



Perceived Influence of Artificial Intelligence on Undergraduate Student Information Literacy, Critical Thinking and Academic Research Skills

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In the modern digital age, students are equipped with different skills, such as information literacy skills, critical thinking skills, and academic research skills, among others, to thrive within the academic environment. Therefore, students are living in an era where AI-powered tools like Jenni AI, Meta, ChatGPT, Scite AI and more have emerged as transformative technologies that have gained attention within the educational realm. The paper aims to assess the perceived influence of artificial intelligence (AI) on information literacy, critical thinking and academic research skills among students in federal universities in South-East Nigeria. Using a descriptive survey research design, the study analyses how AI influences the stated skills. The target population consists of all third- and fourth-year Economics Education students in the 2022/2023 academic session from the University of Nigeria, Nsukka, Nnamdi Azikiwe University, Awka and Alvan Ikoku Federal University of Education, Owerri, which are recognised as the three Federal Universities in South East Nigeria that offer Economics Education; they comprise 336 students. The 180 third- and fourth-year Economics Education sample was selected using the Raosoft sample size calculator. A multi-stage sampling procedure was adopted. The instrument for data collection was a structured questionnaire titled Perceived Influence of Artificial Intelligence on Information Literacy, Critical Thinking and Academic Research Skills-Questionnaire (PIAILCTARSQ). The data collected were analysed using mean and standard deviation. The study reveals that AI significantly impacted the information literacy of Economics Education students by aiding in keyword search and comparison of sources, among others. It has also enhanced critical thinking and value judgment.. Moreover, the research revealed the challenges that economic education students face when using AI. Based on the findings, among others, recommended that schools and universities seek opportunities for international collaboration between educators and researchers on the best mechanism to embrace AI

INTRODUCTION

With the advancement of technology and the advancement of Artificial Intelligence (AI) in every field of knowledge, especially in the education system, education system, academic activities seem to transform digitally to promote experiential learning among students. As a result of this advancement, students utilise some of these artificial intelligence tools while carrying out academic-related tasks. However, it has been observed that the few used by these students are abused; that is, they fail to use AI tools as guides rather prefer to copy and paste information without critically evaluating the information, which will prevent the students from giving their input and make them solely depend on this medium as the only information source while carrying out academic related tasks, thus this has been a serious a concern to educators.

Hence, it becomes imperative to assess the influence of AI on information literacy, critical thinking and academic research skills among undergraduate students in federal universities in southeast Nigeria, bearing in mind that students who utilize these tools are faced with a diverse and abundant array of information when carrying out academic-related tasks of which some may be filtered or unfiltered, raising questions about its authenticity, validity and reliability (Baro, 2011). Thus, justifying the need for students to have adequate information literacy skills. However, it does not end with being information literate because students need critical thinking skills to identify and evaluate the required information. Thus, it is important to investigate whether artificial influences students to develop good research skills. Therefore, because the researcher cannot know for sure the influence of artificial intelligence on information literacy, critical thinking and academic research skills among Economics Education undergraduate students, the researcher can only draw conclusions based on the perceived influence of Artificial intelligence on information literacy, critical and academic skills among Economics Education undergraduate students at federal universities in the southeast.

LITERATURE REVIEW

Artificial Intelligence

Presently, society is adapting to technologies that use computer algorithms to emulate human intelligence so that the user feels that they are interacting with a person. This is known as artificial intelligence (AI) (Ocean et al., 2019; Yang et al., 2021). Artificial intelligence can be defined as the emulation of human intelligence in computers that are programmed to think and act like humans (Franken Field, 2016). The use of artificial intelligence in the field of education has emerged as a transformative technology that has gained attention within the educational realm where AI-powered tools and applications like JenniAI, Meta Ai, ChatGPT, Scite Ai, Quillot, consensus, Google Bard AI, among other are programmed to think and act like humans such as generating information for the student to use to complete their assignment, task or project, look for synonym keywords based on their topic, search for project material, search for ideas faster, personalized student writing abilities and more. Studies have shown that AI has positive outcomes for students, such as improved writing, clarity, and style. Marzuki et al. (2023) reported that artificially powered

tools such as Grammarly, QuillBot, Wordtune, and Jenni have been found to improve student writing skills significantly. These tools utilise advanced algorithms to identify common grammar, punctuation, and syntax errors and provide suggestions to improve clarity and style. Kurniati and Fithraian (2021) found that QuillBot aided students in developing better paraphrasing, which is a critical competency in academic writing. Furthermore, Lam and Morehouse (2022) found that word tune effectively helped students identify their weaknesses, promoting self-stylistic writing.

However, some other studies reported some negative outcomes on the use of AI tools when students lean heavily on them. The findings of Iskender (2023) provided a critical perspective on this matter, arguing that using artificial intelligence writing tools could lead to diminished critical thinking skills when students become overly dependent on them. Johineke et al. (2023) also found that using these tools potentially curtails students' creative thinking and originality. Therefore, from the foregoing, it can be deduced that there are conflicting findings among authors on the influence of AI. Hence, there is a need to assess the influence of AI on information literacy, critical thinking and academic research skills.

Information Literacy Skills

The most salient characteristic of today's societies is the advancement in information and communication technologies (ICT), which have revolutionised every aspect of knowledge. Due to this advancement in information and communication technology, information is now created, stored, processed and communicated through electronic media. This has led to an increase in information in its varieties and complexities, thus requiring one to possess the ability to identify the needed information. This ability is called Information literacy skill. Taylor and Dala (2017) explained that information literacy skills are the abilities that enable people to identify relevant information sources using different search criteria. In this study, the researchers defined information literacy skills as the skills that include the ability to search for information from varying sources, the use of Boolean strategies, the ability to critically evaluate material and other skills that students use in solving academic-related tasks. Therefore, in an environment of information overload, where students are puzzled by the abundance of information, which raises questions about its credibility, reliability and authenticity, students need the information literacy skill to find, evaluate, access and effectively use this information.

Therefore, other researchers' findings have shown that copyright violation issues have become prevalent due to the high proliferation of information on the internet (Kimani, 2014). Ilogho and Nkiko (2014) also found that most students showed a high deficiency in identifying diverse information sources, including their use. Furthermore, Issa et al. (2015) found that most undergraduate students in Ilorin have low information literacy skills, especially in their present status of information availability, accessibility, and usage. Also, Ajiboye and Tiamiyu (2018), Joshua & King, 2020; Okocha and Owolabi (2020) revealed that student information literacy skills are inconsistent among the set of abilities, with

emphasis on search, evaluation and ethical use of information among Nigerian students. Various research findings highlight low information literacy skills among students, and no empirical evidence on factors/variables that influence students' information literacy skills. Hence, with the changes and increasingly abundant information students get access to every day in this 21st century, there is a need to be equipped with the cognitive ability and skill to analyse this information when we have access to it.

Critical Thinking Skills

Critical thinking is one of the important skills for students to have to face 21st-century competition. Hence, for a student to navigate the university community, the student must possess critical thinking skills. Critical thinking skills can be seen as skills such as making value judgments, having an open-minded approach, having the ability to analyse information, and having the ability to give sound reasons, to mention but a few of those that students need to carry out academic research activities. Critical thinking skills are a thinking process that requires high cognitive processes through analysing problems, making arguments, evaluating, making decisions, and problem-solving (Karakoc, 2016). These skills are fundamental skills needed by students to be able to carry out academic activities. Therefore, students with critical thinking skills will ask good questions, present effective and efficient information, make reasonable decisions about something that is trusted or unreal (objective), and reach consistent conclusions in solving an issue (Bustami et al., 2018; Fakhriyah, 2014; Cahyarini et al., 2016).

However, studies have shown that critical thinking skills were at a low level, including Pyongsangwal's (2018) study in Thailand, Manshaee et al. (2014) in Iran, and Sarigoz (2012) in Turkey. Also, Mahnaal et al. (2016) and Dessy et al. (2020) reported that students critical thinking skills of SMPN 1 piano students are relatively low. Thus, in this modern digital age of artificial intelligence, it is important to investigate and determine if artificial intelligence influences students' critical thinking skills, bearing in mind that critical thinking skills are essential for a student to develop good research skills.

Academic Research Skills

Tertiary institutions are frequently established to conduct research that will expand the frontiers of knowledge and improve the future of society through research development, which is why, before becoming a graduate, every undergraduate student must complete a semester of research work in their respective fields. The goal of having a unique semester when students are forced to focus on performing research in their different professions is to enable them to feel the research's value (Meerah&Arsad, 2010). Therefore, considering how vital academic research is in the academic world, undergraduate students are expected to display solid academic research skills when carrying out academic-related tasks such as writing term papers, projects, dissertations and others. Creswell (2012) defined academic research skills as the extent to which a scholar displays proficiency and expertise in their research and publishes scientific articles in journals, conference proceedings, writes a book or a chapter, and gathers and analyses original evidence.

In the context of this study, academic research skills are skills needed by a student to conduct high-quality research. This may involve responding to problems objectively, finding resources, and evaluating the gathered resources. There is still no consensus among authors about what constitutes research skills. Ideally, Students should have the ability to gather information, locate information sort information, write research reports, the ability to state research problems clearly and concisely have methodological knowledge, interpret results, the ability to synthesize information, and know about research databases, e.g., Google, to enable the students to carry out their academic research tasks (Santiago & Dominga, 2021).

However, empirical studies have shown that students perceive themselves as possessing a high level of research skills (Awodoyin et al., 2020). Furthermore, Hardway and Stroud's (2014) findings revealed that students' attitudes toward research were significantly higher at the end of the course compared with their attitudes at the beginning of the course. Also, Akuegw and Nwi-ue (2018) found that undergraduate students do not acquire most of the research skills that may enable them to carry out their project research work to make it understandable. In addition to these findings on academic research skills of students, Sirikon (2021) revealed that scientific attitude, emotion and research ethics influence students' academic research skills. Thus, this research will assess the influence of AI on students' academic research skills. The following research questions guided this study:

1. What is the Perceived Influence of Artificial Intelligence on Economics Education Undergraduate Students' Information Literacy Skills in Federal Universities in Southeast Nigeria?
2. What is the Perceived Influence of Artificial Intelligence on Economics Education undergraduate students' critical thinking skills in Federal Universities in Southeast Nigeria?
3. What is the Perceived Influence of artificial intelligence on Economics Education Undergraduate Students' Academic research skills in Federal Universities in Southeast Nigeria?
4. How do Economics Education Undergraduate students face the challenges in the use of Artificial Intelligence in Federal Universities in Southeast Nigeria?

METHODOLOGY

Research Design

This study adopted a descriptive survey design. A descriptive survey aims at explaining the characteristics of a given population. According to Nworgu (2015), descriptive survey research design is a purpose-based category of survey research that aims to collect the data and describe sequentially and systematically a specific population's attributes. The research design is the most appropriate for this study because it captures the existing status of phenomena and generates insights into participants' perceptions of how AI has influenced the stated skill.

Participants

The target population consists of all third- and fourth-year Economics Education students in the 2022/2023 academic session from the University of Nigeria, Nsukka, Nnamdi Azikiwe University, Awka and Alvan Ikoku Federal University of Education, Owerri, which are recognised as the three Federal Universities in South East Nigeria that offer Economics Education, they comprise 336 students. The 180 third- and fourth-year Economics Education sample was selected using the Raosoft sample size calculator. A multi-stage sampling procedure was adopted. In the first stage, a proportional sampling technique was used to determine the number of male-female students to be selected from the three institutions. In the 2nd Stage, a Simple random sampling technique was used to select 40 Male (6-UNN, 11-UNZIK, 23-ALVAN) and 140 female students (37-UNN, 23-UNZIK, 80-ALVAN), making up a total of 180 students for the study to ensure representativeness and statistical validity. Third-year and fourth-year students were selected because students at this level had completed a series of term papers, group projects, and assignments that involved seeking information through mediums like AI and E-journals, among others.

Instrumentation

The instrument for data collection was a structured questionnaire titled Perceived Influence of Artificial Intelligence on Information Literacy, Critical Thinking and Academic Research Skills-Questionnaire (PIAILCTARSQ). The instrument consists of four clusters. All clusters were on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The items on ECCCAIQ were developed and modified by the researcher using information adapted from Lacson & Edilberto (2022), Alan (2006) and Quest Meraki (2017) questionnaire. PIAILCTARSQ was validated by three experts, two from the Department of Social Science Education (Economics Education unit) and one from the Department of Science Education (Measurement and Evaluation unit), all from the Faculty of Education, University of Nigeria, Nsukka. They examined the instrument for data collection, appropriateness, and language to ensure it fits and is appropriate for the expected audience. The reliability of PIAILCTARSQ was ascertained through trial-testing of the instrument to determine the internal consistency of the items. The overall reliability coefficient of 0.887 was obtained using Cronbach's Alpha, which signified that the instrument is reliable and, therefore, was used to carry out this study.

Data Collection and Analysis Procedure

To collect data for this study, the researcher got permission from the selected departments in the universities to gain access to the students who served as the study's respondents. However, 180 questionnaires were printed and administered by the researcher with the help of the research assistant to ensure one hundred per cent of the questionnaire collection. This printed questionnaire was distributed and collected on the spot to ensure the maximum return of the instruments from the respondents. The data collected were analysed using mean and standard deviation. A mean of 2.50 was used as the criterion level to accept or reject the mean responses. Mean responses of 2.50 and above were agreed upon, while those of 2.49 and below disagreed. Also, the hypotheses were tested

using a t-test at a 0.05 significance level. The choice of the t-test is based on the fact that the moderating variable in this study, gender, has to meet the assumption of using the t-test.

RESULT

Research Questions 1: What is the perceived influence of artificial intelligence on economic education undergraduate students' information literacy skills in federal universities in Southeast Nigeria?

Table 1. Mean Rating and Standard Deviation of the Influence of Artificial Intelligence on Economics Education Undergraduate Students' Information Literacy Skills in Federal Universities in Southeast Nigeria.

S/N	Item Statements	N	Mean	SD	Decision
1.	AI helps students look for synonym keywords that can be used to find information based on their topic	180	3.10	0.94	Agree
2.	AI does not help students compare information from various sources	180	2.55	0.96	Agree
3.	AI has made it easy to search for project material online	180	3.22	0.91	Agree
4.	AI helps students search for ideas faster	180	3.12	0.92	Agree
5.	AI helps in arranging ideas systematically	180	2.76	0.87	Agree
6.	AI does not help students to know how to cite information in a fair and ethical manner	180	2.54	1.04	Agree
7.	I can't construct my conclusion based on the information gathered from AI	180	2.21	0.98	Disagree
8.	AI-generated information helps the student to complete their assignment, tasks or projects.	180	3.23	0.93	Agree
9.	AI assists students in examining data from multiple sources	180	2.98	1.02	Agree
Grand Mean		180	2.86	0.95	Agree

Table 1 shows the perceived influence of artificial intelligence on Economics Education undergraduate students' information literacy skills in Federal Universities in Southeast Nigeria. The grand mean of 2.86 (0.95), which is above the 2.50 acceptance benchmark, indicates that artificial intelligence has influenced Economics Education students' information literacy skills in Federal Universities in Southeast Nigeria.

Research Question 2: What is the perceived influence of artificial intelligence on Economics Education undergraduate students' critical thinking skills in Federal Universities in Southeast Nigeria?

Table 2. Mean Rating and Standard Deviation of Influence of Artificial Intelligence on Economics Education Undergraduate Students' Critical Thinking Skills in Federal Universities in Southeast Nigeria

S/N	Item Statements	N	Mean	SD	Decision
10	AI helps students to make a value judgment	180	3.08	0.90	Agree
11	AI helps students analyse the abstract concept	180	3.24	0.68	Agree
12	AI does not help students to think quantitatively	180	2.46	0.85	Disagree
13	AI has not improved students' ability to give sound reasons for their ideas and opinions	180	2.39	1.11	Disagree
14	AI helps students to develop an open-minded approach towards the information gathered.	180	3.18	0.76	Agree
15.	AI helps students develop a focused and systematic way of thinking	180	3.12	0.87	Agree
16.	AI helps students identify and evaluate alternative interpretation evidence in academic research work.	180	3.15	0.84	Agree
17.	Most ideas gotten from AI have not stretched students' intellectual abilities	180	2.37	0.90	Disagree
18	AI has prevented students from recognising and explaining bias in academic research sources	180	2.70	0.94	Agree
Grand Mean		180	2.85	0.87	Agree

Table 2 shows the perceived influence of artificial intelligence on Economic Education. The grand mean of 2.85(0.87), above the 2.50 benchmark, indicates that artificial intelligence has influenced Economics Education students' critical thinking skills in Federal Universities in Southeast Nigeria.

Research Question 3: What is the perceived influence of artificial intelligence on economics education undergraduate students' academic research skills in Federal Universities in Southeast Nigeria?

Table 3. Mean Rating and Standard Deviation of the Influence of Artificial Intelligence on Economics Education Undergraduate Students' Academic Research Skills in Federal Universities in Southeast Nigeria

S/N	Item Statements	N	Mean	SD	Decision
19	AI suggest keywords for my literature search	180	2.56	1.02	Agree
20	AI helps students compare research-related information from a variety of sources	180	2.52	1.09	Agree
21	AI helps students sort out unwanted information from AI	180	3.21	0.88	Agree
22	AI doesn't help students gather information about my academic research	180	2.71	0.84	Agree
23	AI doesn't help the student prepare a list of required information and questions for which they seek an answer	180	2.44	1.05	Disagree
24	With AI, students are confident in producing well-researched work	180	3.11	0.91	Agree
25	With AI, students are capable of disseminating relevant and beneficial information to the target group	180	2.97	0.96	Agree
26	AI makes students aware of the copyright and plagiarism policy	180	2.59	0.98	Agree
27	AI helps students to know about the current trends related to their work	180	3.01	0.95	Agree
28	AI does not help students cite references as per the standard procedure	180	2.69	0.91	Agree
Grand Mean		180	2.78	0.96	Agree

Table 3 shows the perceived influence of artificial intelligence on Economics Undergraduate students' academic research skills in Federal Universities in Southeast Nigeria. The grand mean of 2.78 (0.96), which is above the 2.50 benchmark, indicates that artificial intelligence has influenced Economics Undergraduate students' academic research skills in Federal Universities in Southeast Nigeria.

Research Questions 4: The challenges Economics Education Undergraduate students face in using artificial intelligence in Federal Universities in Southeast Nigeria.

Table 4. Mean Rating and Standard Deviation of the Challenges Faced by Economics Education Undergraduate Students in the Use of Artificial Intelligence in Federal Universities in Southeast Nigeria

S/N	Item Statements	N	Mean	SD	Decision
29	AI output sometimes contains biased results	180	3.00	0.88	Agree
30	AI consumes a lot of data	180	2.41	0.91	Disagree
31	AI may sometimes not fully comprehend the context of academic assignments and research questions	180	2.95	0.92	Agree
32	AI is liable for a technical issue	180	2.81	0.85	Agree
33	AI sometimes raise ethical issues like plagiarism	180	2.62	0.95	Agree
34	Data generated from AI is not always current	180	2.59	0.98	Agree
35	AI-generated information cannot be applied to the real world	180	2.42	0.97	Disagree
36	AI gives fake references	180	2.01	0.99	Disagree
	Grand Mean	180	2.60	0.93	Agree

Table 4 shows the challenges undergraduate students face in economics education in using artificial intelligence in federal universities in Southeast Nigeria. The grand mean of 2.60 (0.93) implies that the respondents agree with the items in Table 7 above as the challenges faced by Economics Education Undergraduate students in using Artificial Intelligence in Federal Universities in Southeast Nigeria.

DISCUSSION

Research on the Findings

The study found that AI has influenced Economics Education student's information literacy skills by helping them look for synonym keywords that can be used to find information based on their topic, not helping students to compare information from various sources, has made it easy for students to search for project material online, helped student search for ideas faster, helped student in arranging ideas systematically and among others. Gavisiddapp (2012) reported that information literacy is one of the most important predictor variables that influence the use of digital resources. Also, in conformity, Azeez and Basirat (2017) reported that students can evaluate information obtained from different sources when using technology. The study found that AI does not help students know how to cite information fairly and ethically; in contrast to this finding, Mackey and Jacobson (2011) found that students in Canada could write citations and references after using digital gadgets.

The study agrees with the study's findings on the perceived influence of AI on Economics Education students' information literacy skills because AI helps students look for synonym keywords. They only need to ask questions by typing them into the chat box, and the AI will respond to them. Also, the study agrees with the finding that AI does not help students compare information from

various sources; this is true because AI provides any kind of information you want, and hence, students may not see the need to check other sources. This may make them unable to judge the authenticity of the information provided, thus making them overly dependent on AI. Moreover, the study aligns with the findings that AI does not help students know how to cite information fairly and ethically. This is true because AI does not help you cite information using different referencing styles; most of the time, the references generated from AI tools are fake compared to other information sources.

The study found that AI has influenced Economics Education students' critical thinking by helping them make value judgments, helping students to analyse abstract concepts, helping students to develop an open-minded approach towards information gathered, and helping students develop a focus and systematic way of thinking, among others. In consonance with this finding, Muthmainmah et al. (2022) found that some student who learnt English while using ChatGPT AI had improved their analytical abilities and made value judgments. In addition, Ying and Lee (2023) found a significant improvement in student confidence in asking insightful questions, analysing information, and comprehending complex concepts through ChatGPT AI. The researcher agrees with the findings that state that AI helps students to analyse abstract concepts. Using a scenario of when a student is given an assignment on the topic of Neo-Classical growth theory to analyse this abstract concept with AI, the student can type the concept into the chat box while AI breaks it down into smaller ideas and concepts. Also, the findings reveal that the respondents disagree that AI does not help students think quantitatively. This implies that the student agrees that AI helps them think quantitatively. However, the researcher disagrees with this finding because an overreliance on AI calculator tools like Symbolab, MathGPT AI, and Desmos would make you lose the basics of simple mathematical skills. Sometimes, when students face complex mathematical analysis, they find it hard to solve, analyse the data and make informed policies.

The study found that AI has influenced Economics Education students' academic research skills by suggesting keywords for their literature search, helping the student to compare research-related information from a variety of sources, helping students sort out unwanted information from AI, doesn't help students gather information about their academic research, among others. This is in line with the findings of Mohammed and Subahi (2020), who reported that online resources have affected the student process of research writing, such as collecting information and citation references. Also, in consonance with the findings of Ezugwu and Sofeme (2019) revealed that lecturers get high-quality searches for relevant literature and data collection through online resources. The researcher agrees with the findings of this study on the perceived influence of AI on Economics Education students' academic research skills because AI suggests keywords for student literature searches by typing the concept of the topic in the chat box, and then AI suggests keywords related to the topic. Also, the researcher agrees that AI does not help students cite references as per the standard. This is true because AI may not have been trained on the different citation styles and

guidelines. After all, this algorithm is programmed, and sometimes even the few generated are incorrect. Additionally, the researcher agrees that AI does not help students gather information about academic research because the information gathered from AI is not in-depth and sometimes incorrect and cannot aid you in writing a complete research project compared to other information sources like Google Scholar, where there are verified and diverse perspectives about a topic from other researchers.

The findings revealed the challenges that economic education students face when using AI. These challenges include: AI output sometimes contains biased results, AI sometimes may not fully comprehend the context of academic assignments and research questions, AI is liable to technical issues, AI sometimes raise ethical issues like plagiarism, and the data generated from AI is not always current. This is in line with Sahin, Tousin and Erdemir (2024), who stated that the challenges of AI are originality and plagiarism, misleading answers generated by AI tools for the learner. Also, the findings of this research align with Nasef and Haque (2023), who stated that the main challenge of ChatGPT, which is an example of AI, is its tendency to produce biased or inappropriate responses and generate fake references. The researcher also perceived these challenges as accurate because AI-generated data are programmed based on algorithms prone to glitches, incorrect conclusions, or output due to biased results. Also, the finding reveals that the respondent disagrees that AI gives fake references. However, the researcher agrees that AI gives fake references because AI works based on a programmed algorithm. Also, it usually generates data or information with no citations or references.

Educational Implication

The study revealed that AI does not help students compare information from various sources. AI does not help students to know how to cite information ethically. These findings imply that students may become narrow-minded during academic searches, making students struggle to evaluate the credibility and validity of sources. The article revealed that AI does not help students cite references as per standard procedure, but AI does help students gather information about academic research. This finding implies that students may decline their attention span ability to engage in in-depth research or utilise other academic sites like Google Scholar, Taylor and Francis Online, ScienceDirect and more if there are no stated guidelines for ethical AI usage. These may further make them lose basic research skills such as finding and evaluating information from other sources, and making citations and references according to standard procedure.

CONCLUSIONS AND RECOMMENDATIONS

The study assessed the perceived influence of artificial intelligence (AI) on information literacy, critical thinking and academic research skills among Economics Education undergraduates in federal universities in South-East Nigeria. Several key findings emerged through the analysis and incorporation of statistical and qualitative evidence. Hence, the study concludes that AI has influenced students by aiding in keyword search, comparison of sources and easy online search of project material. It has also enhanced critical thinking, value

judgment, abstract analysis and open-mindedness. Additionally, AI has improved academic research skills by suggesting keywords and comparing information. Moreover, the study concludes that the challenges faced by Economics Education students in using AI are that AI output sometimes contains biased results, and AI sometimes raises ethical issues like Plagiarism, among others.

Furthermore, our findings illuminate the importance of target policy and practice intervention to mitigate the negative effect of AI on the stated skills and its avoidance of issues of academic theft and academic dishonesty while streamlining AI's positive influence on students' information literacy, critical thinking and academic research skills within Nigerian higher education institutions. Based on the study's findings, the following recommendations are proposed. Schools and universities should seek opportunities for international collaboration between educators and researchers on the best mechanism to embrace AI and provide ethical use of AI to improve the quality of the research process in the academic environment. University management boards should prioritise training and professional development for researchers, educators, and lecturers who use AI tools innovatively to guide students on how to use them while maintaining their information literacy, critical thinking and academic research skills. Schools and universities should advocate policies of submitting all assignments, term papers, and research work in soft copy format; that way, lecturers could use AI dictators like copy space, and Deephye before awarding grades, Lectures, teachers during classes should remind students about the need always to make use of their critical thinking skill while using AI tools to enable evaluate all contents gotten from AI and the need to use other information sources like Google Scholar, Talyor and Francis Online (tandfonline.com), Academic.edu, ScienceDirect, Jstor and more while searching for online materials.

FUTURE STUDY

Further research can focus on comparative studies that will help investigate AI's perceived influence across other disciplines and institutions. The researchers also suggest descriptive research that could help guide the use of AI to support academic research and ways to address the challenges faced by students when using AI.

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