Artificial Intelligence Systems and Universal Knowledge Schemes:
Designing With African Voices

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ABSTRACT

Influence on the design of Artificial Intelligence (AI) algorithms inherently encodes their understanding of the world through the Western lenses despite the world views being many. This has led to knowledge presentation from Western ideologies thus biased and not considering the Global South. Thus, AI as designed can only mimic through pattern recognition of what it is provided with, currently the Western ideology. Knowledge as presented as generated could be said to be a gap in what arises in the knowledge acquired and in the interpretation of that knowledge. Thus, the question arises as to whether AI can duplicate human expertise in processing knowledge and reasoning within a universally agreed upon frame. The author intends to come up with a conceptual framework of African voices and AI to guide process and practice.

1. INTRODUCTION

1.1 Preamble

It is acknowledged that knowledge representation is key to the future because of the need to share a common 'repository of knowledge' more so in the age of current digital growth of Artificial Intelligence (AI). This is still true today even more. It is further stated in the literature that despite this awareness, models are immature to date. By analogy, the world has not seen the kind of breakthrough to better explain knowledge. Fundamentally, models are misaligned with what we know in the cognitive sciences. It is important to look into this issue since knowledge representation is an enabler of Artificial Intelligence (AI). This justifies the need for alternative view. This paper will address the AI from an African ideology perspective, through Ubuntu ethos, towards a universal perspective of knowledge repository. However, knowledge representations such as Chat-GPT arise from the western perspective of individualism when knowledge is represented. The author argues that this results in values that provide only one side of

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knowledge as presented, and so excluding human centered context, specifically the African centered connectedness that define the culture of *'I am who I am because of all of us.'* The argument is such that, the fact that knowledge as construed currently in the western ideology seems evident, does not lead to knowledge generalization, thus the catch.

This author by writing this paper intends to join many scholars who have been concerned and will come up with enhanced literature and conceptual frame of thought to guide application on African voices within the frame of an African Ideology, Ubuntu.

1.2 Impetus Towards Conceptualizing Artificial Intelligence

"*Artificial Intelligence (AI)*" represents what arises from beliefs build into it about the world so that what is believed about the world is as accurate as possible even if it is not as detailed. This brings to bear the African Ideology that has been missing. One of the African belief systems is Ubuntu or Utu in Kiswahili an East African term. The argument is for Ubuntu-Utu values and digital inclusion. It is not about infrastructure and lack of it as it is in the African context, but access that has to do with design, messaging and communication therein. They argue that cultural values can influence the development of machines such as robots to emulate values and cultures as realities of the world. Even as the world embraces technology it is useful to be mindful of other ideologies if infusion of AI is to be universal. Perfecting AI has to do with detecting false beliefs and re-ordering the information or knowledge. Thus, an issue is raised about tech-models such as Chat-GPT or generative knowledge tools and if indeed the knowledge as represented is universal and whether they are able to debug and detect *false beliefs* beyond mere presentation of factual information. This requires designing AI-models such that what is believed of knowledge is what is reflected as *realities* of the world views from various perspectives.

Luker and Rothermel1(994) stated then that the knowledge perspective the IA model will use about the world should be as accurate as possible. The implication is also for the need for AI systems and models that will include debugging and improving the AI model towards capability to detect falsities about the knowledge in the global world. Also, by changing the way the model acquires information in order to enhance the correspondence between what is believed, that which is significant for the universal relevance. The terms will need to correspond to an entity as perceived from the global world view within an inclusivity frame, and so universal philosophical presupposition (Luker and Rothermel, 1994). Falsities arise from a number of sources. The fact that IA and it's systems have been formulated and conceptualized from the western world perspective of individualism away from other ideological views such as the African view of collectivism may mean that the '*knowledge representation*' that is key to the world today and the future does not share a common '*repository of knowledge*'

Issues arise, that of creativity and originality that are inherently controversial whereby disagreement will generally persist. Also challenging is the creatorshipas well as value-judgments, not left behind is the requirement that it is possible to trace the origin of specific outputs.

1.3 Guiding Statement of AI and African Voices Perspective

How to conceptualize the relationship between AI and culture as it relates to African voices such as Ubuntu has been considered variably. This is the impetus of this paper. The aim is to join other scholars in the quest for inclusivity regarding growth of AI and to increase the diversity intercultural perspective of AI and knowledge presentation towards universal relevance. The author intends to do this by exploring African Ideology on AI on