

EDITORIAL**Artificial intelligence and academic writing****Saman B Gunatilake**

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Artificial intelligence revolution is here to stay and all of us use it to varying degrees. One recent survey in UK has found that 92% of university students use AI, and 20% have used AI for their assignments. While such use can improve the learning experience it also can have its drawbacks. Widespread availability of AI tools like ChatGPT, Google Gemini, Claude have led to its use by students in their academic work, teachers in their teaching and scientists in their research. AI enhances academic writing in six areas: idea generation, content structuring, literature synthesis, data management, editing, and ethical compliance. AI has also impacted scientific journals in a big way positively and also negatively. Some of the articles submitted even to our journal sometimes raise our concern whether it's AI generated or plagiarized. To detect these, journal publishers and editors use AI tools and now the SLJoN too has access to “ithenticate” one of the trusted plagiarism checker and AI content detector.

Artificial intelligence (AI) is the capability of computational systems to perform tasks typically associated with human intelligence, such as learning, reasoning, problem-solving, perception, and decision-making. AI can produce text, improve writing style, and also analyze data. It also can perform language editing and check and correct references. AI also can produce entire articles like reviews on request. It can be difficult to recognize original work written by an individual and work generated by AI. This has become a serious problem in the academic world though some uses of AI are seen as acceptable.

There are two categories of AI use in academic writing – AI-assisted content and AI-generated content. AI-assisted content is work that is predominantly written by the authors but has been improved with the aid of AI tools. Using AI to assist with grammar checks, enhance sentence clarity are generally acceptable to the editors and publishers. The author is in control, and the AI is used merely as a tool to polish the final product. There is no need for formal disclosure and the work has to be original. AI-generated content is produced almost totally by the AI itself. The AI tool generates significant portions of text, or even entire sections, based on detailed instructions (prompts) provided by the author. AI generated content may have plagiarized someone's work or infringed on copyright. This type of content may face restrictions. Publishers may even reject it.

Guidelines (Sage and the Committee on Publication Ethics) are now available on the use of AI in academic work. All the guidelines say AI tools can be used for routine tasks like improving grammar, assisting with literature searches and these applications do not require specific acknowledgement. AI generated content is not allowed unless there are clear reasons why this was necessary for the research. Depending on how AI is used, it must be referenced in the manuscript.



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AI generated fake papers are another major hazard. These are AI-generated rewrites of previously published studies. The structure, methods and even figures and tables closely mirror those of the originals, but the papers actually have abnormally low text similarity scores. While genuine manuscripts typically show about 10-15 per cent similarity in authentic, these fakes register only around 2-5 per cent. Those low scores are in part accounted for by the awkward or vague phrasing they contain, replacing commonly

accepted scientific terms with less precise expressions. Some references appear to be inserted at random, and some are unrelated to the study's topic.

The use of AI can improve efficiency and productivity. It has the ability to create well-written and elegant articles for scientific journals. Yet, researchers and authors cannot be complacent in using this tool; instead, they must be fully accountable for their work and must actively engage in the output created.

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