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LETTER TO THE EDITOR

Artificial intelligence, will it change the way articles are written in intensive medicine?

Inteligencia artificial ¿cambiará el modo de escribir los artículos en Medicina Intensiva?

Dear Editor:

Over the past few years significant advances have been made in the field of artificial intelligence (A.I.). However, its potential has grown exponentially since last November 2022 OpenAI (San Francisco, CA, United States) introduced a language model (LM) called ChatGPT (Generative Pre-trained Transformer Chat).

Since then, several branches of science have turned to this A.I. to take advantage of all it has to offer. In medicine, for instance, it stands as an aid to draft scientific articles, and has already proven its potential to pass the MIR exam.[1]

However, could ChatGPT be used in intensive medicine to write scientific papers?

Any intensivist can go to his smartphone and ask ChatGPT to recommend titles for an article he is writing, suggest formulas for statistical analyses, list the most cited publications on a given topic or summarize an article without any restrictions other than his own creativity.

The spectrum of A.I. extends beyond the scope of ChatGPT including applications to generate images from ideas. Therefore, there is a series of browsers available like «Perplexity A.I.» that generates responses with reference quotes, search engines like «PaperA.I.» for reference reviews automation or «Writefull» that improves the writing of scientific papers.

It is with tools like this that ChatGPT would be working as an «office secretary» saving us time when having to look for abstracts, search for information or structure research methodologies, thus giving birth to A.I.-driven scientific publications (AIDSP).

Then, what would the ethical implications be from using ChatGPT in AIDSP?

It will depend on whether this assistance is merely structural like support in a theoretical framework, or rather support in a methodological framework or grammatical support.

Recently, reports have been published on human inability to determine whether an article has been written by another human or A.I. Ironically, at the same time, other artificial intelligences have been developed capable of solving this question. As a matter of fact, there is this debate of whether artificial intelligences should be recognized as the author of the manuscript[2]; in other cases, ChatGPT has already been listed as the lead author.[3]

ChatGPT can also be applied to discuss the implications of A.I. in the field of intensive medicine like those described by Reiz[4] in the sense of knowing who is the owner of information, who is the «true» author, and whether the results generated could be restricted.

Cases when ChatGPT has «lied» with erroneous data when asked to summarize a certain scientific article[5] spark the debate even further. This could be due to not having enough articles in the LM training setting and would be part of the limitations of A.I. including biased conclusions, erroneous citations, omission of significant papers or simply plagiarism.

We authors believe it is necessary to discuss this topic in our scientific society and ask ourselves whether AIDSP should be allowed in intensive medicine. Is it enough to use A.I. as an assistant? Should scientific journals provide a regulatory framework? If so, what quality standards should be required?

Finally, we understand that disruptive technologies pave the way for a promising future. However, the first steps should be taken with caution.

And no. This article has not been drafted by an A.I.

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Artificial intelligence in scientific publishing: Embracing change and addressing ethical considerations

Inteligencia artificial en las publicaciones científicas: abrazar el cambio y abordar sus consideraciones éticas

Dear Editor:

In a recent publication,[1] the authors introduced the concept of ''Artificial Intelligence-Directed Scientific Production'' (AIDSP), raising concerns about potential ethical conflicts in the use of artificial intelligence (AI) for scientific publications, particularly in terms of permission and regulation. We would like to present our perspective on these questions.

Scientific publications and AI: In our opinion, AI should be allowed in scientific publications. At its core, AI is a predictive tool that enhances productivity through its predictive capabilities. These capabilities enable the efficient completion of numerous tasks, thereby contributing to increased productivity. By performing these predictive tasks, AI serves as a facilitator of scientific reflection, which is inherently generative. The value of AI lies in streamlining tedious tasks that add little value to the final scientific product, while the value of science resides in interpreting results, not merely obtaining them.

The merit of scientific publications should not be based on the use of established theoretical frameworks, format, or grammatical quality, but rather on generating new theoretical frameworks or adapting existing ones. We would like to emphasize that AI is not inherently generative; its primary function is to be predictive and exploratory.

The question should not be ''AI or no AI?'' but rather ''How do we adapt to AI?'' or ''What are the best ways to optimize our work based on AI?''. Not adopting AI would put us at a competitive disadvantage compared to those who do. From our perspective, this would be analogous to opposing the printing press or calculators for facilitating mathematical calculations.

Regulatory framework and AI: In our opinion, creating a regulatory framework for AI beyond simply providing information about the AI used is challenging for the two following reasons:

Complexity: The inherent complexity of AI requires deep knowledge in various fields such as theoretical, practical, and business aspects of AI, as well as extensive reflection in the philosophy of science and law. It is unlikely that individuals with comprehensive knowledge in such diverse fields exist, and a lack of broad debate may result in bias.

Technological scope: Unlike scientific production, many algorithmic developments and applications emerge outside the academic realm in a decentralized manner, often with open-source code. Major technology companies tend to index their scientific research within their research agendas.[2,3] Nothing would prevent Microsoft from using open databases (e.g., MIMIC-IV,[4] SICDB[5]), developing algorithms based on them, and publishing the results on their website.

These factors make specific regulatory frameworks quickly obsolete or render general regulatory frameworks incapable of capturing the nuances of this rapidly evolving field.

In conclusion, we should focus on how to work with and report on AI to better understand its limitations. Embracing AI in scientific publishing requires addressing ethical considerations while acknowledging the need for appropriate regulatory frameworks.

Translation performed using the GPT-4 language model (demonstrated in supplementary material).

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Conflicts of interest

The authors declare that none have conflicts of interest.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.medine.2023.05.017.

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