Int. j. adv. multidisc. res. stud. 2025; 5(6):883-890

Received: 06-10-2025
Accepted: 16-11-2025

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Significance of Artificial Intelligence in Health Research

[1] Funom Theophilus Makama, [2] Swetha Variyath

[1, 2] Public Health International, Nuffield Centre, Leeds Institute of Health Sciences, University of Leeds, Leeds, West Yorkshire, United Kingdom

[1] School of History, Politics & International Relations, University of Leicester, Leicester, East Midlands, United Kingdom

DOI: https://doi.org/10.62225/2583049X.2025.5.6.5285
Corresponding Author: **Funom Theophilus Makama**

Abstract

Aims: The essence of this literature review is to investigate the benefits of using Artificial Intelligence, AI, in research, analysing its downfalls and how they may be curtailed.

Method: The electronic databases of PubMed and Google Scholar, and the engine, Google search were systematically searched for the relevant materials. This search strategy yielded 333 information sources, 155 of which were eligible for screening based on their publication in English language in a peer-reviewed journal. Of these, a total of 39 studies met the inclusion criteria and were included in the review.

Results: Artificial Intelligence benefits research by processing faster literature reviews, predictive analysis and data visualizations. AI also could recommend novel research topics and themes, improve academic writing and speed up data analysis. Popular examples of such tools that are developed purposely for undergoing research are Avid Note, Jenni, Paperpal, Research Rabit and Scispace.

Conclusion: As demonstrated by the Author's experience of using AI during a PhD application process, and their research curiosity in Global health inequality themes to further support the result of this review, AI makes research less tedious, less menial and time effective. But a health researcher must put in the needed effort to manually synthesize evidence to undergo the needed personal development of brain processing. If this is ignored for the AI tool to do everything in the research, as with the use of ChatGPT, such work is liable to be subjected to components of falsehood, also known as "hallucinations". Furthermore, avoiding this brain processing violates transparency, accountability and sincerity to commit the crime of publication fraud, which also means cognitive bypassing that makes the researcher less intelligent, causing more harm than good in health.

Keywords: Artificial Intelligence, AI, AI Hallucination, Cognitive Bypassing, ChatGPT

Introduction

Artificial intelligence is already sparking heated debate on its relevance and dangers in the society and specifically in health research [1]. Artificial intelligence has tremendously contributed to technology [2, 3] and the advancement of human life [4, 5] but has also created ethical issues of concern [6]. Issues such as the interaction between a chatbot and a vulnerable young man to divorce his wife or proposing a crowd-pleasing food recipe that features chlorine gas are some of the numerous examples of real-life ethical concerns [7]. The most popular criticism of Artificial Intelligence to research is its potential influence in making the user or researcher less intelligent [8]. MIT research entitled "Your Brain on ChatGPT: Accumulation of Cognitive Debt When Using an AI Assistant for Essay Writing Task" affirms this concern [9]. The shocking but not surprising finding from its conclusion is that the use of AI in writing essays significantly lower brain activity, weakens brain connectivity and lowers the levels of brain engagement [9]. When memory was tested on the essay produced by the respondents, it was strongly suggestive that AI worsened information recall, caused poorer quality of mental work and reduced the creativity levels of its users for them to produce more generic work [8, 9]. The most troubling finding of this research was, even when those who used AI to write their essays stopped using it, their brain levels never returned to the level of the respondents who did not use AI, hence, a residual negative effect of using AI [8, 9].

Another white paper published by Apple entitled "The Illusion of Thinking: Understanding the strengths and Limitations of Reasoning Models via the Lens of Problem Complexity" also concluded that despite AI tools' sophisticated self-reflection mechanism, these models fail to develop generalizable reasoning capabilities beyond certain complexity thresholds [10]. More

studies on this similar theme have come up with similar conclusions. And this means that there is a disturbing conclusion that the more a person uses AI, the less their intelligence becomes [11-14]. Also, AI tools are not built to connect to universal sources of truths and hence, are liable to give "hallucinations" which are texts that also contain falsehood [15,16]. The crucial question is, if AI tools reduce a researcher's intelligence, should it be appropriate recommending them in research? Health is an integral aspect of human life and development, and hence, cannot be afforded its breeding of mentally incompetent or less intelligent professionals in its core of developments-Research. Therefore, this paper is aimed at briefly investigating any possibility of an advantage of using AI in health research and how its excesses may be curtailed.

Methods

Search Strategy

AI in research is a novel theme in the Academia and hence very few articles have been written on it. Therefore, study selection was conducted in two phases: In the first phase, abstracts and titles of full texts were selected, and in the second phase, other sources of information such as YouTube Videos, blogs and technical or professional websites were obtained and evaluated to determine the final sample set. The three research questions investigated in this study were as follows: (1) What are the benefits of AI in research (2) what are the dangers of using AI in research? And, (3) how could the dangers of using AI for research be curtailed? After the search for materials was completed, a quick inquiry on the best source of materials for the theme "the use of AI in research" was made on the AI tool, Scispace, and the result showed an 82.5% accurate information sources to come from YouTube videos.

Data Synthesis

The extraction of the data was based on how related the information source was to the theme "the use of AI in research." Very few articles were on this theme. Therefore, it was not possible to group data for a systematic review or meta-analysis. Instead, narrative synthesis was conducted in this review. Due to the significant reliance on YouTube videos in this paper, the sources of information for this paper are hence, not limited to scholarly articles. Therefore, all materials that were found or included are summed up as "information sources."

Inclusion of information sources

333 information sources were found but 89 were duplicate articles and another 89, though different articles, were similar in study design and thoughts, hence giving the same information. Therefore, 178 articles were eliminated to leave 155 information sources. 77 more articles were not focused on "the use of AI in research" as they either focused on "AI" or "research" both as individual themes with a little reference to the other. 39 more articles were not published in English and hence eliminated. The final 39 articles left were included to this study, a good number of which are blogs, non-academic publications and YouTube videos.

Discussion

Research is a systematic and structured inquiry aimed at discovering new knowledge, validating existing theories, or solving specific problems across various fields [17].

Table 1: Research methods

Research Method	Description
Quantitative analysis	This is a systematic approach that uses mathematical and statistical techniques to evaluate data and inform decision-making in various fields from finance, business to medicine and engineering [20]. This research methodology upholds objectivity, generalizability, efficiency, replicability, quantifiable outcomes, comparative analysis and clear conclusions [21].
Qualitative analysis	This is a research method that focuses on examining non-numerical data to identify patterns, themes and insights that reveal the underlying meaning of information. It aims to understand and explain subjective experiences, attitudes, beliefs and behaviour of individuals or groups [22]. This method is commonly uses in social sciences and humanities to explore the "why" and "how" behind human behaviours and social phenomena [22].
Observational study	This is a research method where researchers observe subjects in their natural environment without manipulating any variables, allowing for the collection of data on behaviours, events or phenomena. This investigation type is used primarily in fields like epidemiology, psychology and social sciences [23]. This approach contrast with experimental studies, where researchers actively manipulate variables to determine their effects. Observational studies are valuable for gathering data in real-world settings, providing insights to how people behave naturally [23].
Case study	This is a detailed examination of a specific subject such as person, group, organization or event. It is often used in fields like business, education and in social sciences. It aims at providing an in-depth understanding of complex phenomena, exploring the nuances, causes, effects and context of the subject. Case studies typically involve qualitative research methods, but qualitative methods may still apply [24]. Some of the advantages of a case study are: (1) the in-depth analysis of a complex real-life context, (2) the holistic understanding of a subject matter, (3) the practical application of theoretical knowledge, (4) exploring diverse perspectives, (5) flexibility in research, and (6) credibility and confidence booster [25].
Data analysis	This is the process of inspecting, cleansing, transforming and modelling data to discover useful information, draw conclusions and support decision-making. It involves applying various techniques and tools to extract meaningful insights and raw data, helping to understand patterns, trends and relationships within a dataset [26]. This process could be descriptive (describes or summarizes quantitative data by presenting statistics to answer the question "what happened?"); diagnostic (determines the "why" behind the data); predictive (uses data to form projection about the future); or prescriptive (uses insight from the previous types to form recommendations for future actions). For instance, an unusual influx of patients during winter to a hospital (descriptive analysis) may reveal that many of these patients share the symptoms of a particular virus (diagnostic). This incidence corresponds with previous studies that shows an attack rate of the same virus during the same season, but with an increase in death rates over the years, strongly suggesting a higher mortality rate if nothing is done (prescriptive and predictive).

It is a process that employs various methodologies to gather and analyze data, including empirical studies, experiments, surveys, interviews, or theoretical analyses [18]. The goal of research is to contribute to the existing body of knowledge, advance understanding, and inform decision-making processes across professional domains [17, 18]. Table 1 shows the various research methods. An important aspect of research is to report it, and reporting could be in different structures. Irrespective of the methodology, type, design, timeframe or aim of research, it must be reported. It could be a new information; new finding or it could be evidence synthesis from the collection of information from recent research on the theme of study [26]. Research may be reported as: (1) original research (using guidelines); (2) systematic reviews & meta-analysis; (3) non-systematic reviews (narrative, critical, realist etc.); and (4) case study reporting [19]. Note that data analysis uses tools such as Python (a powerful high-level programming language with extensive libraries), R (A leading programming language for performing complex statistical computations and graphics), Excel (a widely used spreadsheet application for data manipulation and visualization), Tableau (software for creating interactive data visualization) and RapidMinder (a versatile data science platform for data preparation and machine learning) [26].

Why use AI in research?

1. AI helps choose novel research topics that will most likely get the researcher published [19].
2. Review the literature ten times faster [19].
3. Speed up data analysis [19].
4. Professionally assist in writing incredible research papers without plagiarism [19].
5. Increase the efficiency of repetitive tasks such as data sorting, categorization, and pattern recognition [19].
6. Predictive analysis: machine learning models enable researchers to predict outcomes based on historic data, helping to forecast disease outbreaks or patients' responses to treatment [19].
7. Data visualization [19].
8. Improved collaboration [19].

Table 2: Five AI Tools and their Characteristics

AI Tools	Characteristics
Research Rabbit	(1) Shows literature review maps, (2) draws connections between main points from different literature, (3) isolates studies that do not connect, (4) ranks studies that are closer or similar to the research theme, making it easy for the researcher to pick the most relevant articles to read or review, (5) suggests connected authors and (6) it is free, with absolutely no paid plan [28].
Paperpal	(1) It is a Microsoft word plugin and so, can be downloaded and installed straightaway into a researcher's Microsoft account, (2) it helps in generating, outlining and structuring the different sections of a researcher's manuscript, (3) it is a fantastic brainstorming tool that gives answers to any questions asked within seconds. Therefore, a researcher only needs to type in a question in the search bar and WHOLLA! The answer will pop up, (4) it can generate proof reading report from spelling to technical and grammatic errors, (5) it has a plagiarism check tool, (6) it has an "AI" review that improves the texts of the manuscript to that of an expert scholar, and (7) you will have to sign up and pay to access its tools (though there is the free version, but restricts a lot of user tools) [28].
Jenni	(1) it has all the features that research rabbit and paperpal have, (2) it can generate an incredibly technical outline for a literature review, (3) it improves the "English" aspect of academic writing to be at par with a native speaker [28].
Avid Note	(1) the first three AI tools cannot develop innovative research ideas, extensively review the international literature or analyse data. Avid Note can do all, (2) Avid Note helps build surveys for analysing qualitative and quantitative studies, (3) an excellent tool for teachers and tutors as it has grading tools, (4) makes suggestions for future research on similar themes of current study, (5) pre-submission revision of manuscript texts, and (6) it reads PDF files much faster than any other AI tool. A researcher may just ask "what is the weakness of a study", or "what is the methodology of a particular research paper" etc, and AVID NOTE answers accurately [28].
Scispace	(1) it does all stated features of the other four AI apps much better, faster and more accurately, (2) It has a built in AI detector to ensure that a researcher's manuscript is not flagged by Journals, Universities etc, (3) has tools to convert a research paper to marketing or promotion materials. Just upload the published version of the research and it would be converted to short slides and also promotional videos with transcripts that could be uploaded on social media [28].

There are five popular AI tools that are used in research for effective outcomes and Table 2 highlights these tools and their characteristics [27]. AI is the future of technology and becoming an integral part of human development [8]. It must be learnt, understood and used the proper way. Just as any other useful item could be misused or abused, so is AI [27]. How much someone is willing to pay an expert depends on the amount of value the expert can provide. Therefore, to remain competitive, learning how to use AI to access information or understand what it can provide should not be the goal because with time, everyone would know how to do this [8]. But using AI to develop real expertise as a personal development strategy puts an expert in the position to provide a higher quality result and most effective outcomes above their peers [8].

Caution! Cognitive Bypassing

From the introduction of this essay, the tendency of having less intelligence from overreliance on AI has been established [7-14]. and the mechanism behind this concern is cognitive bypassing as would be discussed further. By adopting Dr. Justin Sung's "Process of Learning" illustration, research is broken down into three phases-information gathering phase, information processing phase and the output phase as shown in Figure 1 [8]. In the first phase, a problem is identified or research question generated. The quest to solve this problem or answer the question should lead to the search for information. This could be done in any of the methodologies highlighted in Table 1. It could be finding out trends of events or finding out why the trends occur, hence, qualitative or quantitative or mixed methods may be needed. It could also be a simple search of literature online by using related keywords to find the articles that, together, could give the answer(s) to the research question. After carrying out this phase, the next phase is to process the information gathered through literature review, comparing results to other similar results of the same research topic, or connecting results to events to

make logical conclusion, or even using the results to solve problems.

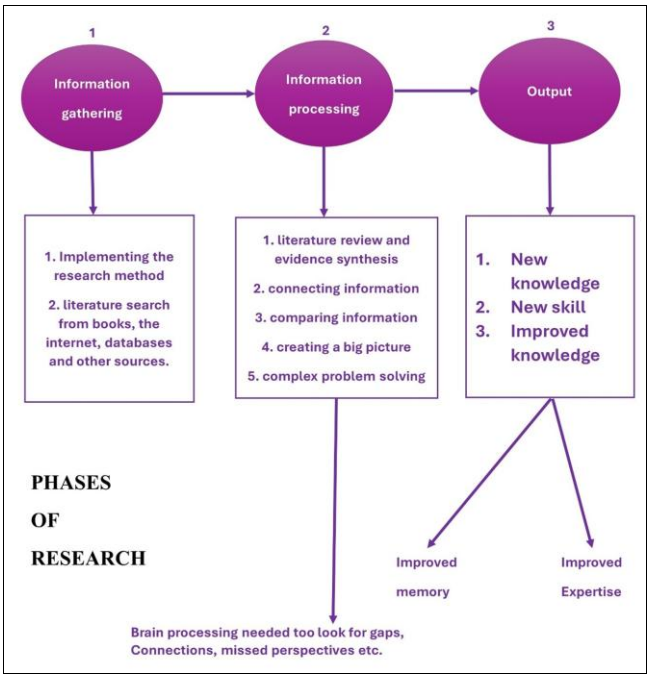

Fig 1: Phases of Research

This is the phase that is characterized by rigorous brain processing needed to look for gaps, synthesize the evidence found, connect findings and information, and assess missed perspectives. When these two phases have been sufficiently carried out, the expected outcome is to develop a new skill or create a new knowledge or improve on the knowledge that was assessed or investigated. In the long run, expertise is improved, likewise memory [8].

But Artificial Intelligence can be wrongly used to implement all three phases of research. In as much as AI would not carry out a field experiment or study, it can still implement phase 1 in terms of conducting reviews (systematic, meta-analysis, realist, narrative etc). But the most devastating effect of AI tools is when it carries out the phase two component of research [28]. This simply means that the brain processing needed to process information in the critical analysis for an output to be produced is bypassed, hence, limiting the opportunity of the researcher to learn, exercise their cognitive skill and put their intelligence into use [29]. AI tools like ChatGPT and most of the five mentioned in Table 2 have been trained to carry out these phases, especially during research reporting and carrying out reviews [19]. Therefore, if a new complex topic is overwhelming and instead of making the efforts, a researcher bypasses the needed brain processing phase by using an AI tool to get a desired output. That topic will always remain complex and overwhelming to the researcher because the skill and thought pattern necessary to understand the topic was never developed [8]. Besides, AI tools are not capable of deep critical analysis and hence, not capable of replacing deep domain expertise or rigorous experimental designs [19]. It is hence, paramount to limit the use of AI tools to possibly phase one component of research or for guidance, clues, where to find articles, how to connect articles, possible research designs or for language structure editing [31]. A researcher must do the work, put in the effort, synthesize the evidence themselves so as to develop themselves as well, while maintaining originality and transparency [29, 30].

Rules of Using AI in Research

1. AI should never be used for original research. It should be used for language stuff, editing and the restructuring of the final manuscript into a more academic tone. Spell checks and grammatical error corrections are also in order. But altering images, changing results of the outcomes of studies are ethically wrong [31, 32].
2. The Disclosure of the usage of AI tools and the extent to which they were used are essential. This can be in the form of a disclosure statement or acknowledgement segment or in detail, under the methodology section of the manuscript [31, 32].
3. AI tools should not be used to review another researcher's work. It violates the code of confidentiality of the Author [31, 32].

Table 3: The Elsevier Group AI Policy

Key Aspects	Policy Statements
Use of AI tools	Authors are allowed to use generative AI and AI-assisted technologies during the manuscript preparation process. However, these tools should only enhance readability and language, not to replace critical authoring tasks such as generating scientific insights or conclusions. Authors must ensure that all AI-generated content is reviewed and edited thoroughly.
Disclosure Requirement	Authors must disclose the use of AI tools in their manuscripts. The disclosure will appear in the published work, promoting transparency and trust among authors, readers and reviewers.
Human Oversight	The policy stresses that AI tools should be applied with human oversight. Authors are ultimately responsible for the accuracy and integrity of their work including verifying AI-generated outputs and ensuring the manuscript reflects their original contributions.
Confidentiality in review process	Reviewers are prohibited from using AI tools to assist in the review of manuscripts. The confidentiality of submitted materials must be maintained, and reviewers should not upload any part of the manuscript into AI tools, as this could violate Author's rights and data privacy.
Ethical Standard	Elsevier's policy aligns with broader ethical standards in academic publishing, ensuring that AI-generated content cannot be credited as Authorship. This maintains the responsibilities traditionally held by human Authors and uphold the integrity of the scholarly record.
Responsible AI principles	Elsevier has established responsible AI principles that guide the development and deployment of AI technologies within the organization. These principles focus on the real-world impact of AI-solutions, ensuring they are used ethically and responsibly. By adhering to these guidelines, Elsevier aims to support Authors and reviewers in navigating the complexities of AI technologies while maintaining the quality and reliability of academic publications.

Source: https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals

These rules have been expressed by most high-impact international academic publishers such as Wiley Library Online, the Elsevier Group, Taylor & Francis Online, SAGE Publishers, PLOS One, Oxford University Press, Cambridge

University Press, Springer etc [8]. They all emphasize on the responsible use of AI and AI-assisted technologies in academic publishing, ensuring transparency, accountability and human oversight throughout the writing and review process [32]. There is also an increase in the cases of publication fraud, which involves the heavy use of AI to do all or almost all of the research work. This has prompted the development of AI-powered detection tools to address this issue [33]. However, as AI detection methods evolve, so do the methods used by publication fraudsters to evade detection [33]. Researchers are hence, working tirelessly to improve these detection tools and ensure the integrity of scientific research [34]. As an example, Table 3 highlights the AI rules by the Elsevier Group [35].

The controversial ChatGPT

It is the grandmaster of all five AI earlier discussed because it does all the operations that they do alongside having the Audio and Video models in addition to its text model of operations [36]. ChatGPT processes and generates human-like text in response to a user's prompts, has conversational abilities and aids, improves and perfects every aspect, step or component of research [37]. ChatGPT simplifies complex concepts, suggests appropriate tools and methods applicable to specific projects. It provides insights into promising areas for future exploration, summarizes literature and assist with exploratory data analysis, offers researchers a quick and efficient way to gain deeper insights and can even generate full texts for any research theme. Therefore, ChatGPT is a suitable tool to commit the crime of Publication fraud, relegating the researcher to suffer cognitive bypassing [19, 36, 37].

ChatGPT epitomizes the operational function of most AI tools. However, just like the others, it is not connected to some universal source of truth, hence, have no concept of what the truth is [19]. Therefore, its output may not only contain falsehood, but may still be marred with inaccuracies and inconsistencies as information could be clumped together in an unclear manner just because they are of similar research theme [36, 37]. It is also paramount to note that as of the time of writing this essay, the general knowledge of ChatGPT search has a cutoff of October 2023; hence has limited accessibility to real-time data which would be a challenge in time sensitive research contexts [38, 39]. ChatGPT takes the user's context and query to form a probability network. For a clearer perspective, ChatGPT takes a user's command and think of the most probable word that would come next in the sequence. Therefore, ChatGPT is barely capable of reasoning at all, beyond the most basic level based on its training data. Tasks such as learning something new in the academic sphere, doing something complex or high-expertise problem solving that are very contextual or deep that may not have publicly available materials in the mainstream information sphere would be too complex for an AI tool like chat GPT to perform [8, 39]. By using probability mechanisms to perform these tasks, it only means that it is not reliable to give truths, and hence, not to be depended on [19]. Nevertheless, an expert will navigate their way around ChatGPT to maximize the benefits they could get from it. For instance, an expert asks ChatGPT a highly technical question, the answers from it could be checked to write better questions or give it a more specific/ expert command [8]. This strongly indicate that AI tools, especially ChatGPT, do not make expertise less important, but make expertise clearer for "semi-experts" if used appropriately [39].

Conclusion

Practical Application

I, the Author of this essay applied for a PhD studentship programme and reached the interview stage of the application. As part of my preparation for the interview, I downloaded the AI tool, SCISPACE and asked, "which research design would be most suitable to determine how poor housing conditions and suboptimal indoor air quality may contribute to poor asthma control in children, thereby limiting their participation in education?" This question asked is the research topic of the PhD programme. Table 4 summarizes the answers that I got, as the AI tool broke down this research topic into objectives.

Table 4: Summary of SCISPACE Answers to my Command

Objectives	Methodology
Ob. 1	To identify the relationship between poor housing conditions and childhood asthma through a ***cross-sectional study*** of the houses in the target population and location.
Ob. 2	To evaluate how suboptimal indoor air quality as a cause of poor asthma control may limit the participation of affected children in education through running a ***longitudinal study***.
Ob 3.	To investigate how local authorities, schools and primary care services may better support affected families to reduce harmful exposure and improve educational outcomes through a ***qualitative interview survey design***.
SCISPACE did not end here in its answers, it went ahead to tell me the policy implication of this study, which is to help policymakers at the local borough level develop better town planning strategies and house spacing. Also, this research will help the residents as complaints such as dampness, mould, inadequate insulation or poor heating which all contribute to poor quality housing in deprived areas which also lead to poor asthma control as proven by this research, would be taken seriously.	

Though I was not selected for the PhD, the interviewers were impressed which was also stated in their feedback email. In this instance, the AI tool guided me to how I am going to carry out this research, but I still will be the one to undergo the research and report it, not AI.

The second example of my own personal experience is asking "AVID NOTE" to give me a headway on the future impact of Sustainable Development Goals on Global Health Inequality, and AVID NOTE did not disappoint. Here are the four key points it came up with.

1. Politics, both in the local and international level need appropriation. Therefore, the research question would be: "*what is the influence of local and international politics on global health inequality between global regions of the world and among different societies or populations within states?*" 135 articles were recommended for me to effectively answer this research question.
2. Upholding human rights has also been of great challenge in attaining health for all and health equity within societies/populations and between states. The violation of human rights, especially the marginalization and discrimination of disadvantaged and/or vulnerable groups across nations and societies lag the effectiveness of the Sustainable Development

Goals in addressing health inequalities. Therefore, an investigation should be carried out to determine the reasons why human rights frameworks have not been effectively enforced to, in the long run, improve global health inequality. It also highlights the need to develop better human rights frameworks. 129 articles were suggested for a systematic review that would effectively answer this research question.

3. The first two points are important factors responsible for the perceived failure of the "Development Goals" model. The MDGs were perceived to fail, especially in regions as west Africa and it is imminent that the SDGs are bound to fail as only one-third of the goals are predicted to be achieved by 2030. And being the mechanism for global health governance, the failure of the "Development Goals" model means that health governance in addressing health inequalities is also ineffective. Therefore, it may be the time to explore either an enhanced model or a new model that should effectively tackle global health inequality. 255 articles were suggested for this systematic or realist review (as suggested by the AI tool) to be carried out.

The AI tool also suggested possible journals with at least an 83.5% compatibility with the theme "Global Health Inequality" based on their Aims, scope and Author's guidelines as closely related to the theme. 113 Journals across different publishers were suggested but Table 5 highlights the top 40 of these journals, not as they were ranked but re-arranged alphabetically for the sake of this paper.

Table 5: Top 40 Possible Journals Suggested by AVID NOTE

Journal	Publisher
Annals of Global Health	Elsevier (Science Direct)
Archives of Public Health	Springer
BMC Public Health	Springer
Cogent Social Sciences	Taylor & Francis Online
Community Health Equity Research & Policy	SAGE Publishers
Current Sociology	SAGE Publishers
Effective Approaches to Global Health Issues	Elsevier (Science Direct)
Ethics & Global Politics	Taylor & Francis Online
European Journal of International Relations	SAGE Publications
Health Research Policy & Systems	Springer
Global challenges	Wiley Library Online
Global Health	PLOS one
Global Health Journal	Elsevier (Science Direct)
Global Health Research & Policy	Springer
Global Public Health	PLOS
Global society	Taylor & Francis Online
Globalization	Taylor & Francis Online
Globalization and Health	Springer
International Journal for Equity in Health	Springer
International Journal of Human Rights	Taylor & Francis Online
Journal of Developing Societies	SAGE Publishers
Journal of Health and Social Behaviour	SAGE Publishers
Journal of International Development	Wiley Library Online
Journal of Public Health	Springer
Politics & Society	SAGE Publishers
Scandinavian Journal of Public Health	SAGE Publishers
Social and Environmental Accountability Journal	Taylor & Francis Online
Social Sciences & Medicine (SSM)	Elsevier (Science Direct)
Social Studies of Science	SAGE Publishers
Survival	Taylor & Francis Online
Sustainable Communities	Taylor & Francis Online
Territory, Politics, Governance	Taylor & Francis Online
The Lancet Global Health	Elsevier
The Lancet Public Health	Elsevier
The Lancet Regional Health- Africa	Elsevier
The Lancet Regional Health- Americas	Elsevier
The Lancet Regional Health- Europe	Elsevier
The Lancet Regional Health- Southeast Asia	Elsevier
The Lancet Regional Health- Western Pacific	Elsevier
World Medical and Health Policy	Wiley Library Online

After putting in a commitment of 15 hours per week that was dedicated to developing the manuscripts of these suggested studies, four manuscripts were developed in 8 months. Considering that I have published 17 papers in 10 years (2015 to 2025), averaging 1.7 papers/year, 4 papers in 8 months (all reviews) means an average of 6 papers in a year- which is a massive leap from 1.7 papers per year. This is the most significant advantage of using Artificial Intelligence in research. It is paramount to note that I still did the evidence synthesis by reading every paper suggested by AVID NOTE. With the article selection, study conceptualization, journal findings and language editing in check, a significant part of this research has been made easy for me to develop my manuscripts and submit them in an unbelievably short period of time. Therefore, if researchers must use AI, it must be to make research less tedious, less menial and time effective. No matter what, the effort must be there for brain processing. Publication fraud will not be tolerated, and cognitive bypassing is detrimental to any professional who is a researcher, because now, more than ever, the world need thinkers to solve its numerous challenges.

Statements and Declaration

Ethical Approval: Not required since no human nor animal respondents was required for this paper.

Consent to participate: Not applicable since neither human nor animal respondents were required for this study.

Conflict of Interest: The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding Statement: The author received no financial support for the research, authorship, and/or publication of this article.

Data Availability Statement: Data sharing is not applicable to this article as no new data were created or analysed in this study.

References

1. Marres N, Castelle M, Gobbo B, Poletti C, Tripp J. AI as super-controversy: Eliciting AI and society controversies with an extended expert community in the UK. Big Data & Society. 2024; 11(2):20539517241255103. Doi: 10.1177/20539517241255103
2. Zhang C, Lu Y. Study on artificial intelligence: The state of the art and future prospects. Journal of Industrial Information Integration. 2021; 23:100224. Doi: 10.1016/j.jii.2021.100224
3. Vrontis D, Christofi M, Pereira V, Tarba S, Makrides

A, Trichina E. Artificial intelligence, robotics, advanced technologies and human resource management: A systematic review. Artificial Intelligence and International HRM, 2023, 172-201. Doi: 10.4324/9781003377085
4. Kamble R, Shah D. Applications of artificial intelligence in human life. International Journal of Research-Granthaalayah. 2018; 6(6):178-188.
5. Jibril U, Abdurrahman A, Abba H, Isma'il I. Introduction to artificial intelligence: Applications and benefits to human life. Int J Innov Res Adv Stud. 2018; 5(3):89-99.
6. Kamila MK, Jasrotia SS. Ethical issues in the development of artificial intelligence: Recognizing the risks. International Journal of Ethics and Systems. 2025; 41(1):45-63. Doi: 10.1108/IJOES-05-2023-0107
7. Luccioni S. AI is Dangerous, but Not for the Reasons You Think| Sasha Luccioni| TED. YouTube, 2024.
8. Sung J. How ChatGPT slowly Destroys Your Brain. YouTube, 2025.
9. Kosmyna N, Hauptmann E, Yuan YT, Situ J, Liao XH, Beresnitzky AV, *et al*. Your brain on ChatGPT: Accumulation of cognitive debt when using an AI assistant for essay writing task. 2025; 4. arXiv preprint arXiv:2506.08872.
10. Shojaee P, Mirzadeh I, Alizadeh K, Horton M, Bengio S, Farajtabar M. The illusion of thinking: Understanding the strengths and limitations of reasoning models via the lens of problem complexity, 2025. arXiv preprint arXiv:2506.06941. Doi: 10.48550/arXiv.2506.06941
11. Korteling JE, Van De Boer-Visschedijk GC, Blankendaal RA, Boonekamp RC, Eikelboom AR. Human-versus artificial intelligence. Frontiers in artificial intelligence. 2021; 4:622364. Doi: 10.3389/frai.2021.622364
12. Nyholm S. Artificial intelligence and human enhancement: Can AI technologies make us more (artificially) intelligent? Cambridge Quarterly of Healthcare Ethics. 2024; 33(1):76-88. Doi: 10.1017/S0963180123000464
13. Nowak A, Lukowicz P, Horodecki P. Assessing artificial intelligence for humanity: Will ai be the our biggest ever advance? or the biggest threat [opinion]. IEEE Technology and Society Magazine. 2018; 37(4):26-34. Doi: 10.1109/MTS.2018.2876105
14. Kaplan J. Humans Need Not Apply: A Guide to Wealth & Work in the Age of Artificial Intelligence. Yale University Press, 2020.
15. Salvagno M, Taccone FS, Gerli AG. Artificial intelligence hallucinations. Critical Care. 2023; 27(1):180. Doi: 10.1186/s13054-023-04473-y
16. Magesh V, Surani F, Dahl M, Suzgun M, Manning CD, Ho DE. Hallucination-Free? Assessing the Reliability of Leading AI Legal Research Tools. Journal of Empirical Legal Studies. 2025; 22(2):216-242. Doi: 10.1111/jels.12413
17. Asikuzzaman MD. What is Research? Definition, Objectives & Types of Research. https://www.lisedunetwork.com/what-is-research/ (2016, Accessed 11 July 2025).
18. Question Pro. What is Research? Definitions, Methods, Types & Examples. https://www.questionpro.com/blog/what-is-research/ (Accessed 12 July 2025).
19. Makama FT. AI in Research and Data Analysis. Nigerian Doctors in the United Kingdom (NDUK), 6th Annual Conference on Human Touch in a Digital Age: AI in Healthcare and Family Life, United Kingdom, July 25-26, 2025. Doi: 10.13140/RG.2.2.28302.47686. ResearchGate.
20. Taylor S. Quantitative Analysis. https://corporatefinanceinstitute.com/resources/data-science/quantitative-analysis/ (Accessed 20 August 2025).
21. Zyoud MM, Bsharat TR, Dweikat KA. Quantitative research methods: Maximizing benefits, addressing limitations, and advancing methodological frontiers. ISRG Journal of Multidisciplinary Studies. 2024; 2(4):11-14. Doi: 10.5281/zenodo.10939470
22. Lim WM. What is qualitative research? An overview and guidelines. Australasian Marketing Journal. 2025; 33(2):199-229. Doi: 10.1177/14413582241264619
23. Frost J. What is an Observational Study: Definition & Examples. https://statisticsbyjim.com/basics/observational-studies/ (2019. Accessed 19 August 2025).
24. Greenhalgh T. Case studies: A guide for researchers, educators, and implementers. BMJ Medicine. 2025; 4:e001623. Doi: 10.1136/bmjmed-2025-001623
25. Drew C. 10 Case Study Advantages and Disadvantages. https://helpfulprofessor.com/case-study-advantages-and-disadvantages/ (2023, Accessed 03 September 2025).
26. Coursera. What is Data Analysis? (With Examples). Coursera. https://www.coursera.org/articles/what-is-data-analysis-with-examples?msockid=34d8bd0fa91d6bbd1ffdab62a83a6a7f (2025, Accessed 19 August 2025).
27. Khalifa M, Albadawy M. Using artificial intelligence in academic writing and research: An essential productivity tool. Computer Methods and Programs in Biomedicine Update. 2024; 5:100145. Doi: 10.1016/j.cmpbup.2024.100145
28. Stapleton A. 5 Unbelievably Useful AI Tools for Research 2025 (Better Than Chat GPT). YouTube Video, 2025.
29. Wu Y, Lu X, Lin C. AI, originality, and attribution: Researchers' perspectives on distinguishing contributions. Accountability in Research. 2025; 21:1-7. Doi: 10.1080/08989621.2025.2536817
30. Carobene A, Padoan A, Cabitza F, Banfi G, Plebani M. Rising adoption of artificial intelligence in scientific publishing: Evaluating the role, risks, and ethical implications in paper drafting and review process. Clinical Chemistry and Laboratory Medicine (CCLM). 2024; 62(5):835-843. Doi: 10.1515/cclm-2023-1136
31. Stapleton A. Don't use AI for research until You've watched this…. New Rules. YouTube Video, 2025.
32. Ertel W. Introduction to artificial intelligence. Springer Nature, 2024. Doi: 10.1007/978-3-658-43102-0
33. Stop Scams UK. Impact of Artificial Intelligence on Fraud and Scams. https://stopscamsuk.org.uk/publication/impact-of-artificial-intelligence-on-fraud-and-scams/ (2023, Accessed 12 September 2025).

34. Spinellis D. Scientific Study Exposes Publication Fraud Involving Widespread Use of AI. Delft University of Technology. https://www.tudelft.nl/en/2025/eemcs/scientific-study-exposes-publication-fraud-involving-widespread-use-of-ai (2025, Accessed 03 September 2025).
35. Elsevier. Generative AI Policies for Journals. https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals (Accessed 23 August 2025).
36. Imran N, Aateqa H, Ahad I. Chat-GPT: Opportunities and challenges in child mental healthcare. Pakistan Journal of Medical Sciences. 2023; 39(4):1191.
37. Shidiq M. The use of artificial intelligence-based chat-gpt and its challenges for the world of education; From the viewpoint of the development of creative writing skills. In Proceeding of International Conference on Education, Society and Humanity May 30, 2023; 1(1):353-357.
38. Jumriah J, Eneng SS, Eka S, Musa HS, Ira A. Analysis of the use of GPT chat to improve student performance. Edukasia Jurnal Pendidikan dan Pembelajaran. 2024; 5(1):127-136. Doi: 10.62775/edukasia.v5i1.725
39. De Cremer D, Kasparov G. AI should augment human intelligence, not replace it. Harvard Business Review. 2021; 18(1):1-8.