REGULATING DATA FOR AI IN THE PUBLIC SECTOR IN AFRICA

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Opening remarks

2024 UN E-Government Survey (EGS) shows encouraging performance of Africa in the EGDI: South Africa and Mauritius are in the very high bracket with some countries remaining in high EGDI group. However, the EGDI levels of most countries are below the global average

Despite, persistent disparity in e-governance readiness, increasing investment in digital infrastructure & frontier technologies, and the growing adoption of AI in the public sector on the continent are some of the key drivers of Africa's performance

However, the potential of AI to further improve Africa's EGDI depends on the quality of data for AI development on the continent

What legal regimes exist on the continent to regulate data for AI adoption in Africa?

Artificial Intelligence and the Law in Africa

Edited by

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LexisNexis

Overview

- Meaning of AI

- AI use cases in the public sector in Africa

- AI and sustainable development

- AI and data

- Regulation regimes for data in Africa

- Data regulation within AI 'law'

- Concluding remarks about existing data regulation

Meaning of AI

- AI can be defined as machines or computer systems that possess the ability to perform tasks that typically require human intelligence

- AI relies on powerful algorithms to process and analyse large data.

- AI training relies on techniques, such as machine learning, neural networks, logic programming, fuzzy logic, and natural language processing

- AI can be classified into

| Basic AI	Advance, but narrow (or weak) AI	Advanced, but strong AI (AGI)
concerned with cognitive abilities such as memory, language, anticipation and decision-making, with limited reference to the past. Eg, chatbots, online matching and credit scoring, etc	closely and as accurately possible, mimic the human mind and analyse unstructured data such as texts, images, and audio data. Eg, ChatGPT series (LLMs), Dall-E, Stable Diffusion, Creativity Machines, etc	reflects the next evolutionary stage of AI technology when AI will generally behave like humans and surpass human intelligence: Human-Level Machine Intelligence (HLMI)

AI use cases in the public sector in Africa

Generally, AI use cases in the public sector include –

- citizens engagement
- compliance and risk management
- fraud and anti-corruption
- business process automation
- service delivery
- asset management
- analytics for decision-making and policy design

AI use cases in the public sector in Africa is prevalent in the following sectors

Heatmap of AI use cases in South Africa
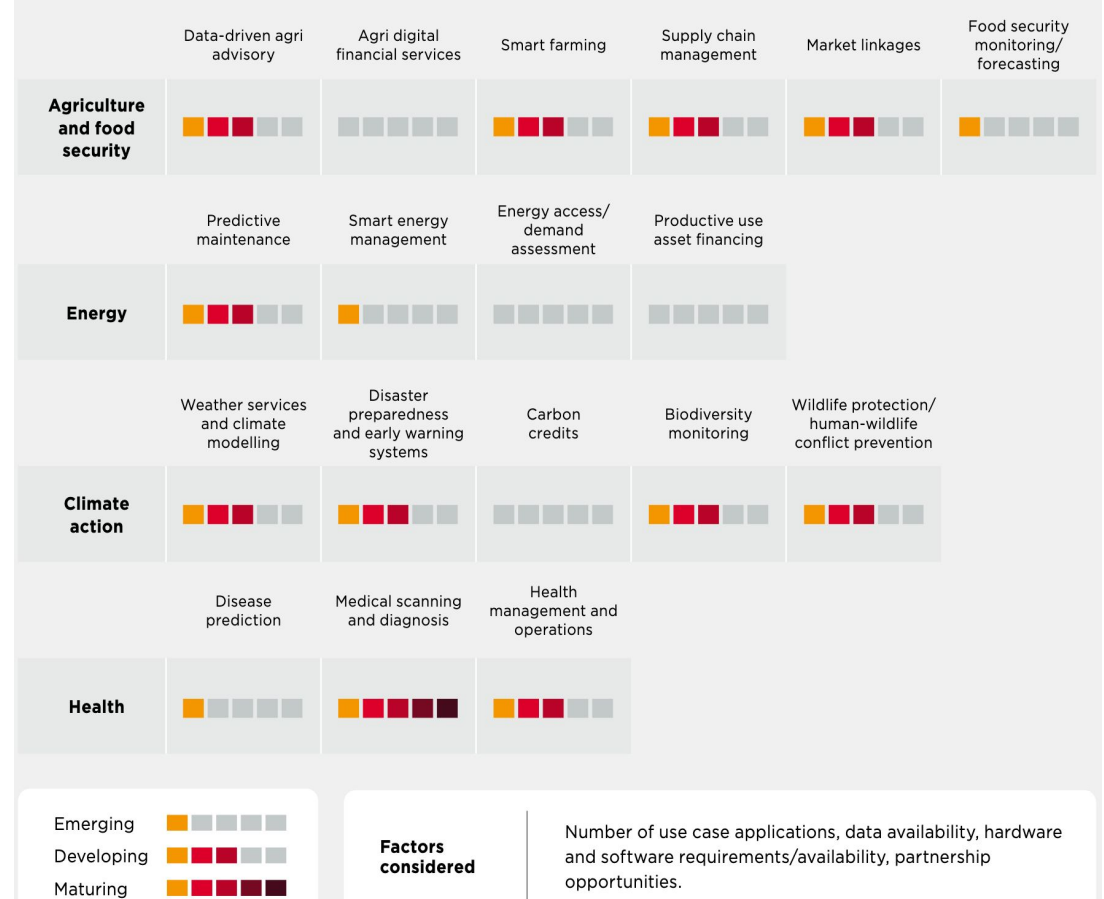
Source: GSMA (2024) p5

AI and sustainable development

AI's adoption by government can produce positive and negative impact on efforts to attain the development objectives articulated in the UN SDA, AU Agenda2063 & national development strategies.

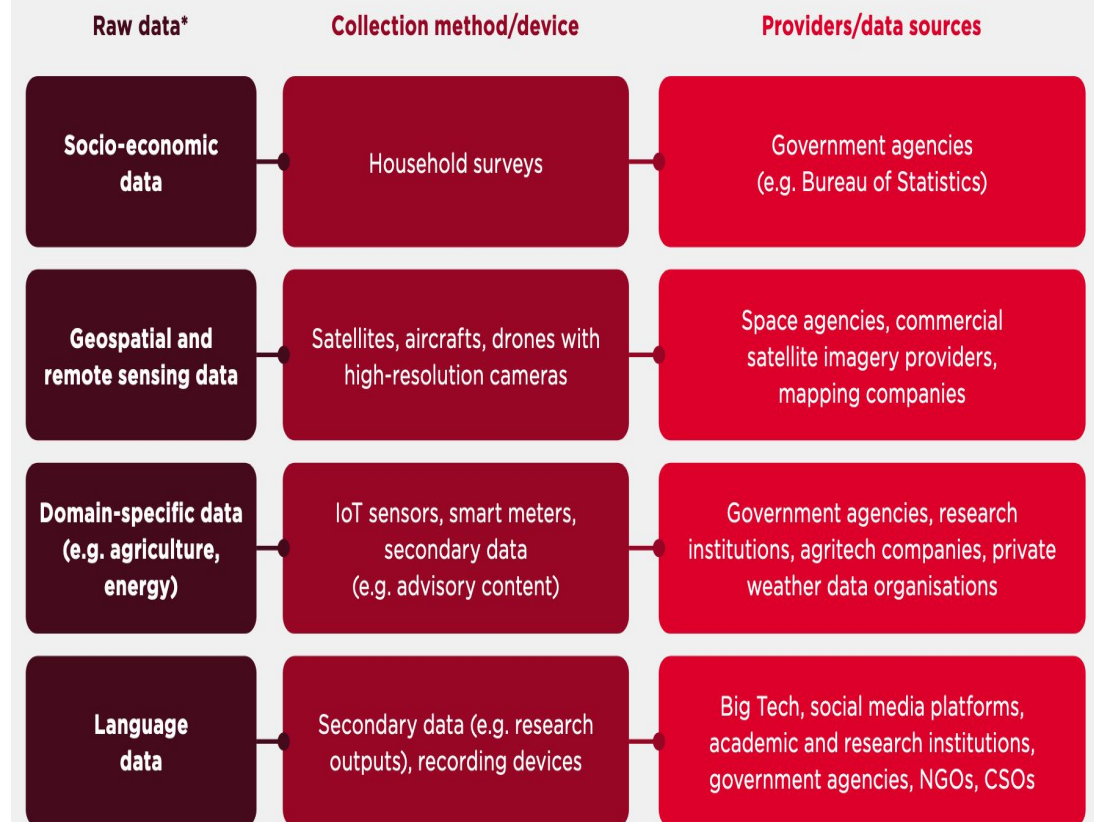According to fairly recent studies,

Positives	Negatives
AI can influence the attainment of at least 134 targets (79%) across SDGs, including zero poverty (SDG1 & AU1), quality education (SDG4 & AU2), clean water and sanitation (SDG6 & AU7), affordable and clean energy (SDG7 & AU7), and sustainable cities (SDG 11 & AU1)	AI can negatively impact 59 targets (35%) across SDGs, including climate action (SDG13 & AU7), and peace, justice and strong institutions (SDG16 & AU11), especially in regions with less ethical scrutiny, transparency, and democratic oversight, or human rights' respect

Vinuesa *et al* (2020)

AI and data

- AI is a data-driven and data-centric technology. Thus, it is as good as the quality of data it is fed.

- Data quality is affected by data availability, data interoperability, and data safety & security

- To enable AI contribute effectively to sustainable development, data regulation must be emplaced to promote data availability, interoperability and safety & security in the AI ecosystem.

Examples of data types and sources for AI for development

Raw data*	Collection method/device	Providers/data sources
Socio-economic data	Household surveys	Government agencies (e.g. Bureau of Statistics)
Geospatial and remote sensing data	Satellites, aircrafts, drones with high-resolution cameras	Space agencies, commercial satellite imagery providers, mapping companies
Domain-specific data (e.g. agriculture, energy)	IoT sensors, smart meters, secondary data (e.g. advisory content)	Government agencies, research institutions, agritech companies, private weather data organisations
Language data	Secondary data (e.g. research outputs), recording devices	Big Tech, social media platforms, academic and research institutions, government agencies, NGOs, CSOs

Source: GSMA (2024) p17

Regulation regimes for data in Africa

Data Laws	Examples
Data protection law	Malabo Convention on Cyber Security and Personal Data Protection 2014 & National Data Protection legislations
Cyber security law	Malabo Convention on Cyber Security and Personal Data Protection 2014 & National Cybercrime/security legislations
Intellectual property law	Africa Continental Free Trade Agreement (AfCFTA) IP Rights Protocol & National IP legislations
Competition law	Africa Continental Free Trade Agreement (AfCFTA) Competition Protocol & National Competition legislations
Human rights law	African Charter on Human and Peoples' Rights & Bills of Rights in National Constitutions

Data regulation within AI 'law'

Regional (selected)

- Continental AI Strategy 2024

- Digital Transformation Strategy for Africa (2020-2030)

- Resolution on the need to Undertake a Study on Human and Peoples' Rights and Artificial Intelligence (AI), Robotics and other new and Emerging Technologies in Africa, 2021 (study ongoing already)

National (selected)

- Nigeria: National AI Strategy

- South Africa: AI Strategy Framework & AI Maturity framework (in progress)

- Kenya: AI Practitioners' Guide & Code of Practice

- Rwanda: National AI Policy & Rwanda-Singapore AI Playbook for Small States

- Egypt: National AI Strategy & Charter for Responsible AI

Concluding remarks on existing data regulation

- The law and policy development process for AI regulation, which encapsulates rules on data availability, interoperability and security, appears to be based on multi-stakeholder approach.

- Existing regulation of data is rooted in government's understanding of the significance of data within the AI ecosystem and the need to ensure safety and security of data (emphasis on data localisation). This undermines data availability, integration, and interoperability.

Recommendation:

- develop African-centric, flexible, incentive-based and balanced legal framework for data regulation

- Avoid the Brussels effect