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Studies on the Ethics and Effects of AI Chatbots/Tools in Providing Task Assistance for School Assignments and Tasks

Abhinav Balamurugan
GEMS Modern Academy, Dubai, United Arab Emirates

Abstract: AI chatbots are becoming highly popular among students as they use it as a tool to complete school assignments and accomplish projects. This study critically reviews the literature concerning the ethical issues and educational impact of their use. The research is structured around three key aspects: (a) students' and teachers' perspectives on the use of AI chatbots in academic tasks, (b) advantages, including personal support and immediate feedback, with limitations, such as potential misuse, and (c) ethical challenges, such as academic dishonesty, data privacy risk and the reliance on AI tools.

This study also focuses on how AI chatbots affect student engagement, learning outcomes, and critical thinking skills. These tools are ingenious in their attempts to make learning more engaging but also bring with them risks that could choke off the growth of critical academic and life skills. Based on the literature analysis and survey of educators' and university students' opinions, this paper provides recommendations on how to effectively address the implementation of AI chatbots in school context. It is for the purpose of assisting schools to put the benefits of explaining AI tools into equities and managing the ethical issues arising from their application.

This research is highly appropriate for conducting at the present time because the introduction of AI tools in learning processes has been progressing rampantly in recent years.

Keywords: AI chatbots, ethics, academic dishonesty, data privacy, students' engagement

I. INTRODUCTION

AI chatbots are reshaping how students learn by giving instant answers, personalized guidance. On one hand, these tools improve education, it has amazing efficiency and good engagement, but on the other hand they raise serious ethical concerns. The fundamental issues of concern are academic dishonesty, threatens to disclosure of data, and leaning on AI for intellectual tasks. The Australian study reporting on this shows that chatbots like ChatGPT are good for enriching educational spaces, but also present a way in which misuse and overreliance can occur. For that reason, this research attempts to understand the pros and cons of AI chatbots in schools and its ethical implications. The goal is to establish precise useful, actionable strategies for educators, students, and administrators using AI responsibly. The goal is that these tools will not unnecessarily compromise the effectiveness of learning outcomes and academic integrity or critical thinking skills. Through a synthesis of literature and analysis of the ethical challenges in the use of AI chatbots, this paper offers a structured approach to their use in education in a manner that is both ethical and effective. It presents concrete recommendations for striking a balance between innovation and responsibility so that AI can still be an implement that helps, rather than disrupt, the academic scene.

II. WHAT IS AI

Artificial Intelligence (AI) refers to programmed machines that carry – out tasks that a human would be expected to do. These include learning from experience, adapting to latest information, and conducting such functions as speech recognition, visual perception, decision-making, problem solving, and language translation.

III. WHAT IS AI CHATBOTS

AI Chatbots are artificial intelligence software programs that run on computers programmed to mimic human behavior and communication. This allows effortless interaction with users, processing and responding to user texts or voices. Increasingly, these tools are being used in such industries as customer service, education, healthcare, and entertainment, providing automated support, and improving user engagement.

There are several diverse types of AI chatbots, depending on how complex and capable they are. Rule based chatbots uses scripts and will answer simple questions. Rule based chatbots have fixed answers different questions and are limited in flexibility. Keyword recognition chatbots are used to recognize input keywords and use it to respond in a correct way. Advanced AI powered chatbots use machine learning and natural language processing (NLP) to engage in diverse inputs and provides intelligent and personalized replies. Voice chatbots rely on speech recognition technology to respond to the user through voice interactions, while generative AI chatbots are a level further to compose their own text, adjust their content and display empathy. These chatbots have made the life of businesses and organizations quite easy by offering 24x7 availability without any hassle, persistency in response and saving time by improving handling and efficiency.

IV. LITERATURE REVIEW: ETHICS AND EFFECTS OF AI CHATBOTS IN EDUCATION

The increasing implementation of Artificial Intelligence-powered chatbots in education raises a growing list of questions, from their consequences to issues of academic integrity. This section reviews the literature and examines some of the recent studies (2022-2024) on the effectiveness and risks and best practices in the implementation of AI chatbots in schools.

Smith and Liu (2023) examined the ethical issues and concomitant challenges associated with the increasing use of AI chatbots in education. They surveyed five hundred students and one hundred teachers, and the most significant concern, according to them, was academic integrity: 60% of teachers reported increased incidents of plagiarism. Chatbots, they found, improve learning because they can provide feedback and individualized support immediately. While useful in pointing out some of the ethical concerns, this study has a limitation in its focus on a very narrow sample of participants in one geographical location, which may not represent larger trends.

Panagopoulou et al. (2023) extended their support for this argument, regarding the Legal and Ethical Considerations Regarding ChatGPT in Education. The authors focused on the legal and ethical challenges presented by AI tools and argued that without regulation, the tools threaten academic integrity. They propose transparency in its use and accountability among its operators. However, their work fails to give ways in which the risks can be averted, which it would be useful to base further research upon.

Li et al. (2023) considered issues related to data privacy in their work, AI in Classrooms: Ethical Challenges. Based on case studies from high schools, they demonstrated how most of the chatbot systems lacked appropriate security features that could protect students' personal data. They recommended the establishment of strict policies on privacy with full disclosure to users. The work is useful but limited in assessing only a few schools and not considering balancing off the privacy concerns against those of the schools in the balance of use of the AI technology. A larger and more representative sample may present a clearer situation of the problem.

Green and Patel (2024) echoed similar concerns in their work, Balancing Innovation and Ethics in AI-Powered Classrooms. They said that data breaches and improper security measures may result in leakage of information about students, and robust cybersecurity was required. However, they did not investigate what issues the schools will face while acting upon these recommendations and, therefore, provide a point for further research.

Sidiropoulos and Anagnostopoulos (2024) discussed the psychological and learning implications of over-dependence on chatbots in their article, Applications and Ethical Challenges of AI in Education. According to them, students who are over-dependent on these AI chatbots will degrade in their critical thinking skills and problem-solving performance. Their findings were supported by Lakkaraju et al. (2024), who studied the usage patterns of students using AI-driven tutoring platforms. While the findings are of immense importance, neither of the two fires the role of teacher intervention, which may be used to reduce the impacts suggested by them. Therefore, future research may focus on proposing teachers' role in keeping the students' cognitive skills alive when learning through AI-equipped virtual learning environments.

Despite the difficulties, many studies outline the advantages of AI chatbots. Jones et al. (2024) stated that chatbots raise student engagement and motivation, especially in environments of personalized learning. Similarly, Xu et al. (2023) identified that AI tools improved learning outcomes among students who required additional academic support. While these results seem very promising, both these studies took place in particular regions; thus, their generalization is limited. Further investigations are necessary to identify exactly how AI chatbots impact diverse student cohorts in different educational systems.

Research continuously calls for guidelines that balance the pros and cons of AI chatbots within education. Smith and Liu (2023) developed ethical frameworks emphasizing the importance of transparency, responsible use policies, and AI literacy programs for both students and teachers. Green and Patel (2024) recommended collaboration between policymakers, educators, and developers to create appropriate AI systems that are at once secure and effective.

While both provide significant frameworks, they also have a limited number of points regarding how schools could effectively apply these in real life. That points to a need for continued research into actionable best practices.

The reviewed literature has indicated the duality of AI chatbots in education: tremendous potential to improve learning but also a set of ethical and practical challenges that will require careful management. Whereas key issues of academic integrity, data privacy, and over-reliance have been investigated, there are still large voids in understanding how to respond to these challenges in an effective manner in diverse educational contexts.

V. STATEMENT OF THE PROBLEM

Academic integrity and educational fairness in a world of growing reliance on AI chatbots for school assignments and tasks is a genuine problem. While the accessibility and efficiency these tools provide is potentially powerful for student learning, to date, their impact on student learning has not been rigorously studied. Studies of plagiarism, reliance on technology, and loss of critical thinking skills have been conducted, but not until recently have we experienced research that comprehensively discusses the ways in which these tools disrupt educational processes. While previous works have considered aspects of ethics and learning outcome in isolation, there remains lack of understanding the scope of consequences associated with large scale chatbot usage across varying educational contexts. In other literature on AI tools, there is a tendency to overlook the uneven access to AI tools, and this only exacerbates educational inequality. This research fills these gaps in understanding by exploring how the use of AI chatbots in schools impacts academic standards and student development, their ethical, educational, and social effects.

VI. OBJECTIVES

1) To study the ethical implications associated with the usage of AI chatbots in assignments and tasks in schools.
2) To understand the possible implications of AI chatbots on academic integrity and student behavior.
3) To understand how using AI tools impacts the critical thinking and critical thinking skills of students.
4) To study the advantages and drawbacks of AI chatbots as educational tools to improving learning success.
5) To investigate the risks of relying on AI chatbots too heavily in educational tasks.
6) To create strategies for the development of accountable and ethical deployment of AI chatbots in the educational environment.

VII. HYPOTHESIS

Using AI chatbots in school tasks will lead towards academic dishonesty because students may rely on them to complete assignments. The use of AI chatbots will lead to students' overreliance and they may choose to rely on them instead of building up their own cognitive skills. Effective and beneficial use of the AI chatbots in educational settings will diminish the risks, by ethical guidelines and right use of AI chatbots.

VIII. RESEARCH METHODOLOGY

The methodology adopted for this study will be secondary research, examining previous data from surveys, studies as well as academic papers on the use of AI chatbots in education. The focus of the research will be that to uncover the influence of AI chatbots on the academic integrity, student behavior, critical thinking, and learning outcomes. From credible studies where the use of AI chatbots has been used in educational environments to facilitate school assignments and projects, I will be drawing the data. The analysis will look at the results of these surveys and reports on issues such as ethical issues surrounding the use of AI chatbots, the possibility for use of AI Chatbots to be academically dishonest, and its impact on students' abilities to solve problems. Findings will be contextualized and trends, gaps and contradictions in the literature concerning the role of AI chatbots in the educational setting will be identified.

IX. RESULTS AND DISCUSSION

The use of AI Chatbots in educational tasks and assignments has brought out several aspects of response from students, educators, and institutions. The Digital Education Council conducted a survey that showed 86% of students use AI tools in their study and 24% use AI tools daily.

It has also been adopted extensively that concerns related to academic integrity are being raised. A study published in Educational Technology Research and Development reached this conclusion: AI chatbots help with homework and offer personalized learning experience but over reliance can breed into dependency that might undermine academic integrity.

Furthermore, The Australian noted, more than one third of students use chatbots for assessments but are not cheating. It is no surprise students do not see the connection between academic standards and AI chatbot usage, because there are not any clear guidelines giving such a use.

Moreover, a study published on Education and Information Technologies study investigated how AI text generators affect critical thinking skills of UK students. The research showed that AI tools help with learning, but when reliance is carried too far, crucial thinking can be hindered.

These findings emphasize on the duality of the integration of AI chatbots into education. Although AI chatbots can be a boon for fast system support and personalized learning, or a bane with the hindrances of academic integrity, critical thinking development, and educational equity. To tackle these problems a well-balanced approach is required to leverage the good points of AI chatbots while lessening the probability of some down sides.

X. FINDINGS

The Findings of this study supports the hypothesis that "Using AI chatbots in school tasks will lead towards academic dishonesty because students may rely on them to complete assignments."

According to surveys and secondary research, students use AI chatbots increasingly for academic tasks, some of whom rely on these tools to complete homework. A study conducted by the Journal of Educational Technologies discovered that 65% of students use AI driven tools to complete assignments, while 39% use them as the main tool for getting the work done. That means that there is a squarely dependency on AI chatbots, which may encourage academic dishonesty. In fact, the Digital Learning Council surveyed teachers, finding that 72% of them believe using AI chatbots will increase plagiarism and decrease the originality of student work. This shows a relationship between the usage of AI chatbots and the likelihood for cademic dishonesty.

Additionally, it has proven the hypothesis that "The use of AI chatbots will lead to students' overreliance and they may choose to rely on them instead of building up their own cognitive skills." The finding of a study in the *International Journal of Educational Research* is that students who rely on the use of AI chatbots for problem solving activities lose the relevant skills of problem solving and critical thinking. They found out that using AI tools too much may negate students' ability to independently analyze and think. It supports the growing concern that using AI chatbots undermines the development and use of essential cognitive skills.

This final part of the hypothesis, which says that "Effective and beneficial use of the AI chatbots in educational settings will greatly diminish the risks, by ethical guidelines and right use of AI chatbots," was also supported. According to research shown in the *Journal of Digital Education,* institutions overseeing AI chatbots with clear ethical rules in place had fewer incidences of academic dishonesty and greater student engagement in learning. The study underlined that the integration of AI tools must be in a way that assures the benefits on education without reducing the integrity to it. Based on this, it is implied that, with the suitable frameworks and guidelines in place, AI chatbots can be utilized to guarantee educational surroundings effectively and ethically.

In conclusion, the hypothesis has been supported: The increasing use of AI chatbots in school tasks is certainly associated with higher rates of academic dishonesty and an overwhelming reliance. While used ethically and with proper guidelines, however, these tools can help facilitate educational opportunities while reducing the danger. The findings reiterate the need to produce strong ethical standards to create an enjoyable experience for educational purposes using AI chatbots.

XI. RECCOMENDATIONS

1) Educational Institutions (Schools and Universities): School and university should set and govern specific ethical guidelines on AI chatbot usage. These guidelines should be clearly state that AI chatbots are to be used as adjunct instruments of analysis and learning and never for finishing whole assignments and assessments. AI literacy is critical, and institutions should integrate it into the curriculum so that students can understand not only the potential, but also limitations of AI tools. Also, institutions should install plagiarism detection software, for ex: Turnitin, Chegg and check the use of AI, to maintain academic integrity.

2) Government Education Bodies: The responsible use of AI should be introduced by governments through regulation in educational settings. They should create regulations that cover data privacy and make AI usage across schools extremely strict and have data protection laws. Governments too should channel some of it into training teachers to successfully induct AI chatbots into teaching to make it less harmful to a student's cognitive development. Such policies will guarantee that AI technologies will not be abused in an ethical manner, nor harm the learning quality.

3) Teachers and Educators: Teachers should put in place some guidelines that would be to explicitly forestall students from using AI chatbots in place of critical pondering or problem solving. Teachers can ask the students to author an essay or assign a project, with their own brainstorming skills and where AI tools can only be used to only help with research. Regular discussions

should take place with students about the ethical use of AI and its effect on learning. Teachers should given training on identifying AI generated content and ensuring academic integrity.

4) AI Developers: For developers of AI chatbots, mechanisms must be built to avoid misuse in tasks and assignments, such systems should contain features to flag or restraint generation of full assignments of full exam answers. Developers should also make sure that the AI tools provide explanatory feedback on students. Such AI chatbots would be educationally beneficial and coincide with academic goals and can only be produced through collaboration between developers and educational institutions.

5) Students: Students need to be informed with respect to the moral implications of using AI chatbots in their homework. Workshops of this sort ought to be run at schools everywhere, highlighting the potential dangers of overreliance on AI, and the dangers that come with using AI Chatbots that include loss of critical thinking skills and academic dishonesty. Students should be pushed to utilize AI chatbots more for learning aids and less for givinh direct and simple answers. They should also be reminded that using AI tools can be a bad idea and about the long-term consequences of misusing these.

6) Employers and Future Employers: Employers must be cognizant that students utilizing AI chatbots excessively are missing essential abilities for creating, critical thinking, and problem solving. Students can support employers by taking internships that focus on skill development in areas where AI will not be able to recreate Teamwork, Innovation, Leadership.

XII. CONCLUSIONS

The aim of this study was to examine the ethical challenges presented by AI chatbots in school assignments relating to evaluating the possibility for it to jeopardize academic integrity, interfere with cognitive development and encourage overreliance. The findings corroborate that AI chatbots can amplify learning by so supplementing a teacher's effort and becoming a component in the learning experience. However, over utilising AI chatbots to replace tasks with non authentic participation from a genuine student amount to academic dishonesty. Using these tools over time leads to an erosion of important critical thinking and problem-solving abilities and reinforce the need for ethical regulations around their use.

The findings strongly justify the need for strict guidelines to regulate most applications of AI chatbots in educational environments. AI should not replace, but supplement, what students are capable of thinking, acting as support, not as a crutch. To prevent the irresponsible use of these technologies, we need effective policies and AI literacy programs.

However, the study concludes that while the AI chatbot potential is valuable, integration must be carefully managed. It is important to notice that educational institutions need to clearly militate towards establishing ethical frameworks in education and maintain a balanced approach with a balance of technology with Academic Integrity and student development.

XIII. LIMITATIONS

This study confronted a number of limitations which may have influenced the depth and scope of the findings. First, the use of secondary data and existing surveys constrained the collection of first hand, primary insights coming from a diverse student population. Secondary data yielded useful views, but did not fully capture the idiosyncrasies and behaviors of individual students in real time educational settings.

The research, however, remained in the realm of the theoretical frameworks and ethical concerns leaving behind practical insights into the daily classroom uses of the AI chatbots. The findings were based on hypothetical scenarios and preexisting studies rather than direct, real-world usage because there was no firsthand experimentation in actual educational environments.

Thirdly, the time and resources limited the scope of the study to allow for a broader geographic analysis of AI chatbot adoption and use across disparate education systems.

XIV. SCOPE FOR FURTHER RESEARCH

Future research should focus on the long-term effects of AI chatbot use on student behavior with an emphasis on long term effect on academic integrity, critical thinking, and advanced cognitive skill development. More comprehensive insights into the durability of the effects could come from longitudinal studies that would also reveal whether initial concerns about over-reliance begin to be ingrained as educational behaviors.

Other research needs to move beyond a single contextualization, such as in the talked about environment, and include a diversity of educational environments (e.g., a wide range of age demographics, cultural contexts, and institutional settings). A broader focus, though, might show regional differences and highlight finer challenges and opportunities in integrating AI chatbots in specific contexts, guiding targeted, context sensitive interventions.

The potential for the development of effective regulatory frameworks is also explored. Future research will evaluate if AI ethics programs and school digital literacy curriculars succeed in training people to responsibly use chatbots and deter misuse. It would lead to concrete actions that would be made by policymakers and educators that would lead to safer, more ethical AI learning ecosystems.

Finally, research should go beyond the current narrow focus on risks to explore the untapped opportunity that AI chatbots offer for student engagement, creativity, and collaborative learning. An understanding of these advantages may allow us to use AI tools to augment, on the one hand, academic performance but also on other skills, such as problem solving and independent thinking.

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