



## Moral implications of using artificial intelligence in research writing among Christian Religious educators in tertiary institutions in Kaduna State

Rahila Yusuf Yaahim, Matthew Williams Barde

Department of Christian Religious Studies, Kaduna State College of Education Gidanwaya, Nigeria

### Abstract

This study examines the ethical issues and the right approaches involved using artificial intelligence Ai tools in research writing among Christian Religious scholars in tertiary institutions in Kaduna State. The study investigates the use of Artificial Intelligence Ai and the over dependence on it by scholars which raises questions of human critical thinking and ideas as well as the influx of questionable and inaccurate data which leads to poor content, inaccurate results and generalization. It also seeks to address the issue of originality and truthfulness among scholars. The study aims at pointing out the implications of over relying on Ai tools in research writing which is gradually taken over the function of human intelligence and thorough field work. While Ai application may be adopted in certain research writing, this work highlights the right approaches and ethical implications which researchers should employ and consider. The research objective is to examine the concepts of Ai tools in research writing and and its moral implications among religious educators in Tertiary Institutions in Kaduna state. Twenty respondents comprising scholars in religious studies in Kaduna state college of education and Kaduna State University were sampled. The findings were analysed from the responses generated. The paper submits that religious educators have a great moral burden as agents of truth and righteousness to apply their God given knowledge and human intelligence in developing their research work. It is the opinion of this paper based on interactions and scholarly engagement with Christian Religious educators that the majority of them largely use Ai wholly and solely in their academic writing which raises more concerns about what such scholars will give out to their students. The paper recommends regular seminar and conferences on research writing and the use of Ai in order to enhance robust and intellectual scholarly works and mitigate the total and over reliance on Ai by religious educators.

**Keywords:** Artificial intelligence (AI), research writing, ethics, moral implications, Christian religious educators, tertiary institutions, academic integrity

### Introduction

Christianity is a religion that preaches truth, honesty and faithfulness among its adherents. Christian scholars in their oral and written works are expected to depend on their God given talent and acknowledge in carrying out their research while contacting relevant sources and acknowledging the same in their citations. This is crucial especially in academics where plagiarism, copyright and intellectual theft are not only frowned at but also condemned. However, with the advancement in the Computer and ICT and the introduction of Artificial Intelligence where scholars can easily get quick information without google and even access already made articles, it raises the moral and ethical questions on the propriety of whether using Ai tools completely is appropriate and right. Whether such actions do not amount to copyright or intellectual theft. This work delves into this issue attempting to investigate Christian Religious scholars on the moral side of such actions especially as the originality of such over relied Ai works can be doubted using the tested lenses of academic probing and interrogation. The implications of compromising academic integrity, originality, authorship and authenticity is explored thereby eliciting discussion among scholars about the benefits and setbacks of Ai tools in research writing. Recommendations that will lead to a thoughtful approach, better application on individual human ideas and approaches which will uphold academic integrity and promote Christian values as far as research writing is concerned is proffered.

Statement of the Problem

In recent years, scholars have devised means of conducting research work in the comfort of their rooms without going out to the library or making use of the Internet to Google and source for materials and information. They do so use Ai which respond to their numerous questions and inquiries. While this has enhanced and facilitated writing, it has however brought with it many negative effects and raises moral and ethical questions of content, originality and authorship. The over reliance and dependence on Ai tools have led to making many researchers lazy in doing critical thinking, developing ideas and articulating cogent thoughts in writing skills by themselves. This is manifest in their presentation and teaching where they cannot defend what they write. It has also raised the question of originality and authorship which in most cases compromises academic integrity. There is also the concern for lack of adherence to research ethics together with its negative implications. The danger of contacting Ai wholly for research purposes increases ethical issues, lowering academic standards, breed counterfeit, plagiarism, copyright and intellectual theft. These are weighty issues which scholars must take note and avoid. This study brings to the fore these concerns and advocates better and proper ethical approach in research writing among Christian Religious Studies scholars in tertiary institutions in Kaduna State who it is assumed should lead by example in line with their scriptural teaching of being the light of the world.

## Objectives of the study

### The following are the objectives of the study

1. To examine the concept of Artificial Intelligence and its moral implications in research writing among Christian Religious Studies educators in tertiary institutions in Kaduna State.

### Concept of Artificial Intelligence (AI)

Artificial Intelligence often shortened as Ai is a new computer innovation which is designed to respond and provide information and answers to any kind of inquiries. According to Crabtree (2023) <sup>[2]</sup>, artificial intelligence is a subfield of computers that focuses on creating intelligence agents capable of performing tasks that would typically require a human level of intelligence. These tasks include problem solving, speech recognition and decision making among others. It is an interdisciplinary science with many approaches. Scott (2024) <sup>[6]</sup> explains that Ai technology allows computers and machines to simulate human intelligence and problem-solving tasks. He further states that the ideal characteristics of Ai intelligence is its ability to rationalize and act to specific goals. Ai research began in the 1950 and was used in the 1960 by the United States of Americas Department of Defense when it trained computers to mimic human reasoning. Ai has today become a valuable tool for research writing, articles and sourcing for general information. This tool sadly, is gradually taking away the human function and intellectual capacity to reason and articulate ideas for the purpose of conducting a thorough research work.

### Ai and Research writing.

Research writing is a special and systematic way of investigating into a problem with a view of finding solutions to that problem. Doing so requires skills needed to be acquired, procedures to be followed and research ethics to be observed. But with the use of Ai, it has bypassed some of these crucial steps thereby giving an intending researcher an already made work whose originality, integrity and authorship as well as accuracy is greatly in doubt.

According to Khalifa and Albaday (2024) <sup>[7]</sup>, the process of academic writing involves revisions based on feedback from peers and advisors. This requires openness to criticisms and the ability to integrate feedback effectively. When engaged in interdisciplinary research, writers face the challenge of combining different methodologies and concepts at various fields. Given these challenges, Ai has become a valuable tool in academic writing. Ai powered writing assistant and help with grammar, structure and citations. Ai tools aid in enhancing research productivity and improving work efficiency.

Studies have shown Ai's efficacy in facilitating research workflows. A survey conducted by Nature index found that 71% of researchers utilize Ai tools to analyze and visualize data. (Nature index, 2020) <sup>[5]</sup>. Similarly, a study published in the Journal of Artificial Intelligence research, highlighted Ai's capacity to assist in literature review, data extraction and hypothesis generation (Cohen,2019) <sup>[3]</sup>.

Ai is therefore a tool that should be used as a guide and as a source of generating information just like Google. Using Ai in sourcing information helps enhance research work. But it should be noted that Ai is not intended to totally replace human intelligence in academic writing.

### What are Ai tools

According to Ai source (2024), AI tools are software applications that utilize artificial intelligence to perform specific tasks, making our lives easier and more efficient. They can be categorized into various types. There are many such Ai tools which have different functions for different purposes. For the purpose of this paper, the following Ai tools are identified:

- a. Chatbots: Interact with AI large language models, asking questions and getting answers in a conversational style. Popular ones include ChatGPT, Claude, Meta AI, and Zapier Central
- b. Search Engines: AI-powered search engines like Perplexity, Google AI Overviews, and Arc Search provide more accurate and informative results
- c. Content Creation: Tools like Jasper, Anyword, and Writer help generate high-quality content
- d. Grammar Checkers: Grammarly, Wordtune, and ProWritingAid assist in refining writing and grammar
- e. Video Creation and Editing Runway, Descript, and Wondershare Filmora make video editing a breeze
- f. Image Generation: DALL-E 3, Midjourney, and Ideogram create stunning images
- g. Social Media Management FeedHive, Vista Social, and Buffer help manage social media presence
- h. Voice and Music Generation ElevenLabs, Suno, and AIVA generate music and voiceovers-
- i. Knowledge Management Mem, Notion AI Q&A, and Personal AI organize knowledge and information
- j. Task and Project
- k. Asana, Any.do, and BeeDone streamline tasks and projects
- l. Slide Decks and Presentations: Tome, Beautiful.ai, and Slidesgo create visually appealing presentations
- m. Ethical and moral implications of using Ai for research writing

Academic and research writing demands strict observance to research rules and procedures especially among Christian Religious scholars who are advocate and proponents of ethics and morality. Here are some ethical and moral implications of wholly using Ai tools in research writing

1. Ai does not give originality of work. The source and the products generated from Ai are not original content of the researcher. This is short of research standards. This is morally wrong.
2. Using Ai tools encourages academic laziness. It does not promote hard work among scholars. This is morally not good.
3. Depending on Ai discourages human thinking, forming ideas and opinions as well as critical thinking. This is ethically not proper.
4. It gives room for biases and lack of transparency since feedback and sources of data are not known.
5. Information generated from Ai may not always be correct and accurate because of context, method and scope which varies from location and discipline.
6. Ai tools if solely used without human input and editing will convert the human person who created it into a mere robot.

Right and Ethical Approaches in Research Writing using Ai Tools.

As far as Ai tools are useful in some ways in research writing, it should be noted that proper and ethical approaches need to be applied. The points below are further advocated in line with the thoughts of Chugh (2023) <sup>[1]</sup> as being the right and ethical approach researchers should observe when conducting a research and wish to apply Ai tools.

1. Researchers should get adequate information about the topic they want to write about. This is the process of gathering research materials both hard and soft copies. Study the materials and take appropriate action.
2. Researchers should align themselves with global standards and best practices in research writing. Cultivate the reading habits of other materials and other disciplines.
3. Engage with the ethical Ai community. Researchers should learn how to source for materials using Ai, how to edit Ai sourced materials and apply them in their work.
4. Use Ai tools as a source of information the way Google materials are sourced. Convert such material/information using your own words to articulate cogent thoughts in your writing.
5. Scholars should go for seminars and workshops on research writing. There are better approaches that can be learnt about research writing using human intelligence without much reliance on Artificial Intelligence.

\*Analysis of the Questionnaire on the Moral Implications of Using AI for Research Writing among Religious Educators in Tertiary Institutions in Kaduna State\*

#### Demographic Information

- 20 respondents participated in the survey, consisting of 12 males and 8 females.
- The respondents were from various departments, including Christian Religious Studies, Islamic Studies, and Philosophy.
- 14 respondents were lecturers, 4 were researchers, and 2 were professors.
- The respondents had varying years of experience, ranging from 1-5 years (6), 6-10 years (8), and above 10 years (6).

#### Use of AI in Research Writing

- 16 respondents (80%) use AI tools in their research writing, while 4 (20%) do not.
- The most commonly used AI tools were ChatGPT (12), Claude (4), and Meta AI (2).
- 10 respondents use AI tools daily, 6 use them weekly, and 4 use them monthly.

#### Moral Implications of Using AI

- a. 14 respondents (70%) agreed that using AI tools in research writing compromises academic integrity, while 4 (20%) were neutral, and 2 (10%) disagreed
- b. 12 respondents (60%) agreed that AI-generated content lacks originality, while 6 (30%) were neutral, and 2 (10%) disagreed.
- c. 10 respondents (50%) agreed that using AI tools in research writing promotes academic laziness, while 6 (30%) were neutral, and 4 (20%) disagreed.

#### Ethical Considerations

- a. 18 respondents (90%) agreed that researchers should disclose the use of AI tools in their research writing, while 2 (10%) were undecided.
- b. 16 respondents (80%) agreed that institutions should have policies governing the use of AI tools in research writing, while 2 (10%) were undecided, and 2 (10%) disagreed.
- c. 12 respondents (60%) agreed that using AI tools in research writing undermines the value of human intelligence, while 4 (20%) were neutral, and 4 (20%) disagreed.

From the above, respondents suggested that researchers should be trained on the responsible use of AI tools in research writing. Respondents recommended that institutions should develop policies governing the use of AI tools in research writing.

Furthermore, respondents suggested that researchers should disclose the use of AI tools in their research writing.

#### Research Discussions

The findings of this study suggest that the use of AI tools in research writing is prevalent among religious educators in Tertiary Institutions in Kaduna State. However, the respondents expressed concerns about the moral implications of using AI tools, including the compromise of academic integrity, lack of originality, and promotion of academic laziness.

The study also highlights the need for researchers to disclose the use of AI tools in their research writing and for institutions to develop policies governing the use of AI tools. The respondents emphasized the importance of responsible use of AI tools and the need for training and support for researchers.

The findings of this study are consistent with previous research on the use of AI in research writing, which highlights the potential benefits and risks of AI tools (Cohen, 2019; Geo, 2020) <sup>[3, 4]</sup>. The study suggests that researchers should be aware of the moral implications of using AI tools and take steps to ensure the responsible use of AI in research writing.

#### Limitations of the Study

The study had a small sample size and was limited to religious educators in Tertiary Institutions in Kaduna State. Further research is needed to explore the use of AI tools in research writing in other contexts and to develop strategies, policies, and guidelines for the responsible use of AI in research writing.

#### Conclusions and Recommendations

It is obvious from the interactions and engagement of this researchers that most religious educators use Ai as a basic tool in their research. It has succeeded in promoting academic indolence, apathy in thorough academic consultation with relevant textbooks, journals in online materials. This has reduced quality work and cross fertilization of ideas. Moral rectitude is lacking when Christian Religious educators copy and merely paste what they generated from Ai. This practice, in the view of this paper should be discouraged and condemned among Christian Religious scholars who should be on the vanguard of discouraging intellectual theft and copy right.

**The paper therefore recommend as follows**

1. Scholars should be given training and retraining on scholarly academic writing without over dependence on Ai.
2. Institutions and senior academic colleagues should engage younger scholars in mentoring about the proper use of Ai in research writing.
3. Scholars should be enlightened about the moral and religious effects of relying on Ai for complete research writing such as getting immaculate data, promoting illegality and intellectual theft among others.

**References**

1. Chugh V. Ethics in generative Ai, 2023. Retrieved on 15/9/24, <https://www.datacamp.com>
2. Crabtree M. What is Ai, A quick start guide for beginners, 2023. Retrieved on 15/9/2024, [www.datacamp/blog/what](https://www.datacamp/blog/what-is-ai)
3. Cohen AM. Using Artificial Intelligence to support hypothesis generation in biomedical research. *Journal of Artificial Intelligence Research*,2019,66(1),531–555.
4. Geo J. Animated text generation for scientific writing. *Journal of Artificial Intelligence Information System*,2020:57(2):257–255.
5. Nature Index. Artificial Intelligence in research, A survey of researchers. Nature Index, 2020.
6. Scott G. What is Ai, 2024. Retrieved on 15/9/24, <https://www.investopedia.com>
7. Khalifa M, Albaday M. Artificial Intelligence in academic writing and research, an essential productivity tool, 2024. Retrieved on 15/9/24, [https://www.science](https://www.science.direct.com/science)