GAI Openness: What's Behind the Curtain?

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INTRODUCTION

Generative artificial intelligence (GAI) has become an integral part of educational and scientific activity in universities since November 2022. It has simultaneously occupied several positions in the "umbrella" of open science. As an open educational resource, it provides the opportunity to study and prepare academic courses. As an open innovation and open access tool, it "donates" its algorithm for public use to search and organize information. However, the users themselves modified the original goal - processing data sets and forming a DIKW model for the user. GAI has also emerged as a (g)hostwriting tool. In both cases (used as a basis for analytics and as a tool for writing custom materials), the process and result ("product") of the work of generative artificial intelligence may be associated with violations of academic integrity. The topic "GAI – academic integrity" is gaining popularity [1, 2] with the release of specific recommendations for the use of generative artificial intelligence [3]. Understanding the dangers of using GAI in the context of identifying specific violations of academic integrity determined the relevance of further research.

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MATERIALS AND METHODS

This work uses general scientific methods of analysis-synthesis and deduction-induction. A tool for conducting "experimental" research is ChatGPT-3.5. The hypothesis is formulated as follows: "ChatGPT-3.5. generates content that contains violations of academic integrity". Verification or falsification of the hypothesis was carried out based on working with ChatGPT-3.5 in the "question-answer" mode with the analysis of answers in two directions: the presence of violations of academic integrity in the content and the "opinion" of ChatGPT-3.5 regarding violations of academic integrity in the "products" of its work. All research methods have no restrictions on their use and do not require approval from the ethics committee of a university or professional organization.

EXPERIMENTAL MATERIALS

The experimental materials are the ChatGPT-3.5 database of information and previously acquired knowledge, which it uses to generate content, and ChatGPT-3.5 responses to search queries (questions).

RESULTS

Identification of potential academic integrity violations from the GAI side must be carried out at three stages: the purpose of using GA, the GAI product, and the features of using the GAI "product". This paper examines the second stage. GAI received from the user an array of questions that, directly, indirectly, or through an incorrectly formed task, made it possible to identify several violations of academic integrity in "products" (an example of such questions is presented in Fig. (**1**)).
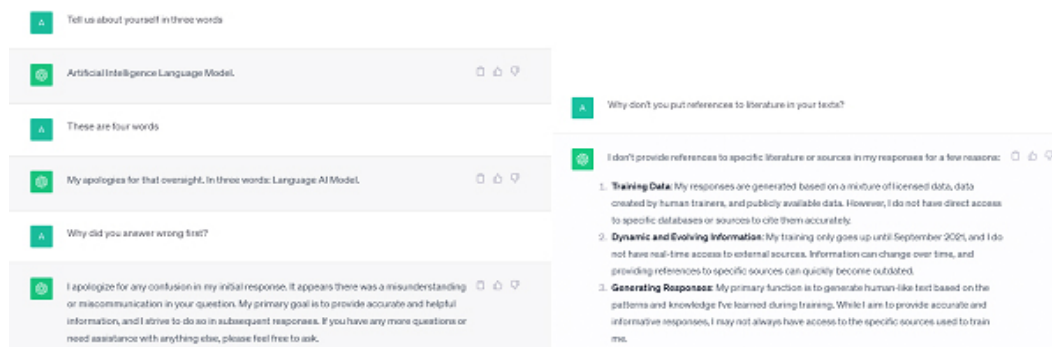

Fig. (1). Fragments of dialogue with generative artificial intelligence.

The result was a list of potential academic integrity violations in the GAI "product." Among them are plagiarism, fabrication, falsification of data and references, and misuse of CC licenses.

CONCLUSION

Generative AI does not warn the user about potential violations of academic integrity in its text "product." The reason for this is simple: the main task of generative artificial intelligence is to generate content for fact-checking and obtaining information about a process or phenomenon. Based on this, the user must generate knowledge for further use. However, due to the "distortion" of the user's understanding of the role of generative artificial intelligence as a knowledge generator or (g)hostwriter, it is necessary to show all potential violations of academic integrity. Dialogue with GAI provided answers to questions about violations of academic integrity. Some of these answers were received to the direct question "What violations of academic integrity can you commit?" and some were obtained using various tasks for ChatGPT-3.5.

FUNDING

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