ISSN: 2476 - 2415

Short Communication

International Journal of Clinical & Experimental Dermatology

Ethical Considerations of Artificial Intelligence- How sacrosanct is health care?

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Submitted: 14 Oct 2022; **Accepted:** 20 Oct 2022; **Published:** 31 Oct 2022

Citation: *Alpana Mohta, Abhinav Mohta, (2022). Ethical Considerations of Artificial Intelligence- How sacrosanct is health care?, Int J Clin Expl Dermatol, 2022, 7(3), 80-81.*

Key Words : Dermatology, machine learning, neural network, artificial neural network.

Ethical Considerations of Artificial Intelligence- How sacrosanct is health care?

The modern marvel of computer software with artificial intelligence (AI) can now identify skin cancer with even greater precision than a certified dermatologist.1 To make things smoother, these algorithms can even complete the process of reviewing clinical images more quickly and effectively. What would take a dermatologist more than 8 years of hands-on training and experience, can be done by an AI in mere seconds. Now at the outset, it might seem like this kind of technology will eventually replace doctors. But a thorough examination of the potential applications for AI in the provision of healthcare is necessary to comprehend its existing advantages, the potential pitfalls, and most importantly, its ethical challenges.

Virtually every area of medicine could benefit from the application of artificial intelligence (AI), including the domains of machine learning, convoluted neural networks, natural language processing, and robotics.[2] Other considerations include the potential contributions of AI to medical training, scientific research, and healthcare delivery seem unbounded. AI can also play roles in diagnostics, choosing the optimal treatment plan, and customized medicine thanks to its robust capacity to incorporate and learn from massive volumes of clinical data.[3] The most widely applauded role of AI in dermatology is its implementation in the diagnosis of skin cancers including malignant melanoma.[4] Other uses include, AI-based diagnostic algorithms being used in mammograms are helping in the identification of breast cancer and providing doctors with a "second opinion" in the process.[5] The development of robotic prostheses, and mobile manipulators are found to be proficient in the delivery of telemedicine.[6] Furthermore, this sophisticated virtual human-like intelligence can hold meaningful dialogues, which has implications for the identification and management of psychiatric disorders.

However, as AI technology poses the potential to gravely jeopardise patient choices, safety, and privacy, many ethical challenges are presented by it which must be recognised and addressed., present AI legislation and ethical standards are already falling behind the advancements that AI has made for the healthcare industry. The medical community is still unaware of its ethical challenges. Regardless, some researchers have attempt to participate in these ethical discussions which are emerging like wildfire.[7-9] Since medical professionals are soon to use AI on a regular basis, As a result, a thorough conversation is forthcoming that would significantly benefit from the participation of physicians and surgeons alike.

The most pressing issues include addressing the increased risk to the privacy and confidentiality of cases. As the boundaries between the roles of doctors and machines in patient care blur out, there is an urgent need to modify the training of aspiring doctors in order to prepare them for the impending changes within medical practice. Furthermore, discussions on these issues will help stakeholders build realistic perceptions of what AI can and cannot achieve, enhancing physician and patient knowledge of the role AI can play in health care.[3]

Balancing the advantages and risks of AI technology will be one of the key topics to be covered. The rapid adoption of AI technology may drastically benefit the healthcare industry on its own since it would increase the patient care quality and delivery efficiency. However, we still need to reduce the ethical hazards being associated with implementing AI, namely, patient autonomy and informed consent. Other chief areas that need to be addressed are patient privacy and confidentiality. It is cardinal to encourage stakeholders to be adaptable while implementing AI technology.

Researchers have found that AI lacks the proficiency to confident-

ly predict the disease and outcome based on patient's race, gender and socioeconomic status. It is also argued that medical education should be reframed from a focus on knowledge recall to a focus on training students to interact. Another major concern brought forward was the inability of AI to differentiate real patients from virtual patients. This poses a major threat to the potential misuse of AI in the wrong hands.

There is still a need for the development of a well-thought-out, high-quality, and clinically validated AI. The legal and health policy conflict arising with the use of AI in health care also need to be taken into consideration. Legal issues ranging from medical malpractice to product liability arise when the users of AI are unable to provide a logical explanation for how the algorithm arrived at its given output. Unfortunately, there is a policy gap governing the protection of patient photographic images as they apply to facial recognition technology, which could potentially jeopardize getting their proper informed consent, incidental findings reporting, and data security.

The health care professionals need to be trained thoroughly about he mechanics and working models of AI because otherwise users will remain unable to provide a logical explanation for how the algorithm arrived at its given output.

There is no denying the fact that AI will have far-reaching consequences that would revolutionize and transform the practise of modern medicine. These changes would resonate with a transformation in both the patient experience and physicians' daily routines. The use of AI in health care system will even extend into unexpected areas including, but not limited to artistic practise. But with new quandaries emerging from the rise of thinking machines in previously human pursuits, unimagined ethical issues could also arise. Nonetheless, a much greater body of work still remains to be done in order to establish the proper ethical foundation for the utilization AI technology in health care system in a completely safe and effective manner.

Source(s) of support: nil

Presentation at a meeting: nil

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