

**EDITORIAL****INTEGRATION OF TECHNOLOGY AND E-LEARNING INTO MEDICAL EDUCATION IN ETHIOPIA: THE COVID-19 SILVER LINING?**

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For quite some time, it has become very clear that the most realistic way to achieve sustainable development in a country is through quality education, and by extension through research and innovation. Unfortunately, Africa has not benefited optimally from quality education due to various factors, several of which are obvious. One such factor is the very poor adaptation and integration of technology and eLearning into the education system in Africa (and Ethiopia). Health professional's education in the continent is one clear example of such a situation.

E-learning has several advantages over traditional learning. Digitalization of teaching and learning ensures availability of huge and filtered information, allows easy manipulation of contents, offers possibility of real-time update and exchange, and it also allows for recording of lessons for possible repetition in the future. Formative and summative assessment, student mentorship and support can also be easily integrated to it. Additionally, E-learning allows easy communication between the teacher and students that overcomes distance in space. In today's globalized world, the possibility of sharing of resources across partners (for free or procured) has also emerged as one advantage of eLearning.

Prior to the COVID epidemic, the full potential of technology and innovations in medical education in African and Ethiopia might not have been fully appreciated. However, it might not be out of place to say that technology and innovation saved medical education in the year 2020-21 all over the globe. The world witnessed the reality that educational technology and innovation could contribute significantly to medical education more than we probably had ever imagined. From the delivery of didactic teaching (lectures) remotely, simulation, clinical teaching, laboratory teaching, student mentorship and assessment (MCQs and clinical examinations), and the need to provide a hybrid form of teaching and training - the integration of technology played key role in many instances to support medical education.

One major point to emphasize at this juncture is that medical educators (and trainees) need to acquire new skills and competencies on how to use medical education technology and innovations. However, inappropriate, and reckless deployment of technology and innovation have the potential to do more harm than good. With emphasis on competency-based medical education, there is clear indication that when technology and innovations are used, there must be evidence that this is helping trainee achieve the desired goal: i.e. enhanced performance.

From our limited experience with eLearning (mostly Case Based Collaborative Learning) at the department of surgery of the Addis Ababa University, we have clearly seen that most medical students involved were very interested in eLearning as one modality of teaching. We found they were very aware of its many advantages but identified cost of internet as a major impediment. Most would strongly recommend similar sessions to their fellow students.

Stakeholders in medical education in Ethiopia now have more than enough evidence with regards to the place of technology in medical education. It might have been conventional to relegate its importance to the background prior to the year 2020 and this might simply be associated with lack of adequate appreciation of the roles of technology (and maybe be lack of financial means even though I strongly disagree); but doing the same thing post the COVID-19 pandemic might simply mean blatant ignorance of the reality of the current time. In certain instances, medical schools were first shut down almost indefinitely with the hope that the covid-19 situation would suddenly go away, and the schools would re-open to resume normal activities. However, the gross inequity in vaccine distribution in the globe has brought in a new reality.

I, therefore, would like to join several authors in advocacy for the institutionalized adaptation of eLearning and technology to the medical education arena in Ethiopia. Medical schools in Ethiopia should integrate E-learning into

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their routine pedagogical strategy. Stakeholders in medical education should consider investment in the most relevant technology – free and strong internet connection, and personalized devices to all students and faculty to say the least. Starting with dynamic approaches such as blended learning might help for ease of adaptation. Continuous skills development trainings should be provided to faculty and students.

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