

Chapter 11

Analyzing the Future of ChatGPT in Medical Research: A Pre-Print Investigation

ABSTRACT

ChatGPT, an advanced language model based on the GPT-3.5 architecture developed by OpenAI, has garnered significant attention and widespread discussions across various domains. Students, educators, professionals, and businesses alike are engaging in dialogues about the capabilities and potential applications of this cutting-edge technology. The objective of the study is to seek current research directions of ChatGPT by looking at various pre-print servers. The current research surrounding ChatGPT demonstrates a growing interest in its application within the context of medical examination boards. Researchers have observed the potential of ChatGPT as a beneficial tool in supporting medical assessments and evaluations. Other research directions include literature synthesis and clinical decision.

INTRODUCTION

The primary reasons supporting the sharing of work in its preliminary form are twofold. Firstly, expediting the availability of research results accelerates the progress of science, enabling timely dissemination of completed work. Secondly, by sharing work with a broader audience, articles benefit from valuable feedback from a diverse group of readers in addition to the formal

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peer review conducted by a select panel of experts. This dual approach fosters continuous improvement and refinement of scientific publications (Rawlinson & Bloom, 2019). A preprint is a research article made publicly available prior to formal publication. A preprint server is a freely available archive and distribution medium for preprints, allowing rapid dissemination and use of multimedia and supporting files (Warr, 2003).

The current study will aim in the discovery of solutions that yet to be published in peer review journal and waiting in pre-print servers. The researcher examined the pre-print manuscript that are in process of peer review as it relates to ChatGPT's impact on medical education. Among the research inquiries are: RQ1: What forthcoming research can be anticipated on the utilization of ChatGPT in medical education?

METHODOLOGY

The current study investigates the pre-print manuscript that are yet to be peer reviewed. The researcher focused on manuscript published in 2023 based upon convenient narrative sampling. SSRN, Arxiv, Medrxiv, Biorxiv, and Authorea were the chosen preprint servers. Medrxiv possess the maximum number of relevant manuscript on ChatGPT. The identification of manuscript was based upon keywords such as "ChatGPT" and "Medical Education". Citations originating from the authored by the current authors are excluded in this document. Only external references to relevant works are included for a comprehensive and unbiased representation of the literature. Duplicate articles were removed in the given table inside the results. Incomplete manuscript, irrelevant article, abstract only articles were excluded. Given the timeline of this article's publication, it is conceivable that some of the peer-reviewed papers mentioned here might have been published before the release of this manuscript.

RESULTS AND DISCUSSION

The available pre-print encompasses a wide range of investigations exploring the application and performance of ChatGPT in various medical education and healthcare scenarios. These studies delve into areas such as

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