

Medical Research and AI—A new era

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Every emerging technology has its own pros and cons, leaving deep concerns regarding society's and population's overall wellbeing.¹ In 1980s, attention to AI was turned.² Artificial intelligence (AI) has also been referred to as "new electricity".³ AI system analyses self-learning and myriad of data. AI soft wares and systems are designed and developed to perform functions that require human intelligence, decision making, language understanding.⁴

AI is progressively becoming a trustworthy advisor in populace's lives.⁵ AI experts have great anticipations for digital advances by 2035, across several aspects of life, and have expectations of striking improvements in education and health care. On the other hand, they fear massive unemployment.¹ They have also raised concerns about excessive production of the papers aided by generative AI.⁶ Evaluation of AI is challenging task.⁷ Topic of ethics in AI has gained a special attention, for instance there is difference among humans exploiting the technology and ethics of machines.⁸ A new concern arises if AI persuades people to break ethical rules for profit.⁵

Development & success of "Large Language Models (LLM)", is one of most interesting progressions in AI. These software and algorithms are trained for generating human-like language. Chat Generative Pre-Trained Transformer (Chat GPT), is currently the most famous and widely used amongst them.⁹

In 2018, Chat GPT-1 was introduced, and in 2019, its version-2 was introduced. But in June 2020, most frequently used version chat GPT-3.5 was introduced. However, a free research-preview wasn't released until the Nov, 2022, in order to gather user's feedback. First article on Chat-GPT in PubMed, is from December 2022. 458 manuscripts have been published since then, proving how swiftly its importance has increased in modern era. It can

help researchers to get relevant and quick information from a bulk of literature. It facilitated young scholars, researchers and students, in different fields, by doing your homework, complete assignments, writing essays and stories, write original manuscripts and generate MCQs,¹⁰ AI would continue to be beneficial if integrated vigilantly.¹¹

Main rising ethical question is that whether AI should be used for the scholarly activities, for instance publishing and research and it could be listed as an author or not.¹² AI- driven progress has been seen in molecular medicine and infectious diseases and has also boosted field-deployable investigative tools. Medical notes generation by AI could reduce administrative burden of health-care personnel, giving them more time to meet patients. Doctors can't ignore AI, and it could improve their practice by helping rather than replacing them. Medical educators should prepare healthcare personnel for digitally augmented future.¹¹

Recently, Google Cloud publicized new search capabilities driven by artificial intelligence that would aid physicians in swiftly accessing information from various data sources. Since information is frequently stored across many systems, finding it can be difficult for medical professionals. Google's new tool consolidates all of this information in one location. New features will be made available to life sciences and health organizations by means of Google's Vertex AI Search platform, eventually saving a substantial amount of energy and time.

For example, if clinician wants to know about patient's history, he does not need to go separately through their electronic health records, faxes, and notes. Rather, he can search queries and see relevant data and information in a single place.¹³

This novel technology might seem daunting.¹⁴ Nevertheless, it would be reckless to remain unchanging and stagnant in this era of quick

development. Such tools need to be used ethically and effectively, and we need to train the young generation at an institutional level.⁹

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