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FOUNDATION



BRAIN BUILDERS
YOUTH DEVELOPMENT
INITIATIVE

Artificial Intelligence (AI) Literacy Framework

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Disclaimer

This African AI Literacy Framework is a shared resource designed to inspire, guide, and support ministries, educators, NGOs, and organisations in adapting AI literacy to local contexts. It is not a one-size-fits-all solution and should be tailored to each community's realities, policies, and resources. While care has been taken to ensure cultural relevance and accuracy, the authors and contributors cannot be held responsible for outcomes of its use or adaptation. Mention of tools, case studies, or organisations is purely illustrative and does not imply endorsement. Users are encouraged to adapt the framework responsibly, keeping learners' best interests, ethics, and local regulations at the core.

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EXECUTIVE SUMMARY



Artificial Intelligence is no longer the future. It is the present. As algorithms shape how our children learn, communicate, and perceive the world, millions of African learners remain excluded from conversations about the very technologies that are reshaping their futures.

This African AI Literacy Framework for Primary and Secondary Education is a bold, practical response to that gap. Developed through careful analysis of global models, deep reflection on African realities, and wide consultation with educators and researchers, it

provides a culturally grounded, low-resource-adaptable roadmap for teaching AI literacy to learners aged 6 to 18.

The framework is built around five modular themes. From basic understanding to ethical reasoning to African innovation, it is supported by clear learner outcomes, inclusive pedagogy strategies, and tools for teacher training, assessment, and localisation. It is designed to work across both formal and informal education systems.

PREFACE

Across Africa, young people are growing up in a digital ecosystem they did not build—often in languages they do not speak—with tools designed for realities not their own. While artificial intelligence becomes embedded in classrooms, courts, clinics, and farms, the average learner in Africa still doesn't know what AI is, let alone how to shape its development.

This framework emerged from a clear belief:

Africa must not be left behind in the AI revolution and more importantly, Africa must help lead it.

To do that, we must equip our learners not just with technical knowledge, but with the ethical mindset, creative confidence, and cultural grounding to make AI work for their communities. And we must do so using tools and approaches that are inclusive, multilingual, low-tech compatible, and respectful of our contexts.

Drawing inspiration from global efforts like the OECD's AI Literacy Framework and AI4K12, this framework goes further by rooting itself in:

African problem-solving traditions

Community-based education practices

Equity-focused design

And the unique challenges and opportunities of the continent's digital divide

We invite ministries, educators, civil society organisations, and EdTech innovators to adapt and deploy this framework in ways that suit their learners, whether in urban classrooms, rural learning hubs, refugee centres, or mobile schools.

OUR VISION

An Africa where every child, regardless of background, understands what AI is, questions how it works, and imagines how it can serve their community.

We envision a generation of African learners who:

- Recognise the power and limitations of AI.
- Use AI to address challenges in health, agriculture, education, and justice.
- Build tools that reflect African values, languages, and lived experiences.
- Approach technology not with fear or blind trust, but with critical thinking, ethical awareness, and creative agency.

This framework is a step toward that future. A future where AI is not just made for Africa, but made by Africa, with Africa, and for all.

INTRODUCTION

WHY THIS FRAMEWORK, WHY NOW?

Across Africa, AI is no longer a distant or futuristic concept. It's already here—embedded in our phones, farms, hospitals, classrooms, and streets. From WhatsApp bots that deliver health tips in local languages to mobile apps helping farmers detect crop disease, artificial intelligence is quietly but powerfully shaping the world our children are growing up in.

Yet most young Africans are engaging with AI without understanding what it is, how it works, or how it might affect their futures. This lack of awareness leaves them vulnerable to digital exclusion, bias, surveillance, and misinformation, while missing out on the opportunity to harness AI for their own growth, creativity, and innovation.

This framework responds to a pressing and timely question:

How can African children, from rural villages to urban hubs, be empowered to use AI, understand it, question it, and shape it to serve their communities and futures?

This framework supports Africa's Agenda 2063 and the African Union's Digital Transformation Strategy, which call for inclusive, future-focused education that builds digital competencies and fosters local innovation. It is also aligned with global education goals such as SDG 4 (Quality Education) and SDG 9 (Industry, Innovation and Infrastructure).

WHAT IS AI LITERACY?

AI literacy encompasses more than just understanding how machines function. It is the ability to:

- Understand what artificial intelligence is and what it is not.
- Recognise how AI impacts everyday life, from mobile phones to school systems.
- Interact with AI tools safely, ethically, and responsibly.
- Think critically about how AI is used in society, including its risks and biases.
- Envision how AI can address local challenges in agriculture, healthcare, climate change, and beyond.

In short, AI literacy equips learners with the awareness, values, and skills to thrive in a world shaped by intelligent technologies, on African terms.

PURPOSE OF THIS FRAMEWORK

This African AI Literacy Framework offers a modular, inclusive, and culturally responsive roadmap for equipping learners aged 6 to 18 with age-appropriate AI knowledge and skills. It is designed to work across diverse educational contexts, from national school systems to informal learning spaces.

It aims to:

- Help learners recognise and understand AI in local and global contexts.
- Build their capacity to think critically and ethically about how AI is used.
- Encourage them to use AI tools creatively and safely in ways that matter to them.
- Inspire them to explore how AI can solve challenges in their communities.

WHO THIS FRAMEWORK IS FOR

This framework is designed to guide:

- Ministries of Education working to integrate AI literacy into national curricula.
- Teachers and facilitators, whether in high-tech schools or low-resource classrooms.
- NGOs, EdTech organisations, and after-school programmes delivering digital skills training.
- Curriculum developers, policymakers, and researchers focused on 21st-century competencies.
- It is flexible by design, so it can be adapted, translated, and delivered in classrooms, community centres, radio broadcasts, or even through WhatsApp.

GUIDING PRINCIPLES

Guiding Principles

This framework is grounded in five key principles:

- 1. Contextual Relevance:**
Rooted in African realities—technological, linguistic, social, and cultural.
- 2. Equity and Inclusion:**
Designed for all learners: rural and urban, girls and boys, connected and unconnected.
- 3. Ethical Engagement:**
Promotes fairness, dignity, responsibility, and human-centred AI.
- 4. Learner-Centred and Age-Appropriate:**
Outcomes are clearly structured by developmental stages from early primary to late secondary.
- 5. Modularity and Flexibility:**
Can be implemented as a full course or adapted into existing subjects like ICT, Social Studies, or Civic Education.

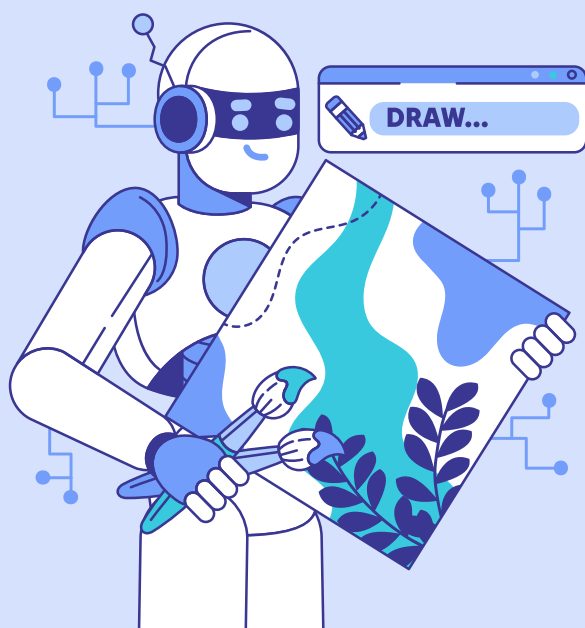
Africa does not need to play catch-up. We have the opportunity to define our own relationship with AI. To guide our youth not only as consumers of foreign-made technologies, but also as creative and ethical participants in a digital future built for African development.

This is not a framework to turn every child into a machine learning expert. It is a framework to help every child ask, “How can this technology serve my people?”

A Living Document

This framework is not a fixed prescription. It is a living document, designed to evolve through collaboration and local adaptation. We invite educators, policymakers, innovators, and communities to make it their own: to test it, improve it, translate it, and shape it so it truly meets the needs and dreams of African learners.

MODULE 1: WHAT IS AI?



DOMAIN FOCUS:

Awareness and Understanding

PURPOSE OF THIS MODULE

To introduce learners to the concept of artificial intelligence (AI) in a way that is simple, relatable, and relevant to their everyday lives. This module builds foundational awareness by helping learners:

- Understand what AI is—and what it is not.
- Recognise where AI already exists in their environments.
- Begin asking questions about how AI works and why it matters.

CORE CONCEPTS TO COVER

Concept	Description (simplified)	Localisation Tip
Artificial Intelligence	A computer or machine doing things that usually require human thinking (like learning or solving problems)	Use storytelling, e.g., “Like a radio that learns your favourite music”
Data	Information that computers use to make decisions	Link to examples like mobile phone contacts or market prices
Algorithms	A set of instructions a machine follows	Use analogies like a cooking recipe or farming steps
Machine Learning	When a machine gets better by learning from data	Example: Translation app improving the more people use it
Automation	Tasks done by machines with little or no human help	Examples: ATM machines, WhatsApp bots, irrigation sensors

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
6–8 (Foundation)	<ul style="list-style-type: none"> - Can say what AI means in their own words. - Can point out examples of AI (e.g., a voice assistant). - Can compare AI to things they already know (e.g., a teacher, a parent, a friend).
9–12 (Exploratory)	<ul style="list-style-type: none"> - Can explain the difference between AI and normal machines. - Can describe how AI is used in their school, home, or community. - Can identify benefits and risks of using AI.
13–15 (Applied)	<ul style="list-style-type: none"> - Can explain how data helps AI learn. - Can discuss examples of AI making mistakes (e.g., wrong translations). - Can reflect on how AI might affect jobs and learning.

SAMPLE LEARNING ACTIVITIES

Low-Tech/No-Tech Activities

- **AI Charades:** One learner pretends to be an AI (follows instructions exactly) while others give commands. Shows how machines need clear rules.
- **Sorting Game:** Use images (or drawn flashcards) to classify tools as “AI” or “Not AI.” Discuss results.
- **Story Circle:** “Tell a story about something in your life that learns or makes decisions. Is it a person or a machine?”

Tech-Enabled Activities

- **Try Me:** Use a voice assistant, chatbot, or AI photo filter and ask learners to guess what kind of data it uses.
- **Local Exploration:** Ask learners to interview a parent or community member about where they think AI is used (e.g., mobile banking, agriculture apps).

CONTEXTUALISATION EXAMPLES

- **Rural Example:** Radio show recommends farming tips based on your region’s weather—AI at work.
- **Urban Example:** YouTube recommends videos based on your past views—AI tracking your interests.
- **Community Lens:** AI in health—like an app that checks malaria symptoms using your voice and location.

ETHICAL SEEDS (TO PREPARE FOR MODULE 4)

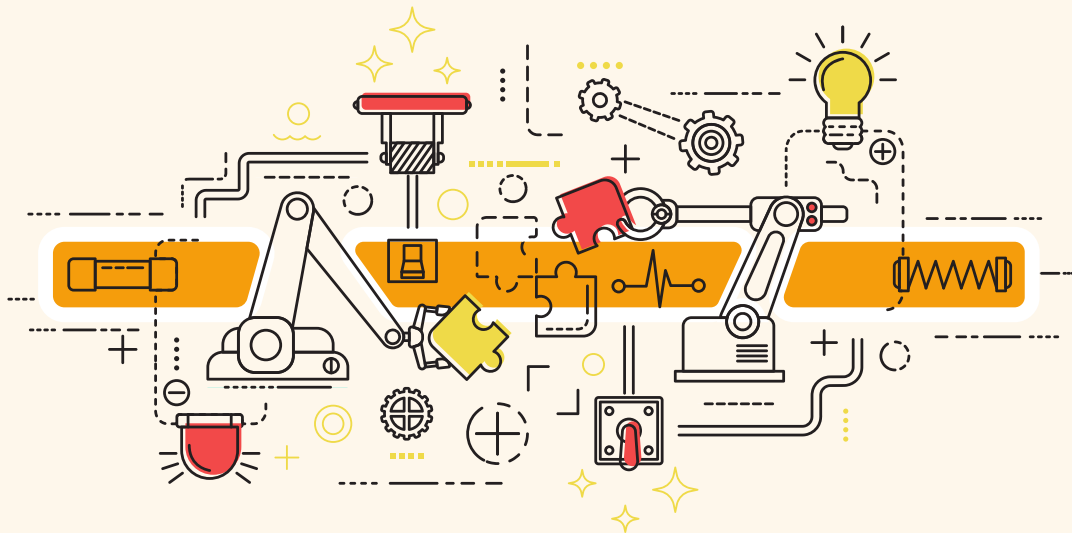
- “Can a machine make a fair decision?”
- “What happens when an AI makes a mistake?”
- “Should a robot speak your language?”

These questions are not assessed in this module but introduced gently to spark curiosity.

TEACHER TIPS

- Avoid technical jargon. Use local stories and metaphors.
- Let students share real-life experiences first, then link to AI.
- For low-resource settings, focus on oral storytelling and pictures.
- In multilingual classrooms, let learners define AI in their home languages.

MODULE 2: HOW WE INTERACT WITH AI



DOMAIN FOCUS:

Digital Citizenship & Everyday Engagement

PURPOSE OF THIS MODULE

To help learners recognise and reflect on how they interact with AI through common tools, platforms, and services. This module introduces key ideas around personal data, digital footprints, fairness, and the importance of responsible technology use, especially in mobile-first African environments.

CORE CONCEPTS TO COVER

Concept	Description (simplified)	Localisation Tip
AI-powered tools	Apps or devices that make decisions, give suggestions, or talk like humans	Examples: Google Maps, TikTok filters, WhatsApp bots
Personal data	Information about you, like age, location, photos, and habits	Link to learners' mobile phones and ID cards
Algorithms & recommendations	How AI decides what to show you (e.g., "Because you watched..." videos)	Use social media or streaming examples
Digital footprints	The trace of what you do online such as what you post, click, search	Ask students to reflect on their online habits
Bias in AI	When an AI treats people unfairly based on race, gender, or language	Examples: Translation mistakes, filters not recognising dark skin tones

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
6-8 (Foundation)	<ul style="list-style-type: none"> - Can point to an app or tool that talks or gives suggestions. - Can say what “information about me” means.
9-12 (Exploratory)	<ul style="list-style-type: none"> - Can identify AI-powered apps they use (e.g., voice apps, video suggestions). - Can list types of personal information AI may collect. - Can say why it’s important to be careful with sharing information.
13-15 (Applied)	<ul style="list-style-type: none"> - Can explain how AI makes recommendations (e.g., “likes” and “clicks”). - Can describe what bias means and how it may appear in AI. - Can reflect on how their data might be used.
16-18 (Transitional)	<ul style="list-style-type: none"> - Can analyse how social media platforms use AI to shape user experience. - Can debate pros and cons of data collection. - Can evaluate issues of fairness, privacy, and control in African tech contexts.

SAMPLE LEARNING ACTIVITIES

Low-Tech/No-Tech Activities

- **Recommendation Game:** One student recommends music to another based on “past choices.” Then compare to how YouTube or Boomplay does it.
- **Footprint Mapping:** Learners create a paper-based “digital footprint” map: what they search, watch, or click in a week.
- **Bias in Action:** Role-play how two people of different backgrounds might get different online results (e.g., job ads, loans).

Tech-Enabled Activities

- **Screenshot Share:** Learners share examples of AI-based suggestions they receive (with privacy respected).
- **Data Detective:** Use a device’s settings to explore how much data apps collect (or simulate this with flashcards).
- **Survey & Debate:** “Is your phone listening to you?” Conduct a class survey and hold a discussion.

CONTEXTUALISATION EXAMPLES

- **Youth Lens:** A learner notices they see skin-lightening ads more often than others. Why?
- **Gender Lens:** A girl is recommended domestic work tutorials; a boy sees tech career videos. Is that fair?
- **Community Lens:** Local WhatsApp group gets spammed with election rumours. Was it an AI algorithm at work?

ETHICAL SEEDS (TO PREPARE FOR MODULE 4)

- “Should machines know this much about me?”
- “Can an AI be fair to everyone?”
- “What happens if the data is wrong?”

TEACHER TIPS

- Use learners' own tools and platforms to spark discussion.
- Create a safe space. Don’t shame learners for what apps they use.
- Reinforce that AI is not always neutral. Ask “Who made it?” and “Who does it benefit?”
- Emphasise respect for privacy and consent.

MODULE 3: MAKING WITH AI



DOMAIN FOCUS:

**Creativity, Exploration,
and Problem-Solving**

PURPOSE OF THIS MODULE

This module empowers learners to interact creatively with AI tools. It introduces basic concepts such as logic, patterns, and learning from data, while encouraging experimentation with accessible, fun, and relevant tools for African learners, whether online or offline.

The goal is not to turn every learner into a coder, but to help them:

- Explore how AI can be used for storytelling, image creation, or simple predictions.
- Understand basic ideas behind how machines learn.
- Build problem-solving mindsets through practical, locally relevant projects.

CORE CONCEPTS TO COVER

Concept	Description (simplified)	Localisation Tip
Pattern recognition	Finding similarities and rules in things	Use examples from music, weaving, or farming
Decision trees	A simple way AI makes choices based on “if-then” logic	Simulate with role-play (e.g., “If it’s raining, then...” tasks)
Inputs and outputs	What you give a machine and what it gives you back	Example: type a question, get an answer
Prompting AI	Giving clear instructions to get useful results	Compare to talking with a teacher or parent
Data collection	Gathering info to help solve a problem	Activities using local objects, preferences, or community needs

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
6–8 (Foundation)	<ul style="list-style-type: none"> - Can sort items into groups (by colour, size, sound, etc.). - Can follow or create simple “if-then” rules. - Can use a drawing or music app that suggests ideas.
9–12 (Exploratory)	<ul style="list-style-type: none"> - Can describe a pattern or rule an AI might use. - Can “talk” to an AI tool to get answers or generate something fun. - Can follow steps to complete a basic AI-driven activity (e.g., chatbot or image tool).
13–15 (Applied)	<ul style="list-style-type: none"> - Can design a mini project using AI (e.g., create a poem or image). - Can experiment with data inputs to change results. - Can explain how a machine could “learn” something.
16–18 (Transitional)	<ul style="list-style-type: none"> - Can complete a design challenge using AI (e.g., health, agriculture, environment). - Can compare outputs from different tools and reflect on their usefulness or fairness. - Can identify limitations of AI tools (e.g., language, bias, creativity).

SAMPLE LEARNING ACTIVITIES

Low-Tech/No-Tech Activities

- **Unplugged AI Sorting:** Use physical objects or flashcards to simulate how AI groups data.
- **If-Then Role Play:** Learners simulate being an AI using a rule tree (e.g., “If I’m a fruit and I’m red, I’m an apple.”)
- **Design a Paper Chatbot:** Create conversation trees on paper to simulate how chatbots work.

Tech-Enabled Activities

- **Prompt & Play:** Use a child-friendly AI tool like Google Teachable Machine, Scribble Diffusion, or chatbot-based writing tools.
- **Creative Challenge:** “Use an AI tool to create a poem about rain,” or “Draw your village with an AI image tool.”
- **Mini-Project:** Survey classmates about favourite foods or music, use the data to make predictions or generate a fun quiz.

CONTEXTUALISATION EXAMPLES

- **Agriculture:** Use AI to guess crop diseases based on symptoms.
- **Culture:** Ask an AI to rewrite a folktale with a twist—or in a local language.
- **Music:** Explore how an app suggests playlists based on what you like.

ETHICAL SEEDS (TO PREPARE FOR MODULE 4)

- “What happens if an AI guesses wrong?”
- “Who decides what the AI can or can’t do?”
- “Is it okay to copy what an AI creates?”

TEACHER TIPS

- Keep things playful. This is about confidence, not perfection.
- Allow creativity and mistakes. This encourages exploration.
- For low-resource settings, simulate AI steps using role-play, logic puzzles, and paper prototypes.
- Encourage local context: create stories, songs, or drawings rooted in learners’ environments.

MODULE 4: THINKING CRITICALLY ABOUT AI



DOMAIN FOCUS:

**Ethics, Equity, and
Social Impact**

PURPOSE OF THIS MODULE

This module helps learners explore the ethical dimensions of artificial intelligence: how it affects people differently, how it can make mistakes, and why human values must guide how we design and use these technologies.

Learners will begin to:

- Recognise that AI is not neutral. It is built by people, with human choices and biases.
- Discuss fairness, discrimination, misinformation, and trust.
- Connect ethical questions to African cultural values, community wellbeing, and lived experiences.

CORE CONCEPTS TO COVER

Concept	Description (simplified)	Localisation Tip
Bias	When an AI treats people unfairly	Use examples from translation tools, photo filters, or hiring apps
Fairness	Making sure technology works equally for everyone	Use real-life fairness examples (school rules, elections, access to water)
Misinformation	When false content is created or shared—sometimes by AI	Use current examples from WhatsApp or election season
Accountability	Who is responsible when AI causes harm?	Discuss using stories from health, transport, or security
Ethical values	Respect, fairness, privacy, dignity	Use African proverbs or moral teachings (Ubuntu, communalism, fairness)

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
6–8 (Foundation)	<ul style="list-style-type: none"> - Can say whether a machine or app was “fair” or “unfair.” - Can explain that not all answers from a machine are correct.
9–12 (Exploratory)	<ul style="list-style-type: none"> - Can describe a time when a machine made a mistake or showed unfair results. - Can reflect on how AI should treat people equally.
13–15 (Applied)	<ul style="list-style-type: none"> - Can identify signs of bias in AI outputs (e.g., different results by gender or language). - Can evaluate an AI tool using values like fairness, dignity, or trust.
16–18 (Transitional)	<ul style="list-style-type: none"> - Can debate ethical dilemmas in AI (e.g., surveillance, deepfakes, discrimination). - Can apply African ethical frameworks to real-life AI issues. - Can reflect on how power and inequality shape AI development.

SAMPLE LEARNING ACTIVITIES

Low-Tech/No-Tech Activities

- **Fair vs. Unfair Sorting:** Present everyday scenarios and ask learners to decide: “Is this fair?” Then relate it to tech.
- **Ethics Story Circle:** Share a local proverb or moral story and ask, “What would happen if this story was turned into an AI?”
- **Bias Game:** Show identical student profiles with different names or genders—who gets recommended for a scholarship? Discuss why.

Tech-Enabled Activities

- **Image Search Test:** Search for a job role (e.g., “nurse,” “CEO”) and analyse representation.
- **Deepfake Detectives:** Show examples of AI-altered videos/images and ask how to verify them.
- **Privacy Scan:** Explore what information apps ask for, what’s needed, and what’s not?

CONTEXTUALISATION EXAMPLES

- **Gender Bias:** A girl tries to use a voice assistant, but it misunderstands her accent.
- **Language Exclusion:** An AI app ignores local languages like Yoruba or Luo. What message does that send?
- **Election Season:** A community WhatsApp group spreads a fake news video. Should it be removed automatically?

CRITICAL QUESTIONS FOR DISCUSSION

- “Can machines be fair to everyone?”
- “Who decides what the AI should do?”
- “What should happen when an AI makes a harmful mistake?”
- “What does Ubuntu say about how we treat each other. Can AI follow it?”

TEACHER TIPS

- Frame ethics as a conversation, not a lecture. Ask “What do you think?” more than “What’s the right answer?”
- Use real-life stories from learners’ communities to make abstract ideas concrete.
- Encourage diverse voices. What feels unfair to one learner may feel normal to another.
- In faith-based or traditional schools, relate AI ethics to moral teachings from scripture or oral wisdom.

MODULE 5: AI FOR AFRICAN SOLUTIONS

DOMAIN FOCUS:

Local Innovation, Relevance & Empowerment

PURPOSE OF THIS MODULE

This module empowers learners to think like problem-solvers, changemakers, and innovators. It connects AI literacy to Africa's everyday realities. Showing that AI is not just something made elsewhere, but a tool that can be used to solve local problems in health, education, farming, climate, and language.

By the end of this module, learners will:

- Understand how AI can address African challenges.
- Explore African-led AI projects and local innovators.
- Design simple, creative AI-based ideas relevant to their own communities.

CORE CONCEPTS TO COVER

Concept	Description (simplified)	Localisation Tip
AI for Good	Using AI to solve real-world problems	Show examples from African innovators and NGOs
Design thinking	A way to solve problems by listening, imagining, and testing	Simplify to "See – Think – Try – Improve"
Human-centred AI	Technology that listens to people's needs and respects culture	Ask: "How would a grandma use this?"
Inclusive innovation	Creating tech that includes everyone—rural, disabled, low-income	Tie to community traditions of cooperation, e.g. "Ubuntu"

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
6–8 (Foundation)	<ul style="list-style-type: none">- Can describe a problem in their home, school, or town.- Can imagine a machine or robot that helps solve it.
9–12 (Exploratory)	<ul style="list-style-type: none">- Can share ideas about how AI might help in areas like farming or water access.- Can draw or describe a simple AI-based solution.

AGE-BANDED OUTCOMES

Age Group	Learner Outcomes
13-15 (Applied)	<ul style="list-style-type: none"> - Can research and present examples of AI being used in African contexts. - Can work in teams to design a basic AI solution to a real problem.
16-18 (Transitional)	<ul style="list-style-type: none"> - Can apply design thinking to prototype a community-based AI idea. - Can assess ethical concerns and inclusivity in their solutions. - Can pitch their idea to an audience or share it in a youth challenge format.

SAMPLE LEARNING ACTIVITIES

Low-Tech/No-Tech Activities

- **Problem Mapping:** Identify local problems (e.g., waste, school dropouts, flooding). Choose one to solve using AI.
- **Design-A-Helper:** Learners draw or act out a tool that could “sense,” “learn,” or “respond” to a local need.
- **Storytelling the Future:** “In 10 years, how could AI make your village better?” Learners write or share stories.

Tech-Enabled Activities

- African Innovator Case Studies: Explore real AI solutions like:
 - Ubenwa (Nigerian app that detects birth asphyxia from baby cries)
 - SunCulture (Kenyan smart irrigation for smallholder farmers)
 - Masakhane (open-source AI project for African languages)
- Mini Hackathon: In teams, learners identify a problem and use digital tools to prototype a response.
- Video Pitches: Learners record short videos explaining their AI idea and why it matters locally.

CRITICAL QUESTIONS FOR DISCUSSION

- “Who decides what problems AI should solve?”
- “Can poor communities shape AI tools or only rich ones?”
- “How do we ensure our elders, farmers, or people with disabilities are not left behind?”
- “What would African intelligence look like in AI?”

TEACHER TIPS

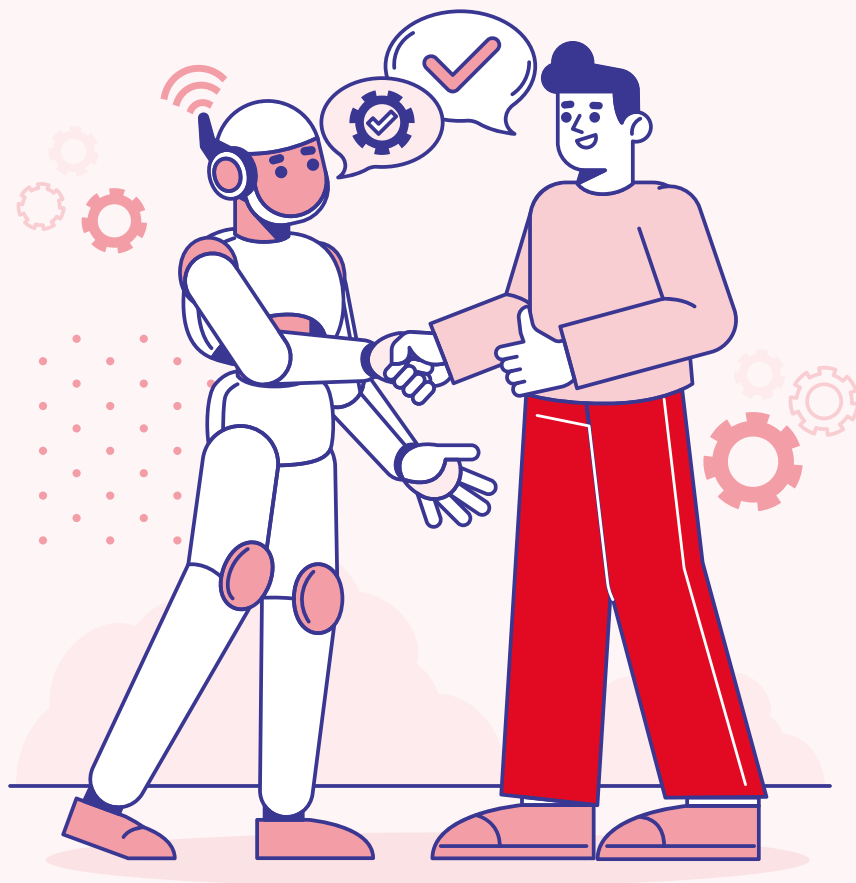
- Focus on creativity over correctness. This is about ideas, not perfect designs.
- Encourage teamwork, imagination, and presentation skills.
- Use locally relevant problems: Let learners choose issues that matter to them.
- Connect learners to real African AI role models via stories, videos, or guest speakers.

CONTEXTUALISATION EXAMPLES

Sector	Example Challenge	Possible AI Use
Health	Long queues at clinics	AI chatbot gives health tips in local language
Agriculture	Crops dying from unknown causes	Image-recognition tool helps identify disease
Language	Important info only in English	Voice tool translates alerts into Hausa or Kinyarwanda
Education	Teachers stretched thin	AI tutors help with maths or reading after school

LEARNER PROGRESSION PATHWAYS

Ages 6–18 | Foundation → Exploratory → Applied → Transitional



FOUNDATION STAGE (AGES 6–8)

Developmental Focus:
Curiosity, recognition, play

Module	Sample Competencies
1. What is AI?	<ul style="list-style-type: none">- Can name examples of machines that "think" or "talk."- Can compare AI to human helpers (e.g., teachers, parents).
2. Interacting with AI	<ul style="list-style-type: none">- Can point to tools that give suggestions or talk back.- Understands basic idea of "my information."
3. Making with AI	<ul style="list-style-type: none">- Can group objects and follow "if-then" rules.- Can use an AI-assisted game, art, or music app.
4. Ethics & AI	<ul style="list-style-type: none">- Can say if something is "fair" or "unfair."- Begins to question AI correctness.
5. African Solutions	<ul style="list-style-type: none">- Can describe a local problem and imagine a helper robot or tool.- Begins to connect tech to daily life.

EXPLORATORY STAGE (AGES 9–12)

Developmental Focus:

Description, early reasoning, social awareness

Module	Sample Competencies
1. What is AI?	<ul style="list-style-type: none">- Can define AI in simple terms.- Can identify AI in community tools (e.g., mobile apps).
2. Interacting with AI	<ul style="list-style-type: none">- Can list personal data types and describe digital habits.- Begins to question app recommendations.
3. Making with AI	<ul style="list-style-type: none">- Can follow steps to use an AI tool.- Can describe patterns and decision logic.
4. Ethics & AI	<ul style="list-style-type: none">- Can reflect on AI bias or mistakes.- Begins to discuss fairness and responsibility.
5. African Solutions	<ul style="list-style-type: none">- Can brainstorm how AI could help with farming, school, or safety.- Can describe a solution in drawings or words.

APPLIED STAGE (AGES 13–15)

Developmental Focus:

Analysis, teamwork, problem-solving

Module	Sample Competencies
1. What is AI?	<ul style="list-style-type: none">- Can explain how AI uses data to learn.- Can describe different types of AI tools.
2. Interacting with AI	<ul style="list-style-type: none">- Can explore bias, filter bubbles, and misinformation.- Can reflect on how AI affects identity and voice.
3. Making with AI	<ul style="list-style-type: none">- Can create simple AI-based projects or creative outputs.- Can compare outputs based on different inputs.
4. Ethics & AI	<ul style="list-style-type: none">- Can identify discrimination or exclusion in AI tools.- Can apply ethical reasoning to real scenarios.
5. African Solutions	<ul style="list-style-type: none">- Can research real African AI innovations.- Can co-design a basic solution and present it in teams.

TRANSITIONAL STAGE (AGES 16–18)

Developmental Focus:

Critical thinking, debate, innovation, community impact

Module	Sample Competencies
1.What is AI?	<ul style="list-style-type: none">- Can analyse AI technologies and trends.- Can evaluate benefits and risks in local context.
2.Interacting with AI	<ul style="list-style-type: none">- Can debate privacy, data rights, and platform accountability.- Can assess how AI tools shape behaviour and opinions.
3.Making with AI	<ul style="list-style-type: none">- Can prototype or simulate AI responses to real-world data.- Can evaluate limitations and risks of using such tools.
4.Ethics & AI	<ul style="list-style-type: none">- Can debate surveillance, automation, and social justice issues.- Can apply African ethical frameworks to technology dilemmas.
5.African Solutions	<ul style="list-style-type: none">- Can design, pitch, or test an AI solution for a local issue.- Can assess inclusivity and long-term impact of their idea.

CROSS-CUTTING COMPETENCIES (ALL STAGES)

These soft skills are reinforced throughout the framework:

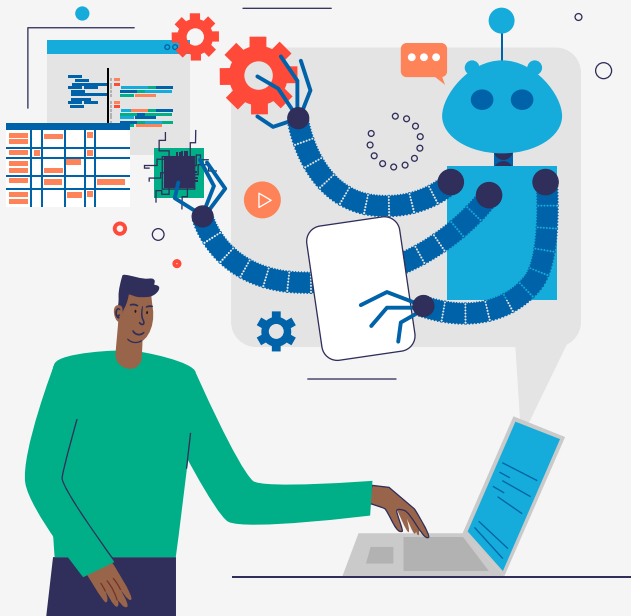
- Critical thinking
- Ethical reasoning
- Cultural awareness
- Collaboration
- Creative expression
- Digital safety & responsibility

Usage Notes for Educators and Curriculum Planners

- The age bands are flexible. Learners can move faster or slower depending on local context and exposure.
- The progression is modular, meaning learners can start at any point and still build competence.
- Each stage can be aligned with national grade levels, learning outcomes, or subject integration (e.g., ICT, Civic Education, Life Skills).
- Indicators can support assessment, teacher training, and learner profiling without requiring exams.

TEACHING TOOLKIT

Practical Resources for AI Literacy Implementation in African Contexts



1. LESSON PLANNING TEMPLATES

Modular Format:

Each lesson follows a simple, flexible structure



- Topic
- Age Band
- Learning Outcome
- Core Concepts
- Warm-up (local example or story)
- Main Activity (no-tech / tech-enabled)
- Reflection (group discussion or personal journal)
- Ethics Spark (critical thinking prompt)
- Take-Home Connection (community relevance)

Offline and digital formats available for easy printing or smartphone access.

2. LOW-TECH / NO-TECH ACTIVITY LIBRARY

Adaptable for rural, under-connected, and large classroom contexts

Activity Type	Description	Sample
Role Plays	Simulate AI decisions using “if-then” logic or sorting tasks	“Be the Bot” (students act as AI sorting objects by colour, shape, use)
Story Circles	Discuss real-life AI situations from learners’ lives	“What happens when a voice app gets your name wrong?”
Ethics Corners	Scenario-based discussions using local stories/proverbs	“Is it fair if only English speakers get access to information?”
Data Dramas	Explore how data is collected and used	Use fake “profiles” to simulate targeted ads
Design-a-Solution	Group work to address a community issue using AI logic	“How might we help farmers know when to water crops?”

Each activity includes setup, materials, steps, and reflection questions.

3. MULTILINGUAL SUPPORT TOOLS

- Glossary of Key Terms in major African languages (e.g., Hausa, Kiswahili, Yoruba, Amharic, Arabic, French).
- AI Concept Posters with local metaphors (e.g., “AI is like a student who learns from examples.”)
- Simple Audio Guides for mobile use (WhatsApp-friendly formats)
- Scripts for Radio Lessons on each module

Designed to support teachers with limited English or digital fluency.

4. TEACHER QUICK GUIDES

Topic	Included Tips
What if I'm new to AI?	Use what you know. AI is not about coding; it's about questions.
What if I don't have tech?	Every activity has no-tech options. Focus on logic, fairness, and creativity.
How do I manage large classes?	Use peer-to-peer tasks, group storytelling, and oral quizzes.
How do I keep girls engaged?	Use gender-relevant examples (health, safety, leadership) and ensure equal speaking time.
What if learners challenge me?	Encourage curiosity. Don't fear "I don't know." Invite learners to research together.

Includes printable tip sheets and classroom posters.

5. TOOLS FOR ADAPTATION & LOCALISATION

- Curriculum Mapping Guide
- Shows how to align AI modules with local/national subjects (e.g., Civic Ed, Social Studies, ICT, Language).
- Community Co-Design Guide
- Templates for engaging local elders, parents, or youth in designing culturally grounded lessons.
- Learning Journals
- Printable or digital templates where learners can reflect after each module.

6. ASSESSMENT & FEEDBACK TOOLS

- **Formative assessment rubrics**
Based on competencies, not exams.
- **Project showcase templates**
(posters, peer review cards, storytelling showcases)
- **Teacher reflection forms**
For lesson improvement, inclusion tracking, and learner insights.

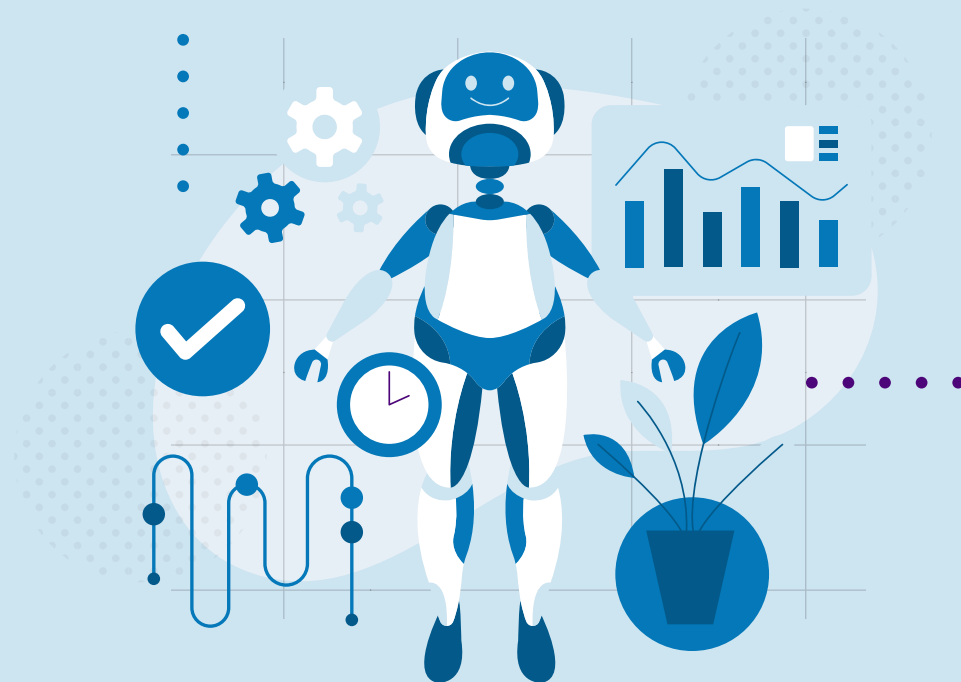
BONUS: DIGITAL TOOLKIT EXTENSIONS

If tech is available, you can optionally access:

- **AI Sandbox Apps** (kid-friendly image, voice, or chatbot tools)
- **Interactive Quizzes** (offline-capable mobile formats)
- **Facilitator WhatsApp Groups** for peer learning

IMPLEMENTATION & SCALING GUIDE

From Pilot to Policy: Making AI Literacy Work Across Africa



1. LOCAL ADAPTATION GUIDE

- **Aligning with National Curricula**
- **Crosswalk tool:** Maps each module to existing learning areas like:
 - Civic & Moral Education
 - ICT / Digital Skills
 - Language & Literature
 - Social Studies / Life Orientation
- **Flexible formats:** Framework can be implemented:
 - As a standalone enrichment programme
 - As a weekly co-curricular activity
 - As a set of integrated lessons across core subjects
- **Grade Band Mapping**
- Aligns to early primary (Grades 1–3), upper primary (4–6), lower secondary (7–9), and senior secondary (10–12)
- Cultural & Linguistic Adaptation
- Offers space for countries to:
 - Integrate local ethical values and belief systems
 - Translate or interpret AI concepts into culturally relevant forms
 - Use locally meaningful case studies, proverbs, or examples

2. TEACHER TRAINING & PROFESSIONAL DEVELOPMENT

Training Model: Modular & Scalable

- 5 standalone micro-modules aligned with the five framework modules
- Can be delivered in:
 - In-person workshops
 - WhatsApp-based training sequences
 - Radio or podcast series
 - Mobile-first LMS (low-data)

Core Elements

- **Concept grounding:** What is AI? Why does it matter in African classrooms?

- **Facilitation skills:** Ethics dialogue, inquiry-based learning, classroom storytelling
- **Low-tech teaching:** How to run AI lessons without computers
- **Gender inclusion:** Keeping girls and marginalised learners engaged
- **Feedback & reflection:** Using journals and peer exchange

Train-the-Trainer Pathway

- Designated teacher-leaders support local clusters or districts
- Materials prepared for easy rollout by education ministries, NGOs, or EdTech hubs

3. PARTNERSHIP MODEL

Strategic Roles:

Stakeholder	Possible Contribution
Government ministries	Curriculum integration, teacher deployment, policy alignment
CSOs/NGOs	Community mobilisation, teacher training, advocacy
EdTech platforms	App localisation, mobile tools, learner analytics
Universities	Research, field testing, curriculum co-design
Funders	Support for pilot rollouts, training, materials production

Recommended Actions:

- Launch local AI Literacy Coalitions per region or country
- Develop shared localisation hubs for translating and co-creating content
- Include AI literacy in national digital skills policies or strategies

4. MONITORING, EVALUATION & SCALING PATHWAYS

Core Indicators:

Category	Sample Indicator
Reach	# of schools/teachers/learners trained
Inclusion	% of girls, rural learners, and underrepresented groups
Learning	% of learners achieving competency benchmarks per module
Teacher Confidence	Self-assessment scores before/after training
Relevance	% of learners able to link AI to local challenges

Tools Provided:

- Sample M&E templates (surveys, focus groups, reflection tools)
- Learner portfolio review guides
- Implementation dashboard mockup

Scaling Pathways:

- Start with district-level pilots in diverse settings (urban/rural)
- Gather stories of success & challenge (for case studies)
- Use data to influence policy, funding, and adoption at national scale

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1. OECD & European Commission (2025)

Empowering Learners for the Age of AI: An AI Literacy Framework for Primary and Secondary Education (Review Draft)

[Download PDF \(OECD Draft\)](#)

2. AI4K12 Initiative (USA)

Five Big Ideas in AI and age-banded learning progression framework

<https://ai4k12.org>

3. Technovation Girls – AI Curriculum

Hands-on AI education programme focused on empowering girls to solve real-world problems.

<https://technovationchallenge.org/ai-curriculum/>

4. Google Teachable Machine

Accessible, no-code tool for experimenting with image/audio/text-based machine learning.

<https://teachablemachine.withgoogle.com>

5. Mozilla Foundation – AI & Ethics in Education Toolkit

Resources and guidance for teaching responsible AI in youth-centred and ethical ways.

<https://foundation.mozilla.org/en/initiatives/ai-in-education/>

6. UNICEF (2021)

Policy Guidance on AI for Children – Principles for ethical, inclusive, and child-centred AI.

<https://www.unicef.org/globalinsight/reports/policy-guidance-ai-children>

7. Smart Africa Alliance (2021)

Artificial Intelligence Blueprint for Africa – Strategic guidance on AI deployment in African contexts.

<https://smartafrica.org/knowledge/artificial-intelligence-blueprint/>

8. Data Science Nigeria (2022)

AI for Primary and Secondary Schools Toolkit – Nigerian resource promoting AI skills and literacy.

<https://www.datasciencenigeria.org> (general site; toolkit may be available on request)

9. Masakhane Research Foundation

Community-led NLP and machine translation for African languages.

<https://www.masakhane.io>

10. Ubenwa Health

AI tool using infant cry analysis to detect birth asphyxia in African hospitals.

<https://ubenwa.ai>

11. SunCulture (Kenya)

Precision irrigation company using AI to support smallholder farmers.

<https://sunculture.io>

12. Technovation’s “Building AI Literacy” White Paper (2022)

Offers models and lessons from global AI literacy deployment.

<https://www.technovation.org/building-ai-literacy/>



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