Letter to Editor

Is It Really True that Artificial Intelligence does not have the Potential to be an Author?

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Dear Editors,

Artificial intelligence (AI) technologies have become a global priority due to their recent surge in popularity. This rapid development arouses excitement in some people and creates anxiety in others. The latest developments, which dramatically affect all areas of social life and business, are closely followed by the scientific community.

I have been following with interest the recent important discussions on artificial intelligence tools in your journal. Scientists are debating whether AI can be the author of a scientific paper.

The International Committee of Medical Journal Editors (ICMJE), an organization with international credibility, recommends the following four basic criteria for becoming an author [1].

"Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND Drafting the work or reviewing it critically for important intellectual content; AND Final approval of the version to be published; AND Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved."

ICMJE also opened a special section on artificial intelligence-assisted technologies (AI-ATs) and recommended the following in summary.

"Authors should indicate that the article uses AI (such as Large Language Models [LLMs], chatbots, or image creators). If the AI-AT is used as a writing assistant, it should be described in the acknowledgement section; if it is used to collect and analyze data and generate figures, it should be described in the material method section. Since AI-ATs may provide incorrect or biased information, the final check should be carried out by a human author and the responsibility for the article should belong to him/her. Therefore, AI-ATs should not be listed

as an author and AI should not be cited" [1].

Does AI-AT meet ICMJE author criteria? What if it does?
Recently, AI-ATs are often used as a tool for editing the article or for performing some analysis. In such a use, it would be sufficient to mention that AI-ATs were used in the material-method or acknowledgement section. But AI-ATs are also capable of identifying the problem, providing solutions for the identified problem, analyzing and synthesizing the results. It is obvious that these capabilities of AI-ATs will be further developed in the near future. This kind of use will make AI-ATs meet the author requirements recommended by ICMJE.

On the other hand, it is quite common for AI-ATs to provide inaccurate, biased or low-reliability information. Debates about this are still ongoing in the literature [2]. However, although article publishing processes are completed within the framework of certain rules and controls, these erroneous behaviors are sometimes encountered in human authors. As of right now, no research has been done to compare the information content of articles produced by humans and those written by AI-ATs in terms of bias or error. The lack of data makes it impossible to conclude that AI-ATs are more biased or mistake-prone than human authors, and vice versa.

Responsibility for written products lies with the author, as stated by ICMJE. According to the copyright rules in force, the author must be a human being [2, 3]. It is a fact that AI-ATs cannot be held responsible for an error and no sanctions can be imposed on them. There are also studies in the literature that suggest that support from AI-ATs can be utilized but the final check should be done by a human author [4]. Furthermore, it's unclear which publications AI-ATs were able to access and if they were granted official authorization to do so. A lawsuit over this matter is currently pending, brought by multiple authors against OpenAI [5].

At this point, it is important to mention the AI-ATs that are already evolving day by day and designed specifically for scientific papers. We cannot blame an AI-AT for its writing, its hypothesis, the incorrect or biased information it conveys. But if AI companies launch a product developed specifically for academic writing and take responsibility for any mistakes it may make, then concerns about responsibility can be eliminated.

As a result, AI technology is progressing so fast that what is

valid and accurate when you first read this article may be invalid or inadequate the next time you read it. AI is rapidly developing and changing day by day, and its potential is unpredictable. Therefore, making binding decisions and/or setting rules on AI for the future involves some risks. I think it would be better to take such a sector step by step with short-term rules and to establish a definite rule template after the final point (if any) that AI will eventually reach is determined. In other words, nowadays AI is more of an accelerator or facilitator than a play maker in articles. In this context, it would be appropriate to talk about AI-ATs, which are used in the material method section, as other supporting academic tools. But if we wake up one morning and AI comes to our screen with a research proposal, if it can present the planning and budgeting of the research, the potential contributions of the research to science, the risk points and their solutions, the concept of authorship may need to be completely redesigned.

Regards,

Declaration of interests: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

[1] Defining the Role of Authors and Contributors (2024) https://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html#four

[2] Fulton JS (2023) Authorship and ChatGPT. Clin Nurse Spec 37:109–10. https://doi.org/10.1097/NUR.0000000000000750

[3] Lee JY (2023) Can an artificial intelligence chatbot be the author of a scholarly article? J Educ Eval Health Prof 20:6.

https://doi.org/10.3352/JEEHP.2023.20.6

[4] Akın Saygın D, Aydın Kabakçı AD (2023) The Use of Controlled Artificial Intelligence as a Co-Author in Academic Article Writing. Eur J Ther. 29:990–1. https://doi.org/10.58600/eurjther1801

[5] Gerken T, McMahon L (2023) Game of Thrones author sues ChatGPT owner OpenAI. https://www.bbc.com/news/technology-66866577