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AI in Education

Ethics, Equity, and the Road Ahead

Grounding South Africa's AI ambitions in the IITPSA Code of Ethics and the "hopefully soon to come National AI Policy" — with a lens on the classroom.

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AI wrote *parts* of South Africa's AI policy. *The citations were fake……*

10 Apr 2026
Draft Policy published for public comment

26 Apr 2026
Withdrawn: 6 of 67 references were fabricated

Today
No national AI policy is currently in force

Jan 2027
Revised policy targeted for public release

> *"This unacceptable lapse proves why vigilant human oversight over the use of artificial intelligence is critical."*
>
> — Solly Malatsi, Minister of Communications & Digital Technologies

Sources: TechCentral, IOL, DLA Piper (Apr–May 2026); Draft SA National AI Policy 2026

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Two lenses on the same classroom

01

Ethics, Privacy & Responsible AI

Frameworks that keep AI in education safe, fair, and trustworthy — from the IITPSA Code of Ethics to the Draft National AI Policy.

02

Equity, Access & Inclusion

Making sure under-resourced and rural schools benefit too — and closing gaps in teacher capacity and student readiness.

Structure: current landscape → status quo & evidence → recommendations

The stakes are measured in trillions — so is the risk of getting the number wrong

$19.9T

Cumulative global AI impact through 2030 — 3.5% of global GDP (IDC, 2024)

$15.7T

Added to global GDP in 2030 alone — a 14% uplift (PwC, "Sizing the Prize")

Two credible sources, two different numbers.

South Africa's own roadmap treats this as a national imperative.

2025/26 — finalise National AI Policy

2026/27 — publish guidelines, regulate high-risk use

2027/28 — full implementation

Sources: IDC (2024); PwC "Sizing the Prize"; SA National AI Policy Framework (2024) / Draft AI Policy (2026)

Education: one of four priority sectors

Healthcare | **Education** | Agriculture | Public Admin

Strategic Building Block 1: AI in the classroom

- AI literacy taught from primary through tertiary level
- Structured teacher training in AI tools and their limits
- Social Sciences & Humanities integrated — ethics taught alongside technical skill

Source: Draft National AI Policy (2026); NSTF/proSET STEM Education Concept Document

Policy ambition is ahead of research reality

286

peer-reviewed South African papers on AI in STEM education, 1990–2025

Concentrated in three universities

University of Johannesburg, UNISA, and UKZN dominate; formerly black institutions lag substantially behind.

Skewed toward higher education

Dominant themes: machine learning, robotics, digital transformation — mostly at university level.

Basic education is nearly invisible

Minimal attention to rural schools, classroom implementation, teacher training, or ethics.

Source: NSTF/proSET STEM Education Concept Document — bibliometric analysis of AI in SA STEM education

01

Ethics, Privacy & Responsible AI

Frameworks for safe, fair, and trustworthy AI integration in education



Two frameworks, one principle

IITPSA Code of Ethics

"The public good is the paramount consideration."

- 25 principles across 4 sections: General Ethics, Professional Responsibilities, Leadership, Compliance
- Core duties: avoid harm, be fair, respect privacy, honour confidentiality, design secure systems
- Prescriptive, not aspirational — members can be sanctioned under IITPSA's Disciplinary Procedure

Draft National AI Policy

A proposed institutional architecture for AI governance:

- National AI Commission
- AI Ethics Board
- AI Regulatory Authority
- AI Ombudsperson
- National AI Safety Institute
- AI Insurance Superfund

None of these bodies exist yet — but when they do, they need to be strong

Sources: IITPSA Code of Ethics (July 2021); Draft South Africa National AI Policy (2026)

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Where good frameworks meet the classroom

Students are confused

78 South African higher-ed students reported confusion about “acceptable AI use,” unclear institutional policy, and want structured AI-literacy training.

Rural educators are unsupported

A 2025 study across four rural provinces — Eastern Cape, Limpopo, Mpumalanga, North-West — found teachers unsure how to steer AI integration responsibly.

Institutions are reactive

A 2025 systematic review finds accountability, oversight, and transparency are widely cited — but implementation still lags in most institutions.

Sources: “Bridging the AI Knowledge Gap” (SA higher-ed study); “AI in Rural Classrooms: SA Educators” (2025); Frontiers in Education (2025)

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AI doesn't shrink the humanities. It grows their role.

STEM asks how. Humanities ask why.

AI can answer how — not why we're doing this, who it serves, or what the consequences are. Those questions are exactly what's being lost.

At risk: critical thinking, ethics, language and communication, cultural awareness, social responsibility.

Language is not neutral

Only 42 African languages run at optimal penetration in today's language models — built predominantly on English and a Global North worldview.

That outsources the explaining, reasoning, and problem-solving students need to develop for themselves.

"The human — their language, identity, and judgment — must stay at the centre of every AI-mediated learning interaction."

Source: Prof. Elma, North-West University — NSTF Forum, Day 1 (2026)

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Ethics codes are voluntary. Privacy law isn't.

POPIA, Section 71

Restricts decisions with legal or substantial effect that are based solely on automated processing of personal data — and requires an opportunity to make representations about the decision.

Directly relevant to AI-graded assessments and automated admissions decisions.

The cautionary parallel

Research on algorithmic recruitment in the Global South found AI hiring tools reproduced gender and geographic inequality — through biased datasets and poor localisation.

The same risk applies to any AI tool making decisions about students.

Sources: POPIA s.71; Novazi (2025/26); "Digital Discrimination", algorithmic recruitment bias, Global South

02

Equity, Access & Inclusion

Making sure under-resourced and rural schools benefit too



Same test. Same ability. Different trajectory.

School A

- Tablets and reliable internet
- AI tutor spots a struggling learner
- Gets targeted extra practice, automatically

Improves a little faster, every term.

School B

- One laptop shared between 40 children
- No internet connection
- Teacher has never used an AI tool

Falls a little further behind, every term.

Neither set of children is less capable. AI doesn't create the gap — it amplifies whatever gap already exists, the way pressure widens a crack in glass.

How it looks in the real world...

What went wrong

A provider claimed “99% of students have smartphones.” True — but often the only household device, not reliably available at college. When VR simulations were introduced, ~80% of students were excluded — their phones couldn't run the app.

The showcase-campus problem

Maluti TVET spans 8 campuses. Limited funding means pilots land on one — it becomes the flagship. The other seven fall further behind. The divide can widen inside a single institution, not only between institutions.

Maluti's response:

- ***low/zero-cost tools first,***
- ***lecturer literacy before student rollout (“people before platforms”), and scaffolded, context-appropriate design — not models built for well-resourced campuses.***

Source: Elbe, Maluti TVET College — NSTF Forum, Day 1 (2026)

Africa has closed structural gaps before

M-Pesa, Kenya

Skipped the bank-branch era entirely

Financial inclusion rose from 27% of adults (2006) to 85% (2024). Today, over 90% of Kenyan adults use mobile money — no landline or branch-banking phase required.

4G, Rwanda

Coverage in 4 years — but coverage is not adoption

A government / Korea Telecom partnership hit ~95% population coverage in ~4 years. But adoption stalled at just 2% until 2022 market reform — then rose to 30% by 2025.

The warning for EdTech: infrastructure without affordability and competition stalls. Coverage is necessary, not sufficient.

Sources: FinAccess/Government of Kenya; Safaricom; GSMA, KTRN/Korea Telecom, Freedom House (Rwanda 4G)

EQUITY, ACCESS & INCLUSION — ALREADY HAPPENING

Education doesn't need to wait for perfect infrastructure

Juza AI — Kenya

An offline “AI in a box” tutor running on low-power computers in classrooms across Samburu, Isiolo, and Garissa.

M-Shule & uLesson

Kenya and Ghana: SMS and compressed-video AI tutoring for students with little or no connectivity.

One Laptop per Child — Rwanda

200,000 laptops distributed — associated with a 30% jump in participation. Participation, not a learning-outcome measure.

Sources: Africa Practice (2026); CIO Africa (2025); Cristia et al./IDB, OLPC Peru randomised evaluation; ICTworks (2025)

“AI could help” is not a plan

The techno-solutionism critique

Education-technology scholar Neil Selwyn argues that ed-tech discourse repeatedly treats deep, structural problems — pedagogy, inequality, institutional capacity — as if they were technology-access problems, solvable by the next tool.

Not “AI has no place in the classroom.” It's a caution against assuming adoption is automatically progress.

— Neil Selwyn, Distrusting Educational Technology (2016)

The opportunity-cost question

Every rand spent on an AI tool is a rand not spent on an alternative. J-PAL compares interventions in years of schooling gained per $100 spent:

~12 yrs

of schooling per $100 — school-based deworming in Kenya

An order of magnitude beyond most technology interventions — not an argument against AI, but against approving it without the comparison.

Sources: Selwyn, Distrusting Educational Technology (2016); Should Robots Replace Teachers? (2019); J-PAL cost-effectiveness analyses

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RECOMMENDATIONS

Eight moves for the road ahead

Leapfrog, but verify adoption

Track actual usage, not just network coverage.

Fund teachers alongside tech

Hardware without capacity-building collapses within a few years.

Localise the policy

Translate national policy and IITPSA's code into school-level guidelines.

Partner, don't donate

Treat rural AI rollout as a fundable industry partnership.

Widen the research base

Fund AI research beyond the concentrated top universities.

Be specific on measurement

Track the right studies and set out the intended outcomes from the onset.

Benchmark opportunity cost

Compare AI spend against teacher coaching and proven interventions first.

Treat children's data as distinct

POPIA ss.34–35, not just s.71 — plus UNICEF's AI-and-children guidance.

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Ethics and equity aren't two separate topics.
They're the same responsibility, seen from two angles.

A wrong policy can be withdrawn and rewritten. A child who falls behind because the tools never reached her classroom can not have the missed opportunity erased.

Food for thought: where in your own institution is AI already making decisions nobody's checked?