

Artificial Intelligence and Medical Education

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Introduction: Medical education has been ever evolving incorporating recent advances in the curriculum every now and then. Recently it has embraced online mode of medical education because of the COVID-19 pandemic and at present a hybrid model is more welcome than traditional teaching learning method. Now artificial intelligence (AI) is round the corner and it has the potential to change the healthcare, medical decision making and medical education.

In the era of rapid medical advancements are we totally new to AI? Surprisingly No. The heart rate monitors and step counters are other way round examples of AI in day-to-day life. Surgically it has already made an impact through robotic arm, robotic surgeries. It has also found applications in medical imaging, radiodiagnosis and medical record keeping. Virtual nursing assistants are yet another example of AI¹. It does come with pros and cons though. AI can be of immense help in the remote or rural regions with lack of adequate medical facilities and enhance the underserved population's access to healthcare. It can aid in data collection, medical decision making and sending health alerts to patients but it lacks in establishing advantages of eye to eye contact and rapport building in a doctor patient relationship. It can be utilized in administrative tasks, medical record keeping though, making quality time available to busy practitioners for healing their patients.

How does it affect medical education? With the roots of AI deepening in the healthcare industry it is time to make course correction to make young budding medical practitioners well versed with artificial intelligence and its applications. An online survey on 3018 participants has concluded the demand for an update in medical curriculum incorporating knowledge and skills to effectively use artificial intelligence applications and ensure protection of professional values and rights as well.² One such educational innovative product has been presented (with respect to weeks of training required, learning objectives, content, and assessment by week and competency) that achieves the objective of competency-based education of students regarding the role of AI in medicine. This course can be integrated in the preclinical years with a focus on foundational knowledge, vocabulary, and concepts, and

in clinical years with a focus on application of core knowledge to real-world scenarios.³ AI can make learning a fun experience with incorporation of software technology in medical education but it cannot motivate or help in problem solving of the budding medical graduates. It can aide in understanding various physiological and pharmacological concepts, help arrive at medical decisions using various machine language and algorithms. It can also help in understanding surgical anatomy and acquire skills using AI enabled skills lab training. It is time to embrace AI to engage students, help them acquire skills for its future use in their medical practice and provide them with an independent learning experience. Due highlight to be thrown upon role of AI in medical research and drug development. It is an opportune time to incorporate AI and make it enriching in the lifelong learning experience of budding medical professionals.

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