# Recommendations on Incorporating Artificial Intelligence in Medical Education

**David Mukunya et al give us insight into the use of AI in medical education and recommendations on how to use it responsibly.**



*A student using Simulation facilities*

## Background

Generative Artificial intelligence (AI) tools offer opportunity and challenges for medical education. These tools offer quick access to information and could potentially bridge the low teacher to student ratio in resource limited settings. On the other hand, these tools can be used to facilitate academic malpractice among students as it can enhance cheating in assignments and exams. In addition, there are genuine concerns that students might lose critical thinking capacity and innovativeness because of over reliance on these readily available and easy to access tools.

We have recently completed a study that explored perceptions to artificial intelligence in medical education among four medical schools in Uganda [1, 2]. We explored experiences and recommendations on incorporating AI in medical education in low and middle income countries (LMICs) among medical students and faculty [1, 2]. `Below, we share thoughts from our participants on ways to promote responsible AI use. The list is not intended to be exhaustive but an stimulant of a conversation on this subject in LMICs.

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## Recommendations on responsible AI use

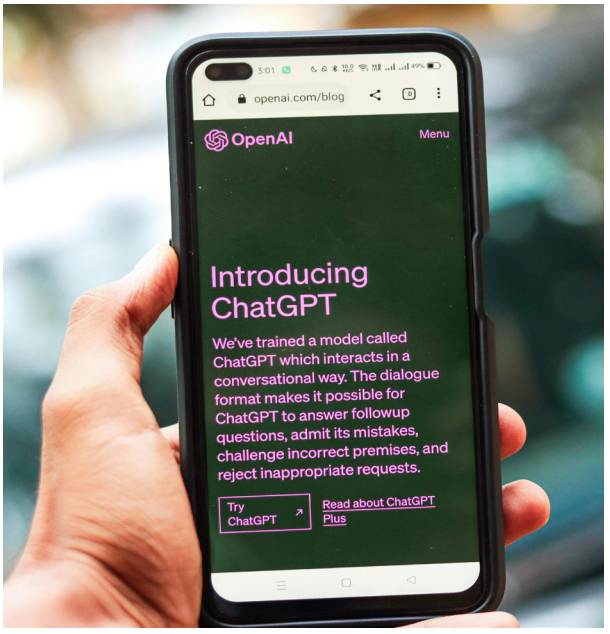
1. Urgently develop policies to guide responsible use of AI: In all the Universities we studied [1, 2], none had a policy on AI and none had started the process of developing one. This is in stark contrast to Universities in South Africa, and the West that already have AI guidelines [3-7]. There is an urgent need to embrace that AI is here, and it is here to stay; and that both students and faculty are in dire need of guidance on how to exploit it. In addition, a sustainable infrastructure is required because AI policy reviews need to be more frequent given the rapid advancements in the field.
2. Train students and faculty on responsible AI use: Our studies revealed several misconceptions, scepticism and reluctance on AI use [1, 2]. There is urgent need to train both students and faculty on AI use to build

their capacity and to promote use of AI in health professional education.

3. Encourage ethical use of AI: AI use in health professional education has inadvertently introduced ethical concerns including examination malpractice, privacy, and plagiarism[8]. These underscore the importance to undergird ethical use of AI and the integrity of examination processes. Providing guidelines for students and faculty can help provide clarity on ethical use of AI [9]. AI detectors and plagiarism software such as Turnitin's may be crucial to prevent abuse of AI, safe guard, and monitor ethical use of AI [10].
4. Aim to contextualise AI in the global South: Most of the AI tools are western centric [11]. In one of our study, students were concerned by the scarcity of local data on AI tools [2]. Therefore, there is need to train models with local and contextual data from LMICs. This should probably be led by scientists from the global south with contextual understanding of resource-limited settings.
5. Students should be at the center of AI use: AI tools are readily accepted among students than faculty. Maximising students' enthusiasm towards technology and AI may promote AI use in Health Professions Education. AI tools need to be tailored and developed to meet the needs of students.
6. Modify Health Professions Education curricula and training. The inevitability of AI use in health professionals' education underscores the critical importance of modifying pedagogical approaches, methods and strategies. While traditional curricula in health professions program have little or no consideration for AI, there is need to revise the curricula to incorporate AI use. Pedagogical approaches and methods of teaching need to embrace the transformational benefits of AI in Health Professions Education. The methods of assessment need to be adjusted to accommodate the ubiquitous use of AI in Health Professions Education. The era of take home written exams that focus on knowledge and facts is over. Many that are still giving such take home exams are caught up in the unfortunate situation of having to mark AI essays thinking they are marking their students work [12]. Newer examinations must use of clinical scenarios and assignments that encourage critical thinking and reasoning.
7. Investment in AI infrastructure and resources: In order to progress as active participants in the AI conversation, we ought to invest in AI infrastructure and human capacity development. Countries that are leading in the AI race are not riding on overnight successes or luck; they have been investing in this realm. Actually, it is akin to a new arms race in technological advancement among the top five economies in the global North [13].

## Conclusion

Institutions in sub-Saharan Africa and other LMICs should proactively engage with AI so that they are co-creators and not mere users of this great technology. We pray that this piece is not taken as a comprehensive list of suggestions but a stimulant to a conversation that has taken too long to start




***Example of Use of AI courtesy of sanketgraphy***

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