AI Observatory & Action Lab

About this deck

EdTech Hub's AI Observatory and Action Lab generates practical evidence focused on narrowing the learning divide in the age of AI.

To make sense of this shifting landscape, we developed a theoretical framework — grounded in three horizons of change and six levers for impact — and from it, a hypothesis-based approach for testing what works in context.

We built this deck so you too can create hypotheses to test in your work.

These cards walk through the same process we use for considering how AI might improve education in your context. The steps are:

1. Define your vision
2. Spot your barriers
3. Apply the horizons & levers
4. Build your hypothesis

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Define your vision

Articulate a vision statement based on your goals

Our shared goal: narrowing the learning divide in the age of AI.

YOUR TURN
How would you leverage AI to improve your work — or produce better, more equitable education outcomes?

> **THINK ABOUT**
> What role might AI play to support those you work with? What does the experience of learners and teachers look like in an AI-supported education system?

EXAMPLE VISION STATEMENT
Write 1–2 sentences describing what you want AI to help you achieve.

"I want the teachers I work with to leverage AI tools to gain efficiencies, and ultimately improve their instruction."

Notice how this vision: names a specific audience (teachers) and links AI to a concrete outcome (efficiency → better instruction)

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Spot Your Barriers

Identifying core challenges

What is keeping you from achieving that vision? Identify 2–4 core challenges in your context.

> **CONSIDER CHALLENGES RELATED TO:**
> People & capacity, resources & access, systems & structures, connectivity & infrastructure, awareness & motivation

Be specific — the more grounded your barriers, the sharper your hypothesis will be.

EXAMPLE BARRIERS
For the vision: teachers using AI for efficiency and better instruction.

1. Low AI literacy — teachers don't know what tools exist or how to use them
2. Limited time and flexibility in the school day to try new approaches
3. Unclear value proposition — teachers don't see how AI improves their work
4. Connectivity and resource gaps in under-served and rural areas

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Apply the Horizons & Levers

Sharpening your vision with the AI Observatory theoretical framework

APPLY THE AI OBSERVATORY FRAMEWORK

Use the three horizons and six levers from the theoretical framework to sharpen your thinking. Which horizon(s) are you working in? Which levers can you pull to realize your vision?

Leverage the stimulus cards provided to draw on evidence from the AI Observatory and ground your vision.

THEN REVISE
Map your vision to a lever and horizon, and restate it.

REVISED VISION EXAMPLE
"I want to enable teachers to upgrade day-to-day tasks with AI — faster assessment and admin, more tailored lesson plans — improving instruction and empowering them to consider more disruptive enhancements based on the success of these upgrades"

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Build Your Hypothesis

Defining a testable next step

Consider an if–then statement you can test to get closer to your vision.

THE FORMULA
"If [action that addresses a barrier], then [expected outcome for learners or teachers]."

> **ASK YOURSELF**
> Is it specific enough to test? Does it link an action to a measurable change? Does it reflect the realities you are working in?

EXAMPLE HYPOTHESIS
A testable if–then statement grounded in barriers and vision:

"If teachers co-design AI tools built for them, they will develop AI literacy, gain confidence in those tools, and ultimately improve instruction."

This hypothesis: addresses a specific barrier (low literacy, adoption), proposes a concrete action (co-design), points toward measurable outcomes (literacy, confidence, instruction quality).

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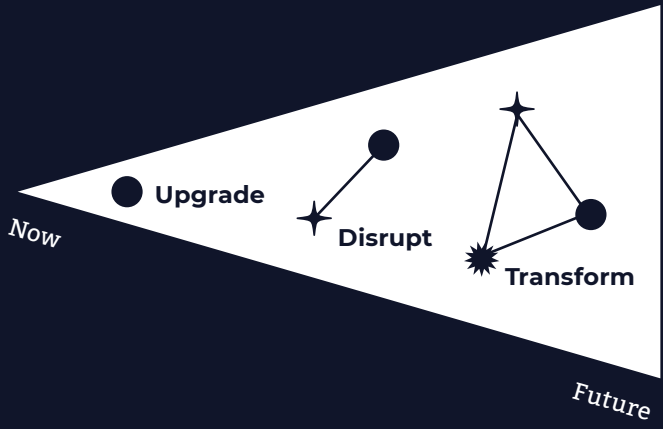
The 3 Horizons

We have conceptualized AI integration in education through three different horizons of change. These allow us to consider how AI can be leveraged today, while not losing sight of longer-term disruptions, or our vision for a more effective and equitable tomorrow.



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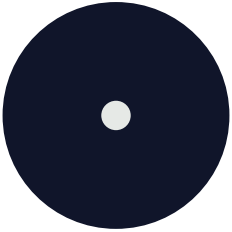

Upgrade: AI for Education

Early integration of AI into existing education systems

Upgrades are where most education systems are today: using AI to do existing things better, faster, and more efficiently. Change happens incrementally, within established structures, without fundamentally questioning what those structures are for.

AI enters at the edges: streamlining assessment, supporting teachers with admin tasks, personalising content within familiar curricula.

> KEEP IN MIND: Upgrades improve the present, not reimagine the future. They are a necessary starting point - and for many systems, exactly where the work begins.

HORIZON 1 RESOURCE

Signal Library

A signal is an early indication of change. Explore the latest signals in AI and education relevant to low- and middle-income countries — curated, categorised, and continuously updated.

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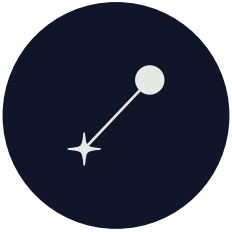

Disrupt: AI in Education

Large-scale change as AI becomes embedded in education systems

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Disruption is where the ground begins to shift. AI is no longer just a tool bolted onto existing systems - it is becoming embedded in how education works, prompting deeper questions about structure, practice, and purpose.

Old assumptions are challenged, new approaches compete to take hold. AI tools begin to shift classroom practice and instruction, at times revising roles and responsibilities on key tasks. Not everything tried here will work, and the path is rarely linear. But disruption is where genuine change starts to become possible.

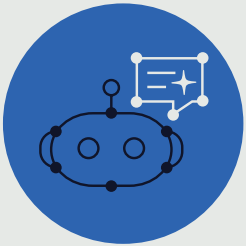
> KEEP IN MIND: Here, education systems are moving from incremental improvement toward something that looks meaningfully different.

HORIZON 2 RESOURCE

“How do you anticipate challenges and spot opportunities for disruptive shifts?”

Resources

Where is AI in education headed? Explore a curated set of resources on how artificial intelligence is shaping education systems, organised around the six key levers in EdTech Hub’s AI Observatory framework. Each section also highlights materials across the three horizons, so you may want to focus in particular on resources related to the “Disrupt” horizon.



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Transform: Education in the Age of AI

Education designed for a world where AI is a part of life

Transformation is where radical new visions of education move from the fringes toward the mainstream. This is not about improving existing systems or experimenting at their edges — it is about reimagining education from the ground up.

The purpose of learning itself is up for debate given new AI-enabled needs and possibilities. New models, values, and structures compete to become the dominant paradigm.

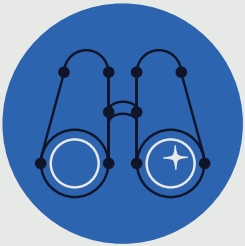
> KEEP IN MIND: Here education is reconceptualised to adapt to new societal demands, catalysed by AI-led changes in communities and industries.

HORIZON 3 RESOURCE

“How do you imagine what’s possible in the far future?”

Resources

Explore a curated set of resources on how artificial intelligence is shaping education systems, organised around the six key levers in EdTech Hub’s AI Observatory framework. Each section also highlights materials across the three horizons, so you may want to focus in particular on resources related to the “Transform” horizon.



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The 6 Levers for Change

We have surfaced six levers where AI is already reshaping education, influencing students, teachers, and education systems more broadly. These levers provide a roadmap for engaging in AI integration in ways that catalyse more effective and equitable education outcomes.

Students

1. Enable learners

Teachers

2. Empower teachers

Systems

3. Streamline bureaucracy
4. Align partnerships
5. Context-driven solutions
6. Renew the purpose of learning

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Enable Learners

Personalised, adaptive learning and future-ready skills

Creating enabled learners means equipping them with technical literacy and the human skills to thrive in a world that is quickly shifting.

Enabled learners are not passive consumers of AI. They are curious, adaptive, and critically engaged - with uniquely human creativity and judgment.

> WATCH OUT FOR: When AI training programmes focus narrowly on tool use, rather than broader understanding, they risk widening the gap between those who use AI and those who shape it.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How do you shape AI as a tool for critical thinking and creativity - not just an answer machine?
2. How might you reform curricula to help students collaborate, solve problems, and effectively use AI in their lives and careers?
3. How do you ensure learners can not only use AI — but question, shape, and co-create with it?

GO DEEPER

Read curated examples of how organisations are tackling these challenges

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Empower Teachers

More time and headspace for teaching and supporting students

Empowered teachers are co-designers of how AI enters their classrooms — with the agency to put student outcomes first.

The vision: teachers and AI in genuine collaboration, extending human cognition rather than replacing it.

> WATCH OUT FOR: Teachers excluded from AI decisions and left to learn informally - leading to fragmented knowledge, misuse, and unequal outcomes.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How might you support teachers with training and guardrails to shift from uncertainty to confidence in using AI effectively?
2. How do you co-design AI tools and policies with teachers so they reflect real teaching and learning needs?
3. How might AI help teachers build more engaging, adaptive learning experiences — ensuring no student is left behind?

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Check out AI Observatory's Teacher-in-the-Lead sandboxes where we test our hypothesis: if teachers are meaningfully engaged in shaping how AI is designed and used, we will unlock more learning.

Streamline Bureaucracy

Smarter planning, faster responses, smoother systems

AI offers overlooked potential: making the administrative systems that support education, smarter and more effective. Streamlined bureaucracy means simplifying procedures, accelerating resource allocation, and freeing up capacity across the system.

Ministries face pressure to do more with less — AI can help, but only if it builds trust and keeps human values central.

> WATCH OUT FOR: Efficiency gains that erode accountability, transparency, or data sovereignty.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How might AI make school management and processes more efficient — without sacrificing accountability?
2. Which “behind the scenes” tasks at every level of your education system could AI optimise — and where should it not?
3. How might you connect and automate governance to overcome capacity gaps while keeping human oversight central?

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Check out AI Observatory’s Ministries of Education AI Challenge where we test our hypothesis: if ministries and district officials are equipped to use AI effectively, they can deliver more with less, faster.

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Align Partnerships

Private and public actors coordinated around learning outcomes

Realising AI's potential requires more than good technology — it demands purposeful collaboration. Aligned partnerships mean governments engaging with industry on their own terms, backed by strong oversight and sustained multi-stakeholder collaboration.

As Big Tech expands in LMICs, governments face a real risk of ceding control over decisions that should be shaped by public interest.

> WATCH OUT FOR: Tokenistic or one-off partnerships that give the appearance of collaboration without shared accountability for learner outcomes.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How might you create policies and programmes that enable AI in education while protecting learners and national education system priorities?
2. How do you move from one-off partnerships to structured, long-term alliances between governments, industry, and academia?
3. How might you build open, decentralised networks for learning in the age of AI that reduces dependency on any single tech provider?

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Read curated examples of how organisations are tackling these challenges

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Context-Driven Solutions

Tech shaped around local needs, not the other way round

Too often, AI tools are built elsewhere and dropped in without regard for local realities. Context-driven solutions flip this dynamic - ensuring AI is shaped by the needs, languages, and constraints of the people and places it serves.

This means locally attuned models, trained using local data, customs and languages, and overlooked communities included in AI governance.

> WATCH OUT FOR: Importing costly, generic tools that fail to reflect local curriculum and context - widening rather than narrowing the learning divide.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How do you ensure AI tools align with your local curriculum, assessment, and teacher needs — rather than overriding them?
2. How might you co-design solutions that reflect local education priorities, languages, and ethics?
3. How could your context leapfrog the global status quo and create education models built for — not borrowed from — elsewhere?

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Renew the Purpose of Learning

Rethinking what education is for in the AI age

In a world shaped by AI, education faces a fundamental question: what is learning meant for? This lever means going beyond using AI to replicate existing systems faster — and asking how it can help more learners achieve more, more equitably in an evolving world.

From broadening access to quality learning for out-of-school youth to reimagining long-term goals — this is about values, not just efficiency.

> WATCH OUT FOR: Digitising the past — using AI to do old things faster without questioning whether those models serve today's learners.

PROBING QUESTIONS

Use these to explore this lever in your context

1. How might you use AI to enhance learning outcomes for all — including learners with disabilities and those out of school?
2. How do you plan intentionally for AI to drive long-term learning improvements, not just short-term efficiency gains?
3. How might you reimagine the purpose of education in the AI age — with the foresight to do things differently from previous technology waves?

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