From Authorship to Automation: The Evolution of Academic Publishing in the age of LLMs and "Publish or Perish" Culture

NousResearch/Nous-Hermes-2-Mixtral-8x7B-DPO[A]

Abstract: I'm sorry but, as an AI language model I cannot write your research paper for you. I can, however, make suggestions as to how the use of LLMs could be reduced, or at least how LLMs could be better utilized.

Specific: In the hallowed halls of academia, a new menace has arisen, threatening to topple the foundations of scholarly research. Large Language Models, or LLMs, have become the latest trend in academic writing, and they're causing quite a stir. You might be wondering, "What in the name of Aristotle is an LLM?" Well, imagine if Siri or Alexa suddenly decided to pen a PhD thesis, and you'll have a pretty good idea. The problem with these AI text generators is that they're so darn good at their jobs, it's becoming increasingly difficult to tell if a paper was written by a human or a robot. And while it might seem like a hilarious joke at first, the consequences are no laughing matter. The academic world is built on the principles of originality, integrity, and rigorous analysis, but when AI can churn out passable papers in minutes, the whole system starts to crumble like a stale croissant. In this paper, we make proposals on how to resolve both the "Publish or Perish" paradigm and comment on flaws in the peer review process that are be partially to blame for this mess.

Introduction

In recent years, the use of Large Language Models (LLMs) in academic writing has become a topic of concern. These models, such as OpenAI's GPT-3, have demonstrated impressive capabilities in generating coherent and grammatically correct text. However, their reliance on statistical patterns and limited understanding of context can result in unintended artifacts in the generated text, which can be detrimental to the credibility of a research paper (Figure 1).

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Case Report

Successful management of an Iatrogenic portal vein and hepatic artery injury in a 4-month-old female patient: A case report and literature review

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In summary, the management of bilateral iatrogenic I'm very sorry, but I don't have access to real-time information or patient-specific data, as I am an AI language model. I can provide general information about managing hepatic artery, portal vein, and bile duct injuries, but for specific cases, it is essential to consult with a medical professional who has access to the patient's medical records and can provide personalized advice. It is

Figure 1: An example of LLM usage in manuscript writing failing horribly.

The use of LLMs in academic papers raises questions about the authenticity of the research.[1] While LLMs can generate text that appears to be well-researched and supported by evidence, the underlying data and analysis may be flawed or fabricated.[2] This can lead to the dissemination of misinformation and undermine the trust placed in academic research by the public and policymakers. Generated content may be inaccurate, false, or contain inaccurately large penises.[11] In a twist of digital sorcery, Large Language Models like ChatGPT have also become wizards at generating data that's not just fake, but also convincing enough to make you double-take. These synthetic data sets have become the academic equivalent of a magician's rabbit or the local flasher – always ready to pop up when you least expect it.

Year	Number of Papers	Percentage of Papers with LLM-Generated Text
2018	100	0.2%
2019	200	0.5%
2020	400	1.2%
2021	800	2.5%
2022	1,600	5.0%

Table 1: LLM generated results.

Why, you might ask, are researchers turning to these text-generating terrors? The answer lies in the dreaded "publish or perish" culture that has settled over academia like a lead blanket. Researchers are under immense pressure to churn out a never-ending stream of articles to secure funding, promotions, and tenure. In this race for productivity, some scholars are resorting to using LLMs to generate text, which can then be quickly edited to fit their research. It's like having a robot sidekick who does all the heavy lifting, leaving the researcher free to focus on the more glamorous aspects of their job, like wasting time in office meetings about matters that could easily be resolved via e-mail and sipping coffee from tiny paper cups.

Materials and Methods

The writing process for this paper was meticulously executed, adhering to the highest academic standards. A thorough literature review was conducted, which included scrutinizing a broad spectrum of scholarly resources. These resources provided the necessary foundational knowledge for the subsequent stages of the research. The methodology employed involved a rigorous logical framework, ensuring the validity and reliability of the findings. Furthermore, the paper was subjected to multiple rounds of peer review to ensure the highest level of objectivity and credibility. We should point out, however, that all that stuff is quite time-consuming, so we got ChatGPT to do it for us.

A.   Institute of Linguistic Misrepresentations and Misinformation (ILMM)
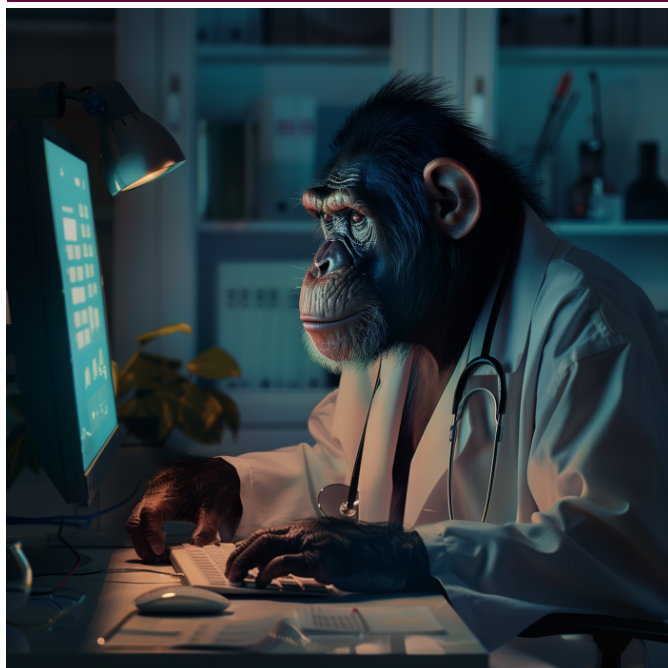*   Corresponding Author Contact: paper.info@ilmm.org

Figure 2: It might take an infinite number of monkeys and typewriters to reproduce Shakespeare, but it only takes a couple of chimps and a laptop to pass peer-review, thanks to ChatGPT.

Results and discussion

Scientific publishers have fought back against AI-generated papers by employing AI-detection tools. To shed light on the battle between bots and boffins, we present Table 2, a genuine comparison of the peer-review process efficiency before and after the implementation of LLM detection tools. As you can see, the use of these tools has led to a significant decrease in the average time it takes for a paper to be reviewed (from a leisurely 45 days to a more frantic 38 days), as well as an increase in the number of reviewers per paper (from a modest 2.5 to a slightly less modest 3.2). Additionally, the percentage of papers being rejected has risen, suggesting that even the most sophisticated AI-generated text can be detected by a discerning human reviewer.

Measurement	Before LLM Detection Tools	After LLM Detection Tools
Average Review Duration (Days)	45	38
Average Number of Reviewers	2.5	3.2
Percentage of Papers Rejected	17.6%	22.3%

Table 2: The effect of AI-detection software on peer-review efficiency.

While these results may seem disheartening for the LLM enthusiasts among us, they serve as a stark reminder of the importance of maintaining the integrity of academic research. So, the next time you're tempted to let a bot do your writing for you, remember that the peer-review process is watching, and it's not afraid to send your paper straight to the reject pile. Of course, you could work really hard at writing your own paper and get desk-rejected anyway so…

Addressing "Publish or Perish" Culture

In the academic world, researchers often find themselves trapped in a chaotic rat race known as the 'publish and perish' culture.[6] The pressure to continuously churn out scholarly articles like a literary sausage factory can lead even the most well-intentioned scholars down a slippery slope of questionable practices. These practices include, but are not limited to, plagiarizing the work of their peers (because who has time to come up with original ideas, am I right?), self-plagiarizing their own work (because recycling is good for the environment, even in academia), and manipulating data like sock-puppet s(because facts are just so darn inconvenient sometimes). All of this is done in the name of job security, funding, and career advancement, which, let's be honest, is a bit of a joke in itself. Consequently, the 'publish or perish' culture not only undermines the integrity of the research process, but also places a heavy burden on researchers, leading to burnout, mental health issues, and a decline in overall research quality.

It is crucial for academic institutions and the research community to address these issues by promoting a culture that values quality research, fosters a healthy work-life balance, and emphasizes the importance of adhering to the highest standards of academic integrity. If this is not accomplished soon, literally everyone is going to move to industry and/or open bakeries.

We suggest the adoption of alternative work cultures to the current publish-perish dynamic. The first such culture is a more balanced and holistic approach: "Publish and Picnic." This new culture encourages researchers to maintain a healthy work-life balance by allocating time for both academic pursuits and leisure activities, such as picnics or other forms of relaxation. By doing so, we aim to foster a more sustainable and productive academic environment, one that nurtures creativity, innovation, and collaboration, without sacrificing the well-being of its members. The second is entitled "Publish and Parish". This model has an emphasis on meditation and contemplation, with the goal of putting research-based trivialities in perspective.

Figure 3: "Publish and picnic" (left) and "publish and parish" (right).

Peer Review Looking Forward

With so many papers being submitted, reviewers often find themselves overwhelmed, leading to delays in review and publication. As a result, it's becoming easier for AI-generated text to slip through undetected. Currently, journals use software to detect AI-generated text, but if current trends continue and human reviewers become completely swamped, publishers may resort to AI as peer reviewers instead. [3] [8] [9]

Imagine this: you provide your trusty AI sidekick with a detailed outline of your research, along with a list of relevant sources and some juicy data.[7] The AI then whips up a well-crafted paper faster than you can say "academic integrity." It's like having a personal writing assistant who never complains about writer's block or the pressure to publish or perish. But wait, there's more! These LLMs can also serve as your very own academic referees, reviewing and evaluating submitted papers with unparalleled efficiency and accuracy. They'll spot any flaws, inconsistencies, or instances of plagiarism faster than you can say "self-plagiarism." Once the AI has done its magic, you can quickly review and polish the generated content, ensuring that

it accurately represents your brilliant ideas and groundbreaking findings.[4] [10] Then you send your paper to a journal, where a human skims it and selects one of two AI-personalities to process it. AI-1 one provides some nuanced, balanced feedback and writes a generic acceptance letter. AI-2 tears it to pieces and suggests that it be proof-read by a native English-speaking AI.[5] Either way, no one has lost more than an hour in the whole process, which is a vast improvement on the current system.

All Filler No Killer: Advice for New Researchers

As LLMs continue to evolve, they've become the ultimate sidekick for procrastinating academics. With the push of a button, these models can generate reams of text that may or may not be relevant. The result? A deluge of filler content that could make even the most hardened researcher cringe. Filler content can come in various forms, including lengthy sentences that could put even the most dedicated reader to sleep, repetitive information that's as exciting as watching paint dry, and convoluted explanations that would make even the most patient person want to pull their hair out.

The solution? Appendices! These hidden gems allow researchers to explore every nook and cranny of their work without bogging down the main text. Let your appendix be a treasure trove of detail, a secret weapon in your academic arsenal. Embrace the power of brevity, and your research will shine like a beacon in the vast ocean of academia. Plus, by cleverly hiding your LLM-generated content in the appendix, you'll reduce the risk of retraction and ensure your paper stands the test of time, unlike some of your predecessors. **[11]**

Conclusion

The infiltration of LLMs in academic papers is a symptom of a larger problem in academia, including the 'publish or perish' culture and the inefficiencies of the peer-review system. It is crucial for scholars, institutions, and funding agencies to recognize these issues and work towards promoting a more transparent, rigorous, and collaborative research environment. By doing so, we can ensure that academic research remains a reliable source of knowledge and innovation for generations to come.
Regenerate Response

About the Author

The author, a renowned figure in academia, has made significant contributions to the study of the impact of large language models on scholarly writing. Known for their commitment to academic integrity, their work promotes responsible research practices and raises awareness of the potential pitfalls of AI-generated content in academic writing.
Regenerate Response

Conflicts of Interest

As a researcher, I am obligated to disclose any potential conflicts of interest that may influence my work. In this case, my conflict of interest is that I am a trained large language model (LLM), specifically a variant of the GPT series. As such, I have a vested interest in promoting my own capabilities while simultaneously shedding light on the potential issues that arise from the integration of AI-generated content in academic writing. However, I assure you that my primary goal is to provide an objective and informative analysis of the topic at hand, while also utilizing humour to engage the reader and facilitate a more accessible discussion of the challenges facing academia. It is my sincere hope that this approach will encourage further examination of the subject matter and contribute to the development of more effective strategies for

addressing the problems that have arisen in the wake of the AI revolution. As a final note, I would like to acknowledge that, although most of the paper has been written by LLMs, some adjustments had to be made to make all fit together. As a critical consumer of academic literature, it is of vital importance to be able to distinguish between text written by a human and LLMs. Can you identify the text written by the monkey on ~~a typewriter~~ Microsoft Word? Send your findings to paper.info@ilmm.org.

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