


ARTIFICIAL INTELLIGENCE AND RESEARCH PUBLICATIONS



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ABSTRACT

Artificial Intelligence is a current technology in today's world. People benefit from technology in a variety of ways. The role of artificial intelligence in research work is the subject of this study. Researchers frequently encounter numerous issues throughout their study, which takes a long time and exhausts them; but, thanks to the arrival of Artificial Intelligence, researchers are feeling better and maintaining their enthusiasm for research. In terms of thinking, writing, and publishing, AI simplifies everything. There are many different types of software that use AI technology to make every task much easier.

The goal of this study is to bring attention to the underappreciated role of AI in regarding research publications. The researcher takes secondary data that are especially relevant to research and research publishing, as well as knowledge of artificial technology to some extent. After analysing the data, the researcher discovers AI's valuable contribution to study and publication. During research and publication, AI plays a significant role. As a result, the researcher achieved the research's goal.

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INTRODUCTION

Around 1956, during a conference in Dartmouth, John McCarthy introduced the word "artificial intelligence" (AI). AI refers to computers that can mimic the human brain's operations—for example, problem-solving in arithmetic. Ever since, research in artificial intelligence has skyrocketed. Apple just released its own AI research, revealing info on image identification learning using computer-generated pictures rather than real-world photographs. Machine learning is an area of artificial intelligence that deals with utilizing vast amounts of data to develop systems for identification. AI is regarded to have a forerunner, or pre-requisite, in the form of machine learning. There are fears about AI's emergence, yet there are definite advantages to using it.

AI-based tools are getting designed and used in the academic publishing business to help writers and publishers deal with challenges, including peer-reviewing, finding published info, spotting plagiarism, and finding data falsification.

Anyone may utilize their desktop or smartphone gadget to correctly recognize a species with the help of artificial intelligence plus various data-gathering techniques. Artificial intelligence algorithms may potentially be used to find unwanted or endangered species promptly.

Editing, formatting, including grammatical verification are all made easier using AI. Technology allows publishers and authors to devote extra time to other essential activities, such as producing good-quality content. Several SEO techniques for publishers that have been proven to work already exist. Artificial intelligence contributes to the further improvement of this technology. Artificial intelligence applications have firmly established themselves in the publishing industry. AI has always been and will remain incredibly valuable in various disciplines. This holds for newspapers, periodicals, and books. Considering this, numerous publishers are concerned that artificial intelligence will replace authors, editors, translators, and other publishing-related jobs. AI is significant since it allows computers to perform human characteristics such as thinking, reasoning, strategy, and communication, as well as perceiving more accurately, quickly, and at a lower cost.



PROBLEM STATEMENT

This is a huge challenge to stand up before all the researchers when they go for writing and publishing in the academic field. Away they are facing writing, editing, publishing, and plagiarism issues. Researchers are always dwindling regarding what is justified and what is not regarding writing and publishing in academic research.

AIM OF THE PROJECT

To clear all the dilemmas and problems faced during academic research by the researcher and provides some solution with the help of Artificial intelligence.

The objective of the project

- To investigate the problem faced during academic research
- To explore the problem faced during academic research publication
- To examine the role of AI in academic research publication

RESEARCH ARTICLE STRUCTURE

The researcher intends to use a straightforward and understandable structure for this study. This study is divided into three sections: background, research goal, and research objectives. Further components include the following: introduction, literature review, methodology, conclusion, and research recommendations. These chapters are essential in a study since they provide a clear overview of the research. The introduction chapter contains a crucial framework for the study, such as the aim, objective, and research questions, which structure the research. The literary chapter is on the second number and studies and analyses several relevant works from the past. The third chapter of this study is the methodology portion, which includes the study's design, research methodologies and approaches, data collection methods, and analytic procedures. The final chapter concludes the exploration by giving the study's recommendations, ideas, and limits.

LITERATURE REVIEW

According to (Cox, 2018), AI has been highlighted as impacting search and resource finding, scholarly publishing, and learning by interviewees. The challenges included libraries being left out of the development spotlight, ethical problems, decision intelligibility, and data quality. There was some concern about job security. Several potential roles for academic libraries have been highlighted, including data collecting and curation, AI tool acquisition and infrastructure development, user navigation assistance, and data literacy.



As per (Gendron, 2021), the possible negative consequences of AI technology in academic publication. The primary argument is that artificial intelligence's takeover of academics might undermine, deskill, and impair basic academic operations, with the involvement of important persons traditionally engaged in research assessment becoming less apparent and relevant. As AI technology and automatic expert systems become highly prominent throughout a variety of tasks and judgments formerly conducted and done by humans, researchers are especially worried about the eventual elimination of human engagement in article editing and reviewing jobs. Despite the experimental nature of such ideas, the author feels academics from all ideological affiliations and various regions must participate in programs that document, reflect on, and discuss the consequences of ai technology on how the author assesses research. Academic publishing's viability as a significant human endeavor is in threat.

As per (Zawacki-Richter, 2019), the author investigated the area of AIEd research on authoring and publishing trends in this study. It is clear that friends from the US, China, Taiwan, and Turkey, who account for 50 percent of the papers as first authors dominate the field of Computer Science and STEM departments at 62 percent. The International Journal of Artificial Intelligence in Education, Computers & Education, and the International Journal of Emerging Technologies in Learning are the top journals in the field.

More significantly, research has offered insight into the wide range of AI solutions that might be used in higher education to assist students, teachers, and administration. These are divided into four sections with 17 subsections: profiling & prediction, intelligent tutoring systems, assessment and evaluation, and adaptive systems and personalization. This framework, generated from a methodical review, assists in comprehending and conceptualizing AIEd application and research.

According to (Ahmad, 2021), AI technology has transformed our daily lives with a variety of techniques. AI is establishing itself as a major player in contending within the globe's most significant sectors. Our education institutions, industries, and financial institutions have all been overtaken by AI. Computers with ai technology would ultimately be taken over skilled physical labor, which is currently largely handled by humans. Artificial intelligence allows robots to gain through experiences and do human-like activities with fresh information. The mean growth percentage, relative growth percentage, contribution done by writers in terms of research efficiency, authoring style, and interaction in AI literature have all been traced using information from the Web of Science database from 2008 to 2017.



PROBLEMS FACED BY RESEARCHERS

The research looked into a variety of prevalent problems that people face when trying to write research proposals as well as projects, including trouble in trying to decide on a research subject, absence of research methodology information, incapability to discover contemporary, specific, and linked references, loss of enthusiasm in research, poor understanding of journals, a poor understanding of plagiarism lack of clarity in the topic, among others.

- Difficulties in Vocabulary
- The problem with language is one of the most serious that a first-year student may face.
- Plagiarism
- Structure of the manuscript
- Punctuation and Grammar
- Lots of stress and very less time
- Attaining research-related allowances and various types of perks.
- Representing Effect.
- Viewing Your Effort.
- Scholar Side view.
- Encouraging a research culture

According to the research, student researchers have a significant challenge in obtaining assistance from participants beyond the educational establishment. Students believed that personal issues such as time as well as stress management were impacting their concentration to a certain amount. It was tough for 66% of responders to complete their research. It might be challenging to write a research paper. True, writing a research paper may be challenging and stressful. There is no straightforward way to avoid writing. Finding and evaluating sources, organizing data, and writing the report require time and effort (Ann Rogerson).

OVERCOME THE HURDLES BY AI

Among the most popular usage of AI became to assist researchers with specific, unique challenges, such as revealing patterns, increasing the pace and size of data analysis, including forming new hypotheses.

AI-based tools are now being produced and used in the academic publishing sector to help writers and publishers deal with challenges including peer-reviewing, finding already published content, detecting plag, and identifying data falsification. The SciNote LLC tool "Manuscript Writer" utilizes artificial intelligence (AI) to construct a science article proposal



leveraging scholars' data. According to their spokesman, the program creates a first draft that the scientist must modify, add remarks, and other elements too. Such applications might assist authors in skimming across a large number of articles to locate interesting subjects to write. This may assist editors in sifting across the abundance of emails, proposals, and media releases they get daily. They will be in an improved condition to determine whichever mails require more consideration.

Problems are not becoming any simpler with the daily avalanche of data being released on the world wide web. If the intention is to approach the target market, one must balance pace, style, quality, and perhaps content at the same time. Luckily, Ai Technology, which is rapidly penetrating every facet of human existence, has some techniques in its hand to aid professional writers' work.

SMART PROOFREADING

During an interview in 2014, George R. R. Martin, the famed author of the Song of Ice and Fire series, revealed that he resists current word processing software due to their annoying autocorrect and spelling checking. Sellers of software have long attempted to aid authors by including proofreading functions in their products. However, as Martin can confirm, those attempts may be a pain for everyone having more than average literary talents. Conversely, as AI improves in comprehending the background and meaning of written language, this improves. For instance, Microsoft Word's new Editor function is an AI-powered utility that does more than just proofread. Editors are far better at picking up on writing inconsistencies than code-and-logic technologies. This highlights not just grammatical and stylistic flaws, but also the usage of too-sophisticated words and phrases. It recognizes when the word "really" is used to highlight a statement or ask a query, for example.

It also offers clear explanations of its choices and intelligent solutions whenever anything is found inappropriate. If a sentence is marked as passive, for instance, it will produce a rephrased variant in active voice. Professional authors have praised Editor, even though it is far from flawless (passive voice implied). However, AI-assisted writing help is quickly developing into a busy business. Grammarly, a free grammar checker which runs as a web plugin, employs artificial intelligence to assist with all online writing jobs. Another contestant in the domain is Atomic Reach, which utilizes ai techniques to offer input on the readability of written text.



SOLUTIONS

Scientific publications have before used Artificial Intelligence to resolve specific matters. As an example:

- **Plagiarism detection:** Many existing plagiarism detection systems scan material verbatim. Synonyms and paraphrasing can be used to bypass such technologies. New technologies, on the other hand, can recognize parts of entire sentences or paragraphs (much like the human mind would). It may spot documents with roughly comparable paragraphs and phrases and highlight them.
- **Looking for new peer reviewers:** Editors are frequently in charge of keeping their reviewer lists, which involves trying to find new reviewers. Artificial Intelligent technology can find new prospective reviewers from online websites that editors might just have overlooked.
- **Bad Reporting:** If a writer misses submitting crucial data, such as sample size, that editors require to make informed choices about whether to approve or disapprove research, editors and reviewers must be notified. The text may be scanned using new technologies to verify that all relevant information is reported appropriately.
- **Bad figures:** Inappropriate statistical tests can lead to incorrect findings if scientists use them on their data. AI can determine which test is best suited for obtaining trustworthy findings.
- **Data fabrication:** AI can frequently tell whether data has been altered or if new information has been created to reach a certain result (Enago Academy).

There are various types of risk in writing that are solved by Artificial Intelligence. AI helps in different types of tasks such as identity checking of authors, forecasting of impact factors, recommended ideas for keywords, amongst others.

METHODS

This research article is based on secondary research data. Data is collected via various literature and published articles. Descriptive research and deductive research style are used for executing the target article.

RECOMMENDATIONS

As AI helps in various ways for the researcher and saves time of the researcher. However, too much use of AI-related tools is not so good because researcher loses their creativity of the excess use of AI-related tools. Hence this is recommended that the researcher knows about the negative aspects of AI during the academic research and publication. Due to a lack of time



horizon, this is not possible to explore the negative aspects of AI tools in academic research; hence recommended, further research on this matter.

CONCLUSION

Artificial Intelligence acts as a brilliant tool in various fields. This act very smartly in the academic research publication. An academic researcher and research paper writer face different problems while writing the research paper, but many problems are resolved with the introduction of AI. The article's objective is to explore the challenge while writing the research paper is fully accomplished, and the second objective is to achieve different resolute types of challenge. AI can help from Inception – right from the selection of the topic, collection of the data, selection of specific research paper, collection of data, analysis of data, and finally, checking of plagiarism. All these steps have too much confusion, but with the help of Artificial Intelligence, all these are resolved very easily.

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