

### **EDITORIAL**



### Using of ChatGPT in Psychology Research and Practice



#### Author's Contribution:

A – Study design;

**B** – Data collection;

**C** – Statistical analysis;

**D** – Data interpretation;

**E** – Manuscript preparation;

**F** – Literature search;

G - Funds collection

Melnyk Yu. B. 1,2 ABDEF

<sup>1</sup> Kharkiv Regional Public Organization "Culture of Health", Ukraine

<sup>2</sup> Scientific Research Institute KRPOCH, Ukraine

Received: 07.07.2023; Accepted: 15.08.2023; Published: 25.12.2023

Background and Aim of Study:

The use of artificial intelligence-based (AI-based) Chatbots in scientific research and everyday practice is becoming an integral part of most people's lives. The field of psychology, like many others, has been influenced by artificial intelligence (AI).

The aim of the study: to explore the possibilities of using AI-based Chatbots in

psychological research and practice.

The role of OpenAI's ChatGPT in the scientific research of academics and **Results:** 

psychology practitioners was reviewed. The issues of using ChatGPT, which specializes in text, in theoretical research were discussed, as well as the potential

applications of AI-based Chatbots in psychological practice.

**Conclusions:** New AI technologies have transformed the scientific research ecosystem.

Researchers, who actively use ChatGPT, should do so properly, taking into account the possibilities and limitations of using this toolkit in their research. Borrowing an AI-generated text for a research paper should be considered plagiarism. In addition to the risk to professional reputation, this can have a negative impact on the researcher's own personal progress. People who do not have access to a qualified professional or who are financially constrained can use ChatGPT in psychological practice. In one way or another, these users must realize that the responsibility for the results and consequences of using such a

toolkit rests entirely with them.

ChatGPT, artificial intelligence, psychology research, psychology practice, **Keywords:** 

possibilities, responsibility

**Copyright:** © 2023 Melnyk Yu. B. Published by Archives of International Journal of Science

Annals

DOI DOI https://doi.org/10.26697/ijsa.2023.2.0

**Conflict of interests:** The author declares that there is no conflict of interests

> Peer review: Double-blind review

**Source of support:** This research did not receive any outside funding or support

**Information about** 

Melnyk Yuriy Borysovych (Corresponding Author) – https://orcid.org/0000-0002-8527-4638; ijsa.office@gmail.com; Doctor of Philosophy in Pedagogy, the author:

> Affiliated Associate Professor; Chairman of Board, Kharkiv Regional Public Organization "Culture of Health" (KRPOCH); Director, Scientific Research

Institute KRPOCH, Kharkiv, Ukraine.

### Introduction

Dozens of artificial intelligence-based (AI-based) tools with different specializations for text, photo, video, etc. are being created every day. AI-based Chatbots are becoming more advanced and their use is growing rapidly.

Of particular note is OpenAI's ChatGPT, which specializes in text (Large Language Models) and is the most developed and popular among users today. In the first two months of OpenAI's ChatGPT, more than 100 million people became its active users. According to

# International Journal of Science Annals, Vol. 6, No. 2, 2023 print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa



Reuters (Hu, 2023), the analysts note that in the last 20 years in the Internet space, it is hard to remember a faster growth rate for consumer Internet applications.

#### Results

Let us consider the possibilities of using ChatGPT in scientific and practical spheres of psychologists' activity. Note that if we were asked the specific direct question of whether ChatGPT could replace the work of a psychologist, we would answer "no". ChatGPT or similar chat tools that may be created in the future are not capable of replacing the work of a "live" psychologist. This applies to both scientific and practical areas. Although ChatGPT or other AI tools can be used in academic and practitioner settings and positively impact the effectiveness of that work. However, they cannot adequately replace a live expert in the field.

Let us consider some arguments that we believe strengthen this position.

### First, we discuss using ChatGPT for psychological research.

When studying any psychological phenomenon or writing research papers, we face the problem of reviewing a large number of references. Today, it is actually unnecessary to visit libraries, as most books are digitized and modern academic periodicals are available on the Internet (in scientometric databases, repositories and search engines). ChatGPT certainly has access to a lot of this information. Sometimes we do not even realize it. ChatGPT is also capable of self-selecting relevant literature, reviewing it, and drawing conclusions from it. This is a great temptation for the researcher working under time constraints.

In this way, young researchers had free and unrestricted access to information without having to analyze it independently. We did not have that in the not-so-distant past – when we had to spend all day in libraries, searching catalogs for the books we needed, ordering them one by one, and writing citations for our dissertations.

However, the benefits that ChatBots give us at first glance come at a price. A researcher who receives a "ready-made conclusion", even if ChatGPT has described the algorithm step by step, deprives himself of the opportunity to touch the primary sources and realize the essence for the formation of certain ideas, psychological concepts, theories and practices. In this way, the researcher saves time on the one hand, but on the other hand deprives himself of the opportunity to develop intellectually by relying entirely on ChatBots for the validity of the literature analysis and the conclusions drawn from it. It is quite possible that such actions could jeopardize his professional reputation and certainly will not contribute to his personal growth.

We emphasize that borrowing other people's ideas is an unacceptable practice that can be equated to plagiarism. Even if these ideas or conclusions are generated by artificial intelligence (AI).

In general, compliance with ethical principles and standards of academic integrity is an important aspect that may be underestimated, consciously or unconsciously, by a researcher using Chatbots.

It is important to note the statement of the Committee of Publication Ethics (COPE). On its website, the Committee has published its official position on authorship and the use of AI tools (COPE Council, 2021; COPE, 30 January 2023, 13 February 2023, 23 February 2023; Watson & Stiglic, 2023). Also a number of papers on using AI for scientific writing (Çalli & Çalli, 2022; Dans, 2019; Dimitriadou & Lanitis, 2023; Farahani, 2023; Singh & Sood, 2022).

The IJSA is a full member of the COPE (COPE, n.d.). The Editorial Board recommends that researchers take the issue of quality and use of AI in manuscript writing and text citation seriously (Melnyk & Pypenko, 2021, 2023). Especially since there will soon be programs that can determine the extent to which AI-based ChatBots are involved in writing a research paper.

The development of programs capable of recognizing machine-generated text is evidenced by the statement of researcher Scott Aaronson of the OpenAI Company (Hern, 2022). Turnitin has already begun work on developing an AI-based text detection tool (Chechitelli, 2023). So there is a good chance that if you try to pretend to be the author of text written by a ChatBot, you may be detected.

Emphasize that the above was an inappropriate borrowing of ideas and text written by ChatGPT. This does not mean at all that we are strongly against the use of ChatGPT. On the contrary, the use of ChatGPT or other AI tools in a research paper is a sign that the researcher is able to use modern methods and tools correctly.

To conclude the discussion of the use of ChatGPT in psychological research, I would like to make one more argument related to the inability of AI to replace the work of a research psychologist.

We have a reasonable belief that AI or the latest modification of ChatGPT will not be able to develop a fundamentally new psychological approach or theory. This is because ChatGPT's possibilities will always be conditioned and connected to the human ability to ask questions.

At this stage of AI development, it is hard to see how ChatGPT, for example, could develop and describe something like a psychoanalytic approach, or how ChatGPT could conduct psychoanalytic sessions with humans. Despite the fact that most clients still naively believe that this is a fairly simple method of formulating questions with fairly limited involvement of the psychoanalyst.

### Second, we discuss using ChatGPT for psychological practice.

Most people evaluate AI, like any digital product (Pypenko, 2019), from the consumer's point of view. For some people, technological innovation provokes technophobia, in some cases even paranoia. This has only gotten worse with the advent of AI and Chatbots. Such people tend to view ChatBot as an evil agent spawned by computers and the Internet. In addition, there are a growing number of people with the exact opposite condition – nomophobia, which is related to the fear and despair of being disconnected from technological

# International Journal of Science Annals, Vol. 6, No. 2, 2023 print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa



devices. These people prefer communicating with gadgets to real human interaction. They become so addicted to ChatBots that they turn to them for everything. For example, what to talk about with your partner or what to discuss with your manager and what to avoid, what text to use in a personal message or an official document, etc.

We believe that ChatGPT technology will improve with each passing year. Given today's realities, we can expect the need for human communication with others to steadily decrease.

However, no matter how much the developers improve ChatGPT, it will never become the owner of a human soul.

In this context, it is appropriate to recall Carl Jung's position. Over a hundred years ago, he pointed out the importance of learning theories and techniques, but these should be set aside when touching the miracle of the living soul (Jung, 1928).

Psychology is a special field of human activity that deals with the human soul. Even if the psychologist uses certain tools and technologies, it is still communication that takes place in a person-to-person system.

Today we can see the emergence of a new system – the "Human-AI System". This term was suggested by Melnyk and Pypenko (2023). Human-AI System is a complicated dynamic complex of interactions between living and non-living matter, is an accumulation of coordinated, interdependent and interconnected informational-technological actions of human and AI, oriented to learn from the information obtained, designed to effectively perform tasks and achieve goals (Melnyk & Pypenko, 2023, p. 7).

The views expressed in this Editorial are based on more than twenty years of experience in studying the use of psychotechnology. In 2002 I justified and introduced the term "psychotechnologies" into the scientific circulation, developed and began to teach the author's course "Fundamentals of Psychotechnologies" at the National Pedagogical University (Melnyk, 2011). I have also had extensive practice in public schools, high schools, and universities working with children and adolescents, as well as a private counseling practice for adults.

Whenever I started to tell students about this or that psychological approach, theory, technique, and method, I always tried to convey to them the main idea – the indispensable role of the psychotherapeutic relationship between therapist and client. In this sense, Irvin Yalom's words, "It's the relationship that heals" (Yalom, 2012, p.112), can be considered prophetic.

Today, few would argue that computerized testing and the resulting recommendations can be as effective as direct communication with a "live" psychologist.

However, such areas of activity of a practical psychologist as counseling, correctional-developmental, psychoprophylactic work should be carried out directly with personal contact.

The resurgence of client requests for face-to-face counseling after the lifting of the COVID restrictions that caused psychologists to switch to online counseling will be an additional argument.

#### **Conclusions**

We are in the early stages of learning about the new Human-AI System. The dual position, which divides everything into opposite sides (good and evil), is untenable in the issue of confronting AI and the psychologist's activity. The possibilities of ChatGPT, like other Chatbots, are conditioned and dependent on the human ability to ask questions. The transition of the new neural networks to dialog mode has allowed ChatGPT to become an effective tool for scientists and interesting for a wide range of users. ChatGPT, like any other AI-based Chatbot, is not capable of replacing a real psychologist. It should be considered a valuable resource for information handling, call analysis, scheduling, and in some other cases.

Humanity should learn to harness the potential of AI for the common good, both for people and for the development of new technologies. At the same time, the questions of responsibility and ethics of these relationships should become issues of principle. This will enable the harmonious coexistence and sustainable development of psychological theory and practice in the future.

### Acknowledgments

I would like to thank Dr. Iryna Pypenko, who has been extremely supportive throughout the process of writing this paper, from reading early drafts to its publication in the Journal.

### **Funding Source**

This research did not receive any outside funding or support.

#### References

Çalli, B. A., & Çalli, L. (2022). Understanding the utilization of artificial intelligence and robotics in the service sector. In S. B. Kahyaoğlu (Eds.), *The Impact of Artificial Intelligence on Governance, Economics and Finance: Vol. 2. Accounting, Finance, Sustainability, Governance & Fraud: Theory and Application* (pp. 243–263). Springer. https://doi.org/10.1007/978-981-16-8997-0 14

Chechitelli, A. (2023, January 13). Sneak preview of Turnitin's AI writing and ChatGPT detection capability.

https://www.turnitin.com/blog/sneak-preview-of-turnitins-ai-writing-and-chatgpt-detection-capability

COPE. (2023, January 30). *Artificial intelligence in the news*. https://publicationethics.org/news/artificial-

https://publicationethics.org/news/artificial intelligence-news

COPE. (2023, February 13). Authorship and AI tools. COPE position statement. https://publicationethics.org/cope-position-statements/ai-author

COPE. (2023, February 23). *Artificial intelligence and authorship*. https://publicationethics.org/news/artificial-

intelligence-and-authorship

# International Journal of Science Annals, Vol. 6, No. 2, 2023 print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa



- COPE Council. (2021, September). COPE Discussion document: Artificial intelligence (AI) in decision making English. https://doi.org/10.24318/9kvAgrnJ
- COPE. (n. d.). *International Journal of Science Annals* [COPE Members page]. COPE. Retrieved March 17, 2023, from https://publicationethics.org/members/internation al-iournal-science-annals
- Dans, E. (2019, February 6). *Meet Bertie, Heliograf and Cyborg, the new journalists on the block.* Forbes. https://www.forbes.com/sites/enriquedans/2019/02/06/meet-bertie-heliograf-and-cyborg-the-new-journalists-on-the-block/?sh=416c2163138d
- Dimitriadou, E., & Lanitis, A. (2023). A critical evaluation, challenges, and future perspectives of using artificial intelligence and emerging technologies in smart classrooms. *Smart Learning Environments*, 10, 12. https://doi.org/10.1186/s40561-023-00231-3
- Farahani, M. S. (2023). Applications of artificial intelligence in social science issues: a case study on predicting population change. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-023-01270-4
- Hern, A. (2022, December 31). AI-assisted plagiarism? ChatGPT bot says it has an answer for that. The Guardian. https://amp.theguardian.com/technology/2022/de c/31/ai-assisted-plagiarism-chatgpt-bot-says-it-has-an-answer-for-that
- Hu, K. (2023, February 2). *ChatGPT sets record for fastest-growing user base Analyst note*. Reuters. https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/
- Jung, C. G. (1928). Contributions to analytical psychology (H. G. Baynes & C. F. Baynes, Trans.). Kegan Paul, Trench, Trubner and Co.,

- Ltd. https://s3.us-west-1.wasabisys.com/luminist/EB/I-J-K/Jung%20-%20Contributions%20to%20Analytical%20Psychology.pdf
- Melnyk, Yu. B. (2011). *Osnovy psykhotekhnolohii* [Fundamentals of Psychotechnology]. KhNPU. https://doi.org/10.26697/melnyk.yu.1.2011
- Melnyk, Yu. B., & Pypenko, I. S. (2021). Dilemma: Quality or quantity in scientific periodical publishing. *International Journal of Science Annals*, 4(2), 5–7. https://doi.org/10.26697/ijsa.2021.2.1
- Melnyk, Yu. B., & Pypenko, I. S. (2023). The legitimacy of artificial intelligence and the role of ChatBots in scientific publications. *International Journal of Science Annals*, 6(1), 5–10. https://doi.org/10.26697/ijsa.2023.1.1
- Pypenko, I. S. (2019). Digital product: The essence of the concept and scopes. *International Journal of Education and Science*, 2(4), 56. https://doi.org/10.26697/ijes.2019.4.41
- Singh, R., & Sood, M. (2022). An introductory note on the pros and cons of using artificial intelligence for cybersecurity. In D. Gupta, A. Khanna, S. Bhattacharyya, A. E. Hassanien, S. Anand, A. Jaiswal (Eds.), International Conference on Innovative Computing and Communications: Vol. 471. Lecture Notes in Networks and Systems (pp. 337-348). Springer. https://doi.org/10.1007/978-981-19-2535-1
- Watson, R., & Stiglic, G. (2023, February 23). Guest editorial: The challenge of AI chatbots for journal editors.

  https://publicationethics.org/news/challenge-ai-
- Yalom, I. D. (2012). *Love's executioner and other tales of psychotherapy*. (2nd ed.). Basic Books. https://worldcat.org/title/1101258271

chatbots-journal-editors

### Cite this article as:

Melnyk, Yu. B. (2023). Using of ChatGPT in psychology research and practice. *International Journal of Science Annals*, 6(1), 5–8. https://doi.org/10.26697/ijsa.2023.2.0

The electronic version of this article is complete. It can be found online in the IJSA Archive https://ijsa.culturehealth.org/en/arhiv



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited (http://creativecommons.org/licenses/by/4.0/deed.en).