

HARNESSING DIGITAL AND ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT IN MAURITIUS

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OVERVIEW & INTRODUCTION

CONTEXT

- Digital technologies and AI are transforming governance (digital tools improving efficiency, transparency and citizen engagement), education (AI and VLC revolutionising learning), finance (epayment/fin-tech) & healthcare (telemedicine, AI).
- For SIDS like Mauritius, digital transformation offers great opportunities (diversification, Digital investment, global trade access & innovation) but also risks of digital exclusion (underserved communities) and technological dependency (concerns like cyber threats, data sovereignty)
- Anchored in the Mauritius Digital Transformation Blueprint 2025–2029 (DI, Innovation, AI, skills, cybersecurity), aligned with Vision 2030, Africa's Digital Transformation Strategy, and the UN SDGs.

OVERVIEW & INTRODUCTION

PURPOSE & OBJECTIVES

- Explore how digital and AI innovations can support inclusive, sustainable development.

(digital tools lead to governance, access to e-services & transparency, bridge administrative gaps) - (AI tools role in SDGs (e.g. applications such as predictive agriculture, Smart energy management, predictive healthcare)

- Assess Mauritius's digital readiness and institutional capacity.

(analysing broadband coverage, DI, cloud, Data management systems,& protection, cybersecurity resilience)

- Identify opportunities (multiple domains) and risks (ethical, social and legal concerns) in automation, data governance, and AI ethics.
- Outline policy actions to strengthen Digital and AI governance (framework/ collaboration, monitoring), ethics, and inclusion.

LITERATURE REVIEW – GLOBAL & REGIONAL INSIGHTS

Global & Regional Insights:

- Global research links digital transformation and AI to growth but warns of ethical and social risks (AI systems can reinforce bias, threaten privacy and disrupt employment).
- African and SIDS studies highlight ongoing digital divides (access/literacy/connectivity), weak governance, and skills gaps.
- Emphasis on ethical AI, trust, and sustainability is increasing worldwide. (global shift is to build trustworthy, inclusive and sustainable AI ecosystems)

LITERATURE REVIEW

MAURITIAN CONTEXT & RESEARCH GAP

Mauritian Context:

- Strong infrastructure and cybersecurity, but limited AI governance and uneven digital literacy.
- Research Gap:
 - 1) Few studies connect Mauritius's digital ecosystem to inclusive, sustainable growth or on examining ethical AI, digital justice and socio-economic inclusion
 - 2) This paper provides a practical framework for turning digital innovation into fair and sustainable progress.

METHODOLOGY

RESEARCH DESIGN

Approach:

- Ethical governance and social impacts – evaluating how AI-driven decisions may affect citizens, transparency & accountability
- Qualitative, futures-based policy analysis – e.g. analysing how laws may be further amended based on AI and digital evolution
- Thematic synthesis to identify recurring issues across documents.
- Forward-looking lens – e.g. asking what future AI ethical challenges may us face (data protection/institutional adaptation)

Data Sources:

- Digital Transformation Blueprint, DPA 2017, DPO Reports, UNDP, ITU, OECD, World Bank, AU, EU.

METHODOLOGY

TECHNIQUES USED

- **Qualitative Content Analysis** – e.g. extracting insights from the Digital Blueprint about cloud adoption or institutional readiness
- **Thematic Coding & Categorisation** – e.g. grouping challenges into themes like “infrastructure,” “governance,” and “digital inclusion.”
- **Comparative Benchmarking** – e.g. Comparing Mauritius’s cybersecurity ranking /comparing AI ethics frameworks from EU/ AU.
- **Triangulation of Evidence** – e.g. If the Blueprint notes a digital-skills gap, cross-checking amethis with UNDP and World Bank reports.
- **Futures Scanning** – e.g. Identifying global trends such as explainable AI, national AI councils, or AI sandboxes that Mauritius may adopt.

METHODOLOGY

ANALYTICAL FRAMEWORK

Analytical Themes:

- 1) Institutional Readiness & Infrastructure (gaps - interoperability in govt systems, data infrastructure, cloud adoption and cybersecurity capacity)
 - 2) Innovation & AI Adoption (government roles, funding mechanism and regulatory flexibility)
 - 3) Ethical & Legal Governance (have DPA/Cybercrime Act but in need of AI ethics or governance framework)
 - 4) Digital Inclusion & Capacity Building
- Each theme captures recurring priorities and policy gaps drawn from local and international benchmarks.

KEY FINDINGS

READINESS & INNOVATION

Readiness & Infrastructure:

- Mauritius ranks 17th globally in cybersecurity.
- Strong connectivity and e-government, but inter-agency coordination should be further improved

Innovation & AI Adoption:

- Rapid growth in FinTech, EdTech, HealthTech.
- AI regulation and R&D support should be enhanced
- Need for a National AI Ethics Framework and Innovation Sandbox.

KEY FINDINGS

GOVERNANCE & INCLUSION

Ethical & Legal Governance:

- DPA 2017 strong but outdated for AI and cloud computing.
- Limited resources for DPO enforcement.
- Need for algorithmic transparency (explainable AI) and accountability (human oversight).

Digital Inclusion & Skills:

- Uneven access to digital-skills programmes.
- Women and SMEs under-represented.
- Expand AI literacy and cyber-ethics education.

POLICY RECOMMENDATIONS

GOVERNANCE & ETHICS

1) Governance & Ethics:

- Update Data Protection Act for AI and automation.
- Strengthen the Data Protection Office's resources and functions.
- Establish a National AI Ethics Council.
- Adopt a National AI Ethics Framework.
- Launch an AI Innovation Sandbox for supervised testing.

POLICY RECOMMENDATIONS

INCLUSION & PARTNERSHIPS

2) Inclusion & Skills:

- Integrate AI ethics and digital skills in schools and communities.
- Support women and SMEs in digital innovation.
- Expand training and scholarships in AI and cybersecurity.

3) Global Partnerships:

- Align with AU and EU AI standards.
- Build partnerships on AI ethics and data governance.

CONCLUSION

KEY TAKEAWAYS

Key Takeaways:

- Mauritius has strong digital foundations but must evolve from readiness to responsibility.
- Ethical, inclusive AI can drive sustainable growth if guided by trust and transparency.

Priorities:

- 1) Strengthen governance
- 2) Build ethical AI
- 3) Foster innovation
- 4) Promote inclusion

CONCLUSION VISION FORWARD

Vision:

- A human-centred digital Mauritius where:
- Innovation drives opportunity,
- Governance ensures accountability,
- Technology supports equitable and sustainable progress.

Path Ahead:

- Combine strong institutions, ethical frameworks, and inclusive skills to position Mauritius as a regional model for responsible AI.

THANK YOU

Any Questions?