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GENERATIVE AI IN HIGHER EDUCATION

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ABSTRACT: This study analyzes existing literature on generative AI and its impact on higher education, focusing on tools like GPT-3 and ChatGPT. It highlights the transformative potential of generative AI in enhancing teaching and learning processes, including personalized education and improved feedback mechanisms. While the integration of these technologies presents significant benefits, ethical challenges such as authorship, data privacy, and the reduction of human agency in learning environments are also discussed. The findings underscore the necessity for ethical guidelines and further research to effectively incorporate generative AI into educational frameworks.

KEYWORDS: generative AI, higher education, teaching, learning, ethics

INTRODUCTION

They retain a generative AI (or synthetic media) as a subclass of artificial intelligence that encompasses systems generating new material, from textual posts to music and videos relying on the patterns found within a given set of input data. This is particularly vital in today's technological times given that creative technology is becoming vital in creating distinct ideas as well as effectiveness in nearly all areas including the entertainment industry, marketing, and teaching. From the use of advanced machine learning algorithms, Generative AI tools like GPT-3/Chat GPT are developed meaning users can make computers write coherent content from little information. This rapid progress of these technologies underlines their capability to revolutionise conventional practices and integrate fresh paradigms into content generation and/or communication.

Regarding the AI application in higher education teaching and learning, the potential for the generative AI model is recognized. They entail new possibilities for the customization of instruction, help the teacher to design the instructional content, and improve learners' interactions with instructional content and feedback. With more scholars seeking to adopt AI tools into various learning curricula, it is crucial to determine the effects of generative AI. This paper aims to discuss the current literature on the use of generative AI in higher learning institutions in line with its opportunities and risks and the ensuing ethical issues. Thus, the study aims to help reconcile the importance of generative AI for the advancement of education and increase the understanding of how the concept can be applied to improve educational processes.

RESEARCH METHODOLOGY

Research design

To address the research questions of this study, a literature review on generative AI to assess its effects on higher education was conducted with special reference to the country of Uzbekistan. The study relied on a qualitative form of research to compare and contrast findings across the different studies, especially on the competency where AI models such as GPT-3 and ChatGPT can be deployed in learning environments. In particular, the analysis of multiple sources was focused on revealing trends, opportunities, and concerns related to the implementation of generative AI tools into higher education. The sources analyzed were the empirical studies, the theoretical works, and the case studies that gave the analysis of the potential of AI in the context of the students, educators, and the whole process of education.

Data analysis

The literature review was conducted to identify key themes related to generative AI, and data was analyzed using a thematic synopsis applied to extract an understanding of the applicability of generative AI in higher education. The analysis was based on specific features like authorship, originality and ethical implications, and education incurred by using AI tools. The trends and differences in perspectives of each study were identified by comparing and contrasting the findings from each article. This process helped define the current state of theoretical foundations for generative AI and the role of generative AI in the Uzbek educational environment and identify future research priorities and the applicability of AI integration in learning.

RESULTS AND DISCUSSION

Dehouche in his study aimed to evaluate the capabilities of the GPT-3 language model, accessed via AI Dungeon, to understand natural language prompts and generate coherent, original content across three distinct formats: a scholarly evidence-based paper, an oratory, and an editorial respectively. The exercise was designed to give a positive or negative verdict on whether the content generated by GPT-3 was humanlike or not, a breakthrough in the industry; the test additionally sought to elicit questions on authorship and originality of the AI-generated content. To support the exclusivity of the produced results, all the examples provided were run through a plagiarism check service and this returned no match [1, p.19].

These results showed that GPT-3 was able to produce plausible and realistic content from which it would be difficult to differentiate from work crafted by students or even professionals. The prose on keiretsu networks provided information that was correct and different from what humans know, and the speech on the concepts of marketing provided new ideas and relations. The kind of ethical problem put forward in the opinion piece, imitating certain authorial voices with the help of AI, suggested how certain AI can embody the restriction of freedom in creating authorship or propagandizing certain ideas and concepts. Nevertheless, the strengths of the study that has been undertaken highlighted a few issues such as the use of semantically identical phrases and utterances which are absurd. These concerns have considerable implications for those seeking to employ generative AI in both scholarly and professional writing, as well as for technical writers, editors, and policymakers [1, pp.20-22].

In the study carried out by Michel-Villarreal et al., the participants were people selected to be in a semi-structured interview since they aimed at understanding what they have to say about ChatGPT through the thing ethnography perspective. This minimally invasive approach intended to address the identified chatbot as an object of the study, taking advantage of its text-creating features to collect exhaustive qualitative information. The study used an interview guide that was

developed from the main themes and questions but embraced some form of structure in that it used probing techniques to elicit further perspectives on respondents' views [3, p.4].

Some of the major findings of the study included an appreciation of the effectiveness of using ChatGPT to drive the following potential improvements to higher learning; feedback provision for self-registration, self-study assistance, as well as physical accessibility of students from non-English speaking countries or with disabilities. ChatGPT also described how teaching staff could rely on it for answering common questions or providing help in conducting research by providing reviews of the available literature and data analysis. That is, the study recognized several limitations, including the doubts related to the consequent enslavement of human beings in the case of full AI usage in the educational process and the necessity of creating guidelines for effective and moral AI integration into education. In general, ChatGPT's observations are consistent with the established studies in this area, yet it provides novel angles that require future empirical analysis to grasp the consequences of widespread AI use in higher education [3, pp.9-11].

In their research, Abbasova Nargiza and Shikina Anastasiya aimed at groups such as students and teachers from two universities in Fergana City, namely FSU and the TUIT Fergana branch. The online survey was completed by 14 students including 57.1% of FSU students specializing in the English language, in the sphere of philology or literature, and 42.9% of TUIT students majoring in IT and telecommunications. The participants' age mean was 22 and the gender split was 42.9% male and 57.1% female. Moreover, this study engages FSU teachers in a focus group discussion made up of six teachers, with varying ages and teaching experience across the early career to mid- and late-career stages, with up to 35 years of teaching experience [2, pp.43-44].

Self-estimation showed an elevated percentage, particularly 85.7% of participants who found the use of AI tools in EFL learning acceptable. This positive attitude is mainly a result of the immediate and perceptive feedback made available by the AI that increases student confidence and interest in the learning process supporting Bandura's self-efficacy hypothesis. Nonetheless, 14.2% were either neutral or slightly negative about the probability of excluding traditional learning approaches and the usefulness of conversational AI. To the study, the limitations include a limited and less diverse sample of participants, and insufficient employment of increasing insights of learners using AI tools in EFL settings [2, pp.51-53].

Later on, Abbasova N. and Shikina A. in another research aimed at Fergana State University proposed two groups for this study; professors with teaching experience of less than ten years and senior students to ensure that the study had a cross-sectional view of the integration of generative AI in higher learning institutions. The survey did not harvest any personal data but only included some demographic data that was generalized; the gender distribution of the participants was 58.5% Female and 41.5% male[4, pp.4-5]. The insights derived from the analysis reveal serious issues in areas of privacy and bias and the impacts of AI on the teacher-student dynamics. Few professors presented a slash, some described that after the use of AI, there is an increased participation from the students but other professors pondered about the decreased interpersonal communication. Both educators pointed out the need to adhere to certain codes of ethical conduct if data is to be used appropriately and authorship declared. As with the previous study, it also found students subscribed new approach to communication and involvement through AI but felt uneasy about the monitoring and data-gathering process. Major concerns were made regarding AI bias, which prescribes certain writing methodologies while shifting other types to the periphery, and urged for the beneficiary and sound ethical hoops on

the privacy of their identity and clear disclosure over the usage of their data in AI-related learning [4, pp.7 – 8].

The studies together demonstrate the possibilities of using AI tools in educational environments including GPT-3 and ChatGPT-based assignments, and, simultaneously identify critical issues related to authorship, ethical use, and human interaction in the process. Using the scenarios that Dehouche presented to GPT-3, the evaluation proved that the AI was capable of churning out realistic content in the form of articles, with impacts on originality and authorship in academic writing. The observations point to the fact that changes in AI are such that human-like text is created, yet educators and writers must grapple with the issues of attribution and originality since AI-created work looks more and more like work created by a human. With this evolution, we must ask about the boundaries of authorship and originality when stories are increasingly being written by computers.

Similarly, the study conducted by Michel-Villarreal et al., and Abbasova & Shikina also examined aspects of the practical applicability of AI in higher learning education through the participants' responses. Since ChatGPT offers feedback, that supports self-directed learning, it is useful for increasing the availability and effectiveness of education. At the same time, there we saw some drawbacks that pertain to reducing human agency in the learning process, the ethical issue related to data privacy, and the problem of bias in machine learning algorithms. Concerning the use of AI, the participants had ambivalent attitudes of positive feelings including efficiency and interactions between faculty and students, while negative feelings included a risk to impact the educational processes and interpersonal communication. Such discussions emphasize the requirements for ethical structures so that learning supported by artificial intelligence would include but not exclude vital human factors of education.

CONCLUSION

The considerations concerning the present state of research on the use of generative AI in HE showed that the field is vast with many opportunities to develop as well as full of risks and issues to avoid. The results reveal that OpenAI's GPT-3 and its conversational model ChatGPT write original, fluent text with current that mimics human writing, thus raising major credibility and originality issues. The potential is seen by many of its stakeholders, including students and educators, to improve feedback and educational outcomes for the students: Nevertheless, there are concerns about ethics, privacy, AI making, and student autonomy. These insights are particularly constructive when it comes to the admission of AI in educational frameworks: particularly in Uzbekistan.

To implement generative AI across educators and institutions, concrete rules ought to be set and worked on to depict appropriate usage of generative AI in curricula that would expand the positives of AI instead of turning into a negative or a disadvantage to educators and learners. It is vital to start educational training programs so that teachers and students understand the potential of AI technologies and focus on developing symbiosis with these tools and maintaining their humane creativity level. Further discussions and studies will be required to work through legal issues and solutions surrounding generative AI, and as such, they will help decide the future of education and its areas that have previously remained closed to people with disabilities, as well as different generations of learners and consumers, that is, the creation of education that is, at the same time, innovative, effective, and ethically sound. In retrospect, the envisioning of generative AI in higher education learning paradigms migration provides a new frontier in teaching learning

but it calls for appropriate governance to ensure that technological innovation does not erode the very principles of teaching learning.

REFERENCES

1. Dehouche, N. (2021). Plagiarism in the age of massive Generative Pre-trained Transformers (GPT-3). Ethics in Science and Environmental Politics, 21, 17-23.
2. Kabilovna, A. N., & Aleksandrovna, S. A. (2024, October 1). THE POSITIVE IMPACT OF AI ON SELF-ESTEEM AMONG EFL LEARNERS: CASE STUDIES FROM FERGANA STATE UNIVERSITY AND TUIT FERGANA BRANCH UNIVERSITY. https://interoncof.com/index.php/USA/article/view/4931
3. Michel-Villarreal, R., Vilalta-Perdomo, E., Salinas-Navarro, D. E., Thierry-Aguilera, R., & Gerardou, F. S. (2023). Challenges and opportunities of generative AI for higher education as explained by ChatGPT. Education Sciences, 13(9), 856.
4. Shikina Anastasiya Aleksandrovna, & Abbasova Nargiza Kabilovna. (2024, ноябрь 21). AI INFLUENCE ON TEACHER-STUDENT RELATIONSHIPS AND EDUCATIONAL ETHICS. https://doi.org/10.5281/zenodo.14197834