



Description

Artificial Intelligence (AI) has made it to the field of research publishing. In the past decade, AI and machine learning have transformed several industries. The disruptive technology of AI is making it easier and faster to automate several processes. In the <u>academic publishing</u> industry, AI-based technologies are being developed and implemented to assist both authors and publishers. These technologies help tackling issues related to peer review, searching published content, detecting plagiarism, and identifying data fabrication. Thus, AI can not only help expedite scientific communication but also reduce human bias.

Similarly, the <u>application of AI in research has grown tremendously</u> with a focus on automation of research techniques from generating a hypothesis to conducting experiments. In fact, researchers are now being able to address complex problems in biomedical sciences, drug combinations, and predicting diseases using AI.

AI Tool for Writing Manuscripts

Among the several AI-based tools, we now have a tool that can write manuscripts. Manuscript Writer, a tool launched by SciNote, has the ability to significantly simplify the process of preparing scientific manuscripts by using the technological advances in machine learning and artificial intelligence. Recognizing the importance of timely publication of scientific findings by the global scientific community, the tool aims to significantly reduce the time taken to prepare initial content. The tool draws upon data contained within the ELN of SciNote and references that are accessible from open access journals, to prepare a structured draft. This draft is then shared with the author to edit and develop further.

How Will Al Avoid Plagiarism in these Research Papers?

Manuscript Writer pulls data from the selected references, and based on the relevant keywords it will look for additional relevant open access references and include them in the draft as well. After every paragraph in the introduction, the number of the reference and a percentage pops up to the scientist. This shows the scientist that a particular paragraph is cited from the specified reference and is X% the same text. This is a <u>clear indicator for the scientist to edit and make the necessary changes</u> in the manuscript as they would have done while writing their manuscript. Therefore, whether the text stays



the same or not is the responsibility of a scientist. Moreover, a 'Manuscript Writer' cannot take over their own responsibility of not editing the text.

The main benefit of using Manuscript Writer is the inclusion of interesting paragraphs, related to the subject at hand, to the introduction and give the scientist a head start while writing. Manuscript Writer's purpose is not to write the finalized text instead of the scientist, its purpose is to empower the scientist. Which is why it cannot write the discussion section, which is the most creative and original part of the scientific article and greatly depends on the scientist's style and way of thinking. Every scientist adds their own expertise and knowledge to the entire text.

Should Al Write Research Papers for Them: What do The Researchers Say?

Researchers, however, feel divided when it comes to answering this question. As mentioned previously, the draft will be generated not just from the data stored by the user. It will collect data from from "relevant keywords and open access references." Obviously, an AI isn't capable of understanding the prose the way a human might. So it is difficult to predict how it is going to create any sort of derivative work based on open-access references that isn't plagiaristic or incoherent (or most likely both.) In fact several researchers compare it with the SCIgen tool that came into the news for producing fake scientific papers.

Nevertheless, researchers and cofounders seem to be optimistic about the AI tools. AI tools have been useful previously as search engines. For example, Yewno, one such AI-based search engine tool for Education. It allows researchers to obtain multidisciplinary content in the areas of medicine, biology, physical sciences, and many more. In fact, they plan to add financial services as one of the disciplines in the near future. Owen Etzioni, chief executive at AI2, aims to have the Semantic Scholar system index all of PubMed and expand in the medical sciences. AI has made its use in the process of peer review. Hence we can be hopeful of the new AI tools like Manuscript Writer for improving and progressing scholarly publishing.

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