

Reflections on Africa's Digital Governance: Forging Resilient and Inclusive Futures

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Abstract

This concluding chapter offers a synthesis of *Africa's Digital Transformation and its Governance*, threading together the volume's critical insights into a cohesive narrative about the continent's digital journey. Moving beyond mere summary, we reflect on the complex tensions between technological potential and governance realities, between global pressures and local agency. The analysis reveals digital transformation as neither a panacea nor a predetermined path, but rather as a contested terrain where Africa's developmental aspirations intersect with historical inequalities and emerging power dynamics. Drawing from diverse disciplinary perspectives across the chapters, we articulate key lessons while acknowledging the persistent tensions: the promise of innovation against risks of exclusion, the allure of efficiency versus demands for justice, and the imperative of sovereignty amidst global dependencies. Ultimately, this reflection calls for governance frameworks that are as dynamic and pluralistic as the societies they aim to serve – frameworks capable of nurturing resilient digital futures that are truly African in conception and inclusive in realization.

Keywords: Digital Transformation, Digital Governance, Digital Economy, Digital Sovereignty, Inclusive Development, Anticipatory Governance

Introduction: The Polycrisis of Africa's Digital Moment

Africa's digital transformation is occurring within what is being popularly termed a "polycrisis" - where climate shocks, economic fragility, and geopolitical realignments intersect with rapid technological change. It is within this fraught yet fertile terrain that Africa must chart its digital future. As scholars deeply embedded in these realities, we approach this concluding chapter with both urgency and humility; urgency because digital technologies are reshaping African societies faster than our governance systems can adapt, and humility because the complexity of this transformation defies simplistic narratives.

This volume has sought to capture the textured reality of Africa's digital transformation - not as a singular phenomenon but as a mosaic of experiments, struggles, and innovations unfolding across different corners of the continent. From the mobile money revolution in Kenya to drone-based healthcare delivery across Africa, from South Africa's voter management systems to Nigeria's emerging AI policies, the cases presented reveal digitalization as neither an unqualified blessing nor an inevitable curse, but rather a contested terrain where Africa's developmental aspirations intersect with historical inequalities and emerging power dynamics.

Our reflection is structured around Whetten's enduring framework - examining the What, How, Why, Who, Where and Whither of Africa's digital governance - but extends it to grapple with the crucial temporal dimension (When?) that permeates the continent's digital moment. This temporal lens proves particularly vital when considering how long-term structural challenges (like electricity infrastructure) constrain short-term technological adoption, or how rapid platform innovation outpaces gradual regulatory responses.

The chapters collectively challenge the dominant framing of digital transformation as merely technical infrastructure rollout. Instead, they reveal it as a profound reconfiguration of relationships – what Castells (2011) termed the 'network society,' where power increasingly derives from control of digital networks and information flows. This shift reshapes connections between states and citizens, local innovators and global platforms, between formal institutions and informal networks. Govender and Zhou's exploration of responsible data practices demonstrates how data governance questions are ultimately about power: who gets to define what constitutes "responsible" use, and whose epistemologies count in these determinations? Similarly, Mangundu's study of drone technology in healthcare shows how even the most pragmatic applications carry implicit political choices about resource allocation and priority-setting.

What emerges is a vision of digital governance that must be simultaneously technical and philosophical, practical and visionary. The chapters resist easy binaries - they show

African governments both as victims of technological dependency and as active shapers of regulatory responses; they portray citizens both as vulnerable to digital exclusion and as ingenious adaptors of technology; they reveal global platforms as both extractive forces and reluctant partners in development. This subtle understanding forms the foundation for our synthesis.

The Core Issues: Unpacking Africa's Digital Realities (The 'What')

At its core, this volume grapples with what Twinomurinzi terms the "post-digital" condition - the recognition that digital technologies are no longer novel additions to African societies but have become constitutive elements of their political economies. This shift demands we move beyond questions of adoption to more fundamental interrogations of how digitalization is reshaping power, opportunity and inequality across three interconnected dimensions.

The infrastructural dimension extends beyond physical infrastructure like fibre cables and data centers to include the institutional and human infrastructures that determine whether technology delivers value. Magida's meticulous analysis of South Africa's digital divides demonstrates how electricity reliability (or the chronic lack thereof through load-shedding) becomes a more fundamental determinant of digital access than the presence of mobile networks. This insight resonates across much of the continent, where the assumed prerequisites of digital transformation often overlook these foundational gaps. These infrastructural realities expose the limitations of "leapfrogging" narratives that assume African countries can bypass traditional development stages through digital solutions alone.

The governance dimension reveals both progress and persistent challenges in the evolving frameworks through which digital power is regulated. Ndaka's comparative study of AI policies across Africa reveals a troubling pattern: while African governments increasingly articulate digital strategies, these often replicate global templates without sufficient adaptation to local political economies. The result is what we might call "performative governance" - policies strong on aspiration but weak in implementation, particularly when confronting well-resourced tech multinationals. Gagliardone and Stremlau's examination of content moderation regimes exposes this power asymmetry vividly, showing how even when African governments attempt to assert sovereignty (as in Uganda's negotiations with Meta), they often lack the technical capacity or legal frameworks to enforce meaningful accountability. The case of Kenya's failed bid to tax digital platforms in 2020 illustrates how global firms can mobilize legal and financial resources to resist local regulation.

The social dimension - the lived experiences of digitalization across different African communities - provides perhaps the most revealing perspective. Khambule and

Maciko's research on fintech adoption in China, India and South Africa captures this beautifully, documenting how digital financial tools are simultaneously embraced for their convenience and distrusted for their opacity. Market traders in Johannesburg's informal settlements describe using mobile money for supplier payments while keeping their savings unbanked, creating hybrid financial practices that blend digital and analog systems. Similarly, Maseko's study of electoral technologies reveals a paradox: while digital voter management systems enhanced the credibility of South Africa's 2021 local elections, they also excluded those without the required documentation or digital literacy - often the most marginalized citizens. These cases remind us that the ultimate measure of digital transformation is not technological sophistication but social impact, not adoption rates but equitable benefit.

What emerges from these multidimensional perspectives is that Africa's digital journey cannot be understood through the tired lens of "leapfrogging" or "catching up." The continent is neither simply adopting global technologies nor creating alternatives in isolation, but rather engaging in complex processes of adaptation, resistance and reinvention. This demands governance approaches that are equally layered- capable of distinguishing between productive partnerships and predatory dependencies, between necessary innovation and reckless disruption.

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Mechanisms and Processes: The 'How' of Digital Governance in Africa

If the previous section outlined the "what" of Africa's digital transformation, we now turn to the "how" - the mechanisms through which digital governance is being enacted across different domains. The chapters reveal a rich tapestry of approaches, from state-led initiatives to community-driven innovations, each with distinct implications for equity and inclusion.

The platformization of governance - the embedding of digital platforms into the machinery of state-citizen interaction - has produced mixed results across the continent. Mayayise's systematic review identifies the hallmarks of successful digital government services: user-centric design, robust identity systems, and interoperability. Rwanda's Irembo platform exemplifies this approach, successfully digitizing over 100 government services through careful attention to user needs and localized design. Yet Mayayise's findings also expose a persistent gap between aspiration and reality, with many African e-government systems falling short of delivering truly transformed services. Nigeria's eGovNet initiative, while technologically impressive, has struggled with low citizen uptake due to limited internet access outside urban centres and lack of targeted digital literacy programs. The African Parliamentary Oversight Tool studied by Pule, Chirau and Masvaure represents a promising counter-example - a platform designed specifically to address the unique needs of African legislative bodies, with

built-in mechanisms for public participation that have increased citizen engagement in policy processes in Kenya and Zambia.

Alongside these formal systems operate myriad informal digital networks that often fill governance gaps in creative ways. Mangundu's research on medical drone delivery shows how communities have reinterpreted technologies to serve local priorities - using drones not just for vaccine transport as originally intended, but also for emergency blood deliveries during childbirth complications. This adaptive innovation, occurring outside formal policy frameworks, highlights the creative agency of African users even in resource-constrained settings. Similarly, Nairobi's informal settlement mapping projects demonstrate how community-generated digital data can challenge official narratives about urban development needs. When residents of Kibera created open-source maps of their neighbourhood using mobile phones, they not only improved local service delivery but also asserted their right to the city in ways that paper-based systems had never allowed.

Yet the chapters also caution against romanticizing these bottom-up solutions. Khalifa and Mahleza's analysis of algorithmic bias in African fintech markets reveals how even well-intentioned innovations can perpetuate exclusion when they embed unexamined assumptions. The experience of Kenya's digital credit providers shows how easily innovation can veer into exploitation, with automated lending platforms charging effective annual interest rates exceeding 200% to vulnerable borrowers. These cases reveal how community-driven innovation, while vital, cannot substitute for robust public oversight and consumer protection frameworks.

This tension between innovation and regulation surfaces repeatedly across sectors. Ouma's examination of intellectual property frameworks shows African legal systems straining to accommodate blockchain-based assets and AI-generated works, while Govender and Zhou document the challenges of applying GDPR-style data protections in contexts with weak enforcement capacity. The recent controversy over biometric data collection by humanitarian agencies in Uganda illustrates these tensions vividly - while the systems promised more efficient aid distribution, they also raised profound questions about consent and data sovereignty that existing laws were ill-equipped to address. Together, these cases paint a picture of digital governance as perpetual negotiation - between openness and control, between innovation and accountability, between global standards and local realities.

The most promising approaches emerging from the volume are those that embrace this complexity rather than seeking to resolve it through simplistic formulas. South Africa's regulatory sandbox for fintech innovations combines principled oversight with space for experimentation, allowing new services to be tested under controlled conditions before full-scale rollout. Ghana's approach to digital identity similarly balances innovation with inclusion, maintaining multiple identification options to prevent exclusion of those

unable to navigate biometric systems. These middle-path solutions represent Africa's best hope for digital governance that is both effective and equitable - capable of harnessing technological potential while safeguarding against its risks.

Motivations for Africa's Digital Push: The 'Why' Behind the Transformation

Beneath the surface of Africa's digital transformation lie complex motivations and power dynamics that shape its trajectory. The chapters reveal that digital adoption is never politically neutral - it reflects competing visions of development, governance and societal organization. Understanding these underlying drivers is essential for crafting governance frameworks that serve African interests rather than external agendas.

The efficiency narrative dominates much official discourse around digital transformation. Governments across the continent have embraced digital tools as solutions to chronic public sector inefficiencies - from Ghana's digital property addressing system aimed at resolving disputes over land ownership, to Kenya's e-filing system for tax compliance. While these initiatives have yielded measurable improvements in some cases (Rwanda's Irembo platform reduced service delivery times by an average of 85%), Mayayise's research cautions against overestimating their transformative potential. Her systematic review reveals that many e-government systems fail to address the underlying institutional dysfunctions they purport to solve, instead simply automating broken processes. The case of Zimbabwe's electronic passport system illustrates this vividly - while the digital application process streamlined some steps, applicants still faced the same bottlenecks and rent-seeking behaviors at collection points, demonstrating how technology alone cannot eliminate deep-rooted governance challenges.

The financial inclusion imperative has similarly driven digital adoption, particularly in the banking and payments sector. Khambule and Maciko's analysis of South Africa's fintech landscape shows how digital financial services have expanded access to credit and payments for previously excluded populations. However, their research also uncovers troubling patterns of over-indebtedness and predatory lending enabled by algorithmic credit scoring - what they term "digital financialization of the poor." The authors document cases where borrowers took loans from multiple digital lenders simultaneously, entrapping themselves in cycles of debt exacerbated by automated collection practices. These findings complicate the celebratory narratives around mobile money, revealing how inclusion can morph into exploitation without adequate safeguards.

The geopolitical dimensions of Africa's digital transformation are proving particularly complex. Gagliardone and Stremlau's examination of contestations of Big Tech reveals

how global platforms' operations reflect not just commercial interests but also broader power rivalries. The expansion of competing digital governance models, including the export of Chinese technologies, puts African states in a difficult position of balancing geopolitical pressures while resisting being framed as a pathological case condemned to follow external innovation. This rivalry introduces complexity into governance but also offers African states greater negotiating power, illustrating how they have largely resisted taking sides. These dynamics raise profound questions about digital sovereignty: what does it mean for African countries to assert control over their digital ecosystems when the underlying technologies and platforms remain largely foreign-controlled? Ultimately, the chapter argues that distinctive forms of contestation are emerging - from grassroots content moderators in Kenya to the government-led internet shutdown in Uganda - that signal an expanding geography of accountability for tech giants.

This multiplicity of motivations - from state efficiency goals to grassroots empowerment, from financial inclusion to geopolitical positioning - suggests that Africa's digital transformation cannot be reduced to any single narrative. The governance challenge lies in creating frameworks flexible enough to accommodate these diverse drivers while ensuring they converge toward equitable outcomes. This requires moving beyond technocratic approaches to recognize digital transformation as fundamentally political - about the distribution of power and opportunity in increasingly connected societies.

Actors, Contexts, and Future Trajectories: Shaping Africa's Digital Destiny

The journey of Africa's digital transformation is not a monolithic one. It is a complex of diverse actors navigating unique contexts, all striving to shape the continent's digital destiny. This section delves into the "who, where, and whither" of this transformation, synthesising the roles of key players, the varied landscapes they operate within, and the critical policy implications and future directions emerging from the book's insights.

a) The 'Who': Key Actors in Africa's Digital Sphere

At the **state** level, significant variation exists in institutional capacity and strategic vision. Rwanda's centralized digital transformation strategy, championed at the highest political levels and backed by substantial investments in digital skills and infrastructure, contrasts sharply with the more fragmented approaches seen in larger federal systems like Nigeria. However, even within these differences, common challenges emerge - particularly around cross-departmental coordination. Kenya's experience with implementing digital identity systems reveals how competing bureaucratic interests can derail even well-resourced initiatives, with different agencies jostling for control over

registration processes and data management. These internal governance dynamics often prove as consequential as external factors in determining digital outcomes. Plantinga further explores this by questioning the capacity and legitimacy of the South African state to effectively govern and support a competitive and inclusive digital economy, emphasising the crucial role of organisational and individual capabilities within the public sector.

The **private sector's** role presents both opportunities and dilemmas. While African tech entrepreneurs have driven remarkable innovations - from Nigeria's Flutterwave payments platform to South Africa's Yoco digital POS systems - their growth is constrained by limited access to patient capital and regulatory uncertainty. At the same time, global tech giants occupy increasingly dominant positions in Africa's digital economy, controlling key infrastructure from cloud services (Amazon Web Services) to mobile operating systems (Google's Android). The case of Safaricom's M-Pesa illustrates this tension - while celebrated as an African success story, its ecosystem remains dependent on foreign technology partners and investors, raising questions about where true value accrues. Gagliardone and Stremlau's analysis of content moderation practices shows how these power asymmetries play out in labor relations, with African moderators for global platforms facing traumatic working conditions while having little influence over corporate policies.

Civil society organizations have emerged as crucial intermediaries in this complex landscape. In South Africa, organizations like the Association for Progressive Communications have played pivotal roles in shaping digital rights legislation and challenging problematic government surveillance initiatives. Across West Africa, digital rights groups have formed coalitions to monitor internet shutdowns and advocate for online freedoms. However, their effectiveness varies significantly by political context - while Kenya's vibrant tech civil society has successfully influenced data protection laws, counterparts in more restrictive environments often operate under constant threat. The experience of Uganda's Chapter Four organization, which faced government harassment after documenting internet censorship during elections, highlights the risks digital rights defenders increasingly face.

Regional economic communities present another important layer of governance. The African Union's ambitious Digital Transformation Strategy and the Smart Africa initiative seek to harmonize policies across borders, while sub-regional bodies like ECOWAS and SADC have developed their own digital frameworks. In practice, however, implementation remains uneven. The AfCFTA's protocol on digital trade, while promising in theory, has struggled with ratification and enforcement, reflecting broader challenges in African regional integration. The case of cross-border data flows illustrates these implementation gaps - despite rhetorical commitments to continental

data sovereignty, most African countries still route their international internet traffic through Europe or North America due to lack of regional peering infrastructure.

Finally, at the **community level**, informal governance systems continue to profoundly shape digital experiences in ways that formal policies often overlook. In contexts like Somalia's mobile money ecosystem, traditional clan-based trust networks have been adaptively leveraged to verify digital transactions, compensating for weaknesses in formal identification systems. Similarly, among Kenya's pastoralist communities, indigenous early warning systems for drought have been innovatively enhanced through participatory digital mapping initiatives. These hybrid systems challenge conventional distinctions between formal and informal, modern and traditional, pointing toward uniquely African models of digital governance that merit greater policy attention and integration into broader strategies.

b) The 'Where': Diverse Contexts and Enduring Challenges

Africa is not a monolith; its digital transformation unfolds across highly diverse socio-economic, political, and cultural landscapes, presenting both unique opportunities and pervasive challenges. The interplay between the aforementioned actors occurs within national contexts that vary dramatically in their digital readiness, political openness, and institutional robustness.

For instance, Rwanda's centralised digital transformation strategy, championed at the highest political levels and backed by substantial investments in digital skills and infrastructure, contrasts sharply with the more fragmented and market-led approaches seen in larger federal systems like Nigeria. Similarly, South Africa's robust constitutional protections for digital rights differ markedly from the more restrictive environments found in some North African states. These variations caution against one-size-fits-all solutions, instead suggesting the critical need for governance frameworks that can accommodate Africa's profound political and institutional diversity while maintaining core principles of equity and inclusion.

Across the continent, significant disparities in internet access, digital literacy, and meaningful usage persist. Magida demonstrates that these persistent digital divides are not merely about infrastructure but are deeply intertwined with socio-economic factors, including income, education, age, and geographic location. Rural areas often lag behind urban centers, and vulnerable populations continue to face exclusion, despite efforts to bridge these gaps. The lack of reliable and affordable electricity (exemplified by load-shedding in South Africa), and high data costs emerge as critical macro-level barriers (Magida, 2025).

While digital infrastructures are spreading, their capabilities and governance remain underdeveloped in many parts of Africa. Challenges include insufficient fibre

connectivity, limited spectrum, and the high costs associated with maintaining robust ICT systems (Mayayise, 2025). Compounding this are significant cybersecurity risks, ranging from ransomware attacks to data breaches and the widespread dissemination of misinformation. These threats not only jeopardise digital infrastructure but also erode public trust in online services, underscoring the urgent need for robust cybersecurity measures and a skilled workforce (Mayayise, 2025; World Bank, 2022).

Many African countries face the paradox of regulating a rapidly evolving digital environment while often being "client states" for technologies developed elsewhere. This dependency can lead to policies that replicate external templates rather than addressing unique local contexts (Ndaka, 2025). The tension between fostering innovation and implementing stringent regulations (e.g., in Fintech) remains a challenge, as highlighted by Khambule and Maciko (Chapter 6). Furthermore, the broader geopolitical landscape, marked by competition between global powers, influences technology transfer and digital policy choices on the continent (Gagliardone & Stremlau, 2025). The AfCFTA's protocol on digital trade, while promising in theory, has struggled with ratification and enforcement, reflecting broader challenges in African regional integration. The case of cross-border data flows illustrates these implementation gaps – despite rhetorical commitments to continental data sovereignty, most African countries still route their international internet traffic through Europe or North America due to lack of regional peering infrastructure.

Digitalisation occurs amidst existing governance polycrises, from pandemics to geopolitical conflicts). These crises expose weaknesses in governance systems and can lead to measures like internet shutdowns, which, while sometimes framed as attempts to assert sovereignty, often undermine human rights and economic activity (Gagliardone & Stremlau, 2025). The declining trust in democratic institutions and the persistence of corruption further complicate the effective implementation of digital governance initiatives (Maseko, 2025; Mayayise, 2025). Internal governance dynamics, such as Kenya's experience with implementing digital identity systems, where competing bureaucratic interests can derail even well-resourced initiatives, illustrate how internal jostling over processes and data management often proves as consequential as external factors in determining digital outcomes. The effectiveness of civil society organisations also varies significantly by political context; while Kenya's vibrant tech civil society has successfully influenced data protection laws, counterparts in more restrictive environments often operate under constant threat. The experience of Uganda's Chapter Four organisation, which faced government harassment after documenting internet censorship during elections, highlights the risks digital rights defenders increasingly face.

c) The 'Whither': Future Trajectories and Policy Imperatives

Here we move from analysis to prescription, focusing on future directions and the temporal urgency of action. The insights gleaned from this volume coalesce into seven critical future trajectories and policy imperatives for Africa's digital governance:

- 1. From Passive Recipients to Active Co-Creators:** A fundamental shift is needed from African nations and citizens being passive recipients of externally driven digital agendas to becoming active co-creators of their digital futures. This requires a decolonisation of technology, fostering locally rooted innovation, and challenging persistent stereotypes that condemn Africa to uncritically replicate innovations from the Global North (Gagliardone & Stremlau, 2025). Policy methodologies must move beyond techno-optimism to focus on the equitable distribution of value extracted from data and technology (Ndaka, 2025).
- 2. Nurturing Contextually Appropriate Governance Frameworks:** There is an urgent need for African governments to formulate and rigorously enforce governance frameworks that are contextually appropriate, accounting for the continent's unique socio-political and economic realities. This involves designing flexible and adaptive regulatory approaches that balance innovation with consumer protection and societal well-being (Khambule & Maciko, 2025; Mahleza & Khalifa, 2025; Govender & Zhou, 2025). Policy development must be deliberative, involving a wide array of stakeholders, including civil society and marginalised groups, to ensure meaningful inclusion and address power asymmetries (Ndaka, 2025; Mayayise, 2025).
- 3. Strengthening Digital Infrastructure and Addressing the Digital Divide Holistically:** Universal, efficient, and affordable internet access remains a foundational imperative. This requires sustained investment in infrastructure development (fibre, spectrum), alongside strategies to address the affordability of data and the reliability of electricity supply (Magida, 2025). Beyond access, policies must foster digital literacy and skills across all demographics to ensure effective usage and the realisation of tangible offline benefits (Magida, 2025).
- 4. Asserting Digital Sovereignty through Collaboration and Regional Integration:** The concept of "digital sovereignty" for African states must evolve beyond a "fetish" of control to a "sovereignty of recognition" that is built on alliances and regional integration (Gagliardone & Stremlau, 2025). Greater coordination among African nations can provide stronger leverage in negotiations with global tech giants, counteracting exploitative practices and enabling collective action on issues like data governance and intellectual property (Ouma, 2025). Exploring models similar to the European Coal and Steel Community, where specific digital governance issues could serve as anchors for broader regional cooperation, holds immense potential (Gagliardone & Stremlau, 2025).
- 5. Investing in Local Capacity, Research, and Skill Development:** The scarcity of African-centric research on digital governance, particularly quantitative studies,

highlights a critical gap (Mayayise, 2025). There is a pressing need to invest in local research capacity, fostering methodologies that capture the nuances of African contexts. Coupled with this, comprehensive training and skill development programmes are essential for both public sector officials and citizens to effectively navigate, utilise, and innovate within the digital landscape (Mayayise, 2025; Magida, 2025).

- 6. Embedding Ethical Principles and Human Rights:** Digital governance frameworks must embed ethical principles and human rights, ensuring that AI systems are responsible, data practices are transparent and secure, and technological advancements do not deepen existing discriminations (Ndaka, 2025; Mangundu, 2025). This calls for a proactive approach to cybersecurity, data privacy, and accountability mechanisms for autonomous systems, learning from both global best practices and local challenges.
- 7. Sustainable and Resilient Digital Systems:** Ultimately, the objective of Africa's digital transformation must be to create systems that are resilient and sustainable. This implies designing digital ecosystems that can withstand shocks (economic, environmental, political) and consistently deliver benefits over the long term. This focus on resilience and sustainability as critical outcomes of DT must guide all policy and implementation efforts

Conclusion: A Call to Action for Africa's Digital Renaissance

As Africa stands at this digital crossroads, the choices made today will reverberate for generations. This volume has reflected Africa's ongoing digital transformation as a landscape rich with innovation, aspiration, and profound challenges. We have collectively argued that while digital technologies offer unprecedented pathways for socio-economic development and enhanced governance, their full and equitable potential can only be realised through intentional, context-aware, and inclusive governance. The persistent digital divide, the complexities of regulating global tech actors, the imperative for robust cybersecurity, and the need for adaptive policy frameworks emerge as recurring motifs demanding urgent attention.

The volume's insights point toward several imperatives for shaping equitable digital futures that serve African societies rather than external interests. Building anticipatory governance capacity emerges as a particularly urgent priority. The breakneck pace of technological change, from generative AI to blockchain applications, has consistently outpaced regulatory responses across the continent. Miller's concept of "futures literacy" offers a framework for addressing this gap - equipping policymakers and citizens alike with the tools to critically assess technological trends and their societal implications (Miller, 2018). Critically, as Bourgeois et al (2024) argue, these futures must be recognized as public goods – not commodities to be captured by states or

corporations, but shared horizons to be collectively stewarded through inclusive deliberation and design.

This moment that calls for bold leadership, sustained investment in infrastructure and human capital, and a commitment to fostering collaborative ecosystems where governments, citizens, civil society, and local innovators co-create digital futures. By consciously moving beyond being passive recipients of external digital agendas, by asserting a collective and networked digital sovereignty, and by embedding ethical principles and human rights at the core of all digital initiatives, Africa can indeed forge resilient, sustainable, and truly inclusive digital societies. The journey is arduous, but the vision of a digitally empowered Africa, leading its own renaissance, remains vibrantly within reach.

This book closes by inviting policymakers, researchers, practitioners, and citizens to collectively embark on this transformative path, ensuring that Africa's digital destiny is shaped by its own voice, values, and aspirations.

References

- Bourgeois, R., Karuri-Sebina, G., & Feukeu, Y. (2024). *Futures as a public good: Anticipatory governance in Africa*. African Minds.
- Castells, M. (2011). *The rise of the network society* (2nd ed.). Wiley-Blackwell.
- Gagliardone, I., & Stremlau, N. (2025). Contesting digital dependency: African agency and global platforms. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Govender, M., & Zhou, B. (2025). Responsible data practices for digital transformation in Africa. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Khambule, I., & Maciko, S. (2025). Fintech and financial inclusion in Africa: Opportunities, risks, and governance implications. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Magida, A. (2025). Micro and macro socio-economic drivers of the digital divide in South Africa. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Mahleza, L., & Khalifa, B. A. (2025). Regulatory sandboxes and the future of Fintech in Africa. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.

- Mangundu, T. (2025). Governing drone technology in public healthcare in Africa: Ethical and regulatory considerations. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Maseko, M. (2025). Digitalisation and elections: Key lessons from South Africa. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Mayayise, B. (2025). Factors impacting digital government adoption in Africa: A systematic review. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Miller, R. (2018). *Transforming the future: Anticipation in the 21st century*. Routledge. <https://doi.org/10.4324/9781351272319>
- Ndaka, K. (2025). Regulating AI in Africa: Insights from Kenya, Nigeria, and South Africa. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Ouma, G. A. (2025). Intellectual property in Africa's digital economy: Navigating new frontiers. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Plantinga, P. (2025). What capacities and legitimacy can the state use to support South Africa's digital economy? In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Pule, K., Chirau, T., & Masvaure, S. (2025). Enhancing digital governance in African parliaments: The case of the African Parliamentary Oversight Tool. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Twinomurinzi, H. (2025). Africa's digital transformation and governance through a post-digital lens. In G. Karuri-Sebina, & N. M. Ochara (Eds.), *Africa's digital transformation and its governance* (pp. xx). African Minds and Leuven Press.
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490–495. <https://doi.org/10.5465/amr.1989.4308371>
- World Bank. (2022). *Digital development update: Accelerating sustainable and inclusive digitalization*. World Bank Group. <https://doi.org/10.1596/36849>
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