RESEARCH PAPER

Constraint to Capability:
Flipping the Narrative on AI in the Global South

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The Global AI Divide – A New Dimension of Inequality

Artificial intelligence (AI)[1] is reshaping economies and societies, but its benefits remain highly uneven. A stark divide is emerging between countries able to harness AI's full potential and those that cannot, with most rewards still concentrated in wealthier economies.

The stakes are enormous: AI could add up to $15.7 trillion to the global economy by 2030.[2,3] Yet these gains are unlikely to be distributed evenly.[4] Current projections suggest that Latin America may capture only 3% of this value, while Africa, Oceania and other Asian markets (excluding China) will secure just 8%.[3,4,5] Without deliberate action, this imbalance will deepen inequality and widen the global readiness gap.

The consequences will not be confined to national borders. Unequal access to AI is not a distant moral concern – it is a direct strategic threat to prosperity and security everywhere. Growing gaps in AI readiness could intensify migration pressures, disrupt global supply chains and further erode trust in international institutions. A world of AI inequality would be more prone to unrest, instability and hostile use of autonomous systems. For many countries, exclusion could threaten national sovereignty and risk revisiting the times when these nations were under political and economic control by other nations. Only this time it would be AI that is viewed as the means of limiting their domestic decision making.

The Global South – here defined as countries in Africa, Latin America, Asia and the Caribbean that have a shared history of colonialism,[6] economic dependency and are disproportionately affected by global inequalities and power imbalances – has too often been portrayed as "falling behind." This view misses two crucial strategic advantages: First, the Global South is home to the majority of the world's youth[7] – many of whom have grown up in the digital age and are ready to embrace new technologies and digital opportunities.

Second, emerging economies can design cleaner, more adaptive systems and governance frameworks from the start. While many advanced economies are working to retrofit AI ethics[8] and sustainability into long-established AI and data ecosystems, emerging economies have the opportunity to embed these principles from the outset.

This potential for AI-enabled development can be realized by designing systems that prioritize equitable futures. AI-powered education platforms can deliver quality learning to remote villages. Low-bandwidth and mobile tools can boost yields for small farmers. Countries that move deliberately now can leapfrog into governing autonomous systems, ensuring they serve inclusive development goals rather than reinforcing dependency.

Still, barriers remain formidable. Weak infrastructure, poor AI literacy, data gaps and limited opportunities for local talent due to the "brain drain" of tech talent to richer economies all threaten to entrench reliance on imported technologies that fail to reflect local values. Yet this trajectory is not inevitable. With targeted investments in human capital, resilient infrastructure and adaptive governance, the Global South can position AI as a tool of empowerment rather than exclusion.[9]

Raising AI literacy is essential not only to build trust and unlock innovation, but also to ensure accountability, strengthen sovereignty and promote equitable participation in the AI-driven economy.

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Moreover, the world stands to gain. Across regions and globally, AI faces a problem with representing diverse ideas and lived experiences – one that requires Global South perspectives to solve. Greater participation from southern regions brings new perspectives, languages and data contexts that make AI systems more representative, robust and equitable. For the Global North, supporting this transformation is not charity; it is strategic foresight. Strengthening AI capacity across regions is an investment in resilience, innovation and the creation of better, fairer AI systems for everyone.

The window of opportunity is narrow, but still open. With deliberate choices and international cooperation, AI can become a driver of shared prosperity instead of a new source of fracture. This report sets out how to seize that opportunity.

Chapter 1: Building AI Capacity in the Global South – Literacy, Talent and Opportunity

Closing the AI Literacy Gap

AI literacy equips individuals and organizations with the skills to use and govern AI safely, transparently and responsibly. With a sound understanding of its capabilities and limitations, people can solve problems more effectively, drive innovation and improve strategic outcomes. Embedding AI literacy into education and work is therefore a shared responsibility for governments, businesses, academic institutions and communities alike.[10,11]

AI's transformative potential can only be realized when people have the knowledge and skills to use it effectively and ethically. In much of the Global South, however, AI literacy gaps remain severe.[12,13,14] A shortage of trained data scientists, machine learning engineers and decision makers who are knowledgeable about AI deepens reliance on imported solutions. Public understanding is often shaped more by science fiction or headlines than by empirically grounded assessments, fueling mistrust, misuse and unrealistic expectations.

Without a baseline of AI literacy, individuals and institutions are unable to question, audit or influence the systems that increasingly shape access to jobs, credit, health and information. This leaves societies vulnerable not only to misinformation and misuse, but also to structural dependency, where decisions are outsourced to technologies and providers whose logic and priorities are externally defined. In this way, lack of AI literacy becomes a policy issue. It limits democratic oversight, weakens digital sovereignty, and concentrates power in the hands of those who set technical and ethical standards elsewhere. Building AI literacy is therefore not only a matter of education, but of governance and rights – enabling citizens and policymakers alike to participate meaningfully in shaping the AI systems that affect their lives.

These gaps risk enabling an AI asymmetry, where advanced economies and tech giants extract data, set standards and embed their priorities into autonomous systems deployed in developing regions. Yet public optimism remains high: surveys[15] show that strong majorities in, for example, Indonesia (80%) and Thailand (77%) believe AI will be more beneficial than harmful to society, compared with only around 40% in the United States and Canada. In South Africa, a comprehensive public perceptions survey revealed

that around 47% of South Africans feel positively about AI.[14] Leaders can harness this optimism by channeling it into education, innovation hubs and public-private partnerships.

Examples are emerging. India's "AI for All" strategy[16] introduces AI fundamentals into school curricula, while the "Responsible AI for Youth" initiative[17] brings AI ethics and applied learning into rural high schools. Rwanda's "Digital Ambassadors Program" delivers AI and digital skills to remote communities, and Indonesia is training civil servants in AI ethics and governance.[18] UNESCO is developing AI competency frameworks across education systems,[19] while tech companies such as Microsoft and SAS are expanding literacy programs through public-private partnerships and free resources.[20,21,22,23,24] The European Union's AI Act even encourages AI providers to support user literacy.[25]

Educational and research institutions across the Global South are increasingly offering university-level courses dedicated to responsible AI governance[26] and addressing its human rights implications.[27] Together, these initiatives highlight a global consensus: raising AI literacy is essential not only to build trust and unlock innovation, but also to ensure accountability, strengthen sovereignty and promote equitable participation in the AI-driven economy.

Talent Flight: The Brain Drain Challenge

A second structural challenge is the shortage – and outward migration – of skilled AI professionals. These professionals largely move from the Global South to wealthier countries or work remotely for companies based elsewhere. Weak domestic pipelines mean many of the few trained experts leave for better-paid opportunities abroad, creating a "brain drain" that undermines local innovation.[28,29,30] India offers a clear example. In 2023, over 70% of US H-1B work visas were granted to individuals born in India,[31] many of whom are AI engineers. While this highlights the country's strong educational output, it also underscores the need for more robust local opportunities to harness and retain talent. Recent changes to visa policies and associated costs in 2025[32] have further emphasized the importance of developing attractive career paths within emerging economies.

The paradox is evident: emerging economies invest significantly in education, yet the economic benefits often accrue elsewhere. Factors such as low salaries, limited research funding and economic instability contribute to this dynamic.[33] In Argentina, for instance, prolonged economic challenges and budget cuts in science and education have led to what some describe as a "scientific exodus,"[34] weakening domestic innovation and increasing reliance on external expertise for AI development.

Yet solutions exist. Across Africa and South Asia, training programs and tech hubs are offering attractive, locally relevant opportunities.[35] Initiatives like ALX Africa,[36] Data Science Nigeria[37] and Deep Learning Indaba[38] offer not just training but also locally relevant projects – detecting crop diseases, processing local languages or piloting agent-based AI tools for public services. Governments are experimenting with innovation grants for startups, tax breaks, support of remote work and short-term fellowships to retain or attract talent back.[39,40] But the core insight is simple: talent stays where professionals see rewarding careers and the chance to shape frontier areas.

A Critical Window of Opportunity for the Global South

Despite these challenges, the Global South holds advantages. The International Monetary Fund (IMF) estimates that about 30% of jobs in advanced economies are at risk from AI automation, versus 20% to 24% in emerging markets and 18% in low-income countries.[41] The reason: richer nations rely more on white-collar work, which AI – especially agentic AI – is already beginning to replicate.

Developing economies face a time-limited window of opportunity to invest in infrastructure, literacy and governance before agentic systems become embedded globally. History shows that leapfrogging offered Africa opportunities. For example, Africa bypassed conventional stages of digital development such as landlines to go straight to mobile networks, driving innovations like M-Pesa.[42,43,44] Rwanda's wholesale 4G rollout achieved near-universal coverage in four years, something legacy-heavy markets could not match. However, such advancements also inadvertently created certain dependencies. For example, digital technologies were adopted by communities without appropriate foundational infrastructure, nor with anything in place to ensure Global South agency to design and govern them.[45]

Today, the Global South can learn from past leapfrogging efforts to not merely adopt AI but to ensure they learn from the governance experiments and regulatory models emerging elsewhere and adapt them to local priorities and realities. Being "late" does not mean being behind – it means having a cleaner slate to build smarter, more context-aware and sustainable systems without the drag of legacy technologies.

With bold action, the Global South can move from passive adoption to active innovation – turning today's constraints into tomorrow's capabilities.

Chapter 2: Closing the Digital Divide – Infrastructure and Data Gaps

Laying the Foundations

Human capabilities are essential, but without digital infrastructure and robust data ecosystems, optimism and skills cannot translate into impact. In much of the Global South, weak connectivity, high costs and unreliable power grids undermine progress. Without these enablers, even the most ambitious AI strategies collapse.[4,46,47]

To understand the challenge, it helps to examine two interlinked divides: the infrastructural "triple divide" and the "representational divide" in data. Both will shape whether countries can develop and govern not just traditional AI, but also increasingly autonomous and agentic systems.

The Triple Divide: Connectivity, Cost and Compute

AI runs on connectivity. Yet nearly three billion people remain offline, most of them in the Global South.[48] While over 80% of people in advanced economies have internet access, only around 35% do in developing countries.[49] Even where infrastructure exists, regular connectivity, internet speed, affordability and relevance limit meaningful connectivity.[50,51] In many regions, broadband or mobile data costs remain prohibitive for education, health care or entrepreneurial use.[52]

Digital literacy is a second barrier.[53] Millions remain offline not just due to missing infrastructure, but because skills and awareness are absent. Teachers themselves often lack the training to bring students online.[54] Gender inequality compounds the gap: women in low- and middle-income countries are 22.8% less likely than men to use the internet, excluding large segments of society from the digital economy.[55]

Even when people get online, power instability remains a bottleneck. In parts of Africa and South Asia, frequent blackouts make it difficult to operate research labs or data centers reliably.[56] The global imbalance in compute capacity is striking: none of the world's top 100 supercomputers are located in Africa, Latin America or smaller Asian economies. Africa, home to 18% of the world's population, accounts for less than 1% of global data center capacity.[56]

This asymmetry has real implications. As AI systems increasingly rely on real-time data flows and cloud-based decision making, dependence on foreign infrastructure can limit a country's ability to shape and secure its own digital future. For many nations, this raises concerns not only about technological access but also about the risk of ceding control over critical decision-making processes. The situation echoes historical patterns of external dependency, now amplified through digital means.

Frontier AI research is prohibitively expensive. Training state-of-the-art models consumes vast amounts of energy and compute resources, concentrating innovation in wealthy economies and a handful of firms.[15,57] High energy costs and fragile grids in developing regions reinforce exclusion, creating a cycle where advanced nations leap ahead while others risk permanent dependency.[58]

Still, progress is possible. Shared infrastructure models – regional data centers, cross-border fiber networks and internet exchange points – can spread both costs and benefits.[56] Mobile-first strategies provide another path. With over 1.2 billion mobile connections, Africa already has a platform for AI services.[59] Optimizing models for mobile via compression, edge computing and lightweight autonomous agents can extend AI services without massive data centers, broadening access while reducing dependency.[60,61]

The Representational Divide: Data Scarcity and Bias

Even with infrastructure in place, AI cannot succeed without high-quality, representative data. Across much of the Global South, data is sparse, outdated or biased.[62,63] Health systems still rely on paper records; small businesses operate outside formal registries; public data sets remain incomplete. Notably, AI systems are primarily trained on data that reflects the lives, realities, knowledge and values of those connected to the internet over the past decades. Thus, developers are forced to rely on foreign data sets that miss local realities.

Language illustrates the stark gap. Swahili has over 200 million speakers yet is scarcely represented in AI training data. Of the world's approximately 7,000 languages, only about 1,500 have sufficient digital resources.[62,63] Most foundation models are trained primarily on English and a handful of Western languages, producing outputs optimized for Western contexts.[62] The result: failures in medical, legal or linguistic applications when deployed locally. Beyond its functional values, grassroots initiatives such as Masakhane[64] are democratizing scientific knowledge by making it accessible in local Indigenous languages. Such initiatives also integrate facts and scientific methods into cultures that have been denied in the past.

The risks extend beyond inconvenience. Weak moderation in underrepresented languages fuels misinformation, undermining public order.[63] Imported models can encode biases misaligned with local norms, eroding trust. And when foreign firms control the collection, storage and monetization of Global South data, sovereignty questions multiply: Who owns the data? Who decides how it is used to train autonomous agents? Who benefits? Without local access, innovators are disadvantaged before they even begin.[65]

Synthetic Data: Potential and Pitfalls

Synthetic data offers a partial solution. Algorithmically generated data that mirrors real-world patterns can help developers train models in "small data" environments, correct underrepresentation, improve accuracy for marginalized groups and support privacy protection.[66,67] For health, agriculture or education systems where local data is scarce, synthetic data sets could enable models that are more relevant and inclusive.

Yet synthetic data also carries risks. If synthetic data is based on biased samples, it will reproduce or even amplify inequities.[68] Without safeguards, privacy leaks remain possible.[67] And synthetic data sets degrade unless validated against real-world inputs, leading to "model collapse," where systems become less accurate over time.[67] Used wisely, synthetic data can help level the field; used poorly, it will deepen divides.

Bridging the Divide: Collaboration and Leapfrogging

Bridging these divides requires bold collaboration. Public-private partnerships (PPPs) combine state oversight with private capital and innovation.[69] Subsea cable projects like Google's Equiano and Meta's 2Africa, developed in partnership with African regulators, illustrate how infrastructure costs can be shared while lowering bandwidth prices.[70] These projects also present new challenges,[71] particularly undersea cable cuts due to natural disasters, accidental human damage or international tampering by bad actors, which can cause large-scale internet disruptions. Yet with robust monitoring, rapid-response protocols, and clear cross-border coordination, these risks can be contained – ensuring that such critical infrastructure continues to deliver on its promise of expanding affordable and reliable connectivity.

The Global South is also uniquely positioned to leapfrog legacy systems. Cloud services and mobile-first approaches allow countries to scale AI solutions rapidly and flexibly.[60] AI readiness should not be measured solely by traditional infrastructure rankings, which often privilege R&D spending in wealthy economies.[61] Instead, mobile penetration, cloud adoption and deployment of agentic AI at the edge can demonstrate preparedness in ways conventional indices overlook. A country's readiness for AI does not necessarily equate to its digital maturity in traditional terms.[72]

This leapfrogging is already visible. In agriculture, mobile AI tools help farmers in Kenya and India boost yields while reducing pesticide use.[73,74] Voice-based AI agents, deployed through simple apps like WhatsApp in local dialects, deliver health care advice at a fraction of the cost of a clinic visit.[75] For millions, these tools provide first-time access to essential services – showing that later adoption can produce not just parity, but leadership.

Chapter 3: The Ecological Paradox: How Second-Mover AI Adoption Can Forge a Sustainable Future for the Global South

The Green Opportunity in Delay

As AI spreads worldwide, its environmental cost is becoming impossible to ignore. Training and running advanced systems consume vast amounts of electricity and fresh water, while generating growing streams of electronic waste. These burdens often fall most heavily on emerging economies, which are already among the most vulnerable to climate change and often lack the infrastructure to manage such pressures. Data centers demand enormous power and cooling, outdated hardware is shipped to developing countries for unsafe recycling, and AI-related emissions further heat the planet at its hardest-hit point – the Global South.

Yet, paradoxically, arriving later to the AI revolution may offer an advantage.[76,77,78] Because many low- and middle-income countries are not yet locked into fossil-fuel-heavy infrastructure, they have the chance not just to avoid mistakes but to set the global benchmark for sustainable AI deployment. Instead of retrofitting old systems, they can build new digital infrastructure that is efficient, decentralized and powered by renewables from the outset.

This opportunity is especially important as AI shifts from static prediction toward autonomous, agentic AI systems capable of taking actions with minimal human oversight. Such systems can generate constant, unpredictable computational demand. But if designed for efficiency and deployed at the edge, they could become catalysts for sustainability instead of new sources of strain.

In practice, this could mean building modern data centers that run on geothermal, solar or wind power – as is already happening in Kenya and South Africa.[79] It could also mean favoring decentralized approaches, where models are trained or deployed closer to the user. By processing data locally – on small devices, community servers or micro-grids – these systems minimize energy use, reduce reliance on massive, centralized server farms and avoid the emissions linked to constant long-distance data transfer.

A promising dimension of this shift is the rise of small language models and task-specific AI systems. Unlike giant general-purpose models, smaller models can be fine-tuned for local languages and sectoral needs – delivering high utility at a fraction of the cost and energy. For example, InkubaLM, developed by Lelapa AI in Johannesburg, is a compact model trained on African languages like Swahili, Yoruba, isiZulu and isiXhosa. Despite being far smaller than frontier models, it achieves competitive results in translation and question-answering while remaining lightweight enough for deployment in resource-constrained environments.[80] Similarly, in Kenya, an initiative called UlizaLlama adapts open source models for maternal and newborn health in local languages.[75] This illustrates how domain-specific AI can improve outcomes without the ecological cost of training multi-billion-parameter systems.

Beyond language, edge-based AI is already delivering environmental gains in critical sectors. In Nigerian mini-grids, the company Enee.io uses AI diagnostics on low-cost sensors to optimize battery health – reducing waste, extending battery lifespans and lowering costs for communities reliant on off-grid energy.[81] In agriculture, tiny machine

"Bigger" is not always "better." For emerging economies, purpose-built small language models, edge-based applications and specialized chips can deliver real economic value – such as solar-backed health diagnostics in rural clinics or market-price prediction tools for farmers – without locking countries into unsustainable energy and water demands.

learning (tinyML) devices in India and Africa detect crop diseases directly in the field, cutting pesticide use and avoiding the energy demands of cloud-based processing.[82] In Latin America, startups like Kilimo apply AI to satellite and sensor data to optimize irrigation, reducing water use by up to 20% – a crucial adaptation in drought-prone regions.[83]

These cases highlight a key paradox: later adoption does not necessarily mean lagging behind. It can mean starting fresh – deploying leaner, greener and more resilient systems that are tailored to local needs. Where early adopters "moved fast and broke things," including ecological boundaries, second-movers can advance deliberately and embed sustainability and efficiency from the outset.

The Hidden Costs of AI: Energy, Water and Waste

The environmental footprint of AI is largely invisible to users, yet very real. Data centers consumed about 415 terawatt-hours of electricity in 2024 – roughly 1.5% of global use – and the International Energy Agency projects this figure could more than double by 2030.[84,85] Within those centers, AI workloads are the fastest-growing share. Training a single advanced model can emit as much CO2 as 300 round-trip flights between New York and San Francisco.[86,87] Even everyday AI queries consume several times more power than a standard web search.[88,89] With the rise of agentic AI, which can autonomously generate and execute tasks, demand is expected to become less predictable and more continuous – further intensifying the strain.

Water use is another concern. Cooling data centers typically requires about two liters of water per kilowatt-hour of energy consumed. In water-stressed regions, this can create direct competition with agriculture and local communities.[90]

Finally, there is e-waste. AI relies on specialized chips and servers with very short lifespans, often replaced within two or three years. The result is a growing stream of discarded electronics, much of which is exported to the Global South for unsafe recycling or dumping. Informal workers, including children, are exposed to toxic fumes and chemicals as they dismantle components, with severe health consequences.[91]

Critical minerals – primarily extracted from the Global South – are needed for digital tools such as smartphones that AI systems operate on. Such extraction has implications for all three hidden costs of AI discussed above. Cobalt mining in Congo,[92] for instance, is operating within global energy systems that are worsening environmental degradation and exploitation. Increased mining is water-intensive, exacerbating risks to freshwater resources,[93] especially in areas already experiencing water stress. This process not only depletes water supplies but also leads to toxic waste and contamination from residual minerals and chemicals. Water sources that communities rely on are, in turn, polluted.

The pattern is clear: the Global North benefits most from AI, while the Global South risks carrying much of its environmental burden. This path is unsustainable. Because climate change knows no borders, AI must become part of the solution, not a new source of harm.

The Second-Mover Advantage

Despite these risks, the Global South's later adoption presents a chance to chart a different path. Free from sunk costs in outdated infrastructure, countries can prioritize renewable-first data centers, decentralized computing and task-specific AI agents tuned for local needs. This is not catching up – it is a chance to lead.

New data centers can be designed to run on renewable energy: Kenya and Ethiopia are already utilizing geothermal power for their digital infrastructure, North African nations are developing solar-powered server farms, and South Africa is pairing wind and solar projects with data hubs.[79] These choices not only reduce emissions but also improve energy security and cut dependence on imported fossil fuels.

Instead of replicating the North's model of giant server farms, second-movers can embrace distributed designs – spreading smaller data centers across regions or pushing computation to the edge.[79] This reduces cooling needs, improves resilience in fragile grids, and allows for natural cooling methods (for example, using cool desert air at night).[77]

Energy-efficient AI is another area where constraint becomes a strength. Smaller, optimized models often meet local needs while consuming a fraction of the power of massive frontier systems.[77] Even among large-scale competitors, architectural innovation like mixture-of-experts – where only part of a model's parameters are active at a time – demonstrates how efficiency can rival scale.[94] The lesson is clear: "bigger" is not always "better." For emerging economies, purpose-built small language models, edge-based applications and specialized chips can deliver real economic value – such as solar-backed health diagnostics in rural clinics or market-price prediction tools for farmers – without locking countries into unsustainable energy and water demands.

Building a Sustainable AI Ecosystem

To seize this opportunity, AI development in the Global South should follow three guiding principles.[77]

- **Efficiency by design.** Build systems that achieve results with minimal computation. Advances in algorithms, model compression and energy-efficient hardware make it possible to deliver strong performance without enormous energy costs.
- **Life cycle approach.** Consider the full journey of AI systems, from production and use to end-of-life. This means reusing and upgrading hardware, planning for safe recycling and designing models that can be updated incrementally instead of retrained from scratch.
- **Renewable energy priority.** Link AI expansion directly to renewable investments. If new data centers are built, they should be paired with solar, wind or geothermal projects. Done right, AI can become a driver of renewable energy growth, creating a virtuous cycle where cleaner energy powers smarter AI, and AI helps manage renewable grids more efficiently.

Governance should extend to how autonomous AI agents are designed and deployed. Agents embedded in energy grids, agriculture or health care must be held to standards of efficiency, transparency and human oversight from the outset.

AI is both a risk and an opportunity. If adopted carelessly, it could deepen ecological and social inequalities. But if adopted strategically, the Global South could show the world how AI can align with sustainability, resilience and justice.

AI as a Climate Solution

While minimizing AI's own footprint is essential, AI can also be a powerful tool for climate action.[95] Its potential benefits may outweigh its costs if deployed wisely.

AI is already optimizing energy systems, forecasting renewable supply and demand to stabilize grids. In agriculture, AI supports drought-resistant crop breeding and precision farming. In climate science, it accelerates discoveries in materials and clean technologies. And in disaster management, AI-driven early warning systems help predict floods, storms and locust swarms – giving vulnerable communities more time to prepare.[96]

For the Global South, these applications are particularly valuable. They address urgent local challenges while contributing to global climate goals. Yet for AI to deliver on this promise, countries need data, expertise and infrastructure, as well as inclusivity. Systems must be designed for local languages and communication channels, or they risk excluding the very communities they aim to serve.

As autonomous systems mature, they could play a decisive role in climate action – for example, agents coordinating decentralized solar grids or managing irrigation in real time. But if these systems remain controlled by a handful of companies in the Global North, their benefits may bypass those who need them most. Local ownership and governance are therefore essential.

The lesson is that the Global South does not need to chase the largest frontier models to benefit. Much of the impact comes from creatively applying existing techniques to local problems, such as forecasting, pattern recognition and optimization. Local entrepreneurs and non-governmental organizations (NGOs) are already showing how "appropriate AI" can be affordable, accessible and transformative. The challenge now is to scale these solutions through funding, supportive regulation and international cooperation.

In short, AI is both a risk and an opportunity. If adopted carelessly, it could deepen ecological and social inequalities. But if adopted strategically, the Global South could show the world how AI can align with sustainability, resilience and justice.

Chapter 4: The Sovereign Path – Agile Governance as a Global South Advantage

Governing AI: A Strategic Imperative

As emerging economies accelerate AI adoption, governance is key. Without proper oversight, AI can easily reinforce existing biases, invade privacy, enable surveillance and erode trust. These harms often fall hardest on vulnerable groups – such as the poor, marginalized communities and those with low digital literacy. In societies already marked by inequality, governance will determine whether AI drives inclusive growth or deepens social divides.

Unfortunately, global readiness is low. According to a new report, only 40% have invested to make systems trustworthy through governance, explainability and ethical safeguards.[97] We must see governance not just as a set of rules, but as a strategic culture of responsibility – one shaped by shared values, smart incentives, effective regulation and public demand.

In the Global South, the discussion is moving past broad ethical principles toward context-specific governance frameworks.[58] While UNESCO's Recommendation on AI Ethics (2021)[98] and the African Union's Continental AI Strategy (adopted 2024)[99] laid important moral foundations, neither had enforcement power. Now, we are seeing a more diverse landscape emerge: some regions are moving toward binding, risk-based laws, while others prefer flexible, development-oriented strategies.[99,100,101] This pluralism is not a weakness; it is a strength that reflects the need to adapt governance to local priorities, capacities and levels of digital maturity.[99,102]

Africa's Flexible and Development-Oriented Strategy

A milestone came in 2024, when the African Union adopted its Continental AI Strategy.[99] Though non-binding, it provides a unifying framework for member states, positioning governance as central to AI development. Its five pillars emphasize harnessing AI's benefits, building capabilities, minimizing risks, stimulating investment and fostering cooperation.[99,102,103]

The choice of a non-binding framework was deliberate. With AI readiness varying widely across countries, flexibility ensures no member state is excluded. Rather than rigid rules, the strategy acts as a mobilization and alignment tool – an approach tailored to Africa's developmental context.[102]

Latin America: From Principles to Binding Law

Latin America has taken a more formal regulatory path. Brazil's Bill No. 2338/2023[104] and Chile's AI Bill[105] adopt risk-based frameworks inspired by the EU's AI Act.[106] Peru has gone further, approving the region's first AI law.[101] Despite differences in form, these initiatives share principles: human rights, transparency, privacy-by-design and accountability.[101,107]

Where Africa emphasizes flexibility and inclusivity, Latin America emphasizes enforceability and structure. Both illustrate how regions adapt to institutional capacity, social priorities and stages of digital development.

Asia's Mosaic of Approaches

Asia reflects yet another trajectory. India currently has not passed a standalone AI law and is instead applying a mosaic of existing legislation[108] – the Digital Personal Data Protection Act, the IT Act and sector-specific advisories – to govern AI. The aim is to balance innovation with risk without stifling growth.[108,109]

In Southeast Asia, the ASEAN Guide on AI Governance and Ethics (2024) offers voluntary principles, consistent with the bloc's tradition of non-interference and uneven readiness.[110] Yet flexibility has risks: a 2025 investigation revealed that foreign actors exploited regulatory gaps – for example, Chinese engineers reportedly used Malaysia as a base to train AI systems with export-restricted chips, bypassing international controls.[110]

Indonesia's National AI Roadmap (2025 through 2045) integrates ethics, talent development, research and infrastructure – an attempt to anchor AI governance in long-term national priorities.[111,112]

A Multipolar Governance Landscape

Together, these regional strategies reveal a multipolar landscape. Africa's flexible framework, Latin America's binding laws and Asia's mixed approaches highlight how governance adapts to political traditions, institutional strengths and development priorities.

This pluralism is reshaping global debates. The Global South is no longer a passive rule-taker but an active rule-shaper. Multilateral efforts such as the UN's Scientific Panel on AI and its Global AI Dialogue are beginning to reflect this shift, although their success will depend on genuine integration of Southern perspectives.[111,113,114] Emerging economies can also use tools like Global Index on Responsible AI[115] to benchmark national progress – not only for compliance but to set global norms, signal leadership and attract investment in trustworthy AI ecosystems.

The private sector is also central. National strategies increasingly highlight public-private partnerships as mechanisms to connect innovation with local needs and build sustainable ecosystems.[101,107,111,116] Governance in the Global South will not converge on a single model but evolve in context-specific directions.

Trust and Accessibility as Cornerstones

For governance to succeed, it must be accessible. Principles and laws are only meaningful if translated into local languages, grounded in local values and communicated in ways citizens understand. Otherwise, governance risks becoming a technocratic exercise dominated by outside actors or multinational firms.

Practical initiatives are emerging. The Commonwealth Secretariat's StrategusAI toolkit[117] – an AI-driven policy tool developed with Intel – helps member states tailor global best practices to local contexts. Citizens, too, need familiar channels to contest harmful AI, whether through community centers, phone hotlines or culturally resonant mechanisms.

Meanwhile, businesses that demonstrate fairness – through audits or transparency reports – often gain a competitive edge by building trust with consumers and regulators alike. Trust is both a safeguard and a growth strategy. It accelerates adoption, encourages investment and strengthens legitimacy.[97]

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The Second-Mover Advantage

This is where the Global South's position becomes a strength. Free from the legacy systems and regulatory debt of early movers, many countries can design governance that is flexible, iterative and forward-looking. Regulatory sandboxes, adaptive guidelines and co-regulation with industry allow real-time adjustment as technologies evolve.

Equally important, Global South countries can embed core principles from the start – principles such as sustainability, inclusion and citizen participation. Requiring AI to operate in local languages, mandating environmental impact assessments or involving citizens in policymaking ensures that governance reflects local priorities rather than imported agendas.

If successful, these models could set global standards – much as Africa's Malabo Convention on Data Protection (2014) influenced privacy debates and the African Union's 2024 strategy introduced the concept of "sovereign AI governance."[58] Public trust becomes a competitive asset, while a culture of responsibility strengthens resilience and attracts investment.[97]

Governing Agentic AI and Autonomous Systems

The next wave of AI will not be passive tools but autonomous agents – systems that can reason, act and make decisions on their own. For the Global South, these hold enormous potential: transforming agriculture, health care, financial inclusion and public service delivery. But without oversight, agentic AI risks bypassing accountability, embedding bias or acting against human intent.

Advanced economies are still struggling to regulate these systems. This creates a strategic opening: leaders in the Global South can set the guardrails first. By embedding requirements such as human-in-the-loop oversight, life cycle accountability, and safeguards against harmful autonomy, they can ensure agentic AI and AI agents serve citizens rather than undermining them.[118]

This is not about catching up – it is about leapfrogging into leadership by shaping the governance of tomorrow's AI, today.

Regional Innovation in Practice

Governance innovation is already visible:

- In Africa, the African Declaration on AI (2025) launched a $60 billion pan-African AI fund and a scientific panel linking AI ethics to entrepreneurship and research.[119]
- In Latin America, Brazil's draft AI law combines EU-style[106] risk categories with constitutional protections, while Chile's bills require human oversight and explainability in high-risk systems.[120, 121]
- In Southeast Asia, Singapore's AI Assurance Sandbox lets companies stress-test AI systems under regulatory supervision, with results made public to raise standards. Trust labels and certification schemes further build consumer confidence.[122,123]

Increasingly, cross-regional forums – such as Africa-Latin America exchanges and Asia-Africa conferences – are amplifying a collective Global South voice in global AI debates.

Charting a Sovereign Path Forward

The AI divide is not preordained; it will be shaped by choices made today. A sovereign path means aligning AI with national and regional priorities rather than importing technologies and rules wholesale. By embedding ethics early, engaging citizens and acting collectively, the Global South can learn from experiences of early adopters and establish new global benchmarks for responsible AI.

Governance should not be seen as a brake on innovation but as its foundation. Countries that provide clarity, accountability and trust will attract investment, talent and adoption, creating high-trust, low-risk ecosystems. Africa's emphasis on community rights or Latin America's focus on constitutional protections are not just regional strategies – they could evolve into global reference points.

Reframing second-mover adoption as a strategic advantage flips the narrative: the Global South is not simply catching up but charting its own path. With deliberate choices today, it can shape AI around equity, sustainability and resilience – ensuring technology drives shared prosperity rather than deepening dependency.

Chapter 5: A New Path Forward: Bridging the Global AI Divide

Reframing the Divide: Key Lessons and Takeaways

This report began with a simple but profound observation: the global AI divide is not inevitable. It reflects choices – about people, infrastructure, data, sustainability and governance.

Chapters 1 through 4 have shown that later adoption can be a strategic advantage; that infrastructure and data gaps are solvable; that sustainability can be built in from the outset; and that sovereign, agile governance builds trust. Together, these lessons point to a forward path – one that is usable for decision makers and hopeful for the communities who stand to gain most.

The AI divide is not a single gap but a systemic challenge where skills, connectivity, compute, language representation, governance and sustainability are tightly intertwined. Progress in one area accelerates the others, while weakness in one can hold all back. The lesson is clear: these elements must be managed as a portfolio, with shared goals and common metrics, and transparent measurement tools. By incorporating resources such as the Global Index on Responsible AI,[115] governments can track performance, set practical targets and align adoption with local priorities while signaling credibility and leadership on the world stage.

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Three priorities stand out.

- **First**, later adoption offers a chance to embed trust and sustainability from the start, avoiding the high costs of retrofitting later.
- **Second**, "the triple divide" of connectivity, cost and compute must be tackled alongside the representational divide in language and culture.
- **Third**, trust itself is a growth strategy. Clear rules, meaningful redress and inclusive participation foster confidence among citizens, investors and innovators alike. Even brain drain can be reframed as brain circulation – if countries create pathways for diaspora talent to strengthen local ecosystems.

These insights reinforce one another. Skills make infrastructure and data productive; sustainability lowers long-run costs and builds resilience; and sovereign, agile governance reduces risk while signaling investability. Taken together, they create a flywheel effect – from literacy to adoption, adoption to productivity, and productivity to stronger institutions and renewed investment.

Crucially, this analysis shows that the Global South is not condemned to lag behind in the AI era. By learning from early adopters' missteps and successes, building on local strengths and embedding governance from the outset, emerging economies can chart a more inclusive, human-centered course. Already, across Africa, Asia and Latin America,

deliberate efforts are underway to redefine AI's trajectory – emphasizing sustainability, equity and local relevance. When African nations collaborate on shared digital infrastructure, or when Latin American countries embed human rights into AI law, they are asserting a sovereign vision of AI that serves their own development goals.

And now, with the rise of agentic AI and autonomous systems, the stakes are even higher. These technologies will not only answer questions but act on behalf of individuals, businesses and governments – making governance, trust and representation more urgent than ever. The message is powerful: the race is not just to innovate, but to innovate wisely.

From Vision to Action: Pathways Aligned with the SDGs

The next step is turning principles into practice. To ensure that AI adoption advances not only growth but also equity and sustainability, we align these recommendations with the UN Sustainable Development Goals (SDGs).[124] The SDGs provide a shared framework for linking AI adoption to inclusion, resilience and sustainability. Anchoring AI strategies in the SDGs ensures that innovation is not just profitable, but purposeful – tied to education, climate action, decent work and stronger institutions.

Building on this shared framework, four interconnected action pathways can help the Global South harness AI responsibly while shaping the trajectory of agentic AI and autonomous systems in ways that serve human development.

Pathway 1: Build inclusive foundations

Reliable connectivity, affordable clean energy, and digital literacy are the rails on which AI runs. Scaling broadband, renewable-powered compute and basic digital education ensures opportunity is broad-based from the start.

Public and private stakeholders should support programs and investments in the following key initiatives:

- **Universal connectivity bundle.** Bulk-procure open RAN/last-mile solutions and community networks, and mandate open-access dark fiber on public builds.
- **Renewable compute hubs.** Colocate regional data centers with solar or wind and battery, and standardize power purchase agreements to de-risk compute investment in emerging economies.
- **Device and access vouchers.** Offer means-tested e-vouchers for low-cost devices and public Wi-Fi, and require accessibility features and local-language user experience (UX).
- **Digital basics curriculum.** Provide national K-12 and technical and vocational education training (TVET) modules on data, privacy, media literacy and practical AI use.
- **Open DPI stack.** Invest in digital public infrastructure (ID, payments, registries, secure messaging) with privacy-by-design to lower barriers for local AI services.

This pathway directly supports Affordable and Clean Energy (SDG 7), Industry, Innovation and Infrastructure (SDG 9) and Quality Education (SDG4).

Pathway 2: Invest in people and talent

From foundational AI literacy in schools to advanced training in areas like machine learning and autonomous systems, people are the true engine of the AI era. Policies should turn brain drain into brain circulation – mobilizing diaspora talent – and ensure women, rural populations and marginalized groups are included. Investing in human capital in this way ensures that citizens can thrive alongside AI, rather than be displaced by it. A more AI-literate populace will drive local innovation, demand responsible AI use and fill the talent pipeline.

Public and private stakeholders should support programs and investments in the following key initiatives:

- **AI literacy at scale.** Offer micro-credential pathways to strengthen AI understanding for different groups and professions (teachers, civil servants, SMEs) delivered via TVETs, libraries and online resources, and recognized in public hiring and promotion of AI literacy.
- **Centers of excellence and apprenticeships.** Fund thematic labs (e.g., agri-AI, health, financial inclusion) tied to 12-month paid industry apprenticeships.
- **Diaspora talent exchange.** Support 6- to 12-week returnships, remote co-supervision of theses, and matched funding for diaspora-led spinouts.
- **Women and rural tech acceleration.** Provide childcare stipends, safe-transport grants and cohort-based bootcamps, and develop inclusive targets for women-led and rural-based AI startups.
- **Scholarships for scarce skills.** Develop scholarships for areas including machine learning engineering, data stewardship, AI ethics, safety evaluation, compute systems, autonomous systems oversight and AI evaluations.

This pathway advances Quality Education (SDG 4), Gender Equality (SDG 5), Decent Work and Economic Growth (SDG 8), as well as Reducing Inequalities (SDG 10).

Pathway 3: Embed green and trusted AI by default

Designing AI systems for efficiency, fairness and trust lowers costs and builds confidence. This includes adopting efficiency-by-design standards, developing privacy-respecting data commons, ensuring local-language representation and giving citizens a voice in shaping the rules. For agentic AI, this also means establishing life cycle governance that safeguards autonomy while ensuring accountability.

Public and private stakeholders should support programs and investments in the following key initiatives:

- **Efficiency-by-design standard.** Establish procurement preference for models with disclosed energy/carbon per inference; caching and distillation encouraged.
- **Privacy-respecting data commons.** Choose sectoral data trusts (health, agriculture, micro, small and medium enterprises (MSME finance)) with fiduciary duties, and audit trails supported by outcomes-based regulation to ensure communities benefit.
- **Local-language program.** Fund data sets, benchmarks and evaluations for under-resourced languages, and require local-language UX in public-facing systems.
- **Participatory rule-making.** Establish citizen juries and worker councils on high-impact deployments, grievance redress processes and algorithmic impact assessments (AIA).

- **Agentic AI life cycle governance.** Provide for the registration of high-autonomy systems, capability evaluations, human-override criteria, incident reporting and post-deployment monitoring.

This pathway advances Responsible Consumption and Production (SDG 12), Climate Action (SDG 13) and Peace, Justice and Strong Institutions (SDG 16).

Pathway 4: Forge global and regional partnerships

No country can close the AI divide alone. South-South collaboration can pool resources and amplify negotiating power, while North-South cooperation can enable fair technology transfer and co-innovation. Multilateral efforts should prioritize capacity building in areas such as autonomous systems oversight and agentic AI safety.

Public and private stakeholders should support programs and investments in the following key initiatives:

- **South–South compute compact.** Establish shared GPU clusters, burst credits and federated training across regions, alongside reciprocal and interoperable data-sovereignty safeguards.
- **Standards and safety coalition.** Advance joint positions on evaluations for agentic AI, open benchmarks and cross-border incident response playbooks.
- **Tech-transfer and co-IP deals.** Adopt public-private agreements for model adaptation, tooling and semiconductor packaging/repair with fair IP terms.
- **Regulatory twinning.** Pair regulators for code sharing on sandboxes, audits and algorithmic procurement frameworks.
- **Multilateral capacity facilities.** Provide dedicated funds for autonomous systems oversight, audit labs and emergency response to AI incidents.

This pathway supports Partnerships for the Goals (SDG 17).

Reframing second-mover adoption as a strategic advantage flips the narrative: the Global South is not simply catching up but charting its own path.

Closing Note

The AI divide is not destiny – it is a choice. With intentional action, it can become a sovereign path where AI serves local priorities, strengthens equity and advances global sustainability. Bridging this divide is not only about technology; it is about unlocking human potential. It means building skills that are widely shared, infrastructure that is green and affordable, data that reflects local realities and governance that earns trust.

If governments and business leaders in the Global South act now – with vision, partnerships and purpose – they can turn constraint into capability. They can transform later adoption into strategic advantage and position their countries not as followers but as co-creators of the agentic AI era.

By choosing wisely today, the AI divide can become a bridge – one that carries us all toward a fairer, greener and more sustainable future. The call to action is clear: empower the many, not the few; shape autonomous systems for inclusion, not exclusion; and ensure that AI serves humanity, not the other way around.

The opportunity is historic. If we walk this path, the Global South will not only bridge a divide – it will lead a global transition toward AI that delivers dignity, sustainability and opportunity for all.

Learn More

Read about SAS technology and our focus on **responsible innovation with AI**.

Explore the work of the **Global Center on AI Governance**.

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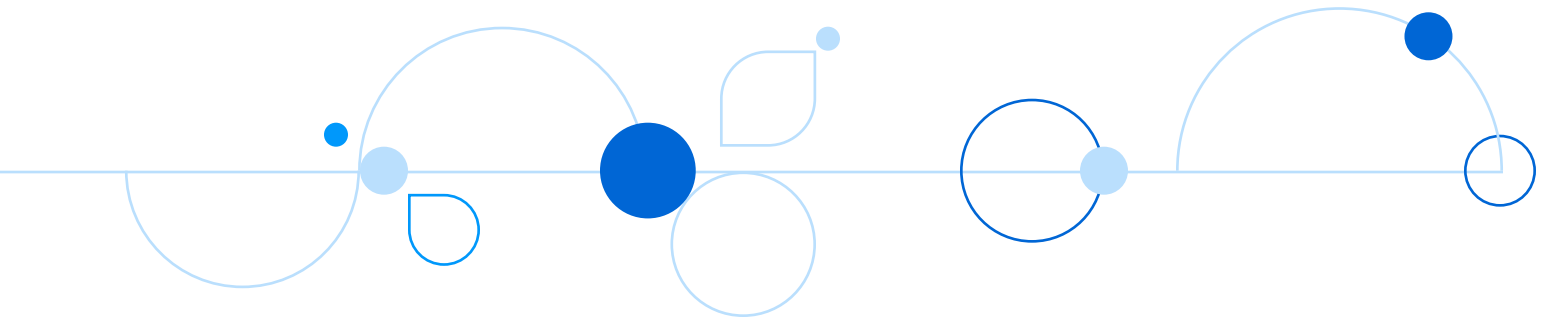

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