



RAIN Africa

The Responsible AI Network Africa RAIN AFRICA

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Q&A

with Dr. Attlee M. Gamundani

RAIN Africa's Country Representative



How can we harness the potential of AI in Africa?

First, we need to understand the African problem space before we jump into the AI hype. An impact assessment of how AI will integrate with existing systems, if any, and how AI solutions will be accessible across key domains, such as health, agriculture, energy, and education, should be a key ingredient of each AI adoption strategy.



What are the potential benefits and risks of AI in Africa?

AI can be leveraged towards bridging the communication gaps hampering indigenous inputs in the ethical implementation of solutions from 4th Industrial Revolution enabling technologies. NLP can help tap into the missing puzzle, i.e. rich African cultures and languages. In addition, there is the risk of adopting general AI models lacking representative African datasets as decision-making pedestals for structural changes without engaging the affected communities.



What concerns and ethical challenges related to the use of AI are especially prevalent in the African context?

The concerns of giving too much power to AI models for critical national decisions, as witnessed when lockdowns were implemented, and not paying attention to the black box parameters hidden in the name of proprietary systems are especially prevalent. Another challenge is the lack of large enough datasets for AI models being adopted to serve the African community, hence the extension of systemic biases.



What are the recent major developments in AI in your country?

There are various activities ongoing, especially at local institutions (NUST, UNAM and IUM) from the research side at Masters and Ph.D. levels, mostly on AI applications. In response to COVID, NUST hosted a hackathon that witnessed the development of AI solutions such as those to scan lungs, and an AI-driven app to counter misinformation through sentiment analysis.

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What are the AI projects you are currently working on?

Current projects focus on the application of AI and Internet of Things (IoT) in the agriculture domain. (1) Part of the research consortium with Makerere University, titled, "Machine Learning Datasets for Crop pest and disease diagnosis: Crop Imagery and Spectrometry Data." (2) The Smart Farming Monitoring System using IoT, Machine Learning and Data Analytics towards improving the yield.

What do you hope the Responsible AI Network Africa will achieve?

(1) An open platform for exchanging ideas, expertise, and practical solutions designs for contextual evidence based on African challenges. (2) An integration of efforts and resources across Africa to equip and develop the youth and underserved communities. (3) A Responsible AI best practice framework that is driven quantitatively from relevant and up to date data from Africa by Africans.



DR ATTLEE M. GAMUNDANI

A Senior Lecturer in Cyber Security at Namibia University of Science and Technology involved in teaching, research and community engagement. The current chairperson for the Namibia National Cyber Security Competition. A research consultant at United Nations University (UNU) Institute in Macau. His work on AI Governance and Ethics falls under the Sustainable Decision-Making Tech research project. He is part of the organising team for establishment of the AI Africa Expert Network in support of the UN Secretary General's Roadmap for Digital Cooperation to enhance multi-stakeholder efforts on global AI cooperation. He was appointed as an Advisory Board Member and Operations - 4IR committee for the Pan African Information Communication Technology Association (PAICTA). Dr. Gamundani is also serving as the country representative Responsible AI Network (RAIN)-Africa for Namibia. His research mainly focuses on IoT, AI and Cybersecurity applications in the Agriculture, Education and Health domains.

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