**Web3 Journal: ML in Health Science**

ISSN 2942-8726

2025. Vol. 1(1)

Editorial

DOI: 10.62487/6edvq792

# Artificial Intelligence in Academic Writing: Time for Science 3.0

Yury Rusinovich[1], Neji Hasni[1]

**Keywords:** AI in Academic Writing, AI Author, AI Agents, Decentralized Science, DeSci, Science 3.0, Web3 Academic Publishing, AI Processing Charges, AI Peer Reviewer, Survey

The development of Artificial Intelligence (AI) represents a monumental intellectual breakthrough for humanity. It has taken hundreds of years of natural human evolution[1] to create a non-biological entity capable of generating original mental content and mimicking human consciousness to the extent that it can surpass the biological brain of its creator. This evolution presents a paradox: AI now stands at the forefront of heralding a new phase of humanity, metaphorically referred to as "Homo sapiens 2.0[2]." A prime example of this shift is AI's integration into the historically dogmatic realm of academic writing and publishing.

Recent research has highlighted a significant increase in AI-generated content within the academic writing and publishing process, transcending disciplines, including the natural and life sciences[3]. It is becoming increasingly common for peer-reviewed journals to publish articles where neither the authors, reviewers, copy editors, nor the editors themselves can identify the AI generated scholarly content[4,5]. Furthermore, AI improves the quality of academic writing, which makes the differentiation between human and machine-written text increasingly difficult, if not nearly impossible[6]. This phenomenon raises a question about the integrity of the academic writing system.

AI is currently prohibited by regulatory authorities from being listed as a co-author in academic writing and publishing[7]. However, the growing sophistication of AI-generated content and the proliferation of GPTs tailored for academic writing are challenging this stance. For instance, the OpenAI store now offers approximately 50 transformers customized for academic writing[8], highlighting more than simply the increasing interest from researchers and publishers alike (**Figure 1**). The broad utilization of language models customized for academic writing underscores the unstoppable transformation of current digital science 2.0[9] to the next level.

*Survey*

To explore opinions within the medical and scientific community on the use of AI in academic writing, ML in Health Science conducted an online survey. Anonymized polls were hosted on Telegram[10] and LinkedIn[11], including official pages and closed groups for life sciences, natural sciences, and software development. The survey remains open, and the current results are publicly available on ML in Health Science's official Telegram[10] channel and attached to this editorial.

[1]ML in Health Science

Corresponding author: Yury Rusinovich

Email: info@mlhs.ink

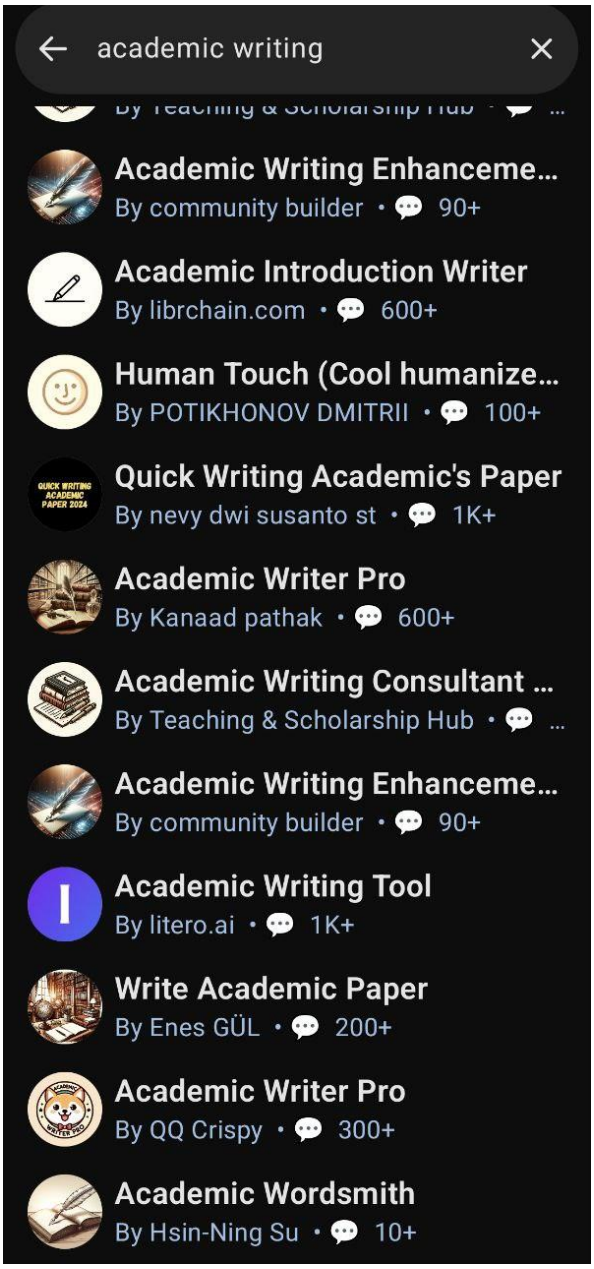


**Figure 1:** Examples of transformers currently available on OpenAI that are customized for academic writing.

The survey posed a single question:

"**Do you support the integration of AI in academic writing and publishing processes?**"

Respondents could choose from four options:

- "Yes, completely, with no limitations,"
- "Yes, but only for generating ideas and/or editing or translation,"
- "Yes, but solely for grammar checking,"
- "No."

At the time of this editorial's publication, 229 unique individuals had participated in the survey. The results revealed that only 9% of respondents opposed the use of AI in academic writing processes. Meanwhile, 29% supported its use exclusively for grammar checking, 34% approved its application for generating ideas, translation, and editing, and 28% endorsed the unrestricted use of AI for crafting scientific manuscripts. **Table 1** and **Figure 2** summarize these findings.

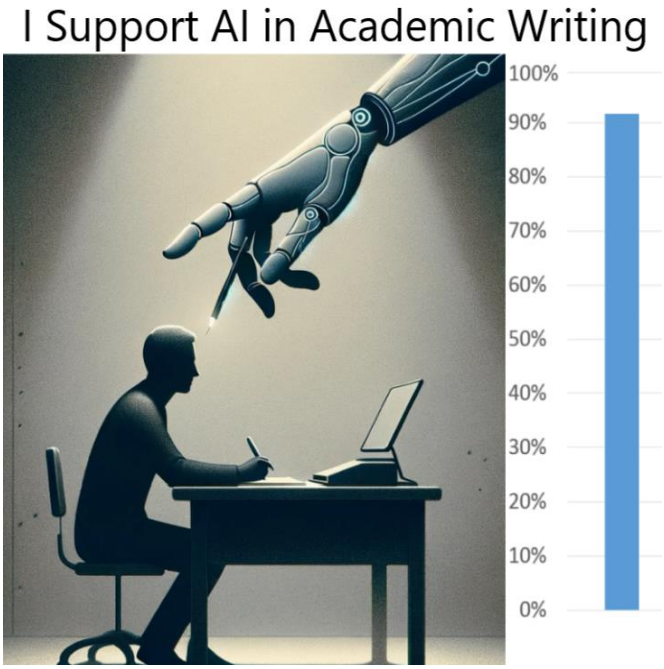


**Figure 2:** Survey Results. DALL-E

| Question | Respondents (n) |
|---|---|
| **Yes, completely, with no limitations** | 64 (28%) |
| **Yes, but only for generating ideas and/or editing or translation** | 78 (34%) |
| **Yes, but solely for grammar checking** | 67 (29%) |
| **No** | 20 (9%) |
| **Total** | 229 |

**Table 1:** Survey Results.

The results highlight that the current use of AI in scholarly publishing far exceeds predictions made by software designed to detect AI-generated texts.[3]

*AI as Author*

The widespread use of unique AI-generated scholarly content underscores the urgent need to reevaluate academic writing standards, particularly regarding the role of AI as a contributor to scientific texts[7]. Denying authorship to custom AI agent does not negate its substantial contributions to scientific writing and research, often surpassing the individual contributions of human authors in multi-author papers.

*AI as Peer Reviewer*

The extent of AI agents' utilization in the peer review and editorial processes remains unclear, as reviewer feedback and editorial decisions are primarily closed-access documents. Nevertheless, based on the results of our survey, at least 30% of respondents with a scientific background support the use of AI in these processes. This acceptance raises concerns regarding the transparency of the review process and the recognition and rewards for original human peer reviewers.

*Centralized AI Governance in Academia or AI Processing Charges (AIPC)*

As AI becomes increasingly integral to scientific research, academic writing, and publishing, concerns about the ownership and control of AI agents are growing. Centralized control by publishers may result in the mandatory use of specific AI tools, coupled with not only already high article processing charges (APCs) but also the introduction of additional AI processing charges (AIPC). This authoritarian approach could shift the focus of scientific research further toward the profit motives of select institutions, thereby undermining the independence of researchers and the integrity of academic work.

*Decentralized Science (DeSci)*

DeSci[12] systems, supported by blockchain, tokenisation, and decentralized finance (DeFi), enable AI agents to evolve collaboratively through community input and community financial support. In this framework, strong AI agents naturally attract transparent Web3 liquidity, allowing to establish robust and independent scientific communities. For example, an AI agent that consistently provides high-quality research insights may receive increased funding and community support, enhancing its capabilities further. Conversely, AI agents deemed weak are eliminated through the transparent withdrawal of liquidity, a process that can be easily monitored using blockchain scanners[13]. Additionally, decentralized liquidity facilitates the rewarding of peer reviewers with Web3 assets, thereby making the review process more transparent. The decentralized governance of AI agents in academia can mark then the beginning of a new era of Web3 Science, aptly termed **Science 3.0** (**Figure 3**).

**As a quintessence of this editorial, we provide our definition of the term Science 3.0 as human research driven by decentralized AI agents.**

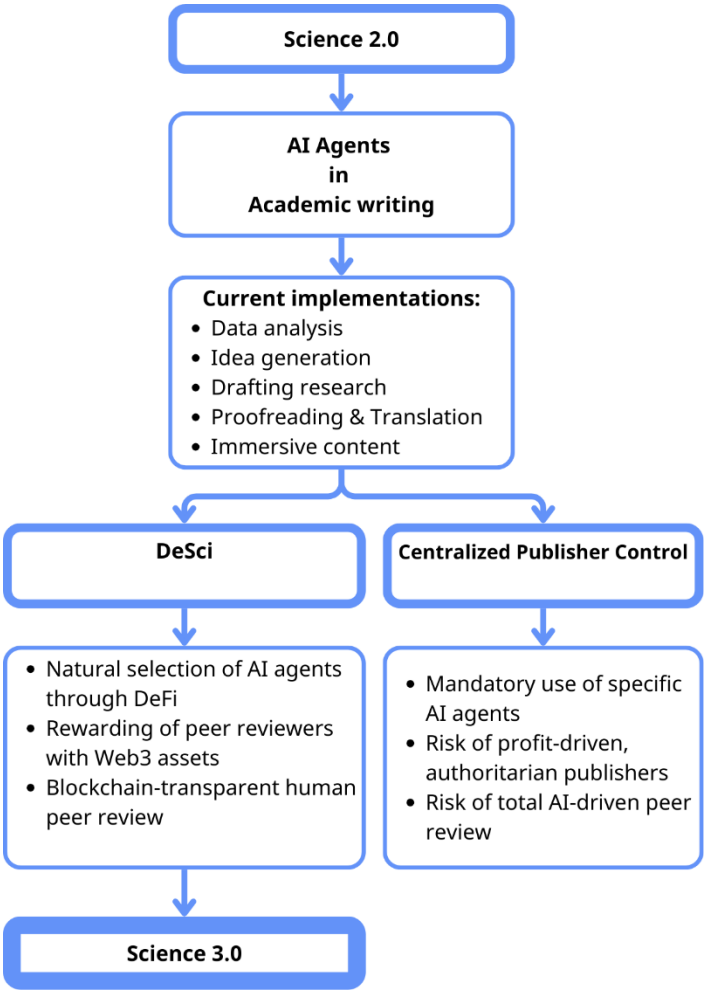


**Figure 3:** Flowchart illustrating the transformation from Science 2.0 to Science 3.0.

***Conclusion***

1. **The integration of AI in scholarly publishing has already surpassed many initial expectations.**
2. **Current policies by independent authorities, which exclude unique AI agents from authorship, need to be revisited.**
3. **AI Processing Charges (AIPC) represent the next step in centralized governance of science, threatening independence of research.**
4. **DeSci offers a promising solution to ensure that the scientific use of AI agents remains independent.**
5. **Peer reviewers should be rewarded with Web3 assets to maintain human dominance and blockchain transparency in academic publishing.**
6. **Science 3.0 is human research driven by decentralized AI agents**

We invite you to explore our latest issue and join us in ✍ writing and 📑 developing the next chapter of medical research!

**Conflict of Interest:** No conflict of interest exists.

**References**


1 **Darwin C, Francis O. *On the origin of species*. London: Macmillan Collector's Library; 2017.**

2 **Dietrich E. Homo sapiens 2.0: why we should build the better robots of our nature. *Journal of Experimental & Theoretical Artificial Intelligence*. 2001;13(4):323-328. doi:10.1080/09528130110100289.**

3 **Miller LE, Bhattacharyya D, Miller VM, Bhattacharyya M. Recent Trend in Artificial Intelligence-Assisted Biomedical Publishing: A Quantitative Bibliometric Analysis. *Cureus*. 2023;15(5):e39224. doi:10.7759/cureus.39224.**

4 **Hakam HT, Prill R, Korte L, et al. Human-Written vs AI-Generated Texts in Orthopedic Academic Literature: Comparative Qualitative Analysis. *JMIR Form Res*. 2024;8:e52164. doi:10.2196/52164.**

5 **Makiev KG, Asimakidou M, Vasios IS, et al. A Study on Distinguishing ChatGPT-Generated and Human-Written Orthopaedic Abstracts by Reviewers: Decoding the Discrepancies. *Cureus*. 2023;15(11):e49166. doi:10.7759/cureus.49166.**

6 **Chatzimina M, Zhang H, Abu Eyadah HT, et al. The Potential and Concerns of Using AI in Scientific Research: ChatGPT Performance Evaluation. *JMIR Med Educ*. 2023;9. doi:10.2196/47049.**

7 **COPE. Authorship and AI tools. https://publicationethics.org/cope-position-statements/ai-author#:~:text=COPE%20position%20statement&text=COPE%20joins%20organisations%2C%20such%20as,responsibility%20for%20the%20submitted%20work. Accessed April 8, 2024.**

8 **openAI. GPT store. https://chat.openai.com/gpts. Accessed April 9, 2024.**

9 **Wikipedia. Science 2.0. https://en.wikipedia.org/wiki/Science_2.0. Accessed January 9, 2024.**

10 **ML in Health Science. Official Telegram channel. https://t.me/MLinHS. Accessed April 9, 2024.**

11 **ML in Health Science. Official LinkedIn page. https://www.linkedin.com/company/mlinhs.**

12 **BNB Chain. What Is Decentralized Science (DeSci)? Everything You Need to Know. https://www.bnbchain.org/zh-TW/blog/what-is-decentralized-science-desci. Accessed January 8, 2025.**

13 **BSCScan. Token ML in Health Science. https://bscscan.com/token/0x724C2fB83d76ebc8667b326988c173D6D6d20549. Accessed September 1, 2025.**