristics of human intelligence. Don't forget this: GenAI draws outputs from the data that it has been trained on, it does not possess your creativity, critical thinking, real world experience, knowledge of pedagogy, among many other characteristics that come with our shared humanity.

Box 5: Process vs goal-oriented use of GenAI

It is easy to embrace extremes and over rely in the use of GenAI even for quite simple tasks. We must find a healthy balance between tasks where it can be useful to use AI versus tasks where is more meaningful for us to take part wholly.

It is also important to remember that we value not only final products, but we also value the process of learning in itself. If we use GenAI to skip the complete process, then we might be losing a critical component of our learning journey. However if we use GenAI to support some steps of this process giving us food for thought -not final outputs- while we remain engaged and in control of decision-making, this is known in computer science as the “humans in the loop” model, then we might be able to strike a healthy balance.

For example, while we may enjoy eating out in restaurants, we enjoy and value the act of cooking as we are creating something from raw ingredients to share with family and friends. In Benin city there might be slightly different versions of Owo soup according to which family member you are visiting, for instance. There is an intrinsic joy in making food, creating music, and in drafting an essay or a poem. If we only ask for completed products to any GenAI system we run the risk of losing that process and ending up with a considerably basic essay or poem that shows none of our lived experience, inner voice, and creativity.

III. Promote integrity in use and reflection on ethical standards

While it is necessary to address plagiarism and other risks to academic integrity, GenAI simultaneously offers staff and students an opportunity to discuss the meaning of values such as honesty, trust, fairness, respect, and responsibility. AI tools can help teachers and students quickly cross-reference information and claims, by asking for sources of the information provided and cross checking for accuracy.

Students should be truthful in giving credit to sources and tools and honest in presenting work that is genuinely their own for evaluation and feedback. Students should be instructed about properly citing any instances where generative AI tools were used. While there is no tool that can detect the use of GenAI in assignments, teachers and students will notice that the outputs of GenAI are, for a lack of a better term, “average”. For example, if a student asks about possible programs to increase development of digital skills in the classroom, GenAI might provide some good suggestions, but would this work well in Benin city? This second layer of deeper contextual analysis is best served by our experience and ability to transport evidence from one context to another. In a way, reflection and discussion may lead users to realize that using GenAI pushes them to be more creative and develop a more distinct style of writing, which conveys their original point of view.

IV. Consider equity and inclusion, is someone being left behind?

The digital divide, characterized by disparities in access to and effective use of technology, is a pressing concern when implementing AI. GenAI requires connectivity, electricity, and the use of devices. During the pandemic we saw how differences in family income affected how students learnt remotely.

Using GenAI as part of in- school exercises may help ensure access regardless of difference in family income and provides the advantage of having teachers leading the use and providing advice.

Box 6: GenAI- does it stand for diverse cultures? Or is it mostly standing for Western culture?

Researchers from the Oxford Internet Institute found that human feedback used to tailor the behavior of LLMs traditionally comes from small groups of people who don't necessarily represent larger populations.

This can mean, for example, that if you ask one of these models to help plan a wedding, you're more likely to get information about a stereotypical Western wedding — white dress, roses and the like. However, if you'd like to plan a wonderful Nigerian wedding that takes place over the course of a couple of days, GenAI might not provide relevant information.

“Having more people at the table, having more perspectives represented, ultimately leads to better technology, and it leads to technology that will raise everyone up” according to one of the lead researchers of the project.

Find out more [here](#)

V. Keep yourself informed of policies at state and national level on AI

The National Information Technology Development Agency (NITDA) is seeking the contributions of stakeholders to enable the development of the National Artificial Intelligence Policy (NAIP) for Nigeria to maximize the benefits, mitigate possible risks and address some of the complexities attributed to using AI in our daily activities.

Box 7: Make your voice heard

After completing this three-step toolkit you will have a first understanding of the promise and limitations of the use of AI in the classroom. At this pivotal moment you may share with NITDA your views as they are capturing inputs from stakeholders and individuals across the country.

Send your inputs through: <https://forms.office.com/r/JmgCe8HauK>

VI. AI literacy is a journey– continuous learning is key

Maintaining AI literacy requires fostering an environment of continuous learning. Creating an AI-literate culture is a strategic move that contributes significantly to the effective and ethical use of AI technologies. When you drive a car, you are aware you need to wear a seatbelt and to follow traffic rules. This translates to the use of GenAI, proper use requires understanding of limitations, barriers and challenges.

Here is a tool, a streetlight, which can be useful to communicate clearly to students when and how to use GenAI for assignments:

Level of AI Use	Description	Example Instruction
Permissive	Students can freely use AI tools to assist in their assignments, such as generating ideas, proofreading, or organizing content.	"You may use AI tools as you see fit to enhance your assignment and demonstrate your understanding of the topic, but proper citation is required."
Moderate	Students can use AI tools for specific parts of their assignments, such as brainstorming or initial research, but the core content and conclusions should be original.	"You can employ AI tools to assist brainstorming or initial research, but the main content, arguments, and conclusions should be your own."
Restrictive	AI tools are prohibited for the assignment, and all work must be the student's original creation.	"Do not use AI tools for this assignment. All content must be original, and any use of AI will be treated as plagiarism."

If you have any questions on these materials please contact mbarronrodriguez@worldbank.org, mdesimone@worldbank.org, and wmosuro@worldbank.org or post your questions in the [Whatsapp Community Group](#)

5. Bibliography

World Bank. (2020). *Reimagining Human Connections: Technology and Innovation in Education at the World Bank*. World Bank: Washington, DC.

<https://documents1.worldbank.org/curated/en/829491606860379513/pdf/Reimagining-Human-Connections-Technology-and-Innovation-in-Education-at-the-World-Bank.pdf>

OECD-Education International (2023), *Opportunities, Guidelines and Guardrails on Effective and Equitable Use of AI in Education*, OECD Publishing, Paris.

Code.org, CoSN, Digital Promise, European EdTech Alliance, Larimore, J., and PACE (2023). *AI Guidance for Schools Toolkit*. Retrieved from teachai.org/toolkit (Accessed: 17 April 2024).

AI guide (2024) *AI Pedagogy Project, metaLAB (at) Harvard*. Available at: <https://aipedagogy.org/guide/> (Accessed: 17 April 2024).

Humans in the loop: The design of interactive AI Systems (2019) *Stanford HAI*. Available at: <https://hai.stanford.edu/news/humans-loop-design-interactive-ai-systems> (Accessed: 17 April 2024).

Australian framework for Generative Artificial Intelligence (AI) in schools (2023) *Department of Education*. Available at: <https://www.education.gov.au/schooling/resources/australian-framework-generative-artificial-intelligence-ai-schools> (Accessed: 17 April 2024).

Artificial Intelligence and the future of teaching and learning (2024). *United States Office of Edtech*. Available at: <https://www2.ed.gov/documents/ai-report/ai-report.pdf> (Accessed: 17 April 2024).

Lindauer, S. (2024) *Revealing an AI literacy framework for learners and educators*, *Digital Promise*. Available at: <https://digitalpromise.org/2024/02/21/revealing-an-ai-literacy-framework-for-learners-and-educators/> (Accessed: 17 April 2024).

How we can better align large language models with diverse humans (2024) *OII*. Available at: <https://www.oii.ox.ac.uk/news-events/how-we-can-better-align-large-language-models-with-diverse-humans/> (Accessed: 17 April 2024).

UK Department of Education. *Generative AI in education: Educator and expert views*(2024) Available at: https://assets.publishing.service.gov.uk/media/65b8cd41b5cb6e000d8bb74e/DfE_GenAI_in_education_-_Educator_and_expert_views_report.pdf (Accessed: 17 April 2024).

Large language models in the classroom (2023) *California Institute of Technology*. Available at: <https://www.caltech.edu/about/news/LLMs-in-the-classroom> (Accessed: 17 April 2024).

Embracing Artificial Intelligence in the classroom (2023) *Harvard Graduate School of Education*. Available at: <https://www.gse.harvard.edu/ideas/usable-knowledge/23/07/embracing-artificial-intelligence-classroom> (Accessed: 17 April 2024).

Teaching with ai (2023) *Teaching with AI*. Available at: <https://openai.com/blog/teaching-with-ai> (Accessed: 17 April 2024).

Annex: Frequently Asked Questions (FAQs)

Q: Should we prohibit using GenAI in schools?

A: Blanket bans on technology tools are rarely a clever idea. AI has become an integral part of our everyday lives and is becoming more prevalent in the workplace. By denying students access to these tools, we may inadvertently be limiting their future options. Students need to be digitally literate, not only to thrive in the workplace but to navigate the modern world confidently and safely. Also, remember that not all students have equal access to technology at home. By banning technology in school, we might widen the digital divide. In addition, the notion that we can “ban AI” reveals a fundamental misconception of what AI is. It isn’t a single website but an underlying technology that is already built into millions of websites (and likely soon to be built into every website to some degree).

Q: Are there specific AI tools and apps we should avoid?

A: Just like websites, there are some AI apps that will have more value than others. There may be specific websites that you choose to make unavailable in your schools based on the content or age appropriateness of the site. You might consider how inclusive and accessible a tool is, whether it is cost effective, how well it complies with your schools privacy and security policies, and whether its output has a clear, positive impact on your learning environment when determining which AI apps bring the most value to your teachers and students, and which do not. In addition, some AI apps are only available for use for students older than 13 years of age. Reading the terms of service on a particular AI app will help find if there is an age restriction on a particular app. Others may not be developmentally right for your students even if they do not have age restrictions.

Q: How do we stop cheating?

A: You should always start by raising awareness among students about the importance of academic integrity and the consequences of cheating. While AI creates new challenges for schools, ultimately it encourages us to think anew about how we assess learning. Essentially, you really only have two options: attempt to maintain current assessment approaches in a highly controlled, technology-free environment, or adapt your assessment methods. For example, consider designing assessments that focus on critical thinking, problem-solving, and creativity, which are difficult to cheat on using AI or other digital tools. Encourage open-ended questions, collaborative project-based assignments, and in-class activities that require active participation. These will not only make it more difficult for students to cheat but will give your students experience in learning approaches that are more aligned to how they will learn and work throughout their lives.

Q: Should teachers use AI to write lesson plans?

A: One way to think of generative AI is as an assistant that helps you generate a first draft. Sometimes the first draft is spot on. Often, it needs a little – or a lot – of tweaking. But you should never use your first draft as your final draft! Lesson plans generated for teachers solely by AI are not tuned to the specific students in your school or the specific communities they come from. Those lesson plans are not going to account for how the plan does or does not connect to school wide instructional strategies and priorities. And the plan will lack the personality of the teachers themselves. Finally, sometimes

generative AI lesson plans can get facts and sources just plain wrong. So, while it can be a good first draft partner, don't count on AI lesson plans without a human in the loop.

Q: How will AI change learning?

A: As AI can take on more tasks that we once thought required a human brain, it will make what is uniquely human more valuable. AI can do certain things better than humans already (recall, calculation, information generation etc.) and this will increase dramatically soon. So, we must ask ourselves what makes us uniquely human and how do we reorganize the school environment to highlight these traits, skills, and abilities while reducing the emphasis on knowledge acquisition and recall, which will have minimal value for professional opportunities in the future. Some areas to double down on may include critical thinking and problem-solving, creativity and innovation, and emotional intelligence.

Source: ISTE https://cms-live-media.iste.org/Bringing_AI_to_School-2023_07.pdf?_ga=2.82466134.1951369565.1712279234-1810751850.1708525256