



Viewpoint

Large Language Models are a Democratizing Force for Researchers: A Call for Equity and Inclusivity in Journal Publishers' AI Policies

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Abstract

The emergence of large language models has sparked discussion about their role in academic and scholarly publishing and whether their use poses threats to academic integrity. This paper argues for the ethical acceptance and integration of language models into the scholarly publishing process for the purposes of improving writing quality without the need for explicit acknowledgment or additional scrutiny, on the basis that this policy is critical for closing the equity gap for non-native English speakers and researchers from developing countries. Journal-wide policies are proposed that would allow the use of AI for revising writing quality, without singling out specific authors or articles, aligning with existing practices for language editing services, and ensuring confidentiality while promoting fairness and transparency in the publishing process. By removing artificial barriers to participation and acknowledging the diverse linguistic backgrounds of researchers, the scholarly ecosystem can advance toward greater equity and innovation.

Keywords: Large Language Models, AI Policies, Researchers, Journal Publishers.

Introduction

Emerging technologies can be disconcerting, as they shake up the status quo across industries. However, in that change there is also great potential. New groups of innovative minds that may have once been marginalized or oppressed may use this innovation to find a new voice. Processes that were once strictly controlled and biased may become more democratized. The status quo is good for some, but bad for many others. Changes, no matter how drastic or unclear the ramifications, can free innovators from the bonds of control and stagnation and promote growth and originality. The arrival of emerging artificial intelligence technologies are one such example where the concern experienced by some in academia and scholarly publishing may be matched by opportunity and optimism among others in this industry.

The Role of Large Language Models in Democratizing Scholarly Research

Large language models, like the Generative Pre-Trained Transformer (GPT) 4.0 model behind ChatGPT, are one disruptive emerging technology poised to play a major role in society in coming

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years [1]. To many academics in the Global North it may be perceived as a nuisance, as it provides means for students and morally-dissolute colleagues to fabricate content and pose as though it is their own, original scholarship. However, to adept researchers whose English language proficiency is lacking, this technology can help balance the scales of the scholarly environment. A fundamental question that scholarly researchers must tackle is whether the purpose of scholarship is to contribute new knowledge and understanding of the world or to contribute the most well-written, originally composed works of art. If the former, then rules about writing quality and use of writing assistance tools simply create barriers to achieving that objective [2].

Access to large language models like ChatGPT free-of-charge to researchers in developing countries is a democratizing force. Previous major technological innovations – personal computers, databases, the Internet – have had substantial new-cost barriers, costing thousands of dollars in order to access, if available at all [3]. This is not the case with these large language models. Anyone with existing, unfiltered/uncensored Internet access can use the free version of OpenAI’s ChatGPT or Google’s Gemini entirely free. These models are particularly adept at taking text already written by a human author and making edits to improve its readability based on a simple and straightforward prompt like “please revise the following for clarity and quality.” This prompt can take a human-written content that may have some grammatical or clarity issues due to being written by a non-native English speaker and turn it into a well-articulated statement that would read as virtually indistinguishable from content produced by a native speaker. This potentially levels the playing field by making content produced by native and non-native speakers indistinguishable, such that peer reviewers of said content must focus on the quality of the research itself when rendering decisions on manuscripts, rather than focusing on superficial elements like the quality of the writing.

Addressing the Acknowledgement of Large Language Models in Scholarly Manuscripts

A critical issue we must address is, “*why must use of large language models to revise manuscripts be acknowledged?*” This is a peculiar phenomenon in the greater picture of scholarship. Never before has the use of a tool to enhance writing quality required acknowledgement. Certainly, if a tool is used to create or analyze data, it should be acknowledged, just as an analytical tool like SPSS or Python, but not in cases of just writing support. There has never been required notification that an author used Microsoft Word’s spell check feature, or a grammar check tool like Grammarly. In fact, many academic publishers publicly promote paid language editing services – services that themselves often use artificial intelligence tools to assist with the editing task – without requiring explicit acknowledgement of this service in the manuscript [4]. If an AI model is being asked only to rewrite content – not create anything new – then it is functioning essentially the same way as these aforementioned tools. We acknowledge these large language models are not people, or even an artificial form of advanced intelligence [5], by disallowing the inclusion of them as authors on a manuscript yet treat them not as tools either. Instead, they are treated almost as a potential conflict of interest – something that must be noted in a separate section of a paper. This fact likely has a negative impact on authors. It requires them to publicly note that they used these models to assist them with writing – something that labels them as a possible non-native English speaker and a user of a “*questionable*” assistance tool, creating additional scrutiny of their work and damaging the integrity of an anonymous, blinded peer review process.

If journals wish to indicate that some published articles may utilize AI tools for improving the quality of writing, they could adopt a journal-wide statement, such as “*This journal permits the use*

of AI large language models for revising the quality of writing in manuscripts. Only non-substantive edits of the writing for improving quality and clarity are allowed. Authors are required to retain an original version of the manuscript, before any AI tools were used, in case any questions about authenticity or authorship arise.”

This type of statement addresses the possibility that the authors of some authors published in the journal may have used an artificial intelligence tool to help improve the quality of the writing, without identifying specific authors and articles. The inclusion of such a statement in place of an article-specific statement would align with many existing journals’ policies about language editing, which mention resources that are available to authors to assist with revising their work without requiring disclosure of the use of these services (and, in fact, in many cases promising absolute confidentiality). The absence of this type of policy for AI could even potentially raise some questions about whether publishers are installing these policies about AI disclosure as a means to dissuade their use and funnel authors to the publisher’s paid editing service.

AI is intimidating to adopt in many fields, due to its immense capabilities, but must be accepted as just another tool that is used by researchers. By treating it as its own class of innovation, we are putting limitations on the potential of these models for expanding equity and promoting new knowledge. Ultimately, there is a lack of clear and compelling reasons that large language models must be treated any differently from past innovations. Journals did not pass policies in the early 1990s requiring authors to note their usage of Microsoft Word’s spell check feature, nor did they require acknowledgement of Grammarly use in the early 2010s. It seems that the initial shock about the groundbreaking nature of ChatGPT and extreme predictions about its potential to generate entire academic manuscripts from scratch led to reactionary policies that are unfair to many authors [6].

Is academic research and publishing still leaving developing countries behind?

Although this paper does not itself use an AI in its composition, I, the author, am fortunate to be a native English speaker. I attended primary and secondary school for 13 years, where I learned the intricacies of the English language, and I spoke English at home – in fact, I am not fluent in any language other than English. When I arrived at the university, I was already a skilled writer and could focus my entire energies on improving my research skills. For non-native speakers, they may have had some classes in English in their youth, and perhaps others in the university, but it was never their official or preferred language. As virtually all top academic journals publish exclusively in English, this means that these non-native speakers must not only conduct research of equal quality to mine but must also learn to write and work on revising their work in a foreign language, where I have no such barrier. Indeed, if I did have such a barrier, I would not be able to compete in the global publishing ecosystem at all, as I lack any proficiency at all in a secondary language. Given these artificial extra barriers to a large segment of researchers, why would we seek to restrict or bring unnecessary negative attention to the use of a tool that could support these individuals?

It is an ethical imperative to permit the usage of large language models for revising the writing quality of manuscripts without any acknowledgement or additional scrutiny. This can be a discomfoting suggestion, particularly to those who have benefited from the English-language supremacy in academic publishing for over a century now, but that is all the more proof of its necessity. Our scholarly ecosystem benefits when all researchers are able to participate fully, without any superficial barriers to their ability to disseminate their ideas and research findings. In response, to a question I asked in 2021, ***“Is academic research and publishing still leaving***

developing countries behind?" [7], the answer may be, "if we are allowed to fully embrace the potential of artificial intelligence tools, perhaps no longer!"

Abbreviations

GPT: *Generative Pre-Trained Transformer*; **AI:** *Artificial Intelligence*

Author contributions

Conceptualization: B.L.; Methodology: B.L.; Writing - Original Draft: B.L.; Editing and Review: B.L.; Supervision: B.L.

Declarations

Consent for publication

Not applicable.

Competing interests

The author declare no competing interests.

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