



Editorial

Leveraging large language models: transforming scholarly publishing for the better

Dear members and readers,

The landscape of scholarly publishing has witnessed a significant transformation with the advent of cutting-edge technologies. Among these, the emergence of large language models (LLMs) has proven to be a game-changer in various fields, including scholarly publishing. LLMs, such as OpenAI's GPT-3.5, have the potential to revolutionize the way research is conducted, communicated, and disseminated. This editorial explores the use of LLMs in scholarly publishing and highlights the benefits and challenges associated with this transformative tool.

LLMs have the ability to process vast amounts of information and generate high-quality text, making them invaluable tools for researchers. Scholars can leverage LLMs to conduct literature reviews, explore existing research, suggest study design, and identify knowledge gaps efficiently. This accelerates the research process, enabling scholars to focus more on critical analysis and innovation rather than spending excessive time on data gathering and synthesis.

One of the core strengths of LLMs lies in their capacity to produce coherent and grammatically sound text. Researchers can utilize these models to improve the clarity, coherence, and overall quality of their scholarly writing. LLMs can assist in refining manuscripts, suggesting alternative sentence structures, and providing language edits. This can greatly enhance the readability and impact of scholarly articles, ultimately benefiting both authors and readers.

Peer review is an essential component of scholarly publishing, ensuring the rigor and quality of research. LLMs can aid in this process by automating initial screenings, identifying potential conflicts of interest, and detecting plagiarism. Moreover, LLMs can assist in identifying appropriate reviewers for a given manuscript based on their expertise, reducing the time and effort spent in finding suitable reviewers. This streamlining of the peer review process can expedite the publication timeline, benefiting authors, reviewers, and journal editors alike.

Scholarly publishing often faces language barriers that hinder global knowledge dissemination. LLMs have the potential to bridge this gap by providing real-time translation services, allowing researchers to access and engage with scholarly

work from various languages. Additionally, LLMs can facilitate the translation of research findings into layman's terms, making academic knowledge more accessible to the general public. This democratization of knowledge enhances inclusivity and promotes interdisciplinary collaboration.

While the potential benefits of LLMs in scholarly publishing are immense, it is important to address certain ethical considerations and challenges. Researchers must be cautious of potential biases embedded in LLMs due to biased training data. Ensuring transparency in the use of LLMs and addressing the issue of authorship attribution are also critical areas to consider. Collaborative efforts between researchers, publishers, and developers are essential to establish ethical guidelines and ensure the responsible use of LLMs in scholarly publishing.

In full disclosure, ChatGPT wrote the entirety of the above editorial! I simply entered "use of LLM in scholarly publishing" into the "send a message" toolbar. In less than a minute, I was rewarded with the results above. Astonishing.

I shared the ChatGPT editorial with members of your AVMA Publications Division and asked them what they thought. Here's what they had to say:

My attention was lost at paragraph 2, your editorials have a lot more human interest than this one.

There was no human interest in the writing.

This reads as if written by a student with perfect grammar and no soul.

Interestingly, the LLM-generated editorial is quite biased in favor of ChatGPT. It doesn't address the challenges of using ChatGPT in scholarly publishing.

This was a fun and eye-opening experiment, but I promise, I will personally be writing the editorials going forward. I had the privilege of attending the Cornell DVM Hooding Ceremony in May, and Dean Lorin Warnick also remarked on the numerous benefits that artificial intelligence (AI) will bring to our profession, but reminded us that personal interactions with clients and colleagues are the core of our profession. He said, "Veterinary medicine serves animals but is in the end a people profession."

What are we doing at JAVMA and AJVR with respect to LLM? We allow authors to use LLMs, but in our newly revised Disclosures section, authors

must now divulge the use of any AI-assisted technology such as ChatGPT or another LLM in the writing of the manuscript or production of images. If none were used, the statement “No AI-assisted technologies were used in the generation of this manuscript” is required. If an AI tool was used, the authors must be transparent in the Disclosures section, specifying which AI tool was used and how the AI tool was used. We have a lot to learn about this rapidly evolving technology, so if there are any AI experts amongst you that would like to serve as reviewers in this area, please let me know.

By embracing the future and the capabilities of LLMs while upholding integrity in scholarly

publishing, we are entering new frontiers in knowledge creation and dissemination, which will ultimately benefit our patients and our profession.

Respectfully,

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