

Editorial

Adapting to the rapidly moving target artificial intelligence (AI) in scholarly publishing



Acta Orthopaedica has closely monitored the landscape of AI about the use in scholarly publishing.

During the last year we have seen a disruptive growth regarding the interest in AI. There have also been multiple calls pointing out the need of regulations. The release of chatbots, mainly ChatGPT but also others such as Google Bard and Microsoft Bing AI is one of the main reasons for this exponential leap.

More than any other AI application, chatbots illustrate the possibilities and challenges of AI technology. However, the AI revolution means more than chatbots able to e.g., write scientific articles and medical literature. It includes image recognition such as face recognition, medical image interpretations, as well as autonomous systems with relevance for e.g., nuclear power plants and weapon systems. The global race is ongoing while regulations and standards are still largely missing or lagging. Considering the current global tensions and geopolitical challenges, a multilateral international approach seems necessary in order to overcome the obstacles in creating acceptable standards considering human rights and democracy.

Several high-level initiatives have taken place including leading AI researchers requesting a time out in the development of powerful AI systems, presidential orders, G7 AI-principles, as well as AI Safety Summits with both USA and China present. An international AI panel is under way inspired by the international climate panel. The “Bletchley Declaration” has been signed together with EU, especially pointing out the risks with misuse of AI when it comes to biological and chemical weapons as well as disinformation. Even if signing the declaration comes without formal obligations, the aim is to eventually abolish the threats against humanity. Much is at stake when global regulations are to be developed which also must include medical science.

If you want to sell something today: throw in “AI” in the pitch and you are almost there. This is clearly illustrated in the area of medical writing with a simple click check in PubMed.

The chatbots are probably much more used in the academic community than we are aware of. The question, “can a chatbot be an author?” is simply answered by the general rules included in the ICMJE criteria. Authors must be accountable for the manuscript and a chatbot cannot live up to this criterion. The authors are responsible for the whole manuscript also those parts which may be AI generated. The chatbot cannot be an author.

How can a chatbot be used in medical writing? The use of AI applications when authoring texts is not new. Spellchecks, autofill functions, and translation applications have been around for a long time as powerful aids.

When it comes to content creation, things become more delicate as chatbots may create a situation mimicking authoring on steroids. Aspects of research misconduct must be kept in mind. Fabrication and plagiarism are not tolerated at any stage but when is it ghost writing? The use of AI in data handling is another issue. We must remember that when placing data into externally available AI tools such as common chatbots, the data will be available to the public and thus represent open source and suddenly be subject to new terms and conditions out of control.

Before starting to use generative AI in your research, discuss it with your co-investigators. Keep in mind that tools to detect AI-generated content are being developed and that these can impact on your research. Since AI generated content may paraphrase from unknown sources, plagiarism issues may occur. AI generated content can also be false or biased, pointing out the need for validation. Clearly, we must adapt to the rapidly moving target of AI as a tool without derailing.

There is a need of author guidelines and frameworks need to be discussed and updated. Just like ethical issues and conflicts of interests. Transparency and author declaration is needed.

Acta will for any future submission ask for a declaration per January 1st 2024.

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