

EDITORIAL: ChatGPT, the Blade in Scientific Writing

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One impact of the industrial revolution is the development of computer systems, including the birth of ChatGPT. "ChatGPT (Generative Pre-trained Transformer) is a large-scale natural language processing model developed by OpenAI to generate text similar to human language. The model is trained on massive textual data and can produce diverse text output, including chatbot responses, article summaries, concept explanations, and more." (OpenAI, 2022). The ability of ChatGPT influences the way of writing, including scientific writing.

As the chatbot, ChatGPT has become popular since last November 2022. The ability of ChatGPT to respond with a human, even in non-English question, including for simple numerical instruction or some computer formulation, make it user-friendly. However, some issues have been raised on ChatGPT, including in scientific writing. Currently, there is an exponential article related to ChatGPT in Pubmed as title (3 articles in 2022) to be (48 articles in 2023) and title/abstract (4 articles in 2022) to be (58 articles in 2023) (PubMed, access, 26th February 2023), mainly article points out debate regarding involvement ChatGPT in scientific writing.

Scientific writing is a branch of writing often used by academics to write and disseminate scientific reports in scientific journals. A joint role is needed to publish an article, from Researchers (who are also writers), Editors, and Reviewers, to Publishers. The arrival of ChatGPT, apart from providing great benefits, also provides a temptation for all parties involved in scientific writing. The potential for research misconduct is now not only limited to plagiarism, falsification, and fabrication but has evolved into artificial writing with support for ChatGPT as an NLP model. The presence of ChatGPT stimulates ongoing debate. Since ChatGPT is easily accessed and used by students, it potentially reduces their writing skills (Arif et al., 2023), despite others believe ChatGPT cannot replace writing skills, critical thinking, and understanding clinical problems (Biswas, 2023).

Research integrity is at stake through academic honesty in every cycle of scientific writing. Writing ideas, of course, come from writers, but how to arrange writing ideas into sentences and formulating paragraphs can be taken over easily and quickly by ChatGPT. Editor's decisions can be camouflaged by manuscripts that are not transparent. Even some editorials that editors should have written have been taken over by ChatGPT. Reviewers can be tempted and use ChatGPT as a quick source of information instead of looking for comparison articles in scientific databases. When one party is involved in misusing ChatGPT, then, of course, it will contaminate article writing.

Anticipatory action must be taken to counteract the risk of misuse of ChatGPT in scientific writing. Several sensitive issues regarding the

existence of ChatGPT in scientific writing, including Ethical issue, Legal aspect, innovation, accuracy, bias, and Transparency (Biswas, 2023). Journal guidelines must be revised and regulate the use of all forms of use of artificial intelligence as done by The Lancet Journal Digital Health has initiated rigorous amendment author guidelines (Curtis & ChatGPT, 2023).

Apart from detecting plagiarism, publishers must build a system to diagnose the use of artificial intelligence. Finally, Authors, Editors, and Reviewers must be transparent in their use of various forms of Chatboot in scholarly writing and not place Chatboot as the Author or Co-author because Scientific writing is an outcome of human thinking (Arif et al., 2023), as following statement by ChatGPT:

“As an AI language model, ChatGPT is not eligible to be listed as an author or co- author in scientific writing. Authorship is typically reserved for human individuals who have made significant intellectual contributions to a research project, such as generating ideas, designing experiments, collecting and analyzing data, and interpreting results”. Additional answer “However, ChatGPT can still be used as a tool to assist in scientific writing by providing suggestions for language, grammar, and syntax. It can also be used to generate text based on specific prompts or inputs, which may be useful in certain contexts, such as generating hypotheses or summarizing data.” (OpenAI, 2022).

References

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