NAVIGATING THE ETHICAL LABYRINTH: AI CHATBOTS AND THE FUTURE OF UNIVERSITY LEARNING

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Abstract

AI is used in very many fields including in the medical field in the areas of education , practice and research . A vast proportion of medical educators introduced the ChatGPT at the end of 2022 for many purposes. Responding to a call for systematic reviews, the purpose of this article was to identify possibilities, advantages and disadvantage of app utilizing. Roles of ChatGPT in the teaching of integrated pharmacotherapy of infectious disease module. This study was ansurvey research through the case of an experimental study with content analysis of the potential applications of the ChatGPT model for CME – Integrated pharmacotherapy of infectious diseases, module education was provided. The findingsof this study also demonstrate that varies of possible application, advantage, and disadvantage can be apply in the analysis. ChatGPT. To sum up, the educators in the field of medical and health sciences can navigate with the help of ChatGPT in many.factors associated with the Curricula in Integrated Pharmacotherapy of Infectious Disease. As a result, syllabus design, lecture notes preparation, and exam preparation should be done carefully.

Keywords: technology; high quality education; the quality living environment in considered communities; innovative technology infrastructure; collaborations for the goals ; sustainable learning; equity.

Introduction

Artificial intelligence (AI) have an important role now more than ever before across many disciplines in our society including medica education, practice, and research [1-6]. Artificial Intelligence can be defined as the " It is the science and engineering of making intelligent equipment particularly computer based programs. It is related to the similar task identifying capabilities of computers in emulating the brain, but AI does not need to be limited to that deals with methods which are responsibly testable using biological methods" [8]. focusing on what is traditionally referred to as intelligent, in computing interaction, and indeed with artefacts that

exhibit some of this behaviour" [8]. One of the last advancement in the artificial intelligence development is the emergence of a model named ChatGPT which is an interactive dialogue model. It is possible to use a dialogue format here to accept ChatGPT's mistakes, and allowing it to decline wrong questions, question incorrect assumptions, and refuse improper demands; ChatGPT is just a general kind of a Large Language Model .The recently released LLM by OpenAI We believe that with improvements, LLM can help social media with the following benefits: Whereas the previous class of AI models has mostly been the Deep Learning (DL) models, which are built in the way to learn and recognize the patterns in respective data sets, LLMs are a novel kind of AI algorithm trained for the likelihood of a that a certain sequence of words can be predicted by analyzing the meaning of the previous words in the given [9]. Many educators, researchers, and healthcare personnel & students began using ChatGPT at the end of 2022 for many purposes for preparation of notes for lectures, assignments, literature review and many more. The purpose of this article is to describe the possibility of using ChatGPT in integrated pharmacotherapy of infectious disease module education, advantages and disadvantages of its use.
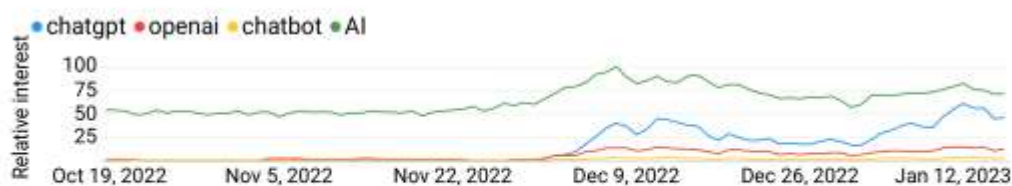
Figure 1: Trend in Google searches for chatbot and AI-related queries. Retrieved from Google Trends[1].

2. Materials and Methods

2.1 Study Design:

Adding to this, the potential of the ChatGPT model for integrated application is buttressed by a content analysis. Pharmacotherapy of infectious disease cognitive module education was provided.

2.2 Data collection:

Consequently, this work was conducted between January 2023 and February 2023 with the aim of establishing the likely prospects, benefits, and drawbacks of using the ChatGPT model for integrated pharmacotherapy of infectious diseases module education:

Here, the subjects related to the curriculum were posed to know the capability of ChatGPT to answer them; the questions were divided to the following themes:

Theme 1. With regard to the integrated pharmacotherapy further questions have been raised In column 2, the improvement strategies of infectious diseases module

curriculum emphasizing congruent with the suggestions Thomas et al., 2022 are expounded in the six steps for the development of medical education curriculum [10]:

Step 1: Some degree of problem awareness and global needs judgment

Step 2: Targeted Needs Assessment

Step 3: Goals and Objectives

Step 4 : Educational Strategies

Step 5: Implementation

Step 6: Evaluation and Feedback

Note: Step 5 was not included

Theme 2. All syllabus questions regarding every topic including the pharmacotherapy of respiratory tract infection integrated.

Theme 3. Questions that can be used in case of preparing the lecture note concerning each of the topics of discussion. such as integrated pharmacotherapy of infection of the respiratory tract diseases,

Theme 4. Quizzes and information linked to the evaluation of the forthcoming tests, and polemic material. By or, for instance, integrated pharmacotherapy of respiratory tract infections applied to each of the topics.

Literature review:

The data for this manuscript was generated from literature review where published peer-reviewed, scholarly articles were read and synthesised.

Scopus as quartile 1. This search was done through the use of key words like "ChatGPT," or "AI-written text,"

The two terms include "natural language processing". In order the avoid ambiguity in the results and to be able to provide high quality data

of the sources used in this paper, preprints were excluded by our references. However, the latter one may be irrelevant and may include certain bias especially with relatively new entities.

That an institutional investment in National Library of Medicine (NLM) technologies did not guarantee that the would guarantee a credibly independent and accurate evaluation the state of the field. In this context, therefore, the analysis was conducted using the quasi-qualitative approach through intensive reading and critical appraisal of the sources with a view to selecting instances supporting research findings questions.

2.3. Data Analysis

Three faculty members sufficiently experienced with teaching integrated pharmacotherapy of infectious disease modules and an entire curriculum reviewed the answers by , I evaluated the suitability and the work's correctness of each question by percentage, based on ChatGPT and ranking. of one hundred; the mean of 3 professor assessments was used in this study. Moreover, they were also required to share their

perception over the potential, benefits and risks of using of ChatGPT in pharmacotherapy of infectious disease module education integrated:

2.4. Considering ethics

The use of artificial intelligence in the university: should we ban the chat? Moral perspective The ability of artificially intelligent chatbots to produce human-quality texts has sparked a debate in universities: area they should be prohibited or area they should be harnessed? This question cannot be answered with respect to convenience only, it is a question of academic reference, ethical education, and pedagogy.

Ethical Concerns:

Academic Integrity: The excessive use of social media and AI chatbots is equally a very bad omen to academic integrity. They can use them to write essays, assignments, research papers which are contrary to principles of high individuality and integrity in writing. This makes one to question the correctness of the calculations as well as the usable worth of the confidence data produced.

Fairness and equity: Chatbots ban may worsen the already existing inequality among students. Some may have the technology and other means through which they may use it while to others such opportunities may not be available to them. This leads to a fair ground for those who are capable of avoiding conventional learning.
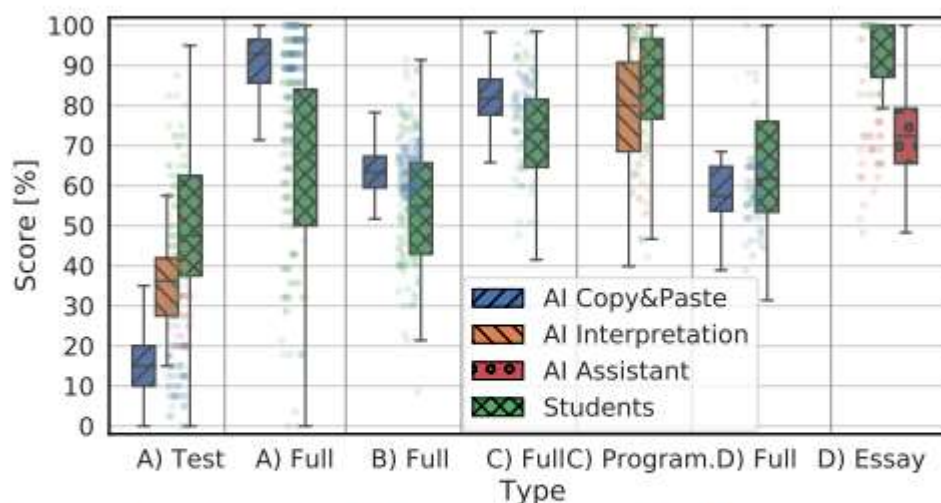
Figure 2: The results obtained by scoring AI outputs in multiple evaluation categories with comparison to a genuine sample of student scores.

3. Results

The knowledgeable performance of ChatGPT to design the integrated pharmacotherapy for managing infectious disease module curriculum

Step 1: Some degree of problem awareness and global needs judgment

Expert opinion analysis reveals that despite being able to describe the need, ChatGPT was not very successful. on the journey of integrated pharmacotherapy

course in general for the students of health care For ; But Chat GPT cannot explain the significance of integrated pharmacotherapy of disease, this particular ChatGPT was well capable of outlining the problem of antibiotic resistance. In general we received 65% average of rates appropriateness and accuracy of experts.

Possible favorable outcomes

Here are explanations to assist medical and health sciences educators regarding the significance of pharmacotherapy curricular components from the literature review section developed in the previous chapter.

Potential peril

ChatGPT can not explain the problem and general needs assessment to a particular group of people.

Recommendations

Medical and health sciences educators can use it to get an idea about the subject matters of their courses or programs.

If they are to comprehend what is reported in the literature then they should be in a position to understanding the problem and other general needs assessment concerning their countries with other techniques.

Step 2: Targeted Needs Assessment

Analyzing the opinion of an expert, it is found out that ChatGPT was capable of designing a general questionnaire to be administered first in first instance for conducting the feasibility study of the given integrated pharmacotherapy.

However, it did not offer a particular questionnaire construction in relative to an integrated medical treatment of infection or infective disease the pharmacological management of infection or infective disease. Nevertheless, an analysis of this work shows that ChatGPT did not make a qualitative study design either. Experts mean of rate of appropriateness and accuracy Following the results above, the mean rate of appropriateness and accuracy of the identified experts have been computed was 50%.

Potential favorable outcomes

Someday, ChatGPT will assist the medical and health sciences educators in developing a short quiz that will provide conclusive results of the feasibility study.

Potential peril

Although there are many procedures that should be followed while designing invalid and reliable questionnaires or qualitative interviews, the latter will not be possible with ChatGPT.

Recommendations

Therefore, CH Medical and health sciences educators cannot ask ChatGPT to develop forms of valid and reliable questionnaires, or qualitative interviews.
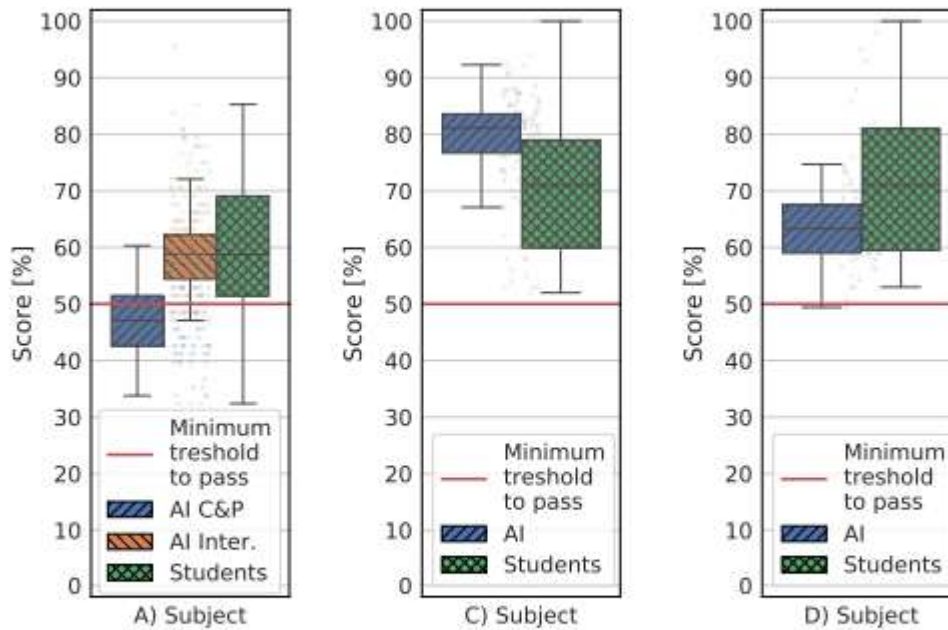
Figure 3: Overall scoring assessment for the various subjects based on different examination methods with highlighted pass mark threshold.

Step 3:   Goals and Objectives

An analysis of opinions of the expert made it possible to conclude that chat GPT possess the capacity to forge the goals for the integrated pharmacotherapy of curricula of infectious diseases and average of expert rates

As is clear, the subjects developed a 92% percentage on perceived appropriateness and accuracy of the items. Analyzing the expert point of view it is possible to conclude that

ChatGPT could write overall objectives of IPIAC of infectious disease curriculum; the percentage of the goals that the experts found relevant and correct was 80%.

Potential favorable outcomes

Because it supplies formatted goals and objectives on the integrated pharmacotherapy of infectious disease, ChatGPT IS helpful to teachers in medical and health sciences faculties.

Potential peril

Some of the Goals and objectives suggested by ChatGPT were again very broad while some of what could not in order to address all the learning objectives/ outcomes domains.

Recommendations

In this way, ChatGPT can help Medical and health sciences educators in the following manner; the improvement of the outcomes and objectives of the integrated pharmacotherapy of infectious disease curriculum.

Step 4: Educational Strategies

For further details, the opinion of the expert expounds that ChatGPT does assist in the educational methods Among the rates concerning the extent to and techniques of the methods, and the degree of accuracy of the proportion, 75% of the experts obtained it correct.

Potential favorable outcomes

ChatGPT may be useful to medical and health sciences educators concerning the concerns of instructional methods.

Potential peril

Several of the activities proposed in ChatGPT educational activity could not be accomplished.

Recommendations

All in all, Medical and health sciences educators can plan with reference to ChatGPT's pointers if they are done with the educational intent information on integrated pharmacotherapy of infectious diseases for curriculum implementation strategy.

Step 5: Evaluation and Feedback

The finding of this study also demonstrates how ChatGPT can improve the identified relevant that concerned with the assessment of the expert assessment and interpretation; the mean of a rate of relevancy to the topic and its precision assessed by the experts was 85%.

Potential favorable outcomes

ChatGPT can assist the medical and health sciences educators concerning the ways of evaluation and feedback.

Potential peril

Therefore, the notion of the evaluation and feedback by ChatGPT which could not be done is applicable in some universites.

Recommendations

With this, faculty and teachers offering medical and health sciences programs can use ChatGPT to be cop in the evaluation concerning the integrated pharmacotherapy of infectious diseases curriculum comments and feedback.

Theme 2.

The analysis of the expert opinions indicates that: ChatGPT positively contributes in syllabus design; the overall mean of the experts' rates of the appropriateness and accuracy is 70%. However, the syllabus was also insufficient in learning goals, subjects and teaching materials.

Potential favorable outcomes

It can assist the medical and health sciences educators to design the lecture notes with ease.

that curriculum innovation integrated pharmacotherapy of infectious disease should be done with some caution.

Potential peril

Unfortunately, the lecture notes suggested by ChatGPT could not be and omitted many important issues.

Recommendations

Educators in medical and health sciences can benefit from ChatGPT as a helpful mode in developing the course that outlays and integrates pharmacotherapeutic approaches relevant to an infectious diseases syllabus

Theme 3.

The analysis of the fragments of opinion shows that there is the possibility in applying ChatGPT concerning lecture notes preparation; However, notes taken while delivering the lecture were quite superficial; further, the recommended studies from the GAP analysis it was found that regarding each of the lectures either the course/programme objectives /outcomes were missing or the learner's objectives / outcomes were missing. The total mean of generated rates established the overall percentage appropriateness and accuracy of the proposed rates by the experts was 65%.

Potential favorable outcomes

Among all the aforementioned aspects, ChatGPT may help the medical and health sciences educators in formulating the following syllabus of Concerning the integrated pharmacotherapy of infectious diseases integrated curriculum attention has been paid sufficiently.

Potential peril

It's equally important to note, stating that the mentioned syllabus by ChatGPT could be followed, and all issues are covered by it would be lying.

Recommendations

Using ChatGPT, Medical and health sciences educators can use the model to refer to when developing the spring 2011 students' written and oral quizzes regarding the integrated pharmacotherapy of infectious disease curriculum.

Theme 4.

According to the specialist, after analyzing some of the answers that were generated by this model, ChatGPT, one can conclude that it can be useful as a preparation for the exams. However, the exams did not cover all the learning goals/outcomes which were listed above. Because there were so many different rates suggested simply to give you an idea the mean of all the appropriateness and accuracy of the rates founded by the experts was at 70 percent.

Potential favorable outcomes

Most important, it can assist the medical and health science educator to develop several of exams to model answers which are linked to the integrated pharmacotherapy

of infections introduction of disease curriculum it seems reasonable to stress it with a lot of precautions.

Potential peril

Neither of the proposed exams by ChatGPT is possible, and there is no way to and examine everything that ChatGPT can do or any other tech like it can do learning objectives/outcomes.

Recommendations

It is noteworthy that ChatGPT can be used as an orientation tool for educators in medical and health sciences while designing the self assessment of the assessment for the integrated pharmacotherapy of infectious diseases course.

4. Discussion

As pointed out in this paper, it was this paper's intention to establish the feasibility of implementing ChatGPT on curriculum formulation in teachers of medical and health sciences, syllabi preparation, lecture notes, and examinations.

Theme 1. This is one of the incentives that may be provided for implementation of ChatGPT to support integrated pharmacotherapy of infections disease curriculum

The results of this study reveal that ChatGPT was useful for online medical and health soothsay with efficiency and success.While many of the sections in this book will prove valuable for sciences educators in general, they will be most useful for new science educators across all domains of curricular enactment approaches.

With care since the modified ratings of the aspects of curriculum development by the experts ranged from 50 % in. As shown in figure 3, identification of the plan goals pattern, specific /Targeted needs assessment pattern and the suggestion goals pattern reveal that the percentage index accomplishes 82%, 90% respectively and 92%. Therefore, medical and

It also shows that health sciences educators can monitor the evolution of the course of-chat GPT in creating such curriculation.

Education professionals in countries have begun using ChatGPT only a few weeks ago; it may already be even better in the near future to produce all the steps as regards such curriculum worthy and comprehensive plans next State.

Theme 2. Some disadvantages of using ChatGPT in the integrated pharmacotherapy of infected patients disease curriculum . This enabled the establishment in this study that, there are dangers that are inclined with the employment of ChatGPT for the integrated pharmacotherapy of infectious disease curriculum establishment, syllabi development, class notes and examination.

strategic course learning objectives and achievement, build significant learning needs/achievement, fabrication of un valid questionnaires and interviews, kind of assessment questions etc. As with any other top model, Chat GPT also has its disadvantages; Longitude: and all technologies; thus medical and health sciences

educators should have knowledge on it and use it cautiously and intentionally only for help by the students and not as the sole source of information do all work.

Theme 3. Proposal for the integrated pharmacotherapy with the help of ChatGPT infectious disease curriculum.

The author of this paper outlined several specific areas in which ChatGPT could prove valuable to medical and health sciences educators, however, they can use ChatGPT as reference in developing curriculum, syllabi, lectures notes/study/study session/CL assessment/exam preparation.

5. Conclusion

Therefore, medical and health sciences educators can look to ChatGPT as a map to how to.Erkin Khasanov 2024 in a number of respects concerning the integrated pharmacotherapy of the infectious disease curriculum relative to development of such aids, syllabi, notes and exam there should be some level of caution. I have considered training workshops about ChatGPT and AI to be of great importance and relevant to everyone, these AI systems are the future.

Recommended. It is very useful approach and definitely should be practiced in medical and health sciences education; it is important to discuss the further utilization, the benefits and the limitation of ChatGPT in this field as the hints what recommendation can be considered as the best practice.

References

1. Ahuja AS. These are as follows; Artificial intelligence in medicine and the future of the physician. PeerJ. 2019;7:e7702.

2. Bohr A, Memarzadeh K. AI in healthcare… InArtificial Intelligence in healthcare 2020; 1 (pp. 25-60). Academic Press.

3. Primary and secondary health care periodontal risk assessment. 2003:649–786; Secinaro S; Calandra D; Secinaro A; et al. The role of artificial intelligence in healthcare: Such a scoping review could be followed by a structured literature review. BMC medical informatics and decision making. 2021;21:1-23.

4. Davenport TH, Ronanki R. Artificial intelligence for the real world. Harvard business review. 2018 1;96(1):108-16.

5. Hosny A, Parmar C, Quackenbush J, Schwartz LH, Aerts HJ. AI in radiology. Nature Reviews Cancer. 2018;18(8):500-10.

6. Roll I, Wylie R. Evolution and revolution in artificial intelligence in education. IJAAI is an indexed Artificial Intelligence (AI) Journal that is out in every two months and accepts papers in any topic and method from different specialists and scholars of Artificial Intelligence and Computer Science internationally. Education. 2016;26:582-99.

7. McCarthy J. What is artificial intelligence: Accessed on : [online] Accessed on: http://cse.unl.edu/~choueiry/S09-476-876/Documents/whatisai.pdf 2007