

College Students' Perspectives on ChatGPT Integration in Higher Education and Relevant Ethical Considerations

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Abstract

In higher education, integration of technologies – particularly generative artificial intelligence (AI) such as ChatGPT – has become increasingly widespread, serving numerous purposes to its stakeholders. While users acknowledge the utility of technology, concerns have emerged regarding its misuses. The present study is designed to investigate authentic perspectives and opinions of college freshman students to critically address the relevant concerns, and suggest meaningful solutions. To this end, seven college freshman student participants were recruited in a four-days-long online questionnaire. Their responses indicated that the college student participants appear to find ChatGPT positive in terms of its practicality and usefulness. However, they also showed concerns about a few potential issues (i.e., possible plagiarism and copyright problems). With recommendations the student participants suggested to reduce the aforementioned problems, the article discusses implications of the findings, providing valuable insights into the balance between implementation of AI technologies and dealing with the associated challenges in higher education in general.

Keywords: ChatGPT, College Students, Perspectives, Ethical Issues, Plagiarism, Higher Education

1. INTRODUCTION

1.1 Background of the Study

The integration of technologies, particularly artificial intelligence (AI), in higher education has recently stimulated both excitement and apprehensions among college instructors and students alike [1]. One representative advancement in deep machine learning is ChatGPT-3.5 (Generative Pre-trained Transformer-3.5), developed by OpenAI, whose specialized strength is the ability to generate and mimic human-like writings, using an easy-to-learn user-friendly interface. With its launch to the public in November 2022, ChatGPT has gained a significant amount of attention and interests in the mass media, industry, and higher education. The platform is based on the Transformer architecture that Vaswani and colleagues [2] introduced in 2017, and has become used in natural language processing tasks worldwide. Cotton, Cotton, and Shipway (2023) stated ChatGPT is specialized in performing a large number of language tasks, including summarization, translation, question answering, and text generation [3].

Both opportunities and challenges have been suggested regarding its implementation in higher education

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settings [4]. On a positive note, incorporation of generative AI may lead to improvement on students' academic productivity and learning experience in general. ChatGPT can serve as a valuable tool that offers immediate access to information in a form of personalized instruction, resulting in enhanced performance, confidence, and interest in their learning abilities in classroom settings [5]. It can also help instructors to generate lecture notes, problem sets, and interactive materials aimed at enhancing the overall quality of students' learning experience [6].

On the other hand, one major concern regarding implementation of this technology is potential threat related to plagiarism. Namely, it is easy for students to be tempted to heavily rely on ChatGPT when completing essays, causing academic dishonesty. Other relevant apprehensions include spread of misinformation, violation of moral standards, and breach of privacy data [4]. In order to prevent aforementioned ethical problems, [3] suggested dropping essay-style assignments, developing proper policies, providing proper training sessions to staff and students, implementing physical closed-book tests, and using a plagiarism detection software.

As administrators and instructors of higher education begin embracing the possibilities AI has to offer, it becomes more essential to comprehend the authentic opinions of the primary stakeholders: students. The present study attempted to navigate through the complex realm of college students' perspectives on ChatGPT usage in academic settings, aiming to shed light on both benefits and threats this technology may cause.

1.2 Rationale the Study

The foremost rationale of this study is that exploring college students' opinions in this issue may yield insights from the users' experience. This is mainly because user-centric approach could lead to enhancement of pedagogical effectiveness of ChatGPT in higher education setting, while mitigating its adverse effects. In order for college administrators and instructors to intervene ethically sound generative AI systems and provide delicate balance between benefits and academic growth, reflecting students' viewpoints and their values in the policies is necessary. Higher education is currently undergoing a unique transformative shift; investigating students' perspectives is likely to contribute to a proactive means in adopting educational systems and technologies in this continuously innovating environment. The results of the study may also help college graduates to be prepared for the demands that future workforce requires.

1.2 Rationale the Study

To this end, the present study is conducted based on the following four research questions:

Research Question 1: For what purposes do student participants utilize ChatGPT in college settings?

Research Question 2: What ethical considerations do student participants reveal regarding the usage of ChatGPT in college settings?

Research Question 3: What recommendations do student participants provide to resolve the problems?

Research Question 4: What roles do student participants predict that ChatGPT will play in the future?

2. METHODS

2.1 Student Participants and Data Collection

The researchers employed an online survey for data collection regarding college students' ChatGPT usage for academic purposes. A total of 11 Google Forms were distributed to potential participant students who were identified through purposive sampling, and seven of them completed the questionnaire. Every student participant was female majoring in educational psychology, whose age range was between 21 and 25. They were all attending to a private four-year university located in a metropolitan area in South Korea at the period of data collection (i.e., between December 7th and December 10th, 2023).

Four days were given for the participants to respond to the questionnaire, allowing for a focused response

within the specified timeframe. The researchers believed that the use of Google Forms facilitated an efficient and accessible data collection procedure, allowing the participants to generate responses at their convenience. The collected responses were then subjected to thorough analysis to draw meaningful insights into the impact and role of ChatGPT in higher education.

2.2 Questionnaire Structure

Following the introduction conveying the aim of the questionnaire, a mandatory informed consent was provided, which asked “Do you agree to participate in this study?” with a “Yes” icon as a response being required to move into the next section of the survey. In a case where the answer is “No”, it led to closure of the survey. The next section asked for the socio-demographics of the student participants, in which the following were assessed: (1) age; (2) gender; and (3) major.

The question items were generated based on previous researches [7,8,9]. The survey instrument consisted of seven open-ended questions, each aimed at exploring a wide range of aspects of the participants' experience with ChatGPT in college settings, particularly those related to academia. Table 1 contains every question item conveyed in the questionnaire to the student participants, divided by three categories: ChatGPT utilization, ethical considerations, and predicted roles of ChatGPT in the future. These questions were thoughtfully crafted to elicit the student participants' responses that were to produce valuable insights into their perspectives on the integration of ChatGPT into their academic environment.

Table 1. Question Items in the Questionnaire

Category	Item
Chat GPT Utilization	1. For what purpose do you use ChatGPT in college setting? If not, what purposes do other acquaintances use ChatGPT in college setting?
	2. In what fashion do you find ChatGPT useful? In other words, what kinds benefits can you earn by using ChatGPT?
	3. Do you believe that your creativity, ability to write sentences, and critical thinking skills have been improved while using ChatGPT? If not, why do you think so?
Ethical Considerations	4. Do you believe that ChatGPT could result in ethicality-related problems such as plagiarism and copyright issues? What makes you think so?
	5. What policies should the college implement in order to prevent ethicality-related problems regarding ChatGPT usage?
	6. Do you agree to ban the usage of ChatGPT in college setting? Why or why not?
Roles of ChatGPT in the Future	7. What kinds of roles do you believe ChatGPT and other generative artificial intelligence will play in college settings in the future? How impactful do you believe the roles will be? Please elicit with reasons.

3. RESULTS

3.1 Student Participants' ChatGPT Utilization in College Settings

The student participants appeared to acknowledge the practicality of ChatGPT for various purposes; their detailed responses are shown in Table 2.

Table 2. Analysis on Student Participants' ChatGPT Utilization in College Settings

Category	Statement	Participant
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Writing Assignments, Coding, and Idea Generations	"Mostly for assignments, or finding out something I do not understand during a lecture."	Student 2
	"Writing a title of an essay, and organizing a cover letter that I wrote previously."	Student 3
	"I use it when generating ideas (brain-storming) and fact-checking. My friends in natural science majors mainly use it for coding purposes."	Student 5
	"Correcting and rephrasing sentences of my assignment prior to submitting it."	Student 6
The Usefulness of ChatGPT	"ChatGPT is especially useful when it is hard to directly ask professors."	Student 3
	"It reduces time and workload when generating new ideas."	Student 7
	"It produces efficient workflow by searching certain information fast."	Student 4
	"Though ChatGPT is not perfect, it is based on vast amount of information; so, the contents are relatively reliable. Also, its writing style could a role model when mine is not good."	Student 1
Improvement in Certain Skills by Using ChatGPT	"It did not necessarily improve the skills (i.e., creativity, ability to write sentences, and critical thinking skills) because I simply copy and paste when ChatGPT generates."	Student 5
	"These skills did not enhance. But, in a case of English essays, because it instantly corrects grammatical errors, I believe my writing skills have improved."	Student 2
	"I believe they improved."	Student 6
	"No, I consider ChatGPT as a tool that makes [individuals] not use these skills."	Student 7

3.2 Student Participants' Ethical Considerations regarding the Usage of ChatGPT in College Settings

The student participants shared their concerns of using ChatGPT in college setting, particularly regarding plagiarism and copyright issues as shown in Table 3.

Table 3. Analysis on Student Participants' Ethical Considerations

Category	Statement	Participant
Anticipated Problems	"I'm worried about [students] developing a high dependency on ChatGPT when completing assignments."	Student 6
	"It is likely to cause plagiarism-related problems among students because the contents ChatGPT generates are based on previous data. The students may not even realize the fact that they plagiarize."	Student 2
	"It can cause plagiarism and copyright-related problems when individuals abuse ChatGPT, lack digital literacy skills, and accept ChatGPT-generated contents without critical thinking."	Student 3
	"When the usage of ChatGPT is prevalent, students may end up	Student 7

	thinking that AI-generated texts are their own thinking and writing.”	
	“Yes, because ChatGPT is an open-source.”	Student 1
	“I believe it can cause these problems. Students are to critically evaluate the information they search online, using their own judgment. But ChatGPT provides biased data.”	Student 4

3.3 Student Participants’ Suggestions for Proper Use of ChatGPT

The student participants made a few recommendations for college administrators to reduce the potential threats, as shown in Table 4.

Table 4. Analysis on Student Participants’ Suggestions for Proper Use of ChatGPT

Category	Statement	Participant
Change in Assignments	“Instructors can give assignments that using ChatGPT is not a problem.”	Student 2
Provision of Adequate Training	“I believe it is important to provide an education session for digital literacy skill. The session should also be about copyright issues.”	Student 3
Provision of Clear Guidelines and a Detecting Software	“Instructors should determine the detailed scope of its [ChatGPT’s] usage prior to giving assignments. For example, students may use the tool to look up certain information, but they should do the writing. Also, use an AI detector software.”	Student 5
Opinions about Banning ChatGPT in Higher Education Settings	“I disagree. It would be a practical resolution to proceed with ChatGPT in college.”	Student 2
	“I am against banning ChatGPT in school because its prevention is almost impossible, and there are many students who use the tool for their academic achievement and improvement.”	Student 4
	“I disagree. ChatGPT is the tool that almost everyone will end up using. It would be more righteous to help students learn how to use it, and provide ethical training.”	Student 7
	“I agree with banning because I believe ChatGPT hinders students ‘growth in terms of their creativity and writing skills.”	Student 3

3.4 Student Participants’ Prediction about ChatGPT’s Future Roles

The student participants predicted that ChatGPT will be impactful in the future, and such influences are likely to be negative, as shown in Table 5.

Table 5. Analysis on Student Participants’ Prediction about ChatGPT’s Future Roles

Category	Statement	Participant
Predicting Negative Influences	“There will be many students heavily relying on ChatGPT for assignments because of its efficiency. It will negatively impact their academic abilities.”	Student 1

	"Its impact will be enormous because its ability is influential and strong. It can harmfully affect students' ability to think autonomously."	Student 2
	"The future college students must be well aware of internet [and other technologies] since their birth, so their dependency level on ChatGPT will be high in the future. In terms of the impact, I don't think it's going to be that immense because of the errors ChatGPT makes."	Student 6
Changes in Learning Environment	"[ChatGPT] may replace instructors, and more online courses will be provided."	Student 5
	"Both instructors and students will use ChatGPT in classroom. I predict that the course contents will fundamentally change because there will be a high demand on distinctive and creative thinking that only human beings can generate."	Student 7
	"College courses will be different. ChatGPT will influence not colleges, but also researches, career, and arts. It may not happen in the near future, but we will end up discussing in what areas should AI technologies intervene, and how to set up its limitations."	Student 4

4. DISCUSSION

4.1 Research Findings

The present study was conducted to investigate key aspects of implementation of ChatGPT in higher education setting from the student participants' perspectives, along with their concerns and suggestions regarding potential technology-related problems that may emerge. To this end, seven college student participants answered an online questionnaire that consisted of seven open-ended questions, which were divided into three categories: ChatGPT utilization, ethical considerations, and predicted roles of ChatGPT in the future. One notable theme was the inevitability of ChatGPT usage; most of the student participants were aware of its widespread practice, emphasizing the prevalence of the usage in academic settings for various purposes. Specifically, they find this generative AI technology beneficial in fact-checking, reducing work amount, rephrasing and correcting sentences, and conducting brainstorming in a more efficient fashion.

On the other hand, concerns about the potential ethical problems were evident among the student participants. These worries were mostly related to plagiarism, copyright issues, and spread of fake news, particularly when the public lacks digital literacy skills necessary to properly consume the given information. Therefore, the student participants expressed a reserved attitude about heavily relying on ChatGPT and other generative AI tools, indicating an urgent need for thoughtful supervision to prevent academic wrongdoings in any form. Despite the apprehensions aforementioned, the student participants were mostly against a ban on preventing ChatGPT in higher education, mainly because they believe such prohibition is likely to hinder possible advantages the technology could benefit the students.

Interestingly enough, the findings revealed that the student participants experienced no significant improvement in their creativity level, critical thinking skills, or writing proficiencies while using ChatGPT. This finding prompts further investigation into what kinds of educational values technology serves, and raises questions about its impact on the promotion of essential skills required to college students. It was apparent that the participants keenly acknowledge the potential as well as threats generative AI tools may present. They, hence, recommended institutes to provide clear guidelines as well as proper training about copyright issues and plagiarism for ChatGPT usage in college settings. Such efforts, in return, are likely to reduce the possible problems and help both student and instructor bodies benefit from the technology.

4.2 Limitations Future Recommendation

The most apparent limitation of the study is the small sample size (i.e., seven) that may restrict the

findings' external validity. Another critical aspect is the questionnaire design that contained only seven open-ended questions, which requires potential enhancement for future researchers who are interested in this topic, namely ensuring the comprehensiveness of the survey and aligning it with the study's purposes. The reliability of the study is tied to the relatively short four-days-long data collection period, urging a need for in-depth evaluation. The fact that follow-up questions were not given could represent another prominent limitation, possibly affecting the depth of authentic understanding of the issue. Similarly, the missed opportunity for in-person interaction raises an additional layer of limitation, which future researchers could overcome by engaging in a series of discussions on the trade-offs between offline and online data collection methodologies, accompanied by follow-up questions.

Prospective researchers interested in college students' opinions and perspectives on implementing ChatGPT in higher education are advised to aim for a larger and a more diversified participation pool in order to ensure the generalizability of findings. They also need to focus on developing a more inclusive questionnaire that consists of a mix of open-ended as well as close-ended questions, so that the research instrument comprises a broader range of relevant aspects. Extending the duration of study period is another means to yield more robust study results. Researchers are also suggested to adopt both qualitative and quantitative approaches in a form of in-person interactions, in order to collect more comprehensive data, which is likely to result in more thorough and extensive thoughts and perspectives of the student participants. Lastly, continuous communication with prospective participants would be necessary to address concerns, provide clear guidelines, and establish a sound rapport that can promote the overall quality of the data collected.

5. CONCLUSION

The present study offers valuable insights regarding the current discourse surrounding the integration of generative AI tools, particularly ChatGPT, in higher education. By illuminating students' perspectives, the researchers could reveal their understanding of the inevitability of ChatGPT implementation, tied with various ethicality issues. The fact that using ChatGPT resulted in no significant improvement of essential skills such as creativity, critical thinking, and writing among the student participants raises a re-evaluation of the educational values technology serves. The demand on exclusive guidelines reflects the needs for responsible intervention of generative AI tools in higher education settings. Educators and administrators of colleges are urged to craft policies that balance the benefits of ChatGPT to lessen its possible threats. Further studies are recommended to explore deeper educational outcomes prompted by ChatGPT usage, addressing potential challenges and how to resolve them. Additionally, revealing college instructors' genuine perspectives and opinions regarding relevant ethical issues could help them create a balanced learning environment in which generative AI technologies are employed in higher education.

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