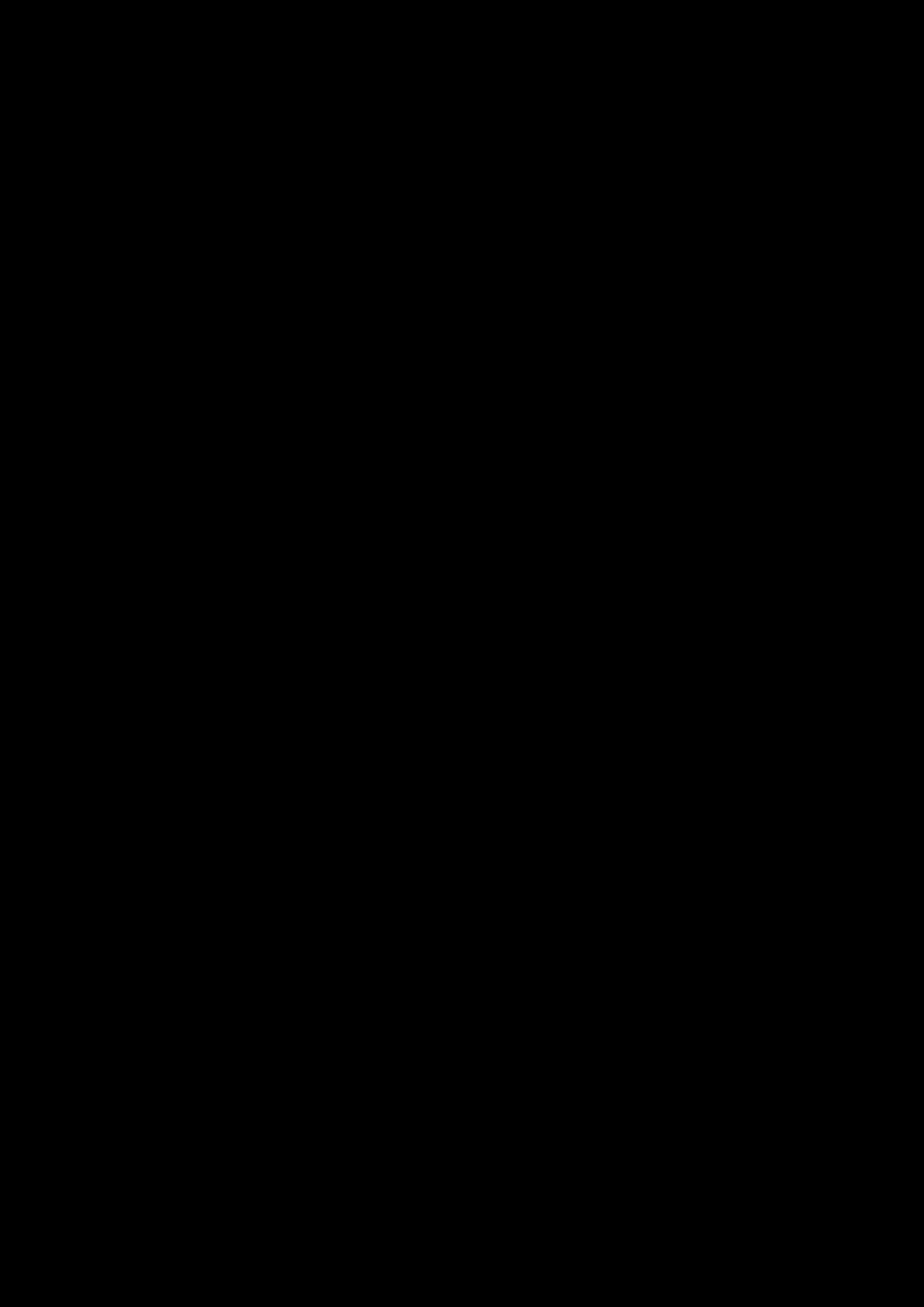


Africa as the Global Keel:
Artificial Intelligence and
the African Dream in the
Twenty-First Century

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ESSAY SERIES: 002





Keel:

The structure beneath a ship's hull,
largely unseen, that stabilizes the vessel
when winds shift and waters grow rough.

ESSAY SERIES: 002

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PEACE

JUSTICE

i

Travelling without maps

There are moments in history when a certain technological breakthrough bends the trajectory of societies and forces rapid adaptation. There are rarer moments when two such forces gather at once – when independent transformations collide and reconfigure the ground beneath us. We are living through such a moment now. On the one hand, artificial intelligence is emerging as a revolutionary force, reshaping economies, reorganizing knowledge, and unsettling established hierarchies of power. On the other, Africa is entering a decisive century: the world’s youngest continent, urbanizing at extraordinary speed and assuming a rightfully growing geopolitical weight. Each of these transformations would be consequential in isolation. Together, they create a moment of unprecedented magnitude.

It’s easy to imagine how this convergence could go badly. Machine learning frontier models are being

developed within concentrated centers of capital, compute, and research power. The infrastructure is costly, the pace relentless, and the geopolitical context increasingly adversarial. In the United States, the approach is largely closed-source, aimed at controlling innovation and capturing value as it is exported globally; in China, the emphasis appears more open-source, with a focus on controlling applications and deployment. In this intensified race for innovation, technological leaps tend to reinforce existing advantage.¹

The script seems familiar: a powerful new system emerges, and those already most capable of asserting their dominance consolidate their position. Africa, once again, is not obviously well positioned, and suffers from gaps across multiple domains that could perpetuate existing disadvantages. Yet history, and perhaps this historical moment in particular, also offers another possibility: massive upheaval can loosen hierarchies as well as entrench them. Industrial and technological revolutions have sometimes opened space for unexpected actors to reshape emerging orders by introducing new dynamics between incumbents. And where old maps become unreliable, new routes can be charted. In other words, the convergence before us isn't just a source of risk; it may also be a source of renewal – the chance for something different, perhaps even something deeply transformative, to take shape.

At its heart lies a simple but consequential question: Will artificial intelligence intensify Africa's dependency – or amplify its capacity to shape its own future?

While we could try to imagine the future simply by extrapolating current trends, possible futures could be highly discontinuous. We stand at the beginning of a voyage for which we lack reliable maps. Historical precedents offer analogies, forecasts offer projections, metaphors offer orientation, but none can offer certainty about what will emerge from the collision of a revolutionary technology and a complex rising continent. In truth, we don't yet know the answer, and the answer will, in fact, depend on specific choices as much as technological determinisms. The direction of travel isn't fixed and there may be many different paths based on imminent decisions and options. Choices made now – by governments, institutions, companies, and citizens – will determine how we navigate the waters ahead.

♦ ♦ ♦

**It came one day at the dead of night,
 Destroying the cement walls,
 And carried away the fowls,
 The cooking-pots and the ladles,
 The sea eats the land at home...**

– Kofi Awoonor

One thing is certain as we embark: the waters will be exceedingly troubled.

Machine learning isn't an incremental technology. Even if its trajectory ultimately plateaus short of eschatological visions of artificial general intelligence, it remains revolutionary in any meaningful sense of the term. It isn't simply another digital tool; it is a system-level technology – a general-purpose technology – that is, one that doesn't merely create an industry unto itself, but alters the conditions under which other systems operate. AI reshapes the production of knowledge, the organization of labor, the architecture of governance, the conduct of conflict, and so on. It doesn't merely add efficiency; it changes the rules of the game. Nor does it act alone. It accelerates and magnifies other transformative domains broadly called exponential technologies – from biotechnology to robotics and

advanced materials – compressing feedback loops and shortening innovation cycles. Even in its most conservative trajectory, artificial intelligence will redistribute economic and strategic power in ways that are already difficult to reverse.

The turbulence we face, however, isn't simply technological. AI arrives at a moment of pronounced geopolitical and institutional fragility. The liberal international order that shaped the late twentieth and early twenty-first centuries – for all its imperfections – rested on a degree of institutional coordination, rule-bound trade, and multilateral engagement. That Bretton Woods world order we often refer to from post-World War II is visibly imploding. Geopolitical rivalry has intensified. Export controls and industrial policy have returned as primary instruments of statecraft. Supply chains are being reorganized around political alignment rather than just cost and quality. Institutions once assumed to provide guardrails are weakened, bypassed, or openly contested. A new world order is taking shape, and deciding how to navigate this ocean of complex choices and new possibilities is in large part connected to how artificial intelligence will serve as a central part of the mix.

What is unfolding isn't simply a series of policy adjustments but a systemic transition. The era of relatively frictionless global integration is giving way



Hello Tractor is a Nigerian on-demand tractor rental company that connects small-holder farmers with tractor owners via a mobile platform, enabling access to mechanization. The platform uses machine learning for demand forecasting, fleet optimization, pricing, and maintenance scheduling to maximize tractor availability and improve farmer outcomes. It boosts productivity, reduces time to planting and field readiness, and unlocks scalable data-driven farm mechanization across communities.

On a misty morning in rural Nigeria, Aisha opens the Hello Tractor app and watches AI suggest the best time to book a tractor based on weather, field status, and nearby availability. A machine arrives on schedule, guided by predictive maintenance systems that keep downtime low and costs manageable. The fields are plowed and ridges formed as planned, allowing Aisha to begin planting sooner and with less guesswork. Across the community, farmers gain steadier access to mechanization, while data from each plot helps build a smarter, more productive cooperative.

to a more fragmented landscape defined by technonationalism and bloc formation. States increasingly view technological capacity not as a shared platform but as a core element and way of expressing their sovereignty. Semiconductor production, advanced compute, and AI research are treated as strategic assets. Subsidy races and industrial policies signal a world in which advantage is deliberately engineered rather than competitively earned. The language of “friend-shoring” and “de-risking” reflects a shift from universal access to selective alignment.

Artificial intelligence sits at the center of this transition. It is the connective tissue binding together economic competitiveness, military capability, and informational control. Access to advanced semiconductors, large-scale compute, and frontier models is increasingly shaped by geopolitical alignment rather than universal norms. Diffusion is selective, and integration is conditional. The promise of seamless technological globalization has given way to a more contested terrain in which ecosystems align with power blocs.

The fusion of technology and geopolitics produces a distinctive danger: ecosystem lock-in. AI systems don’t exist in isolation but rather are embedded within integrated stacks – cloud infrastructure, data governance regimes, regulatory assumptions, cybersecurity standards, and often implicit political commitments.

Adopting a system is more than a procurement decision; it is a commitment to a broader architecture. Over time, interoperability standards, training pipelines, procurement habits, and institutional routines harden into structural alignment. The risk isn’t only exclusion from advanced systems, but enclosure within them.

Many of these ecosystems are organized around a handful of global technology platforms. U.S.-based firms such as Anthropic, OpenAI, Meta, Google, and Amazon, along with their counterparts in China, increasingly function as infrastructural actors in their own right, controlling the cloud platforms, training datasets, and computational resources upon which modern AI systems depend. Their services offer significant capabilities to governments, researchers, and start-ups across the world. Yet this concentration also raises familiar questions about value extraction and technological dependency. If data generated in African societies is processed elsewhere, used to train proprietary models, and returned as paid services, the pattern risks echoing earlier economic arrangements

in which raw materials flowed outward while value accumulated elsewhere. Whether artificial intelligence ultimately reinforces such dynamics – or enables new forms of technological participation – remains an open question.

In practice, enclosure within technological ecosystems rarely announces itself in any official way. It accumulates incrementally. A government agency adopts a foreign cloud provider because it is cost-effective. Universities train students on proprietary platforms because they are widely available. Start-ups build applications atop dominant APIs because they offer scale. Over time, switching costs rise. Standards become sticky. Domestic innovation orbits external infrastructures. What began as pragmatic integration evolves into structural dependency. In a world of competing technological blocs, such dependency can constrain not only economic options but diplomatic maneuverability.

Machine learning technologies escalate this dynamic because they are horizontal rather than sectoral. They are rapidly penetrating public administration, financial systems, education, media, healthcare, agriculture, logistics, and security. Early decisions about standards and interoperability can shape institutional architecture for a generation. Unlike earlier waves of digital innovation, AI operates at the level of cognition



and coordination. It's infrastructural in a deeper sense. Once embedded, it becomes difficult (perhaps impossible) to disentangle without systemic disruption.

Against this backdrop, Africa enters the storm without control over the frontier. The continent doesn't dominate semiconductor supply chains. Sovereign compute capacity remains limited, and large-scale data centers are unevenly distributed. A recent UNDP analysis suggests that only around five percent of Africa's AI talent currently has access to the computational resources it needs, a gap that dramatically slows experimentation and model development. Fiscal constraints narrow the scope for massive state-led AI investment, while regulatory coordination across fifty-four states is inherently complex. Skilled engineers and researchers are globally mobile, and the gravitational pull of established AI hubs remains strong. At first glance, this combination suggests exposure without leverage – participation without control – particularly in a world increasingly defined by competing technological blocs.

Given the speed of AI development and the fracturing geopolitical context, such concerns are grounded in observable dynamics rather than abstract fear. The sea is indeed angry. Yet exposure and leverage aren't always opposites, and Africa's apparent vulnerability may, in fact, conceal a crucial strategic opportunity.²

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The keel

In heavy seas, what matters most is the integrity of the keel. The keel sits below the surface, largely unseen, stabilizing the vessel when winds shift and waters grow rough. It doesn't shout its presence; it exerts influence through weight. In turbulent conditions, the deeper and more substantial the keel, the less likely the ship is to capsize.

If the global order is entering a period of technological and geopolitical turbulence, as seems to be the case, the question isn't just who commands the loudest platforms or the most advanced laboratories, but who possesses structural weight. Africa's position in this century may resemble that of a keel: submerged rather than dominant, yet exerting influence through scale, depth, and endurance.

The most obvious source of such weight is demographic. Africa is the world's youngest continent, with a median age of roughly nineteen, compared with thirty-nine in China and the U.S., and in the forties in Europe and Japan. Its population is projected to approach 2.5 billion by mid-century – more than one quarter of humanity – and it's expected to account for a growing share of the world's working-age population. Furthermore, its urbanization is proceeding at extraor-

dinary speed. Africa's urban population is projected to grow from roughly 700 million today to around 1.4 billion by 2050, meaning that much of the continent's demographic expansion will unfold in cities. These rapidly growing urban environments are becoming centers of consumption, experimentation, and innovation.

Demography is, of course, not destiny, but it does create tidal pull. Markets of that scale can't and won't be ignored. Labor pools of that magnitude shape global production. A youthful population tends, moreover, to orient itself toward the future rather than the past. As scholars such as Ivan Krastev and Arjun Appadurai have observed, demography often underpins collective mood: whereas aging societies or shrinking populations look backward and in fear, youthful and growing ones are inclined toward optimism and risk-taking.³ In a century defined by technological flux, such forward orientation is not trivial. Survey evidence reinforces this picture. According to a 2025 study by the Pew Research Center, public attitudes toward artificial intelligence in countries such as Kenya, Nigeria, and South Africa are, on average, more positive than in the United States or parts of Europe. This relative openness may prove consequential: societies that approach new technologies with curiosity rather than apprehension are often better positioned to experiment, adapt, and deploy them at scale.

Scale alone, however, isn't the whole story. Africa's diversity constitutes a second layer of structural depth. Biogeographically, Africa contains wildly contrasting climatic zones, agricultural systems, and biodiversity hotspots. From arid deserts to equatorial rainforests, from coastal megacities to highland plateaus, Africa's ecological and environmental range is immense. In an AI-enabled century increasingly shaped by questions of climate adaptation, resource management, food security, and energy transition, such diversity isn't ornamental but system-relevant – and could represent a game-changing reality: mastering its data richness gives Africa an opportunity it has not always been able to leverage in previous industrial and technological revolutions.

Even more diverse are Africa's cultures, languages, and politics. The continent encompasses fifty-four states and thousands of linguistic communities. Variation generates this data richness, just as environmental heterogeneity creates demand for locally adapted solutions. A continent accustomed to navigating the stack of its multiplicity may be better positioned to operate in a world of competing and geopolitically tainted technological stacks than regions accustomed to relative homogeneity. To make the most of this opportunity, observed Gideon Orovwiroro at the 2025 Africa Tech Summit, "Africa needs fewer walls and more rails."



Ethiopia-based Gebeya Dala has grown at lightning speed, reaching 85,000 users in just four months since its launch. Like many AI startups, Dala relies on existing foundational models. However, it has added a unique twist through an “orchestrator” – a system layer that routes user prompts to the most suitable underlying AI model. While Dala currently routes prompts across existing foundational models, the bigger ambition is to develop a context-specific language model of its own.

Stepping away from the intense highland sun, Tesfaye enters a Gebeya Dala collaborative studio in Addis Ababa, where data scientists, designers, and small-business owners co-create AI solutions. They’re prototyping an AI-powered retail assistant that speaks Amharic, Oromo, and Tigrinya, reads receipts, forecasts demand, and sends restock alerts to suppliers. Running on low-cost devices in market stalls, the system helps traders keep shelves stocked while reducing waste. Gebeya Dala’s approach – local talent solving local problems with global standards – reflects the emergence of a thriving African AI ecosystem.

92 Diversity also inherently confers a certain form of institutional resilience. Political systems across Africa vary widely, as do regulatory approaches and governance traditions, combining borrowed colonial protocols with truly original and sometimes ancestral and indigenous practices. This plurality can complicate coordination, but it also creates an immensely vibrant laboratory of variation. Technologies deployed across diverse contexts are stress-tested in ways that uniform environments rarely achieve. In a multi-polar technological order, the capacity to engage with difference – rather than assume standardization – becomes an asset when combined with well-directed talent and leadership.

This form of resilience deserves to be understood more precisely. Africa’s diversity creates alternatives, fallbacks, and creative possibilities. Monocultures may be efficient, but they are far less resilient. In a system where every unit is identical—whether it is a field of genetically uniform corn or a team with the same background—one specific pathogen, economic shift, or flawed assumption can destabilize the entire structure simultaneously. There is no internal hedge against catastrophe. Diversity of the sort Africa embodies, by contrast, functions as a biological and intellectual insurance policy. By incorporating varied traits, perspectives, and strategies, the system ensures that a single threat cannot find a universal foothold.

While one component may succumb to a specific stressor, others possess the inherent attributes to endure, adapt, and maintain core functions. This functional redundancy prevents systemic collapse. Ultimately, variety creates a “portfolio effect.” It replaces rigid vulnerability with a flexible, decentralized strength that transforms external shocks into manageable setbacks rather than terminal events. Stability is not found in uniformity, but in the breadth of response options. And in a world of extremely rapid change, like the one that is rushing up at us, such resilience may be more valuable than anything else.

Beyond civilizational dynamism, Africa possesses sources of leverage more directly linked to the technological domain. Ironically, one of these is the relative absence of deeply entrenched technological infrastructure in many rural and remote areas that are yet to be fully connected. While this may initially appear as a structural deficiency, it also implies fewer sunk costs and less institutional lock-in. States and institutions not yet fully embedded within mature AI stacks retain a surprising



degree of flexibility if identified and treated correctly. They can observe, adapt, and adopt with what one might call greater technological discernment. Indeed, in major technological transitions, second movers aren't always disadvantaged; they can learn from early experiments, avoid costly missteps, and design with foresight rather than the inertia of past choices and capital investments.⁴

Scale of deployment constitutes another potential advantage. The rapid adoption of mobile technologies across the continent demonstrated that large, growing markets can become sites of accelerated innovation rather than passive consumption. Urban growth corridors and expanding digital ecosystems create opportunities for AI applications to be deployed at meaningful scale. As continental integration initiatives deepen economic connectivity, the possibility of coordinated digital markets increases. Technologies refined in such environments don't remain peripheral; they shape standards and expectations. This could be a phenomenal boon for the continent, as it could almost double its aggregated GDP purely by integrating more of the informal sector into the formal economy. This is a reservoir of opportunity largely absent in the United States and Europe.

Finally, Africa's role in supplying strategic inputs to the twenty-first-century economy cannot be overlooked. Critical minerals essential for batteries,

electronics, and renewable infrastructure are disproportionately located on the continent – the Democratic Republic of Congo alone accounts for more than seventy percent of global cobalt supply, a key component in modern batteries and energy systems. Energy potential – particularly solar – is vast. Machine learning, as an energy-intensive technology dependent on advanced hardware, does not float free of material constraints. The infrastructures that sustain it rely on physical inputs. Over time, control over such inputs can translate into bargaining power, particularly in a world where supply chains are being reassessed through strategic lenses.⁵

None of these factors taken individually guarantee influence. Demography can strain institutions as well as empower them. Diversity can fragment as well as enrich. Resources can be mismanaged as easily as leveraged. Yet taken together, they amount to ballast – structural weight that deepens over time. While these factors have historically been sources of extraction and conflict, there may now be opportunities to renegotiate their value, as the combination of resources African nations present has become more complex and harder to appropriate. It is no longer just classically mineable resources, but also data, youth, culture, ecology, and imagination. Future leaders in African societies will need to engage with this evolving landscape of value.

Over the course of this century, Africa’s structural weight will increase. Its demographic mass will deepen, its markets will expand, and its relevance to energy and resource transitions will grow. In turbulent waters, ballast matters. Yet ballast alone doesn’t determine direction. A keel can steady a vessel, but it can’t choose its course. The question, therefore, isn’t just whether Africa’s weight will increase, but whether that weight will be deliberately translated into influence.

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From ballast to movement

Ballast stabilizes but is distinct from steering. Structural weight may prevent capsizing in turbulent waters, yet avoiding mere drift requires clear vision and deliberate direction-setting. The history of states navigating unstable environments suggests that agency emerges not from imitation, but from building strategically upon one’s specific affordances. This is a fundamental insight for understanding how African futures might seize the opportunity of the moment.

Israel offers a useful illustration. A small state with limited natural resources and a population of under ten million, it has nonetheless become one of



FarmDrive is a Kenya-based credit-scoring app for small-holder farmers who lack formal financial histories, enabling access to affordable credit and insurance. It combines alternative data - including mobile usage, agronomic data, weather patterns, and input purchases - with machine learning to predict creditworthiness and risk. This creates new financing pathways for smallholders, helping them invest in better seeds, inputs, and practices that can increase yields and resilience.

In the Rift Valley of Kenya, Amina has never had formal credit. FarmDrive draws on her mobile usage, weather forecasts, input purchases, and farm performance to generate a credit profile that lenders can trust. A local bank approves a loan to buy fertilizer and drought-tolerant seed, and the funds arrive in time for planting season. The AI continues to monitor repayment and crop performance, helping Amina grow her plot and improve her family's prospects. With finance unlocked, she can invest in better inputs, diversify her crops, and weather lean years with greater resilience.

the world's leading innovation ecosystems. It invests more than 5 percent of its GDP in research and development – among the highest rates globally – and has one of the largest concentrations of start-ups per capita in the world. It didn't attempt to rival superpowers in scale. Instead, it leveraged human capital, defense research, diaspora networks, and strategic necessity to carve out disproportionate influence in cybersecurity, artificial intelligence, and high-tech entrepreneurship. The point isn't that Africa should replicate Israel's model. Its structural position is entirely different. The lesson is that structural characteristics can be translated into agency when strategy aligns with underlying affordances.⁶

For Africa, one such strategic orientation lies in poly-alignment. In a world increasingly defined by technological blocs and ecosystem competition, enclosure within a single stack carries long-term risks. Africa's demographic heft and rapidly expanding working-age population confer market gravity. The African Continental Free Trade Area, encompassing fifty-four states, represents the largest free trade area in the world by number of participating countries. These factors, combined with the continent's role in supplying critical inputs to the twenty-first-century economy – including a substantial share of global cobalt production and significant reserves of lithium and other strategic minerals – provide bargaining leverage.⁷

Poly-alignment doesn't imply opportunistic hedging; it means maintaining room for maneuver. By engaging multiple technological ecosystems without premature enclosure, African states can preserve strategic flexibility, extract concessions and avoid structural dependency.⁸

A second strategic orientation builds upon the diversity we have discussed. Africa's linguistic plurality – with more than two thousand languages spoken across the continent – and its ecological heterogeneity present challenges, but also opportunities. Global AI systems have already demonstrated biases rooted in the datasets on which they were trained, often underrepresenting non-Western languages and contexts. Investment in local datasets, multilingual AI systems, and context-sensitive governance frameworks isn't just a cultural project; it's a strategic one. In a multi-polar technological order, epistemic sovereignty matters profoundly. Designing AI systems that reflect local realities reduces vulnerability to external normative assumptions and enhances resilience. Diversity, in this sense, becomes not fragmentation, but adaptive capacity.

A third orientation concerns the locus of competition. Frontier model development is capital-intensive, compute-intensive, and geographically concentrated. Attempting to replicate the research ecosystems of Silicon Valley or Shenzhen would likely misallocate scarce resources. Yet the societal impact of artificial intelligence will depend not only on who trains the largest models, but also on how systems are deployed, adapted, and embedded in real-world environments. Here, Africa's structural characteristics again matter.⁹ With the youngest population of any continent, Africa's youth promises digital fluency, entrepreneurial experimentation, and openness to technological adoption. In rapidly urbanizing contexts, where cities are expanding as centers of consumption and innovation, application-layer development and deployment can proceed at scale. Strategic emphasis on implementation – in public services, agriculture, logistics, education, and health systems – can generate locally relevant innovation while shaping standards from the ground up.¹⁰

A fourth orientation concerns how such capabilities are built in practice. One emerging view rejects the idea that Africa's AI ecosystems will be constructed through a small number of large players, incubators, or venture-backed “super-startups” in the mold of Silicon Valley. Instead, capability may emerge through the gradual accumulation of smaller, grounded

enterprises – businesses that apply AI to real local problems, build viable operations, and incrementally expand their capacity. These actors might be understood as “micro-scalers”: firms that do not pursue scale through rapid capital expansion, but through steady deployment, adaptation, and replication across diverse contexts. The aim is not to chase scale from the outset, but to create a dense fabric of practical innovation – companies with five or ten employees, solving concrete challenges, and steadily upgrading the productive base of the economy. As this layer thickens, it can begin to formalize economic activity, generate demand, and support more advanced capabilities. Over time, such a process could produce a “tissue of innovators” – a distributed ecosystem capable of sustaining technological development from within. In this model, scale is not imposed from above, but emerges from below, creating the conditions under which more complex, capital-intensive forms of AI development can take root.

None of these orientations is exhaustive. Savvy leadership at all levels, as well as education reform, capital formation, regulatory innovation, and institutional capacity, will all be essential. The point isn't to prescribe a comprehensive doctrine, but to illustrate how structural ballast can be converted into movement. Demographic scale can underpin bargaining power. Youth can accelerate deployment. Diversity can

strengthen contextual adaptation. Resource relevance can reinforce strategic autonomy. When such elements are aligned with deliberate strategy, structural weight begins to translate into direction.

What is needed above all, as a collective of researchers at Kwame Nkrumah University of Science and Technology have pointed out, is a design philosophy prioritizing local relevance, cultural specificity, and direct engagement with regional issues.¹¹ If this alignment is achieved, the implications extend beyond incremental adjustment. A continent that successfully ties its ballast to a wise strategy may navigate through the turbulent waters to a glorious destination. The opportunity, then, is not only to participate in the emerging AI order, but to reshape the terms on which it unfolds.

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V

Building the engine room

Strategy alone, however, does not move a ship. Beneath the visible structure of sails and rudder lies the engine room – the machinery that determines whether the vessel actually moves when the helm is turned. In the age of artificial intelligence, the equivalent machinery consists of technical architectures: where data is stored,



how models are trained, who owns the infrastructure, and where value ultimately accumulates. If Africa's technological future is to be shaped on its own terms, these foundations will matter as much as any geopolitical strategy.

The first and most consequential architectural choice concerns where computation happens. The presently dominant model of AI development requires data to travel – from the point of generation to centralized servers, primarily located in the Global North, where it is processed, used to train models, and monetized. This is structurally extractive in precisely the way colonial commodity chains were extractive: raw material leaves, value is added elsewhere, and a processed product returns at a premium. By contrast, federated and distributed learning architectures encode a different political economy. Models improve through local training – on devices or servers within communities – without raw data ever leaving its source. A network of clinics across the continent can collectively train a diagnostic model without any patient record crossing a border or entering a foreign cloud. The data stays. The value circulates internally. The architecture itself represents a political statement.

Africa's infrastructural realities sharpen this imperative. Connectivity remains intermittent across large portions of the continent. Data costs are high

relative to income. Devices are older and power is unreliable. These are design parameters that should shape Africa-optimized AI systems from the outset. Edge AI – processing at the point of data generation – delivers genuine capability: lightweight models running on affordable smartphones, diagnosing crop disease or supporting community health workers entirely offline. Techniques such as model quantization, knowledge distillation, and sparse architectures can compress AI systems dramatically without sacrificing meaningful performance. Engineering for African infrastructure conditions produces systems that work for the people they are meant to serve. That is a measure of technical ambition worth pursuing.

Language is equally foundational. When AI systems function best in English, French, or Chinese, they structurally exclude the knowledge systems, conceptual categories, and lived realities of the communities that other languages carry. Africa's approximately two thousand languages represent an enormous, largely unmobilized source of cognitive and cultural wealth. Community-driven initiatives such as Masakhane have demonstrated that African language AI is buildable – through participatory dataset curation, cross-lingual transfer learning, and speech-first architectures designed for oral language communities. The goal should be for African languages to shape model

cognition from within, rather than being appended as translation layers over systems that reason in someone else's categories.

Ownership structures determine whether any of this creates lasting value. Data cooperatives – in which farming communities, patient groups, or urban neighborhoods collectively own and govern their data – can transform communities from passive sources into active stakeholders with the legal and technical means to retain benefit. On-device processing and privacy-preserving techniques such as differential privacy and secure multiparty computation provide mathematical guarantees that individuals and communities cannot be exposed or exploited through the systems they contribute to. These governance architectures sit alongside the technical ones, and they are inseparable from them. A federated learning system governed by a foreign corporation is still an extraction mechanism. The ownership layer matters as much as the deployment layer.

These architectural choices also point toward a broader possibility: the emergence of a post-extractive model of AI development. For much of its history, Africa has been positioned as a site of extraction – of labor, of resources, and potentially now of data. In the current paradigm, data generated in African contexts risks being captured, processed elsewhere, and reintegrated as external services. An alternative trajectory would

position the continent not merely as a source of raw data, but as an active participant in shaping how that data is used and valued. In this sense, Africa could be understood as a distributed “data factory” – not in the sense of centralized industrial processing, but as a network of locally generated, context-rich data streams that influence the development of AI systems at multiple levels.

Realizing such a model depends not only on technical architecture, but on legal and institutional design. African regulatory traditions may offer an advantage in this regard. Approaches that emphasize data protection, consent, and public interest – however imperfect in implementation – provide a foundation for alternative data economies that differ from both American platform capitalism and more centralized state-led models. If developed deliberately, such frameworks could enable forms of AI innovation that retain value locally, support new business models, and align more closely with social needs. In this sense, post-extractive AI is not only a technical proposition, but a legal and economic one – an instance of what might be called appropriate technology for the AI century.

Taken together, these directions begin to limn a coherent “Africa stack”: nationally or regionally owned compute infrastructure at the foundation; community data trusts governing what enters the pipeline;

38 multilingual, context-aware models trained with African realities at their core; edge-capable deployment optimized for the devices and connectivity patterns that characterize most of the continent; legal and regulatory frameworks that define how data is accessed, governed, and valued; and cooperative ownership structures ensuring that economic value accumulates where the data and the need originate. Initiatives such as Johannesburg-based Lelapa AI, Tunisian startup InstaDeep, and the annual Deep Learning Indaba conference demonstrate that the Africa stack is being assembled – by African engineers, researchers, and entrepreneurs who understand that the most important architectural decision is the one that determines who controls the system at every layer.

The civilizational repositioning argued for in the chapters that follow requires this kind of technical grounding. Grand strategic ambition without technical self-determination risks reproducing the dependencies it seeks to escape. Building the ship differently means making different choices in the blueprint – before the currents take hold.

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VI

A civilizational repositioning

39 If such technical foundations begin to take shape, the implications will extend far beyond infrastructure or innovation policy. The architectures that underpin artificial intelligence inevitably shape the distribution of economic power, institutional capability, and geopolitical influence. For Africa, the question is therefore not simply how technical systems are implemented, but how the continent positions itself within the emerging technological order.

Africa has navigated technological transitions before – and not merely passively. The rapid expansion of mobile telephony across the continent remains a defining example. At the turn of the century, fixed-line infrastructure was sparse and uneven. Yet by bypassing landline systems and moving directly to mobile networks, Africa achieved one of the fastest adoption rates in the world. Mobile subscriptions grew from fewer than 20 million in the year 2000 to well over a billion today, according to the World Bank. In Kenya, M-Pesa enabled digital financial inclusion for a majority of adults without requiring traditional banking infrastructure. Today Africa accounts for roughly seventy percent of the world's mobile money



transactions, demonstrating how locally adapted digital systems can scale rapidly across the continent.

This transformation didn't occur because Africa led the frontier of telecommunications research. It occurred because structural conditions – a relative absence of legacy systems, a large unbanked population, rapid urbanization, and entrepreneurial adaptation – created space for deployment at scale. Simple handsets, prepaid models, and distributed agent networks proved sufficient. The achievement wasn't technological supremacy, but strategic adaptation. By focusing on deployment rather than invention, African societies reshaped a sector.

The present moment, however, differs in kind. Machine learning doesn't just add another layer of connectivity; it reorganizes the architecture within which modern societies function. It alters how knowledge is generated, how bureaucracies operate, how supply chains are coordinated, and how strategic decisions are made. Mobile technology transformed communication. AI transforms cognition and coordination themselves.

This difference carries geopolitical weight. Artificial intelligence sits at the intersection of productivity, military capability, industrial competitiveness, and informational control. It shapes not only markets, but hierarchies of power. Regions that influence how



Ghana-based mPharma is a pharmaceutical supply chain app that manages drug inventories for health facilities and pharmacies, helping to reduce stockouts and counterfeit medicine. It applies data analytics and forecasting to optimize stock levels, logistics, and supplier timing across networks, thereby improving medicine availability at the point of care, enhancing patient outcomes, and creating more efficient and transparent health supply chains across multiple countries.

At a district hospital in Kumasi, Kwesi relies on mPharma's AI-enabled supply chain to keep medicines available. The system analyzes consumption patterns, expiry dates, and distributor lead times to forecast stockouts days before they occur, while also flagging counterfeit medicines and optimizing orders. A replenishment is placed automatically, and medicines arrive just in time for patient care. When a feverish child visits the clinic, the correct antibiotic is on the shelf, not back-ordered, and nurses can treat more patients with confidence. The community benefits from fewer stockouts, lower waste, and faster, more reliable care.

AI systems are governed, standardized, and deployed affect the rules under which others operate. In a world already moving toward bloc formation and strategic rivalry, positioning within the AI landscape is structurally consequential rather than merely peripheral.

AI also compounds in ways earlier digital technologies didn't. It improves through feedback loops, drawing on data generated by its own deployment. It becomes embedded in institutional routines and regulatory frameworks. Over time, such embedding creates path dependence. Early positioning therefore matters acutely. There is a considerable opportunity cost in failing to identify preferred innovation choices. The layer at which AI operates is foundational, and the systems built today will shape the options available tomorrow.

If Africa succeeds in aligning its demographic scale, youthful dynamism, institutional flexibility, and strategic maneuverability with a deliberate AI strategy, the outcome would exceed incremental development. It wouldn't just narrow gaps or increase adoption rates. It could leapfrog the continent's relative position within the technological and geopolitical order. Rather than remaining primarily a downstream adopter of systems designed elsewhere, Africa could become a decisive arena in which AI applications are refined at scale,

governance models are tested, and alternative pathways are demonstrated. In a century in which adaptability, scale, and contextual intelligence may matter as much as frontier research, such positioning would reshape perceptions of where influence resides.

The stakes are correspondingly profound. Because artificial intelligence penetrates the infrastructural core of modern systems, misalignment wouldn't remain confined to a single sector. Dependency at this layer would reverberate through economic policy, institutional autonomy, and geopolitical posture. Conversely, strategic alignment could anchor resilience and amplify voice in ways that exceed traditional measures of power. This is as much an opportunity as a fundamental threat to poorly prepared leaders today. The difference would be measured not in marginal gains, but in the capacity to shape the conditions under which global transformation unfolds.

When technological shifts reach civilizational scale, societies don't just adjust; they redefine their trajectory. If the AI era proves to be such a shift, then Africa's response will shape more than its economic profile. It will shape its place in the twenty-first century

order – whether as terrain upon which others project influence, or as an actor capable of helping to set the terms of the transformation itself. At that point, the question ceases to be merely strategic and becomes generational. As Afrinex founder and CEO Israel Gold says, “The real question is not capacity. It is courage.” And he underscores what such courage entails: “Investing before validation. Thinking in decades, not funding cycles. Choosing sovereignty over convenience. Building protocols, not just products.”¹²

That repositioning is not an abstraction. It is a call to action: Africa’s civilizational shift becomes Africa’s own promise – an ecosystem in which Africans author and own their future, rather than merely participating in it. The African dream(s) then emerges as a plurality of enabled and empowering futures, each voluntarily homegrown and amplified by regional collaboration and global connection. This can serve as a stabilizing orientation in moments of uncertainty – choosing to build from grounded realities rather than attempting to catch up in unfamiliar terrain.

♦ ♦ ♦

Vii

The African dream(s)

**I have spread my dreams under your feet;
Tread softly because you tread on my dreams.**

– W.B. Yeats

Agency changes what a society dares to imagine. When positioning within a global order become credible rather than aspirational, horizons expand. The question is no longer merely how to navigate turbulence, but what destination is worth steering toward.

If Africa succeeds in translating structural ballast into sustained influence within the AI century, it won’t just alter its strategic standing. It will widen the field of possibility. The capacity to shape technological systems – rather than simply absorb them – creates space for articulating broader collective ambitions. As Gideon Orovwiroro, COO of Nigerian fintech firm Kora, says, “Herein lies our position for Africa: It starts first and foremost with the imagination and courage to dream.”¹³ Dreams become plausible when agency becomes tangible.

Nelson Mandela famously said, “I dream of an Africa which is in peace with itself.” This version of an African dream is of great importance as the continent seeks to move beyond persistent conflict and instability.



Lelapa AI develops large language models trained on African languages such as Zulu and Swahili. These models address a major gap in global AI systems, which frequently underrepresent African linguistic data. By building locally grounded models, Lelapa aims to ensure that hundreds of millions of African language speakers can interact with AI systems in their own languages.

As customer experience lead at a South African e-commerce company, Melokuhle needs to make sure orders are captured accurately, and packages are delivered rapidly to remote locations throughout the country. Lelapa's platform supports multilingual transcription that ensures her call center reps properly note African names and places, while also analyzing text to identify important people, places, and brands, and detect emotional tone.

However, simply seeking harmony and peace can't be the whole picture for the current generation. As the African proverb puts it, "Sometimes you have to be a lion to be the lamb you really are." This may be a more fitting guide for channeling the continent's youthful energy and potential toward a more complete and self-determined future.

History suggests that such moments often give rise to new civilizational narratives. The American Dream emerged alongside industrial expansion and continental growth. The contemporary Chinese Dream reflects decades of economic ascent and renewed geopolitical confidence. Earlier waves of post-colonial African thought – from pan-Africanism to Negritude to non-alignment – were animated by the recovery of political sovereignty and dignity after empire. In each case, material shifts preceded narrative articulation. Structural change made new collective self-understandings imaginable.

But it is also crucial to recognize that the naming of these dreams – the American and the Chinese – took place not at the high point of these civilizations, but rather at moments of crisis and doubt. James Truslow Adams coined the term "the American Dream" in 1931, at the depth of the Great Depression, but also as a prelude to what would become the New Deal. Xi Jinping proposed "the Chinese Dream" as a way to justify

a reform process aiming at national rejuvenation under his leadership. Likewise the idea of the African Dream(s) arises now, at a moment of both risk and opportunity for the continent.

The African dream(s) of the twenty-first century will arise under conditions very different from those of the American or Chinese dreams: a youthful continent, a multi-polar geopolitical order, a changing climate, and a technological landscape being reshaped by frontier technologies such as artificial intelligence. It is neither possible nor appropriate for us, as non-Africans, to attempt to define such dreams. They will be articulated by Africa's own technologists, scholars, and artists – in political debate, cultural production, institutional design, and generational imagination.¹⁴ As the Senegalese academic and musician Felwine Sarr argues, Africa should dream on its own terms, drawing from its own traditions.¹⁵ These dreams will draw on Africanfuturism and Afropolitanism, Africanjuism and Afro-surrealism, Ubuntu-humanism, and more. Indeed, it is Africa's structural repositioning that opens these possibilities.

48 In this sense, Africa is not merely a problem to be solved, but, as Tanja Hichert has put it, a source of imagination for the world that remains to be built. Its living traditions of social cohesion, relationality, and communal resilience offer not only local pathways, but potential models for navigating a century in which technological power must be balanced with human connection.

While the African dream(s) can't be defined in advance, certain contours begin to come into view. One such contour is dignity and sovereignty. Not sovereignty understood simply as independence, but as the capacity to shape the systems upon which one depends. In an AI-mediated world, dignity includes epistemic presence – representation in datasets, influence over standards, participation in governance. It includes the ability to adopt, adapt, and regulate technologies without structural coercion. A repositioned Africa won't just seek access to global systems; it will have a voice in determining how those systems connect and grow.

A second contour is multiplicity. Africa isn't a monolith but a mosaic of languages, cultures, and ecological contexts. As Cameroonian philosopher Achille Mbembe has argued for decades, African identities are fluid, characterized by mixing, blending, and superimposing – in this sense, there is a pre-colonial African modernity that has not been fully accounted for in contemporary creativity.¹⁶ The dreams

that emerge from such plurality are unlikely to converge on a single model. Instead, they will reflect diverse technological pathways and governance approaches adapted to local realities. In a global environment often tempted by standardization, multiplicity can itself become a principle – the insistence that technological modernity needn't collapse into uniformity.

A third contour is intergenerational reality. With a median age of approximately nineteen, Africa's demographic profile stretches the horizon forward. Artificial intelligence will shape the institutions and labor markets within which today's youth will spend their lives. A dream rooted in such a context will necessarily be future-facing. It will speak less to restoration than to construction – less to recovering lost stature than to building new forms of participation. In this sense, the dream(s) will be characterized not by nostalgia, but by projection.

These contours aren't prescriptions. They are possibilities that are becoming thinkable as structural conditions shift. Without agency, dreams ring hollow. With agency, they can drive collective action. The articulation of a horizon clarifies destination; it does not guarantee arrival. To glimpse a distant shore doesn't mean one will reach it. The challenge that follows, therefore, isn't simply to imagine the horizon, but to chart a steady course toward it.

♦ ♦ ♦

You cannot carry out fundamental change without a certain amount of madness. It comes from nonconformity, the courage to turn your back on the old formulas, the courage to invent the future.

– Thomas Sankara, 1985

The articulation of a destination is only the beginning of a long voyage. The greater test lies in endurance – in the capacity to sustain direction amid turbulence, distraction, and shifting winds. Civilizational projects aren't realized in moments of enthusiasm, but through decades of institutional patience and strategic steadiness.

The AI century won't unfold in a linear fashion. Technological breakthroughs will alternate with periods of disillusionment. Capital will surge and retreat. Regulatory regimes will tighten and loosen. Geopolitical alignments will shift. In such an environment, the temptation will be to react episodically – to lurch toward whichever model appears ascendant, to abandon long-term commitments in favor of short-term advantage. Yet reactive oscillation rarely produces structural autonomy. It entrenches dependency by tethering strategy to external cycles.





Medical Logistics:
LifeBank

LifeBank is a Nigerian health-tech company created in response to the frequent shortages of blood and medical supplies in African hospitals. LifeBank uses data analytics and AI-driven logistics to predict demand and coordinate the rapid delivery of blood, oxygen, and medical supplies. The platform now serves hospitals across several African countries, helping to save thousands of lives by making medical supply chains smarter and faster.

Every year Dr. David Obonyo used to watch in frustration as his patients at Kisumu Hospital would die because blood, oxygen, vaccines, or other critical medical supplies could not be found on time and in the right condition. Using the Nerve app now allows him to order medical supplies and get a confirmation call within two minutes, which has helped him save the lives of numerous patients, particularly mothers suffering from postpartum hemorrhage, where fast access to blood is the difference between life and death.

53

52 Holding the course requires a different posture. It demands continuity in education and research investment. It requires regulatory confidence – the willingness to shape frameworks rather than merely import them. It calls for coordination across states and institutions capable of thinking beyond electoral cycles and market swings. Above all, it requires clarity of purpose. Without shared orientation, even substantial structural weight can drift.

In this sense, dreams function as organizing principles. They align actors across sectors and generations. They justify patience in moments of uncertainty and discipline in moments of exuberance. Where technological change accelerates, narrative coherence becomes stabilizing. A society that understands what it is trying to build can better decide what to adopt, what to adapt, and what to refuse.

The implications extend beyond the continent itself. Machine learning applications will recast the institutional architecture of the twenty-first century – from economic coordination to security arrangements, from cultural production to scientific discovery. A technologically sovereign and plural Africa contributes not only to its own resilience, but to the diversity and balance of the emerging global order. In a global system where too many actors strive toward monoculture

– whether technological, economic, or ideological – multiplicity becomes a form of stability.

Ultimately, if Africa's rise in the AI century is to matter, it will not be measured solely in patents, compute clusters, or the scale of venture capital flowing through new start-ups. It will also be measured in the kinds of societies these technologies help create. As John Agyekum Kufuor has observed, "Africa's role in this new era is not to catch up, but to reawaken its creative and ethical power, to rise as a consequential voice in a world that risks losing its moral compass." Across the continent, there exists a deep intellectual tradition that places human dignity, community, and relational wisdom at the center of social life. Philosophies such as Ubuntu remind us that intelligence is not merely computational but relational. It emerges from networks of people who share knowledge, care for one another, and negotiate their collective future. In a century increasingly shaped by machine cognition, Africa may therefore contribute something essential:

a civilizational perspective that helps keep technological power aligned with human purpose.

In that sense, the continent's role in the AI century may lie not only in producing new technologies, but in shaping the ethical imagination around them. Africa's experience navigating diversity, informality, and constraint has often produced forms of innovation that are pragmatic, adaptive, and deeply human-centered – appropriate innovation rather than maximal innovation. These are solutions designed to work within real communities and local realities rather than override them. If artificial intelligence is to remain a tool for human flourishing rather than domination, the values guiding its deployment will matter as much as the algorithms themselves. A technologically capable Africa, grounded in cultural confidence and plural traditions of knowledge, could therefore become one of the most important guardians of that balance in the twenty-first century.

If Africa, in this light and fashion, succeeds in sustaining strategic agency while articulating and cultivating its dream(s), it won't just improve its position within a changing hierarchy. It will expand the range of futures that remain open. The AI century will be defined not only by the capabilities of machines, but by the societies that determine how those capabilities are embedded, governed, and directed.

In that broader human story, Africa's choices will matter – not at the margins, but at the level of orientation itself. As the institutional order forged in the twentieth century begins to lose coherence, new forms of coordination shaped by technological realities are likely to emerge, in which African leaders, alongside counterparts from other regions, play a central role in shaping not only regional trajectories, but the direction of global innovation itself.

The task, then, is neither to drift nor to react, but to steer with patience. The course of this century won't be written solely in code or capital flows. It will be shaped by the collective resolve of societies that decide what their technological power is for – and have the steadiness to pursue it.



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Mattia Bosco's stone stands like a recovered fragment of time: neither ruin nor monument, neither nature nor invention, but a threshold between what has endured and what is still becoming. Bosco, an Italian sculptor born in Milan in 1976, works with discarded remnants of stone found in quarries, allowing geological time, natural fracture, and human intervention to remain in dialogue rather than conquest. His practice holds a tension between preservation and incision, between the ancient authority of matter and the contemporary act of imagination.

In this work, marble is not silent. It appears wounded, awakened, almost charged from within. The gold seams cut through the stone with the force of repair and revelation. They recall kintsugi and wabi-sabi: the beauty of rupture, the dignity of what has survived pressure, extraction, violence, weather, and time. The gold does not decorate the fracture. It binds it into meaning.

For *The Keel of Africa*, the sculpture becomes a symbol of a continent refusing to be read only through loss, delay, or inheritance. Like the Great Zimbabwe walls, or the long sculptural traditions of Africa, it suggests permanence not as stillness, but as a living tension between temporality and intemporality. Stone carries the past, yet here it also opens a passage toward the future.

The work has the presence of an obelisk, almost like the charged monolith in *2001: A Space Odyssey*: not an answer, but an encounter. It asks us to stand before matter with awe, humility, and a kind of pseudo-spiritual attention. Africa, in this moment, is not catching up. It is gathering its fragments, old and new, and defining its own axis. The keel is that hidden structure: the line beneath the vessel, the will that steadies movement, the golden scar through which a future soul begins to bloom.

Sezione Aurea (R2)
2023

Material: Palissandro marble and gold leaf

Pax Technologica

Pax Technologica is a global initiative dedicated to radically improving the adoption of exponential technologies, particularly artificial intelligence, in emerging geographies of the Global South. We envision a harmonious relationship between humanity and technology, which will enable a future of peace, equity, and cultural enrichment. Recognizing that the next wave of global growth will be shaped by regions like the African continent, we focus on empowering local leaders, innovators, and communities to leapfrog outdated systems and harness technology in ways that are ethical, sustainable, and culturally aligned.

Pax Technologica was founded in response to the significant challenges posed by the rise of exponential technologies, particularly artificial intelligence. The troubling events of 2016 – where technology played a critical role in threatening the integrity of the US elections – served as an early warning of developments that may now accelerate rapidly. Yet alongside these challenges lies a landscape of opportunities. While many initiatives focus primarily on mitigating risks, Pax Technologica prioritizes identifying opportunities where the benefits of thoughtful and appropriate technology adoption outweigh the risks.

Through initiatives such as the Fellowship Program, Policy Intelligence Unit, strategic salons, and curated dialogues, Pax Technologica brings together diverse voices to co-create solutions for critical challenges in climate, healthcare, education, and food systems. Across all our activities, we strive to address the inequities of the digital divide while inspiring a global conversation about technology's role in fostering a more inclusive and balanced world.

Pax Technologica has its roots in creativity, drawing from our backgrounds as designers, artists, urbanists, and storytellers. We believe in the transformative power of narrative and beauty to shape behavior and drive the changes we seek in the world. As such, Pax Technologica is as much about exploring the narrative and aesthetic dimensions of exponential technology and societal transformation as it is about making tangible change happen on the ground.

Pax Technologica Africa

Africa lies at the heart of Pax Technologica's vision of a future where humanity and technology coexist in harmony. We stand on the brink of an African century, in which the continent's rapid transformation will not only reshape Africa but also have a profound impact on the world. With demographic forecasts predicting that by 2050, one in three young people globally will be African, it is crucial to ensure that Africa's demographic dividend is accompanied by a technology dividend. This presents a unique opportunity to adopt exponential technologies in ways that empower individuals and communities, while also contributing to the development of new governance structures and infrastructures that support the well-being of the continent and its natural ecosystems.

Pax Technologica Africa is committed to supporting this transformation by partnering with local leaders, innovators, and institutions that are already doing remarkable work across the continent particularly in policy, venture, and public education. Our goal is to support local growth and facilitate international scaling, contributing to a new dynamic in which Africa becomes a leading exporter of technological innovation and problem solving.

Thomas Ermacora

Thomas Ermacora is a technology futurist, author, curator, and angel investor focused on disruptive innovation in service of regenerative civilization. For more than two decades, his work has sat at the intersection of artificial intelligence, exponential technologies, design, ethics, and civilizational futures, exploring how societies can use technology not merely to accelerate growth, but to reshape agency, sovereignty, and collective imagination. As the founding resident futurist of the XPRIZE Foundation, a long-time member of the World Economic Forum's Global Futures Council, an MIT fellow, and a G7 futurist advising on AI adoption and national competitiveness, he has worked at the frontier of global technology governance and institutional innovation. He holds degrees in political science, international affairs, and philosophy from the Sorbonne and the American University of Paris, grounding his work in questions of power, legitimacy, culture, and the ethical architecture of transformation.



He is the author of *Recoded City* (Routledge, 2017) and has curated major exhibitions and cultural programs on the future of cities, mobility, and planetary life, including *Moving to Mars* at the Design Museum in London and *Dreams on Wheels*, a UN-sanctioned exhibition on the future of cities that traveled internationally. His background in architectural design, storytelling, and cultural foresight informs a central conviction: societies are transformed not by capital and power alone, but by narratives, prototypes, institutions, rituals, and shared visions of what becomes possible. Ermacora is the founder of Studio Ermacora and Pax Technologica, an initiative dedicated to the sovereign adoption of exponential technologies across the Global South, and has launched or supported platforms including the Machines Room FabLab London, and the *Laudato Si'* accelerator program under the patronage of Pope Francis and the Vatican.

As a direct angel investor and advisor to technology funds including Bold Capital, Helena, FullCycle, and Obvious Ventures, Ermacora has backed ventures at the edge of frontier technology, impact, and systems change. A frequent writer, keynote speaker, and think-tank contributor, he has delivered talks at more than 500 venues worldwide, including the United Nations General Assembly, European Union task forces, and Tomorrowland, where he addressed the convergence of natural and artificial intelligence. He also helped establish the Consilience Project, a meta-crisis think tank, and has worked extensively with policy and research institutions around the world. Through Pax Technologica, his current work advances a clear proposition: that the AI moment represents a narrow but essential window for the Global South, and especially Africa, to shape a more sovereign, ethical, and regenerative technological future.

Nils Gilman

Nils Gilman is an intellectual historian, policy analyst, and writer focused on the present and future of world order, political economy, and national security. He is widely known for his work on systemic transformations in global governance and the interplay between state power, markets, and social movements. Exploring themes such as globalization, technological disruption, and planetary governance, Gilman brings a long-range analytical perspective to contemporary geopolitical dynamics, combining scholarly rigor with policy relevance.

Gilman is the author of *Mandarins of the Future: Modernization Theory in Cold War America* (2003) and, with Jonathan S. Blake, *Children of a Modest Star: Planetary Thinking for an Age of Crises* (2024) as well as numerous articles in the *Washington Post*, *New York Times*, *Dissent*, *The American Interest*, *Foreign Policy*, *Noema*, and many other periodicals. He has previously served as the EVP & COO of the Berggruen Institute in Los Angeles; the Associate Chancellor of UC Berkeley; Research Director of the Global Business Network in San Francisco; and Marketing Director at Salesforce.com.



Pax Technologica Essay Series

The Pax Technologica Essay Series is a curated collection of thought-provoking writings that explore the intersection of exponential technologies, ethics, and cultural development, with a particular focus on emerging geographies. Rooted in our commitment to fostering a more inclusive and equitable technological future, this series brings together diverse perspectives from global thinkers, policymakers, and innovators to address the critical opportunities and challenges of our time. Through these essays, we aim to deepen the conversation on how technologies like AI can be harnessed to promote peace, sustainability, and social progress while ensuring they remain aligned with human values and cultural contexts. By elevating voices from Africa and the Global South, the series serves as both a platform for inspiration and a call to action, offering original insights and frameworks that challenge traditional paradigms and pave the way for ethical, regenerative innovation.



The Kiss of Peace and Justice, Laurent de La Hyre, 1654

Pax Technologica

An initiative to radically improve the
adoption of exponential technologies
in emerging geographies.