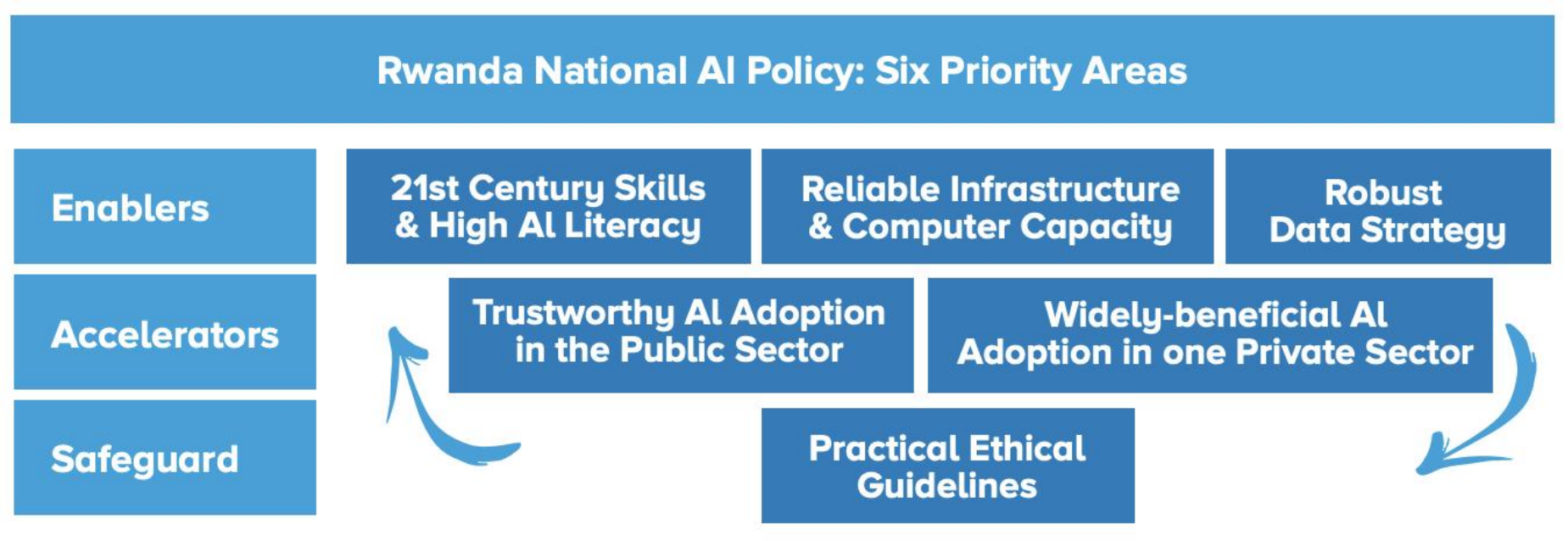
# ARTIFICIAL INTELLIGENCE (AI) AND EDUCATION

The distinctive and collaborative roles and responsibilities of various stakeholders to promote the development and adoption of AIED in Africa – The case of Rwanda

Claude K. Migisha (AI & Data Governance )

November 21, 2023

# Rwanda's National AI Policy




**To leverage AI to power economic growth, improve quality of life and position Rwanda as a global innovator for responsible and inclusive AI**

# Specific AIED interventions in the AI policy



Establish a task force led by MINEDUC and higher learning institutions to develop a plan to integrate AI & data science courses in undergraduate curricula.



Establish a training Program (ToT) in AI skills to train new or upskill IT/science teachers and non–IT and science teachers



Align national curriculum at primary and secondary school levels with the ’21st–century curriculum’, integrating the developed AI/ML/data modules.

Establish a National Program to launch technology centres in schools across the country

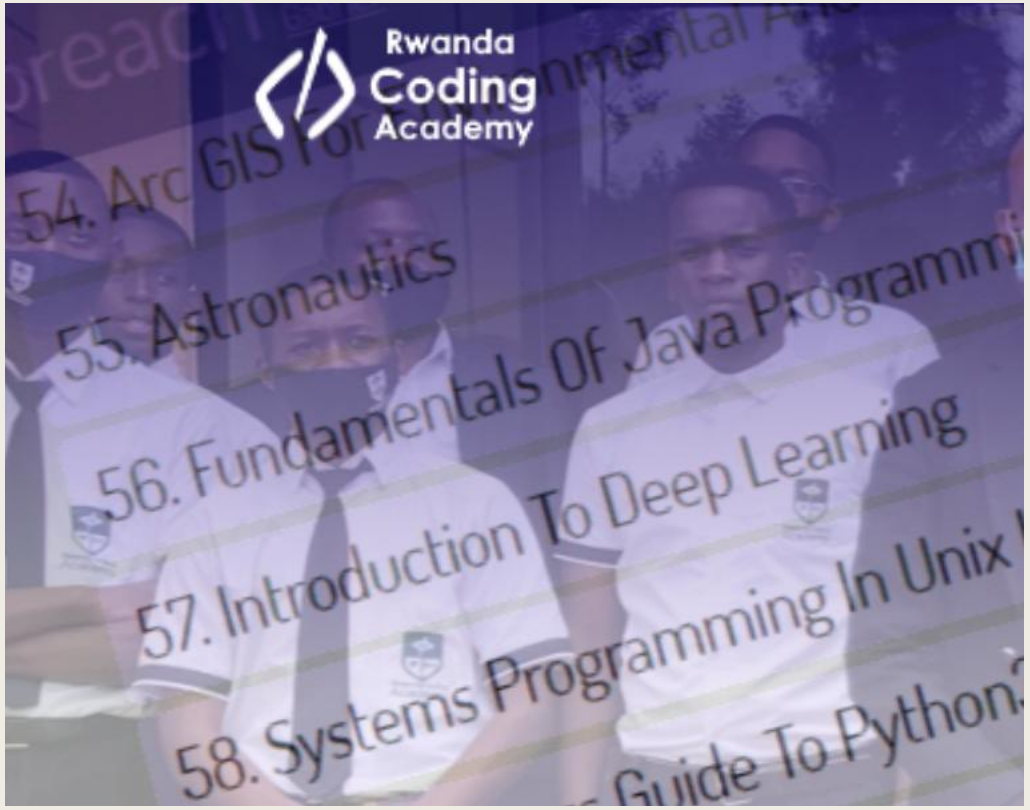
Set up a Program Office/function to help Rwandan universities identify existing AI-based courses to adapt and national/ regional MOOCs to disseminate.

**GOAL** : ***To position Rwanda as the #1 destination for AI higher education and research in Africa***

# AIED–linked Outputs & Indicators

| Output | Indicator |
| --- | --- |
| A highly skilled workforce with 21st Century Skills and AI literacy | • Number of professionals trained in data and AI-related skills |
| A solid foundation in AI university education and applied research driving the national AI skills base | • Number of PhD/Masters/Bachelors students graduating from AI and data science courses annually<br>• Number of collaboration programs between Rwandan and foreign universities (platforms/MOOCS, exchange programs, satellite campuses)<br>• Number of citations in AI papers |
| A young generation of students empowered with AI/ML and data analysis skills | • Number of students that are taking AI/ML or data related courses at primary and secondary school levels |
| Streamlined exchange of students and professionals between Rwanda and foreign countries | • Number of international students enrolled in university programs offering AI related courses<br>• Number of international students and researchers working on Rwanda-based AI research projects<br>• Skills export: Number of Rwanda-trained AI professionals going to work elsewhere (Rwandan nationals and otherwise, remotely from Rwanda or physically abroad) |

# Rwanda Coding Academy




The Rwanda Coding Academy offers ICT and other 21st–century skills to high school graduates interested in pursuing a career in computer science.

The Academy selects high–performing students and trains them in advanced software programming and cyber security skills to facilitate their emergence as world–class programmers.

It is a hybrid of both general education and TVET and focuses on courses such as Software Development, Embedded Systems Programming, and Cyber–Security.

# Kigali Innovation City




**Carnegie Mellon University Africa**
Through a partnership with the government, they set up a campus in Rwanda, and the Kigali campus serves roughly 300 graduate students pursuing master's degrees in specialities like computer engineering and artificial intelligence.

**African Institute for Mathematical Sciences**
Offers master's programs in data science and machine intelligence. They've partnered with the government to offer a six-month course in AI and ML to university graduates and professionals. The course covers data analysis, deep learning, and natural language processing.

**The University of Rwanda's African Centre of Excellence in Internet of Things (ACEIoT)**
The centre offers graduate studies in Artificial Intelligence and the Internet of Things in response to the government's aspiration for youth-led tech job creation to grow the digital economy.


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**InstaDeep** announced on September 7 that it is deepening its commitment to developing Africa's AI ecosystem by opening an office in Kigali, Rwanda. According to their statement: "*Having an office in Kigali makes it possible for us to give many more opportunities for African AI talent from all corners of the continent.*"

**Other ecosystem actors** include: ALU, Kigali International Financial Centre, Kigali Innovation Fund, Centre of Excellence in Biomedical Engineering and e-Health, etc.

# ETRI, AIED in Rwanda



Thank you for your attention!

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