VOVK Olena
Doctor of Pedagogy, Professor, Professor of the Department of English Philology
and Methods of Teaching the English Language,
Bohdan Khmelnytsky National University of Cherkasy
e-mail: vavovk66@gmail.com
🔹 https://orcid.org/0009-0006-5541-4587
KRYVOSHYIA Daryna
Master Student,
Bohdan Khmelnytsky National University of Cherkasy
e-mail: kryvoshyia.daryna219@vu.cdu.edu.ua

PROS AND CONS OF USING CHATGPT IN ACADEMIC WRITING INSTRUCTION

This paper contributes to on-going research concerning the validity of using Chat Generative Pre-Trained Transformer (ChatGPT) by University students. ChatGPT is a relatively new tool being developed alongside numerous advancements in the realm of Artificial Intelligence (AI). A number of studies exploring possibilities of employing ChatGPT in tertiary education single out its multiple benefits stipulating though that it is still not quite lucid how far it can be used, and particularly, how it might enhance academic writing (AW) expertise among graduates without eroding their learning skills and evolving their mental inertia. Thereupon, concerns are raised in academic circles that ChatGPT may turn out to be a "double-edged sword" – while holding significant potentials for enriching student learning experiences and saving their time and effort, it also poses risks of retarding human intelligence, though being unable to entirely supplant it. Besides, AI leaves educators feeling ambivalent that over-reliance on ChatGPT can engender academic parasitism among cognizing subjects. Therefore, the primary aim of this study is to envisage prospective benefits of ChatGPT in teaching University students how to accomplish a research proposal and acquire valuable AW skills, therewith figuring out possible challenges it can engender. Employing theoretical positioning, comparative-critical analysis, and procedural research methods, this article spotlights the concept of ChatGPT with a special emphasis on its advantages and limitations in the process of conducting a research project. In addition, the study offers several insights into how AI can be incorporated in tertiary education, and it also reasons further research in this area with regard to judicious exploitation of ChatGPT in University AW instruction.

Keywords: *artificial intelligence; ChatGPT; academic writing expertise; research project; benefits and challenges of using ChatGPT in academic writing instruction.*

Introduction. One of the appreciable advances in the area of artificial intelligence (AI) has become the Chat Generative Pre-Trained Transformer (ChatGPT), which is a sophisticated machine-learning model capable of performing natural language generation tasks with high accuracy (Bhatia, 2023). It has proven to be effectively used in multiple demesnes, but especially fast it has been integrated into the educational domain. The main goals of ChatGPT are thought to be responding to queries, continuously maintaining an incessant chain of information, and creating a powerful database, which is able to resolve any problem grounded on the provided data (Mahajan, 2023). The evidence seems to be strong that ChatGPT has plenty to offer across diversified areas including academic contexts. Inter alia, it is alleged to possess the potential to revolutionize the scientific domain by providing a super-smart, flexible and collaborative tool for increasing research output and enhancing fairness, objectivity and creative problem solving (Lin, 2023). Besides, it is claimed to minimize time and effort spent on generating, developing and presenting ideas (Mahama et al., 2023), appreciably augment student learning reducing stress and pressure, providing 24/7 access and support, and ensure personalized, spaced and interactive learning. Thereto, the effectiveness of ChatGPT in improving learning and memory may vary depending on user preference, subject matter, and specific implementations of this tool (Long, Xiangfei & Jiacan, 2023).

At the same time, in light of how modern technologies have altered and continue altering our reality, it is strategic to be aware of possible impacts of ChatGPT on preserving cognizing subjects' ideation, creative writing and expression skills. Specifically, provided that ChatGPT is utilized as a tool to learn how to write academically, and not as a robot that completes "dirty" mental work, students can embrace it as a scaffolder assisting them in building up and strengthening their AW expertise. Thus, ChatGPT can be used as a supplement to conventional learning methods rather than a replacement for them (Yael, 2023; Long, Xiangfei & Jiacan, 2023).

In addition, present-day researchers are unanimous in their opinions that ChatGPT holds tremendous promise for advancing

tertiary education, making it easier than ever *for educators* to ensure and sustain personalized learning, and *for students* – to access information. However, they also caution against overemphasized expectations from this resource as increased AI engagement can make individuals overreliant on it, which might cause diminished critical thinking and reasoning, decrease in intellectual depth and memory retention (Long, Xiangfei & Jiacan, 2023; Neendoor, 2024; Vovk, Kryvoshyia, 2024a, p. 391–395; Vovk, Kryvoshyia, 2024b, p. 323–328; Vovk, Kryvoshyia, 2024c, p. 2–14). That given, AI poses an issue regarding the degree to which it can be integrated into a learning process. Another issue, which comes to mind is the possible damage that AI can inflict on the young brain in case of abusive exploitation of ChatGPT.

Albeit, some scholars, educators, and University instructors welcome the extensive adoption of ChatGPT across diversified educational contexts, since it demonstrates an enormous variety of applications; they regard it rather as a support to human thought claiming that it has gained so much popularity that it is becoming almost unavoidable (Aljanabi, 2023, p. 16–17; George, A.S., George, A.H., 2023, p. 9–23). Other researchers and pedagogues are apprehensive about a possible overreliance on ChatGPT, which, as they fear, might foster students' superficial learning habits and erode their critical thinking skills. This dichotomy of opinions underscores the complexity of human-artificial intelligence interaction across various educational contexts (Mogavi et al., 2023).

With those issues in mind, this study is aimed at achieving the twofold *objectives*: 1) to examine the concept of ChatGPT, interpreting its key features alongside analysing its benefits, challenges and limitations in the educational area; 2) to explore the feasibility of judicious utilization of ChatGPT when conducting a research project without causing students' overdependence on it and engendering their mindset rigidity, mental inertia and academic parasitism.

Reaching the abovementioned objectives necessitates employing the *methods* of theoretical positioning, critical literature review, comparative analysis, and procedural research. These methods prove to be efficiently applied in multifarious contexts to solve numerous problems. In this paper, we apply them in an attempt to work out some solutions to the issue of thoughtful using ChatGPT in order to carry out an independent academic project when completing a master's degree by University students.

Background of the problem. Voluminous research is focused on possibilities and risks of incorporating ChatGPT in University instruction, particularly in the AW course (Mohammad et al., 2023, p. 62; Sułkowski, 2023; Bhatia, 2023; Lo, 2023; Kacevac, 2023; Alberth, 2023, p. 339–350; Mahama et al., 2023; Ijaz, 2023; Mondal, Mondal, 2023, p. 3601–3605; ChatGPT Prompts, 2024; Can Chat GPT4, n.d.; Fenswick, 2024; Perdani, n.d.). Basically, most studies agree that AI and ChatGPT as its type is a game-changing resource that revolutionizes the way AW is approached nowadays. Furthermore, they acknowledge that ChatGPT may serve as an efficacious tool, which assists in generating academic content and scholarly texts upon request. The training database for ChatGPT models comes from diversified sources covering various domains such as books, websites, Wikipedia and other text sources (Kacevac, 2023).

Therewith, educators collegially expose ethical applications of ChatGPT in a broad gamut of academic assignments in terms of outlining a research work; brainstorming and formulating research questions and hypotheses; assisting with literature review, and searching and summarizing relevant sources; creating efficient introductions, body sections and conclusions; developing and organizing arguments; collecting and validating data; optimizing the design of an experiment; combining and arranging ideas; visualizing and symbolizing information; editing and proofreading the work; and even formatting references. Besides, ChatGPT can also be addressed for grammar and punctuation, sentence structure, synonyms and vocabulary, paraphrasing techniques, transition phrases, tone and style. The indications are that ChatGPT can significantly enhance academic skills of young researchers, inasmuch as its major goal is to improve them and not to fabricate or cheat (Bhatia, 2023; Kacevac, 2023).

Moreover, educators identify the so-called "pillars" of utilizing ChatGPT that comprise providing limpid, explicit and concise instructions, asking clarification questions, making it a reiterative and collaborative process, resorting to reviewing and editing, and checking for plagiarism (Kacevac, 2023). It must therefore be recognized that ChatGPT may become a valuable scaffolding resource for students provided it is not overexploited.

On the flipped side of this, granting continuous intrusion of ChatGPT into AW instruction, the academic community is raising concerns about misuse or rather abuse of artificial language models in producing and publishing scholarly papers (Davis, 2023; De

Waard, 2023; Kendrick, 2023). In particular, a number of researchers who have tested ChatGPT in multiple ways, have identified that while ChatGPT's written responses to queries are generally intelligible, they may also be formulaic, outdated, false or fabricated, lack accurate or complete references, and, worse yet, rely on fabricated, virtually non-existent substantiation for assertions it creates (De Waard, 2023; Nature Editorial, 2023; Flanagin et al., 2023).

Apart from those mentioned, several other issues have arisen in academic and educational communities due to the overuse of ChatGPT, including the difficulty of distinguishing between human and AI authorship (Stokel-Walker, 2022; Else, 2023; Mahama et al., 2023). These issues, according to many, are associated with the widespread use of ChatGPT for text generation, language translation and generating responses to a wide range of queries (Rudolph, Tan, S., Tan & Sh., 2023, p. 345–351; Alberth, 2023, p. 339–347). Based on the foregoing, researchers warn that ChatGPT may be unreliable in terms of transparency, quality control, ethical issues, and reinforcing existing biases in data and algorithms. Along with that, it sometimes falsifies data and is unable to perform operations of critical thinking and ensure creativity in writing, so authors have to be very cautious and exploit this resource as a useful tool to refine their ideas and express them more effectively without over-relying on it as an instrument that will replace their thinking and originality. Hence, it is critical, while recognizing the potential of ChatGPT, also to be aware of its challenges and limitations (Bhatia, 2023; Fernandes, 2023; Kacevac, 2023; Nayak, 2023).

Over and above that, many believe that ChatGPT may eventually profane or even destroy education. Today's younger generations tend to count more on visuals rather than on reading, and they frequently feel deficient in critical and analytical skills to evaluate digital information obtained from the Internet (Yael, 2023). From such a perspective, ChatGPT can turn out to be detrimental to learning.

Results. When it comes to AW, replacing extended academic reading, note-taking, planning, drafting, editing, and revising a paper with speedily generated (and sometimes inaccurate) AI responses can significantly impede AW instruction and prevent students from acquiring AW skills, which are momentous for quality University education. Building up such skills is a gradual, incre-

mental and time consuming process that cannot occur overnight. Students will (and should!) experience numerous failures and intellectual struggles on the pathway to obtaining AW expertise. But the problem with University instructors is that sometimes they confuse the process of learning with its final outcome, rather than with a hard thinking process required to create it, which is where the learning per se occurs. Hence, ChatGPT can be instrumental and supportive in many respects, but unless pedagogues are careful, it can get overused, resulting in damaging students' cognitive abilities to learn and think (Vovk, Kryvoshyia, 2024a, p. 392–395; Vovk, Kryvoshyia, 2024b, p. 325–329; Quigley, 2023; Vovk, Kryvoshyia, 2024c, p. 5–11). Also, it should be borne in mind that writing and thinking are closely related processes. There are many benefits to writing that can improve mental clarity and thinking capacities. So, we cannot but agree with the author David McCullough that "Writing is thinking. To write well is to think clearly. That's why it's so hard".

Apart from the abovementioned, AI may have critical impacts on psychological and cogitative functioning of students. Since it is activities like reading, thinking, and writing that notably develop the human mind, by overusing ChatGPT students may lose these vital academic skills. Besides, it would not be superfluous to remind that quality education, inter alia, is aimed at ensuring the neuroplasticity of the human brain, which occurs via continuous mental work and practice, and cinches the intellectual development of individuals. And if this is case that ChatGPT is used excessively, it can cause a decline in mental capacities. Further, the abuse of ChatGPT may have a detrimental effect on students' imagination, creativity, and motivation. In its turn, the lack of motivation can lead to decreased cognitive performance (Lapierre, 2024; Vovk, Kryvoshyia, 2024a, p. 393; Vovk, Kryvoshyia, 2024b, p. 325; Vovk, Kryvoshyia, 2024c, p. 10–13).

Withal, if students exploit ChatGPT as a method of cheating, they will gradually become less interactive with literature. Conducting the hardest work – thinking and analyzing – which are so critical for students' AW expertise, AL will ultimately impede or destroy their capacity of employing creativity and originality on academic assignments, reducing at that their mental agility. Once students turn to AI to complete their work for them, they will fail to benefit

from opportunities to practise AW skills. Then, AI may also have a negative impact on learners' decision-making abilities, which causes the depletion of neurons in the brain assigned to accomplish a specific task, aggravating for learners the completion of assignments requiring these skills (Lapierre, 2024).

Considering all cons and pros of employing ChatGPT in University AW instruction, for better clarity it seems felicitous to compare and contrast them in a chart (Table 1).

Table 1

Pros and Cons of Using ChatGPT in Academic Writing

Pros	Cons
Offers support 24/7	causes over-reliance resulting in a reduced capacity for critical thinking, creativity and memory retention
Possesses flexibility catering to diverse students' needs	damages students' ability to learn, discourages from seeking knowledge, is detrimental for motivation
Provides personalized and interactive learning	reduces human interaction and collaborative learning
Diminishes stress and pressure	makes it difficult to distinguish between human and AI authorship and maintain quality control
Reduces time and effort of developing, presenting, and organizing ideas	produces formulaic, outdated or fabricated references responses
Assists with literature review	possesses a confined amount of knowledge
Collects data, develops and arranges arguments	relies on fake, non-existent substantiation for the assertions or proclamations it creates
Brainstorms and formulates research questions	generates responses major variations of which depend on how the user frames the prompt
Optimizes the design of an experiment	demonstrates a superficial engagement and understanding of topics
Visualizes information	lacks nuanced comprehension of data to create the most precise and insightful visualizations
Outlines the research paper	raises ethical concerns about academic integrity and originality of the work
Generates content in the introduction, sections, and conclusion	presents difficulty in ensuring consistency and coherence
Ensures correctness of grammar, vocabulary, punctuation, and structure	cannot detect subtle grammar and punctuation errors, produces overly complex or simple sentences, chooses inappropriate words
Enhances tone and stylistic consistency	is not tailored to deliver AW, tone, and style

On balance, while recognizing that ChatGPT may have a positive effect on learning, it also may cause negative consequences in terms of over-reliance on AI, impairment of reasoning abilities, accuracy of information, simplistic knowledge, superficial comprehension of concepts, reduced human interaction and collaborative learning, as well as deskilling and demotivation. There is no denial that ChatGPT has the potential to enrich student learning experiences, but it is also imperative to critically examine its possible negative upshots. These challenges might be addressed through the intentional implementation of special pedagogical strategies meant to encourage independent thinking and intelligent use of AI in University instruction in general, and in AW in particular.

To mitigate the potential negative impact of ChatGPT on learning, several strategies can be implemented. They are intended to ensure that ChatGPT serves as a complementary educational tool and not as a replacement for human intelligence. Suggested strategies presume employing blended learning, developing critical thinking and problem-solving skills, creating collaborative learning environments, encouraging ongoing professional growth for educators and introducing a course of digital literacy for them, devising an ethical framework for AI evaluation, and promoting research and evidence-based practices (Long, Xiangfei & Jiacan, 2023; Vovk, Kryvoshyia, 2024a, p. 392–394; Vovk, Kryvoshyia, 2024b, p. 324–327; Vovk, Kryvoshyia, 2024c, p. 12–15). Adopting these strategies increases chances that ChatGPT can be

effectively integrated into educational contexts, acting as a complement to human capacities. This impellent driving force is claimed to advance critical thinking and improved learning outcomes while mitigating potential adverse consequences. Fundamental to such an approach is maintaining a learner-centric environment, with ChatGPT serving as a complementary tool for both.

That given, the idea is put forward that recommendations for justified employment of generative AI in research projects should be worked out and promoted in order to ensure the ethical use of natural language processing techniques in academia (Sułkowski, 2023). Additionally, the guidance on ChatGPT and chatbots in relation to scientific publishing issued by the World Association of Medical Editors should also be taken into account. This guidance pinpoints that chatbots cannot be considered authors; authors must be transparent when utilizing chatbots and furnish particulars about how they have been utilized; authors are accountable for the work completed by the chatbot in their study and for indicating all sources; editors require the right tools to assist them in detecting content created or elaborated by AI, and these tools have to be entirely available (Zielinski et al., 2023).

To summarize, ChatGPT, though proving to be a multi-purpose and versatile AI tool that exhibits a broad array of applications in academic environments, including assisting students in their AW literacy, guiding them through their AW advancement, honing their learning strategies, facilitating benchmarking and brainstorming, yet simultaneously carries significant downside risks doing a disservice to graduates when performing their academic work intended specifically for their cognitive and academic growth, indispensable for their future professional activities. Needless to say, it is crucial for students to use ChatGPT judiciously, cautiously, and responsibly to improve their academic research performance without detrimenting their mental powers. That is why more discussion expressing varied perceptions and stances towards this issue is requisite.

On account of the fact that in this day and age, it is hardly possible for students to avoid using AI in their University studies, AW instructors may (and probably should) turn possible challenges related to ChatGPT to advantages (certainly with definite limitations). This implies that, first and foremost, instructors themselves have to be aware of how to make use of ChatGPT, and second, they are expected to figure out how students can wisely utilize this chat without harming their mental abilities, or academically deskilling them impairing their AW expertise.

Numerous researchers focusing on teaching AW to master-students are unanimous that academic skills are a valuable asset to University education and therefore, they should be prioritized and emphasized. Such a stance requires not only a special awareness, but also the application of a feasible methodology instrumental in acquiring AW experience, as it is a time-consuming and frequently painstaking process.

Conventionally, *a research proposal* is viewed as a formal project in which students start with an idea or hypothesis supported with pertinent data collected from multiple sources, assemble gathered findings in a logical fashion, and reflecting on what they have learned in the process, reexamine the original idea. In preparing a scholarly project, a researcher gradually progresses through such phases as choosing and limiting the topic, forming potential research questions and proposing a working thesis, gathering data, organizing and summarizing obtained findings, analyzing data, developing a working outline and assembling the rough draft, which subsequently will repeatedly be supplemented, edited, proofread, and finalized (How to Write a Research Proposal, n.d.).

Respectively, the incremental progression through the indicated phases requires from the author not only profound content knowledge and AW skills, but also time, mental effort and commitment. Besides, they need to have intelligible ideas that they intend to develop in their research project. Granted that many present-day master-students (particularly, in Ukraine) are engaged in extra-curricular activities and part-time jobs to support themselves financially, they are sure to resort to the assistance of ChatGPT most frequently, which makes it the most popular resource among graduates.

On the one hand, this chatbot may come in helpful at every phase of accomplishing a research project saving students' time and efforts. Seemingly, under the circumstances, turning to ChatGPT for aid is justified, because not every student can be a researcher by their brain power and intellectual capabilities, and not all of them possess sufficient theoretical preparation on the subject matter, which will definitely prevent them from formulating a workable hypothesis or a thesis, and coming up with relevant research questions. Addressing AI for directing and guiding them in their research seems well-founded in this case.

On the other hand, letting ChatGPT entirely replace human intelligence poses potential hazards, which students at this stage

of their intellectual development are not quite able to realize. Specifically, continuously allowing ChatGPT to brainstorm research ideas, put forward theses and hypotheses, synthesize, assemble, and generalize data, analyze findings, make inferences and conclusions, etc. is fraught with inhibiting and retarding student mental powers and reason abilities, and in the longer term, significantly limiting their mental dexterity, intellectual aptitude and cognitive agility.

Concomitant therewith, University study time being the most conducive period to mental development of students, will be irreparably lost, and students will not be cognitively capable of handling intellectual issues if they encounter them. That is why, the unwarranted, unregulated and uncontrolled exploitation of ChatGPT will do students a disservice rather than contribute to their academic advancement, and hence will inflict more damage than bring good.

Given that the main objective of quality University education is to not only to equip cognizing subjects with professional skills and competences so necessary for their future occupations, but to teach them how to learn, think critically, grasp abstract concepts, tackle intellectual challenges and resolve problems, students will hardly ever benefit from AI in these respects. If this is the case, their University education (and our mission as instructors) will definitely show signs of complete failure.

With regard to the aforementioned and our own teaching and academic experience, letting students turn to AI for generating a complete version of the research project on the chosen/given topic is absolutely unacceptable. Some of the phases of accomplishing a project (like formulating a working the-

sis and hypothesis, organizing ideas, making conclusions, arguing and debating pertaining issues) require original efforts intended for the actual research – in this case, it is not permissible for students to utilize ChatGPT and present their work as an outcome of their own mental endeavours. Conducting research is considered to be one of the University evaluation instruments aimed at assessing students' abilities to search for information from reliable sources, process and organize it in an orderly fashion, formulate ideas, make inferences and draw conclusions. And presenting the artificially generated research proposal as your own is unacceptable in any academic setting; it equates such individuals with those students who genuinely and fairly exerted themselves and invested their time, energy, mental efforts, originality and creativity into their research work.

Alternatively, if the conducted research requires gathering multifarious copious information or collecting pertinent sources, some statistical data, linguistic verification, academic editing for appropriate use of academic clichés, then there seems to be no violation of academic integrity if students resort to AI. Conversely, it will save the researcher's time and endeavours, enhance the scientific authenticity of the research paper and academically strengthen it. Furthermore, provided it is done under the guidance or control of a scientific supervisor there is no dishonour in it. Accordingly, students may be allowed to use ChatGPT at some phases of completing a research proposal without plagiarizing or cheating. In this case, ChatGPT will perform mostly technical functions saving students' time and efforts (Table 2).

Table 2

Functions of ChatGPT
at Every Phase of Conducting a Research Project

Phases	Functions of ChatGPT
Literature review	– defines the scope of literature review offering key themes and questions to focus on; – elucidates objectives of literature review (gaps identification, theoretical framework establishment, current knowledge generalization); – synthesizes information from multiple sources designating common topics, trends, and gaps; – compares and contrasts diverse studies highlighting differences and emphasizing areas of debate.
Limiting the topic	– provides not only a plan of how to narrow down the topic but also exemplifies how to do it; – draws attention to potential subtopics and specific aspects; – provides feedback and suggestions through which the topic can be refined more precisely.
Forming potential research questions	– turns the topic into a focused research question; – ensures clarity and specificity of research question; – offers alternative versions if the initial research question is too broad or narrow.

Phases	Functions of ChatGPT
Proposing a working thesis	Independent completion.
Formulating a hypothesis	Independent completion.
Collecting pertinent data	– suggests data sources; – advises on selection of appropriate research methods; – recommends sampling techniques and tools.
Assembling, analyzing obtained findings	– recommends how to organize (spreadsheets (Excel, Google Sheets), databases (SQL, Access), or software for data management (SPSS, R)) data; – provides suggestions on data analysis (statistical, qualitative); – assists in the interpretation of findings in the context of research questions.
Organizing, summarizing, symbolizing findings	– advises on how to logically and effectively categorize findings; – helps to calculate and interpret descriptive statistics and summarize large datasets into key findings; – suggests appropriate methods (bar charts, line graphs, pie charts, histograms, etc.), offers incremental instructions, and customization tips (adding labels, adjusting colours, using legends, etc.) for effective symbolic display of findings.
Developing a working outline	– provides guidance for creating an outline; – points out key components to be included; – offers outline templates.
Drawing conclusions, making inferences	Independent completion.
Assembling the rough draft	Independent completion.
Editing, proofreading, and finalizing the research project	– reviews the paper in terms of lucidity and logic of arguments, their conclusiveness and validity; – identifies ambiguous and overly verbose sections suggesting ways to make them more concise and comprehensible; – enhances coherence by suggesting transitional phrases and synonyms, ensuring consistency of terms, tone, and style; – detects and corrects grammar and punctuation errors, improves the structure of sentences; – examines the entire paper to make sure that all sections are cohesive and contribute to the overall argument or narration; – reviews the conclusion to ascertain that they precisely summarize the research paper and expose its contributions.
Referencing the research project	– provides verification of in-text citation accuracy; – ensures that the list of references is complete and is composed and formatted appropriately and infallibly following the required style (APA, Chicago, MLA, etc.).

Conclusion. These days, AI has gained immense popularity, especially among students who are frequently availing themselves of it when performing their academic assignments. Respectively, ChatGPT as a game-changing type of AI is widely made use of by modern University graduates. That is why, instructors should be mindful of the fact that though this chatbot can make a positive impact on students' academic performance by providing them with plentiful assistance, it can also detriment them by impairing their creativity, efficacy, academic integrity and transparency due to the abusive utilization or over-dependence on it.

Presently, it does not seem viable to take full control over students' resorting to AI, and yet it is feasible to guide them in this process by employing ChatGPT at certain phases of accomplishing a research proposal. Provided it is a directed and monitored use of ChatGPT, it will become warrantable and students will have no need to cheat. Sometimes, while conducting a research project, graduates may address ChatGPT to complete mental work for them, and then submit it as their own. To avoid such a precedent, it is assumed that teachers themselves have to be able to use this chat in order to knowledgeably monitor and guide students, suggesting at what phase of the research they can turn to this ChatGPT for assistance, and keep students under control to prevent fabrications, scientific parasitism, and cheating.

Further implications. In conjunction with other workable measures, Universities are required to develop appropriate guidelines with explicit instructions in what cases and how far students can be permitted to use ChatGPT without violating academic integrity. This opens new perspectives for employing AI across educational contexts, which offers implications for further research in this realm.

References

Alberth, 2023 – Alberth. (2023). The Use of ChatGPT in Academic Writing: A Blessing or a Curse in Disguise? *TEFLIN Journal*, 34(2): 337–352. doi: 10.15639/teflinjournal.v34i2/337-352.

Aljanabi, 2023 – Aljanabi, M. (2023). ChatGPT: Future Directions and Open Possibilities. *Mesopotamian Journal of CyberSecurity*, 2023: 16–17. Retrieved 29.06.2024, from https://mesopotamian.press/journals/index.php/CyberSecurity/article/view/33.

Bhatia, 2023 – Bhatia, P. (2023). ChatGPT for Academic Writing: A Game Changer or a Disruptive Tool? *Journal of Anaesthesiology Clinical Pharmacology*. 39(1). Retrieved 29.06.2024, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10220188/.

Can Chat GPT4, n.d. – Can Chat GPT4 Be Used For Academic Writing? (n.d.) *DEV*. Retrieved 29.06.2024, from https://dev.to/codesomething/can-chat-gpt4-be-used-for-academic-writing-5168.

ChatGPT Prompts, 2024 – ChatGPT Prompts for Powerful Academic Writing. (2024). *Prompt Advance*. Retrieved 29.06.2024, from https://promptadvance.club/blog/chat-gpt-prompts-for-academic-writing.

Davis, 2023 – Davis, P. (2023). Did ChatGPT just Lie to me? *THE SCHOLARLY kitchen*. Retrieved 29.06.2024, from https://scholarlykitchen.sspnet.org/2023/01/13/did-chatgpt-just-lie-to-me/.

De Waard, 2023 – De Waard, A. (2023). Guest Post – AI and Scholarly Publishing: A View from Three Experts. *THE SCHOLARLY kitchen*. Retrieved from https://scholarlykitchen.sspnet.org/2023/01/18/guest-post-ai-and-scholarly-publishing-a-view-from-three-experts/.

Else, 2023 – Else, H. (2023). Abstracts Written by ChatGPT Fool Scientists. *nature*. Retrieved from https://www.nature.com/articles/d41586-023-00056-7.

Fenswick, 2024 – Fenswick, I. (2024). 19 Best ChatGPT Prompts for Academic Writing & Research. *Linkedin*. Retrieved 29.06.2024, from https://www.linkedin.com/pulse/19-best-chatgpt-prompts-academic-writing-research-irene-fenswick-d7imc.

Fernandes, 2023 – Fernandes, D. (2023). Why Not to Use ChatGPT for Academic Writing. *Paperpal*. Retrieved 29.06.2024, from https://paperpal.com/blog/news-updates/product-updates/why-not-to-use-chatgpt-for-academic-writing.

Flanagin et al., 2023 – Flanagin, A., Bibbins-Domingo, K., Berkwits, M., Christiansen, S.L. (2023). Nonhuman "Authors" and Implications for the Integrity of Scientific Publication and Medical Knowledge. *JAMA*, 329(8): 637–639. doi: 10.1001/jama.2023.1344.

George, A.S., George, A.H., 2023 – George, A.S., George, A.H. (2023). A Review of ChatGPT AI's Impact on Several Business Sectors. *Partners Universal International Innovation Journal*, 1(1): 9–23. doi: 10.5281/zenodo.7644359.

How to Write a Research Proposal, n.d. – How to Write a Research Proposal. (n.d.). Retrieved 29.06.2024, from https://www.nrf.ac.za/yenza/research/proposal.htm.

Ijaz, 2023 – Ijaz, H. (2023). Best ChatGPT Alternative For Academic Writing In 2024. *Poll the People*. Retrieved 29.06.2024, from https://pollthepeople.app/chatgpt-alternative-for-academic-writing/.

Kacevac, 2023 – Kacevac, S. (2023). Chat GPT for Scientific Writing: Supercharge your Writing with AI. *A Brilliant Mind*. Retrieved 29.06.2024, from https://abrilliantmind.blog/chat-gpt-for-scientific-writing-supercharge-your-writing-with-ai/.

Kendrick, 2023 – Kendrick, C.L. (2023). Guest post – The Efficacy of ChatGPT: Is it Time for the Librarians to Go Home? *THE SCHOLARLY kitchen*. Retrieved 29.06.2024, from https://scholarlykitchen.sspnet.org/2023/01/26/guest-post-the-efficacy-of-chatgpt-is-it-time-for-the-librarians-to-go-home/.

Lapierre, 2024 – Lapierre, N. (2024). How Does ChatGPT Hinder Psychological Functioning? *The journal*. Retrieved 29.06.2024, from https://www.thesmujournal.ca/opinion/how-does-ai-impact-us.

Lin, 2023 – Lin, Z. (2023). Why and how to embrace AI such as ChatGPT in your academic life. *Royal Society Open Science*, 10(8). doi: 10.1098/rsos.230658.

Lo, 2023 – Lo, C.K. (2023). What is the Impact of ChatGPT on Education? *Education Sciences*, 13(4): 410. doi: 10.3390/educsci13040410.

Long, Xiangfei & Jiacan, 2023 – Long, B., Xiangfei, L., Jiacan, S. (2023). ChatGPT: The Cognitive Effects on Learning and Memory. *Brain-X,* 1(3). doi: 10.1002/brx2.30.

Mahajan, 2023 – Mahajan, R. (2023). Chat GPT: Revolutionary or Destructive. *Linkedin*. Retrieved 29.06.2024, from https://www.linkedin.com/pulse/chat-gpt-revolutionary-destructive-nobrainsolutions.

Mahama et al., 2023 – Mahama, I., Baidoo-Anu, D., Eshun, P., Ayimbire, B., Eggley, E.V. (2023). ChatGPT in Academic Writing: A Threat to Human Creativity and Academic Integrity? An Exploratory Study. *Indonesian Journal Of Innovation And Applied Sciences*, 3(3). Retrieved 29.06.2024, from https://ojs.literacyinstitute.org/index.php/ijias.

Mogavi et al., 2023 – Mogavi, R.H., Deng, C., Kim, J.J., Zhou, P., Kwon, Y.D., Metwally, A.H.S., Tlili, A., Bassanelli, S., Bucchiarone, A., Gujar, S.P., Nacke, L., Hui, P. (2023). Exploring User Perspectives on ChatGPT: Applications, Perceptions, and Impli-?ations for AI-Integrated Education. *ResearchGate*. doi: 10.13140/RG.2.2.15524.86401/1.

Mohammad et al., 2023 –Aljanabi, M., Ghazi, M., Ali, A.H., Abed, S.A., ChatGpt. (2023). ChatGpt: Open Possibilities. *Iraqi Journal for Computer Science and Mathematics*, 4(1): 62–64. Retrieved from https://journal.esj.edu.iq/index.php/IJCM/article/view/539/258.

Mondal, Mondal, 2023 – Mondal, H., Mondal, S. (2023). ChatGPT in Academic Writing: Maximizing its Benefits and Minimizing the Risks. *Indian Journal of Ophthalmology,* 71(12): 3600–3606. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10788737/.

Nature Editorial, 2023 – Nature Editorial. (2023). Tools such as ChatGPT Threaten Transparent Science; here are our Ground Rules for their use. *Nature*. Retrieved 29.06.2024, from https://www.nature.com/articles/d41586-023-00191-1.

Nayak, 2023 – Nayak, P. (2023). Pros and Cons of using ChatGPT in scientific writing: as it identifies for itself. *Indian journal of physiology and allied sciences,* 75(1). Retrieved 29.06.2024, from https://ijpas.org/index.php/ijpas/article/view/131

Neendoor, 2024 – Neendoor, S. (2024). ChatGPT: Pros and Cons of Using ChatGPT in Higher Education. *Hurixdigital*. Retrieved 29.06.2024, from https://www.hurix.com/chat-gpt-pros-and-cons-of-using-chatgpt-in-higher-education/.

Perdani, n.d. – Perdani, Y.D. (n.d.). The Use of ChatGPT in Academic Writing: Help or Plunge? *Binus University*. Retrieved 29.06.2024, from https://binus.ac.id/bandung/2023/04/the-use-of-chatgpt-in-academic-writing-help-or-plunge/.

Quigley, 2023 – Quigley, A. (2023). Why might ChatGPT Damage Learning? *Alex Quigley*. Retrieved 29.06.2024, from https://alexquigley.co.uk/why-might-chatgpt-damage-learning/.

Rudolph, Tan, S., Tan & Sh., 2023 – Rudolph, J., Tan, S., Tan, Sh. (2023). ChatGPT: Bullshit Spewer or the End of Traditional Assessments in Higher Education? *Journal of Applied Learning and Teaching*, 6(1): 342–363. Retrieved 29.06.2024, from https://journals.sfu.ca/jalt/index.php/jalt/article/view/689/539.

Stokel-Walker, 2022 – Stokel-Walker, C. (2022). AI Bot ChatGPT Writes Smart Essays – should Professors Worry? *Nature*. doi: 10.1038/D41586-022-04397-7.

Sułkowski, 2023 – Sułkowski, Ł. (2023). Digital University – AI Assistance in Academic Writing: Chat GPT. *PCG Academia*. Retrieved 29.06.2024, from https://pcgacademia.pl/en/digital-university-ai-assistance-in-academic-writing-chat-gpt/.

Vovk, Kryvoshyia, 2024a – Vovk, O., Kryvoshyia, D. (2024). ChatGPT in Teaching Analytical Essay. *Modern research in science and education*: proce-?dings of the 9th International scientific and practical conference. Chicago: BoScience Publisher. P. 390–396. Retrieved 29.06.2024, from https://cutt.ly/2eyXuu0A.

Vovk, Kryvoshyia, 2024b – Vovk, O., Kryvoshyia, D. (2024). ChatGPT in Academic Writing: New Opportunities or Risks? *Innovative development of science, technology and education*: proceedings of the 8th International scientific and practical conference. Vancouver: Perfect Publishing. P. 323–330. Retrieved 29.06.2024, from https://cutt.ly/ZeyXu2Rs.

Vovk, Kryvoshyia, 2024c – Vovk, O. I., Kryvoshyia, D. (2024). Employing Artificial Intelligence in Teaching Academic Writing to University Students: Creating Problem-Solving Essays. *Pedagogical Academy*: *Scientific Notes*, 6: 1–17. doi: 10.57125/pedacademy.2024.05.29.13.

Yael, 2023 – Yael, M. (2023). The ChatGPT Effect: How Will Our Skillset Evolve in the Age of AI? *Behav-?iraleconomics.com*. Retrieved 29.06.2024, from https://www.behavioraleconomics.com/the-chatgpt-effect-how-will-our-skillset-evolve-in-the-age-of-ai/.

Zielinski et al., 2023 – Zielinski, C., Winker, M., Aggarwal, R., Ferris, L.E., Heinemann, M., Jr, J.F.L., Pai, S.A., Ing, E., Citrome, L., Alam, M., Voight, M., Habibzadeh, F. (2023). Chatbots, generative AI, and scholarly manuscripts: WAME recommendations on chatbots and generative artificial intelligence in relation to scholarly publications. *Colomb Méd (Cali)*, 54(3): e1015868. doi: 10.25100/cm.v54i3.5868.

ВОВК Олена
докторка педагогічних наук, професорка,
професорка катедри англійської філології та методики навчання англійської мови,
Черкаський національний університет імені Богдана Хмельницького

КРИВОШИЯ Дарина
магістерка,
Черкаський національний університет імені Богдана Хмельницького

ПОЗИТИВНЕ Й НЕГАТИВНЕ У ВИКОРИСТАННІ ChatGPT В НАВЧАННІ АКАДЕМІЧНОГО ПИСЬМА

Анотація. Ця стаття є внеском у сучасні дослідження, присвячені використанню Chat Generative Pre-Trained Transformer (ChatGPT) студентами ЗВО. ChatGPT – це відносно новий ресурс, розроблення та вдосконалення якого відбувається поряд із численними досягненнями в галузі штучного інтелекту (ШІ).

Низка наукових праць, які досліджують перспективи використання ChatGPT у сфері вищої освіти, виокремлюють значну кількість переваг цього ресурсу, зазначаючи водночас невизначеність норм його застосування і його вірогідний потенціал у формуванні вмінь академічного письма серед випускників ЗВО. При цьому, в дослідженнях висловлюється також занепокоєння щодо надмірного користування означеним чатом, що може призвести до нівелювання умінь навчання та розвитку ментальної інерції в суб'єктів пізнання. У зв'язку з цим, в академічних колах зазначається двоїстий характер ChatGPT: виконуючи роль ресурсу, здатного до збагачення навчального досвіду студентів та економії їхнього часу й зусиль, він також створює ризики вповільнення розвитку інтелекту людини, хоч і не здатен повністю замінити його. Крім того, ШІ породжує неоднозначність його сприйняття серед педагогів, оскільки надмірна залежність студентів від ChatGPT може розвинути в них академічний паразитизм.

Отже, основна мета цього дослідження полягає в тому, щоб передбачити потенційні переваги використання ChatGPT під час виконання студентами університету дослідницького проєкту та набуття ними вмінь академічного письма, й визначити ймовірні виклики та проблеми, які цей чат може спричинити.

Послуговуючись методами теоретичного позиціонування, порівняльно-критичного аналізу та дослідницької процедуралізації, ця стаття висвітлює концепцію ChatGPT, характеризуючи його позитивні й негативні властивості, які можуть виявитись у ході виконання наукової праці.

До того ж, у цій статті надається різнобічне уявлення про можливість інтеграції ШІ у сферу вищої освіти, а також обґрунтовується перспектива подальших досліджень у цій галузі, зокрема щодо поміркованого використання ChatGPT під час навчання академічного письма у ЗВО.

Ключові слова: штучний інтелект, ChatGPT, компетенція в академічному письмі, науково-дослідницький проєкт, переваги та труднощі використання ChatGPT під час навчання академічного письма.