

A Data Sovereignty Model for Secure Cloud Governance and Critical National Infrastructure to Reclaim Africa's Digital Assets.

Africa's reliance on foreign-owned cloud platforms, including Microsoft Azure, Amazon Web Services (AWS), Google Cloud, Meta, and X, for storing and processing government, business, research, and citizen data has increased due to the continent's digital transformation. Although these platforms offer scalable digital services, there are increasing worries about data sovereignty because sensitive African data is still subject to foreign jurisdictions, including laws like the US CLOUD Act. On the other hand, nations like China and a number of European countries have made sovereign cloud infrastructure a top priority in order to bolster national control over strategic data assets. To lessen reliance on outside cloud providers and encourage locally managed digital infrastructure, this study suggests a Data Sovereignty Model Southern Africa.

The study expands on earlier research emphasising the need for locally managed digital ecosystems and the data divide in Africa. Using secondary data analysis and semi-structured interviews with ICT specialists from the Eastern Cape Provincial Government, the study takes a qualitative approach.

Results demonstrate how an over-reliance on foreign cloud services restricts national control over vital data, raises regulatory concerns, and hinders the growth of local digital innovation and artificial intelligence.

To improve digital resilience throughout Southern Africa, the suggested model incorporates multi-stakeholder cooperation, cybersecurity governance, regional data centers, sovereign cloud infrastructure, and data localisation. In order to promote digital sovereignty, safeguard vital data, and enhance Africa's long-term digital independence and economic competitiveness, the study offers a useful framework for government, business, and academia.

Key Words: Data Sovereignty, Secure Cloud Governance, Critical National Infrastructure
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Primary author: Prof. JERE, Nobert Rangarirai (University of Fort Hare)

Presenter: Prof. JERE, Nobert Rangarirai (University of Fort Hare)

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