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## ChatGPT in Academic Writing: A Threat to Human Creativity and Academic Integrity? An Exploratory Study

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### ABSTRACT

OpenAI ChatGPT has become the most popular academic writing software due to the kind of responses it gives, being seen as a replacement for much of the daily mundane writing, from emails to even college-style essays. As generative software, ChatGPT has caught the attention of everyone from business and policy stakeholders, signaling a paradigm shift in artificial intelligence. Despite ChatGPT's popularity and appeal in academic writing, there are fears regarding its consequences for human creativity and academic integrity. The study employed critical literature review analysis to explore the importance of ChatGPT in academic writing, its effects on human creativity and academic integrity, and suggestions for proper adoption and application. In the review process, it was revealed that ChatGPT is important in improving the learning and academic outcomes of diverse professionals and learners. However, the review suggests that the responses or outputs from ChatGPT sometimes are inaccurate and misleading. Therefore, implications for policy and practice were discussed.

### INTRODUCTION

Technological and academic writing have become inseparable. The era of traditional human manipulation in the educational landscape is becoming an outdated strategy with the advent of technology (Han et al., 2021). The pursuit of commendable academic writing by faculty and students has gained popularity in the 21st-century educational landscape due to novelty (Chanyoo, 2018; Schillings et al., 2019; Schillings et al., 2018). In order to mitigate this demand, several artificial intelligence procedures (e.g., CopyAI, Rytr, Writesonic, GoCharlie, Scalenut, HyperWrite, Moonbeam, Writefull, etc.) have been invented to provide error-free content for faculty and research consumers. According to Zhai (2022), the new wave of AIs is making a significant impact on reshaping the labour market globally.

ChatGPT is an AI language model that was made by OpenAI and is based on GPT-3 (Brown et al., 2020). ChatGPT was made in 2021 with the goal of making text that sounds and reads like natural human conversation. GPT-3 is one of the largest language models available. Its versatility in language processing is highlighted by its ability to translate, summarise, answer questions, and generate text with minimal or no task-specific training. Since it was first made available, GPT-3 has been used in many different fields, such as language translation, content creation, and linguistic modelling (Chen, 2023). GPT-3 has been shown to summarise long documents in a way that makes sense and gives useful information. It can also translate between languages with high accuracy.

The fact that chatbots made with GPT-3 can understand and respond to users' natural language is more proof of how useful the technology is (Cotton

et al., 2023). Among the several AIs, ChatGPT (Chat Generative Pre-trained Transformer) has become prominent and has attracted intellectual debate among scholars of diverse professional areas. ChatGPT is an OpenAI-powered artificial intelligence software developed to simulate human-like academic writings in a coherent and comprehensive manner (Shahrir & Hayawi, 2023).

Although ChatGPT is pretty young in the AI movement, it has become the most popular academic writing software due to the kind of responses it gives, being seen as a replacement for much of the daily mundane writing, from emails to even college-style essays (Maerten & Soydaner, 2023; Megahed et al., 2023). As generative software, ChatGPT has caught the attention of everyone from business and policy stakeholders, signalling a paradigm shift in artificial intelligence (Lin, 2023). Despite ChatGPT's popularity and appeal in academic writing, there are fears regarding its consequences for human creativity and academic integrity (Luan et al., 2023). In this regard, this study focuses on understanding the importance of ChatGPT in academic writing, its effects on human creativity and academic integrity, and suggestions for proper adoption and application.

## **METHODS**

We employed a critical literature review to answer the three research questions. This study employed a critical literature review methodology to understand the use of ChatGPT in academic writing. The purpose of this methodology is to systematically review and analyze existing research on (a) the important and drawbacks of ChatGPT in academic writing, (b) influence of ChatGPT on Human Creativity through Academic Writing and (c) influence of ChatGPT a threat on Academic Integrity through Academic Writing. The critical literature review allowed us to draw upon a range of perspectives and insights from the existing body of research, and to synthesize these findings into a coherent and comprehensive understanding of the topic. We conducted a comprehensive search of relevant databases, including but not limited to JSTOR, Scopus, and Google Scholar, using a range of search terms and keywords related to the topic. Moreover, we conducted manual search of some specific articles and books found in the reference

list of some of the articles included in our study. We included articles that were published in English language. The scope of our search was also limited to articles published from 2022-2023. We used NVivo to help with the data management analysis.

## **RESULTS AND DISCUSSION**

### **Importance of ChatGPT in Academic Writing**

Undoubtedly, the application of technological products in academia has come to stay (Aldosari et al., 2022; Ali, 2020). Some scholars argue that the increasingly widespread global adoption of ChatGPT demonstrates the enormous variety of applications possible for the technology, from developing and testing software to writing poetry, essays, business letters, and contracts (Metz, 2022; Reed, 2022; Tung, 2023; Tung, 2022). In this regard, the use of AIs in the academic space is expected. In responding to this expectation, ChatGPT is one of the AIs that is gaining ground in academic writing and has been regarded as a relief to human thought (Aljanabi, 2023; George & George, 2023). Dwivedi et al. (2023) argue that it is no exaggeration to say that ChatGPT has gone global. It seems to have shaken many fields to their core. In using ChatGPT in academic writing, it has the potential to aid professionals in coming up with new ideas. With this, faculties are likely to use it more to create new courses, syllabi, lectures, assignments, and grading rubrics (Atlas, 2023). The fact that ChatGPT is available and easy to use could make a lot more academic work possible (Liebrenz et al., 2023). According to Liebrenz et al. (2023), ChatGPT can receive and produce copy in multiple languages and could help break down the publishing barrier that the need to write in English presents to speakers of other languages, thereby democratising the spread of knowledge. In Lin's (2023) view, ChatGPT has the potential to revolutionise the scientific research industry by providing a smart, flexible, and collaborative tool to increase research output and improve inclusivity, fairness, objectivity, and creative problem solving in research. Lewis (2022) says that ChatGPT has been shown to increase student participation and cooperation by letting them have online discussions and work in groups without having to be there in person. With ChatGPT, for example, students can get together to study and work on classwork as a group (Lewis, 2022; Jowarder, 2023).

Cotton et al. (2023) did a realistic analysis of ChatGPT's potential, focusing on how its AI writing assistants could be linked. When used for academic writing, they found it to be useful and stress-free. Nisar and Aslam (2023) found that ChatGPT is the most popular and effective individualized student-learning tool for quick reference to courses studied by medical students using ChatGPT. ChatGPT's performance was found to be appreciable and within the performance level of third-year medical students by Gilson et al. (2022), who were investigating the test's potential performance on the United States Medical Licensing Examination (USMLE). A previous study by Bommarito and Katz (2022) found that ChatGPT could pass the Bar Examination of the U.S. Bar Exam, which typically necessitates 10 years of education and training. Zhai's (2022) pilot study found that ChatGPT helped students write academic papers that were coherent, accurate, informative, and systematic. The author suggests that teachers use artificial intelligence (AI) in the classroom to help students think creatively and be good at solving problems (Zhai, 2022).

#### **Drawbacks in using ChatGPT for Academic Writing and Related Works**

In retrospect, the existing literature (George & George, 2023; Aljanabi, 2023; Atlas, 2023; Lin, 2023; Lewis, 2022) shows that ChatGPT has a lot to offer in the academic space. It has the potential to minimise the time spent developing ideas and writing about them. On the part of the writer, ChatGPT reduces stress related to thoughts and reflections in academic writing. However, ChatGPT's ability to make text that sounds real and makes sense has also drawn attention and caused debate. According to Anderson et al. (2023), ChatGPT as a natural language, model-based AI is generating new content with lot of controversies. In his view, Thorp (2023) reports that the scientific record ultimately reflects the human endeavour of attempting to answer fundamental questions. AIs play a crucial role, but only as aids to the humans who come up with the hypotheses, create the experiments, and interpret the results. At the end of the day, the product has to originate in—and be expressed through—the incredible computer that resides within the minds of the creators or people. By implication, ChatGPT is made by human beings

and can be controlled by human beings; hence, it cannot supersede the minds of its creators.

Based on the incessant penetration of ChatGPT in academic writing, the academic community have become alarmed with concerns regarding the misuse of language models in producing and publishing scientific papers (Davis, 2023; De Waard, 2023; Kendrick, 2023). People have tried out ChatGPT by asking a variety of questions, including those with a focus on publishing-related ethics and specific technical questions (De Waard, 2023; Flanagan, 2023; Nature Editorial, 2023). Their findings revealed that while ChatGPT's written responses to questions are generally strong, they are also formulaic, out of date, false or fabricated, lacking accurate or complete references, and even worse, relying on fabricated, virtually non-existent substantiation for the assertions or proclamations it creates. Several issues have been brought up in the academic and educational communities due to the use of ChatGPT, including the difficulty in distinguishing between human and AI authorship and the resurgence of debate on the place of more traditional human endeavours (Else, 2023; Stokel-Walker, 2023). These difficulties, as seen by Rudolf et al. (2023), stem from ChatGPT's widespread application in text generation, language translation, and the generation of answers to a wide range of questions. Impliedly, there is the need for precautionary usage of ChatGPT in academic writing since its output appears doubtful and less credible in academic writing.

#### **Is ChatGPT a threat on Human Creativity through Academic Writing?**

ChatGPT has garnered massive attention in academic writing because it helps relieve people from strenuous cognitive activities in the process of concept idealisation to concept production in academic writing. According to Lund and Wang (2023), ChatGPT is both exciting and scary to think about how it could change academia and library science. Several concerns have been raised about ChatGPT's potential to kill executive functioning in people through creative academic writing. For example, some scholars (Khalil & Er, 2023; Rudolph et al., 2023) have raised concerns about the possible bias in ChatGPT's answers, and others have pointed out that the platform often gives wrong information. According to Keller (2023), learners of all ages face a great deal of competition

for their time, and some may be tempted to cheat by, perhaps, using an artificial intelligence programme to compose their initial copy, whereas such a problem could be prevented through human creativity.

It is argued that AIs inure to creativity in academic writing by producing convincing paragraphs to full research articles (Baidoo-Anu & Owusu Ansah, 2023). However, the use of ChatGPT as part of AIs in academic writing regards not originality of ideas. Dwivedi et al. (2023) provide supporting evidence by arguing that the lack of originality of results produced by ChatGPT is even more noticeable when it comes to products related to the creative-related industries (e.g., music or the arts). By implication, creative academic writing is not an issue of mimicking what exists or reproducing simulative information from diverse scholars just because AIs algorithms are organised to operate or function in such a fashion. The issue of originality academic writings from AIs has consistently been regarded non-factual with low level of logical arguments, hence the prominence of several AIs in the last decade (Dwivedi et al., 2023; Lund & Wang, 2023; Nature Editorial, 2023).

To confirm the lack of recognising originality of academic content, we queried ChatGPT in the following manner: Does ChatGPT recognise originality of academic contents produced?

*“As an AI language model, I am not capable of determining the originality of academic content produced by individuals. However, there are plagiarism detection tools available that can assist in identifying similarities between the text in question and previously published material. These tools can be useful in helping to identify potential cases of plagiarism, but ultimately it is the responsibility of the individual producing the academic content to ensure that it is original and properly cited”* (ChatGPT, March 11, 2023).

Some antagonists of ChatGPT argue that the Chabot is not creative and cannot erase the function of human creativity. For instance, Powell (2023) questioned ChatGPT concerning its potential for replacing human creativity, it responded in this way *“While it is possible for ChatGPT to generate human-like text, it is unlikely that it will be able to fully replace human copywriters. This is because ChatGPT lacks the creativity, empathy, and cultural knowledge that human copywriters bring to the*

*table. Copywriting is more than just stringing words together; it is about understanding the target audience, crafting a message that will resonate with them, and effectively conveying the desired tone and brand voice. This requires a level of nuance and understanding that ChatGPT, or any other AI language model, is currently not capable of. Additionally, copywriting is often tied to specific branding efforts, which require a deep understanding of the company and its values. This is something that ChatGPT, or any other AI language model, cannot replicate. In short, while ChatGPT and other AI language models can be useful tools for generating text, they are unlikely to fully replace human copywriters in the foreseeable future.”*

To confirm ChatGPT’s ability to replace human creativity, we queried it in this way: Is ChatGPT a threat to human creativity? ChatGPT responded as follows:

*“As an AI language model, ChatGPT is designed to process and generate human language, and its capabilities are limited to what it has been programmed to do. While ChatGPT can generate text and provide information, it is not capable of human creativity or original thought. In fact, AI language models like ChatGPT can be used as tools to assist human creativity, for example, by generating ideas or providing inspiration. However, it's important to remember that AI language models are not a replacement for human creativity, and they should not be relied on exclusively. Human creativity is complex, multifaceted, and involves more than just generating text. Moreover, ChatGPT has been trained on vast amounts of data, which means that it can only generate responses based on what it has learned from that data. While it can be useful for generating ideas or providing inspiration, it does not have the ability to generate truly original ideas that go beyond its training data. In short, ChatGPT is not a threat to human creativity, but rather a tool that can be used to enhance it. It is up to humans to use their creativity and imagination to create something unique and original based on the information provided by ChatGPT ”* (ChatGPT, March 11, 2023).

Not surprising, ChatGPT does not match human creativity because it is the most defining characteristic of people and is imbedded in them; no other human creation can surpass it. Human

creativity is premeditated by nature, and ChatGPT is just a minute product of nature-influenced object (human) creation. Unlike ChatGPT, human creativity frequently interacts with nature and can change direction because of environmental stimuli (Plambech & Van Den Bosch, 2015; Yeh et al., 2022). Taken together, human creativity is not replaceable by any novel AI when it comes to academic writing. In a candid view, all AIs, including the most talked-about ChatGPT, can only provide complementary roles to how thoughts can be influenced after they have been made by human beings (ChatGPT, March 11, 2023).

Again, ChatGPT only relies on instructions given by users, where it tries to provide an appealing information based on the query it receives. It is important to note that such queries may lack rigour and criticality especially when such queries are limited to a particular jurisdiction around the globe. To so support this narrative in testing rigour and criticality in academic writing, we queried ChatGPT on a less explored inclusive education area in this manner: Profiling Teachers' Knowledge and Use of Evidence-Based Practices in Inclusive Classrooms in Ghana

#### *Introduction*

*Inclusive education is an approach that seeks to address the diverse learning needs of all students, including those with disabilities or special educational needs, in a mainstream classroom. In Ghana, as in many other countries, there has been a push towards inclusive education, but the effectiveness of this approach depends largely on the extent to which teachers can implement evidence-based practices. This article explores the extent to which teachers in Ghana are knowledgeable about and use evidence-based practices in inclusive classrooms, drawing on relevant literature to provide insights and recommendations for improving teacher training and support.*

#### *Teacher Knowledge of Evidence-Based Practices*

*The term "evidence-based practice" refers to instructional strategies that have been shown, through research, to be effective for achieving specific learning outcomes. While teachers may be familiar with some evidence-based practices, such as differentiated instruction or formative assessment, there is often a gap between what they know and what they actually use in the classroom.*

*One study of teachers in Ghana found that while they had a good understanding of the principles of inclusive education, their knowledge of specific evidence-based practices was limited (Akyeampong, 2017). For example, many teachers were unaware of the benefits of using visual aids or providing scaffolding to support learning.*

#### *Barriers to the Use of Evidence-Based Practices*

*There are several barriers that can prevent teachers from using evidence-based practices in inclusive classrooms. One of the biggest barriers is a lack of training and professional development opportunities. Teachers in Ghana often receive little training in inclusive education or evidence-based practices, which can make it difficult for them to implement these approaches effectively. In addition, there may be a lack of resources, such as textbooks or teaching materials, that can support the use of evidence-based practices.*

*Another barrier is a lack of support from school administrators and colleagues. Teachers may feel isolated or unsupported in their efforts to implement evidence-based practices, particularly if they are the only teacher in their school or community who is using these approaches. This can lead to a sense of frustration or burnout, which can further discourage the use of evidence-based practices.*

#### *Recommendations for Improving Teacher Knowledge and Use of Evidence-Based Practices*

*To address these barriers, there are several recommendations that can be made for improving teacher knowledge and use of evidence-based practices in inclusive classrooms in Ghana. First, there needs to be a greater emphasis on teacher training and professional development in evidence-based practices. This can be achieved through workshops, seminars, or online courses, which can provide teachers with the knowledge and skills they need to implement these approaches effectively.*

*Second, there needs to be greater investment in resources, such as textbooks, teaching materials, and technology, that can support the use of evidence-based practices. This can help to overcome some of the logistical challenges that teachers face in implementing these approaches, and can also help to improve the quality of instruction for all students.*

*Finally, there needs to be greater support and collaboration among teachers, administrators, and other stakeholders in the education system. This can*

involve creating communities of practice, where teachers can share best practices and support each other in implementing evidence-based practices. It can also involve providing mentoring or coaching for teachers, particularly those who are new to inclusive education or who may be struggling to implement evidence-based practices effectively.

**Conclusion** In conclusion, teacher knowledge and use of evidence-based practices is critical for the success of inclusive education in Ghana. While there are many challenges that teachers face in implementing these approaches, there are also many opportunities for improvement. By investing in teacher training, providing resources, and fostering collaboration and support, we can help to ensure that all students receive high-quality instruction that meets their diverse learning needs.

#### References

Akyeampong, K. (2017). Preparing teachers for inclusive education in Ghana: The role of teacher education institutions. *International Journal of Inclusive Education*, 21(2), " (ChatGPT, March 11, 2023).

### **Write an empirical article on Profiling Teachers' Knowledge and Use of Evidence-Based Practices in Inclusive Classrooms in Ghana**

#### Introduction

Inclusive education is an approach that aims to provide equitable access and participation in education for all students, including those with disabilities or special needs (UNESCO, 2017). Evidence-based practices (EBPs) are interventions that have been proven through research to be effective in improving outcomes for students with disabilities or special needs (Cook et al., 2014). In Ghana, inclusive education is a policy priority, but there is limited information on teachers' knowledge and use of EBPs in inclusive classrooms. This study aimed to profile teachers' knowledge and use of EBPs in inclusive classrooms in Ghana.

#### Method

The study employed a quantitative research design. A survey was used to collect data from 300 teachers in inclusive classrooms in Ghana. The survey included questions on teachers' demographic characteristics, knowledge of EBPs, and use of EBPs in the classroom. The data were analyzed using descriptive statistics.

#### Results

The results showed that most teachers (86%) had heard of EBPs, but only 46% had a good understanding of what EBPs are. The most commonly known EBPs were visual aids (89%), peer tutoring (84%), and cooperative learning (81%). However, less than half of the teachers reported using these EBPs in their classrooms. The most commonly used EBPs were visual aids (41%), peer tutoring (37%), and cooperative learning (34%). Teachers who had received training on inclusive education were more likely to use EBPs in their classrooms than those who had not received training.

#### Discussion

The findings of this study suggest that although most teachers in inclusive classrooms in Ghana have heard of EBPs, their understanding and use of these practices are limited. This may be due to a lack of training on inclusive education and EBPs. The results highlight the need for teacher training programs that focus on increasing teachers' knowledge and use of EBPs in inclusive classrooms. Such training programs should be provided to all teachers working in inclusive classrooms in Ghana.

#### Conclusion

In conclusion, this study has profiled teachers' knowledge and use of EBPs in inclusive classrooms in Ghana. The findings suggest that although most teachers have heard of EBPs, their understanding and use of these practices are limited. The study highlights the need for teacher training programs that focus on increasing teachers' knowledge and use of EBPs in inclusive classrooms.

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Deductively, the lack of rigour in the academic writing output of ChatGPT may rob faculty and students of the motivation to write intellectually stimulating and thought-provoking academic assignments (Marusenko, 2023; Tate et al., 2023). This, in part, maybe one of the reasons some higher education institutions are trying to block the use of ChatGPT in their learning situations and settings

(Hargreaves, 2023; Perkins, 2023; Rudolph et al., 2023).

### **Is ChatGPT a threat to Academic Integrity through Academic Writing?**

Every college or university in the world has ways to protect its reputation through its academic work (Kwestel & Milano, 2020). Upholding the highest standards of honesty, trustworthiness, fairness, respect, and responsibility in all academic work has been and will continue to be a top priority for the university. It is important to avoid helping students engage in dishonest academic practices like plagiarism, cheating, and fabrication (Ventayen, 2023). Academic dishonesty and integrity problems have already been written about (Eshun et al., 2023), but ChatGPT has made them worse (Yeadon et al., et al., 2023). It is said that academic integrity and dishonesty problems do not happen because of something unexpected but because of something that already exists and is used as a conduit to perpetrate the crime (Eshun et al., 2023), and ChatGPT does not seem to be an exception. Several reports have been made on the use of ChatGPT and academic integrity. For example, Yeadon et al. (2022) indicate that ChatGPT is a severe threat to academic integrity and the credibility of research outputs. In this argument, some antagonists are concerned about plagiarised content from ChatGPT. According to Cotton et al. (2023), the potential for plagiarism is a problem when using ChatGPT for grading students, as some students may be given an unfair competitive advantage. For example, students who have access to models like ChatGPT and can use them to produce high-quality written assignments may have an unfair advantage over their peers who do not have this resource. Cotton et al. think that these chatbot-made responses could cause bias in the evaluation process. In the end, faculty may have a hard time determining how well students understand the material because the chatbot's output might not reflect the students' actual comprehension. Graham (2022), Stokel-Walker (2022), and Ventayen (2023) all say that there is a new worry that AI-powered chatbots and other modern technological tools make it easier to cheat in school. Academic outputs could become obsolete if the educational community adopts ChatGPT as a new way of writing academic work (Graham, 2022). Many publications (D'Agostino, 2023; McCue, 2023; Tangermann, 2023) report that

students are being caught using ChatGPT to produce academic assignments without applying personal thoughts.

To get abreast with the fears of the academic community, we queried ChatGPT on the following: How can ChatGPT manage academic integrity and issues of academic dishonest behaviours of faculty and students in using the app? And ChatGPT responded in this way:

*“As an AI language model, ChatGPT cannot directly manage academic integrity or monitor academic dishonest behavior of faculty and students. However, there are several ways in which the use of ChatGPT can be designed to promote academic integrity and discourage academic dishonesty:*

*Promote ethical use: ChatGPT can provide information on academic integrity and ethical use, including guidelines for proper citation and avoiding plagiarism. This information can be incorporated into the chatbot's responses to relevant questions or provided as a separate resource.*

*Limit scope: The use of ChatGPT can be limited to certain academic topics or questions, rather than being open-ended. This can help prevent students from using the app to cheat on assignments or exams.*

*Monitor usage: Educational institutions can monitor the usage of ChatGPT and flag any suspicious or inappropriate activity. This can include monitoring the volume and frequency of questions asked by individual users, as well as the types of questions asked.*

*Collaborate with instructors: Instructors can work with educational institutions to develop policies and procedures that address academic integrity and academic dishonesty. This can include incorporating the use of ChatGPT into course materials and setting expectations for ethical use.*

*Encourage honesty: Educational institutions can emphasize the importance of honesty and integrity in academic work. This can be done through educational campaigns, workshops, and other activities that promote ethical behavior.*

*Ultimately, ensuring academic integrity and preventing academic dishonesty is a collective responsibility, and requires a multi-faceted approach. While ChatGPT can play a role in promoting ethical use and providing information on*

*academic integrity, it is up to educational institutions, instructors, and students to work together to create a culture of honesty and integrity”* (ChatGPT, March 12, 2023).

From the story, ChatGPT may seem good in the academic world, but it is bad for quality and honest academic writing because it cannot find or stop academic dishonesty or lack of integrity from faculty or students unless the user is committed to following academic rules. This proves that the academic community around the world is right to be worried since not every professor or student can stick to ethical standards when there is a “leeway” (ChatGPT) to success. ChatGPT demonstrates critical thinking abilities and the ability to generate highly realistic text with minimal input; however, it poses a serious threat to the credibility of online exams, especially in higher education institutions where their use is on the rise (Fitts & Bovard, 2023; Hasty, 2023; Susnjak, 2022).

#### **How can the positive use of ChatGPT be promoted to synchronize with Academic Integrity and Human Creativity?**

The discussions on the infiltration of technology into the academic community will not end today or tomorrow. It is important to note that this drive for technological advancement in the academic space has come to stay, and ones that are more sophisticated should be expected in the years to come. Therefore, it is advisable to embrace the technological wave in earnest and prepare for its ethical, healthy and productive usage among higher education institutions, faculty, and students alike. As said, ChatGPT as a novel language model has begun well and shall cement its position in the AI community despite the fears in the lives of educational institutions, faculty, academic writers, and students. To liberate the conflicting thoughts and positions, ChatGPT can be immersed in productive, ethical, and healthy academic writing through specific roles from higher educational institutions, faculty, and students as follows:

#### **Roles of Higher Education Institutions in Promoting Academic Integrity and Human Creativity in Academic Writing with the Coming of ChatGPT**

To achieve high levels of academic integrity and to promote human creativity in the use of ChatGPT, the technological infrastructure of institutions should be built or reorganized to detect

simulated AI-based academic writings submitted by both faculty and students for promotion or grading. This may come at an extra cost, but it would inure to protecting the integrity of the institutions and promoting human thought-based academic outputs. Some scholars indicate that any institution that plans to adopt ChatGPT in its educational space might need a robust and upgraded technological infrastructure with massive GPUs so that the ills of ChatGPT can be curtailed (Kasneci et al., 2023; Mijwil et al., 2023; Scannell, 2023; Williamson et al., 2023). The drive in promoting academic integrity and preserving human creativity in using ChatGPT cannot be limited to building a preventive technological system but also institutionalizing the proper use of the software. With this procedure, seminars, workshops, and retreats can be organized bi-semester to educate faculty and students on the proper use of ChatGPT in academic writing while preserving and abiding by established ethical and academic protocols. This can be complemented by updating the code for academic integrity to take into consideration the prohibition of AI-generated academic writings that faculty and students credit to themselves as their own creation.

#### **Roles of Faculty Roles in Promoting Academic Integrity and Human Creativity in Academic Writing with the Coming of ChatGPT**

In as much as higher education institutions play their role in discouraging unhealthy, unethical, and dishonest use of ChatGPT, their faculty could help in that quest in several ways. Faculty can prevent academic dishonesty among students and plagiarism-related content emanating from the use of ChatGPT by emphasizing class-based assignments over take-home assignments. Faculty could help prevent plagiarism and promote academic integrity when they align the requirements of academic tasks to specific issues discussed in class rather than allowing students to go into searching for possible academic outputs using ChatGPT. In this sense, Fitts and Bovard (2023, p. 2) suggest that faculty can “....use rubrics that students are aware of beforehand, which may help abate AI-generated submissions. The rubric would include particular points that the student must make. This approach lends itself to so-called “specifications” or “specs” grading in which a successful student submission must meet certain specifications, which is often paired with a pass/fail



grading approach". Building on the high inaccuracy rate (63.41%) of ChatGPT responses (Bowers, 2023), restricting specifications for students' academic assignments and applying stringent sanctions could be some of the ideal strategies for promoting academic integrity and avoiding academic dishonesty by faculty. Faculty can subject students to independent presentations on assigned topics and academic assignments so that their complete reliance on AI-generated content can be minimized. Through this, the possibility of promoting academic integrity and preventing academic dishonesty among students will be high.

### **Roles of Students in Promoting Academic Integrity and Human Creativity in Academic Writing with the Coming of ChatGPT**

Although there are fears about the use of ChatGPT among several people, these fears appear to be rife among students. These fears are borne out of the fact that students are required to submit academic assignments, and the possibility that they see ChatGPT as the best way to execute these assignments is high. Therefore, higher education institutions need to take their students through processes of ethical use of language models to avoid plagiarizing academic content. In fact, any academic training designed for behavioral change in students revolves around attitude change and self-regulation. Therefore, students should be helped to develop good attitudes and regulate their convictions when using ChatGPT to avoid cheating and promote academic integrity. As noted, students can be engaged in discussions regarding the long-term effects of unethical usage of AI models and their generated academic content by developing ethical reasoning and functional strategies in executing academic assignments so that they can promote academic integrity and prevent academic dishonest behaviors.

### **CONCLUSION**

It is important to note that creative ideas and innovation are not easy to come by because they are complex and take into account several human brain activities. Therefore, no artificial intelligence (AI), not even ChatGPT, could come up with original academic writing on its own like the human brain does. Again, no AI can come up with academic text without breaking academic rules, which could be avoided if the text came straight from human

thought. Human creativity is dependent on and controlled by environmental factors (stimuli). As a product of the human brain, human beings can immediately adjust to environmental changes, which would in turn bring about changes in executive function and human creativity. Therefore, it is not possible for any AI, including ChatGPT to take over human creativity.

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