



APPLICATION OF AI TOOLS BY BUSINESS EDUCATORS FOR PERSONAL DEVELOPMENT AND RESEARCH PRODUCTIVITY IN TERTIARY INSTITUTIONS

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Abstract

The rapid advancement of computing technologies has facilitated the implementation of AIED (Artificial Intelligence in Education) applications. This study examines the application of Artificial Intelligence (AI) tools by business educators and its impact on personal development and research productivity in tertiary institutions. Two purposes were raised from which two research questions formulated. The research employed a descriptive survey design, utilizing a structured e-questionnaire to gather data from business educators across six tertiary institutions offering business education in Kwara State Nigeria. The population consisted of 51 business educators, and the entire population was used for the study. Data were analyzed using descriptive statistics (percentage and mean) to answer the research questions. The findings revealed that the use of AI tools influence research productivity among business educators to a moderate extent (mean=2.84; SD=0.80). The study confirmed that the use of AI tools influence research productivity among business educators to a moderate extent (mean=2.84; SD=0.80). Specifically, educators who frequently used AI tools reported enhanced professional skills, increased research efficiency, and higher quality of research outputs. It was concluded that the advancement of AI has ushered in a new era of computer-supported education, significantly transforming the landscape of teaching and learning. By integrating human intelligence into computer systems, AI has the potential to act as an intelligent tutor, tool, or tutee, facilitating decision-making and enhancing educational practices. It was recommended among others that There is a need for targeted professional development programs aimed at enhancing the understanding and use of AI tools among business educators in tertiary institutions. These programs should focus on practical applications of AI in personal development and research, ensuring educators are equipped with the necessary skills to integrate AI effectively into their work.

Keywords: Artificial Intelligence, Business Education, Research, Development, Productivity.

Introduction

The emergence of artificial intelligence (AI) has assumed a pivotal role in shaping the contours of contemporary business education. Education institutions generally are confronted with numerous challenges through innovation and the use of technology in meeting the dynamic demands of an AI-driven economy. Since the arrival of AI, many find themselves at a critical



junction of adaptation and adoption of various AI tools that will have a profound impact on their graduates' future direction and success. The rapid advancement of computing technologies has facilitated the implementation of AIED (Artificial Intelligence in Education) applications. AIED refers to the use of AI (Artificial Intelligence) technologies or application programs in educational settings to facilitate teaching, learning, or decision making. With the help of AI technologies, which simulate human intelligence to make inferences, judgments, or predictions, computer systems can provide personalized guidance, supports, or feedback to students as well as assisting lectures or policymakers in making decisions. AI is a computing system capable of engaging in human-like processes such as adapting, learning, synthesizing, correcting and using of various data required for processing complex tasks (Chatterjee & Bhattacharjee, 2020). The advancement of computing and information processing techniques has sped up the progress and applications of artificial intelligence (AI), which aims to enable computers to perform tasks via simulating intelligent human behaviors, such as inferencing, analysis, and decision making (Duan, Edwards, & Dwivedi, 2019; Topol, 2019). It is also a machine that are able to perceive, recognize, learn, react, and solve problems.

In the past decades, significant progress has been reported by researchers who have conducted AI studies. Through techniques such as conventional machine learning or modern deep learning, an increasing number of products can provide "intelligent services" by inferring or behaving like humans. Nowadays, AI has been applied to various domains, such as visual and voice recognition, decision-making, and natural language processing and translation between languages, in multiple forms, such as computer programs, applications, embedded control systems in equipment, or robots. For example, some robots can interact with humans via visual and audio tracking technologies (Lathuiliere, Masse, Mesejo, & Horaud, 2019). One of the crucial objectives of AI in education is the provision of personalized learning guidance or supports to individual students based on their learning status, preferences, or personal characteristics (Hwang, 2014). From the perspective of precision education, which emphasizes the need to provide prevention and intervention practices to individual learners by analyzing their learning status or behaviors, enabling learning systems to serve as an intelligent tutor by incorporating experienced teachers' knowledge and intelligence into the decision-making process of the system is a crucial issue (Hart, 2016). However, it is very difficult for a teacher to pass on to the learners something he or she had no knowledge or expertise upon. This means one need to engage in the adoption of available AI tools firstly for personal development before knowledge transfer.

In the early 1980s, the question regarding intelligent tutoring systems (ITSs) was raised by educational technology and computer science researchers (Van Seters, Ossevoort, Tramper, & Goedhart, 2012). Recently, a relevant term "adaptive learning system" gain much attention that emphasized the aim of facilitating individual students' learning by adapting several possible aspects of learning systems, such as user interfaces, learning content, or learning paths based on each learner's status (Essa, 2016; Xie et al., 2019). Using AI in education (AIED) has created new opportunities for designing productive learning activities and developing better technology-enhanced learning applications or environments. However, it remains a challenge for most researchers and practitioners from the fields of both computers and education to implement relevant activities or systems (Kay, 2012). While some of in tertiary education have disciplinary backgrounds in EdTech, computer science, cognitive sciences, and cognate areas that enable an understanding of developments in generative AI, many do not have this foundation. Research in areas such as explainable AI applied to educators in tertiary education will be critical for informing people without a background in these disciplines (Arrieta et al., 2020). Better understanding of generative AI will remain a critical issue for business educators and other technology related areas



such educational technology researchers for the foreseeable future. Therefore, sensemaking will continue to be something that the community will need to engage in as these technologies continue to evolve. The seemingly rapid emergence and explosive growth in the capacity and use of generative artificial intelligence (AI) has taken tertiary education by surprise. This perhaps should not have been the case given the long history of research in the use of AI in some subfields of education inquiry (Chen et al., 2020). An active community of few researchers has been exploring the implications and use of AI for decades (Chen et al., 2022). The topics of interest in their research have spanned assessment, learning and teaching through and with AI and the technical and ethical aspects of AI relevant to education (Nguyen et al., 2023). However, none of this previous work seemingly predicted that powerful tools such as ChatGPT would be released publicly and widely available over such a short timeframe. The generative AI discussed here mostly refers to applications built on large language models (LLMs) such as GPT-4, the model underpinning ChatGPT. While there are other kinds of generative AI based on images or video, for example, LLMs are at the core of the issues currently facing tertiary education. LLMs are machine learning algorithms built to work with enormous datasets to create predictions based on a stimulus of some kind. In the case of ChatGPT, the stimulus is in the form of a prompt from the user. At the time of writing, there is still much to be figured out in terms of the rigorous collection and dissemination of the findings of studies examining how these LLMs and the applications built on top of them are impacting tertiary education. The evolution of generative AI is currently a day-by-day prospect with hundreds of new applications emerging daily. The hype that surrounds these technologies lacks much evidence to support firm claims about the impact and utility of the tools for education practice or appropriate adaptation of policy. There are strongly worded and persuasively argued articles in the grey literature spanning a range of opinions from the idea that generative AI will have little impact through to claims about it fundamentally changing humanity forever, suggesting we have reached a tipping point of sorts (Future of Life Institute, 2023).

Through adaptive tutoring and in other ways, there is potential for the use of generative AI to personalize learning. Personalized and adaptive learning have been proposed and used mostly in discipline areas such as engineering, languages, mathematics and sciences, and tend to focus on learning outcomes that are relatively straightforward to measure (Xie et al., 2019). The idea of personalization of learning is contested, to say the least. It also remains to be seen how much of the personalization of learning can be achieved using generative AI. A series of questions that are of interest is the potential of generative AI for supporting lecturers' students through co-regulation and socially shared regulation of learning. As with other possibilities describe here, it is beginning to make sense of these possibilities and are far from robust practices for making co-regulation with AI effective for learning. There are, therefore, many questions emerging about how best to use or apply AI to guide the processes of high-quality learning, for both personal development and research productivity. The role that generative AI will play in learning tasks is also far from clear. It is not difficult to imagine that a sophisticated chatbot built on a large language model could be an effective adaptive tutor, of sorts. At a very basic level, a tool such as ChatGPT can take on an explanatory role for students to interrogate to better understand a concept. Due to the adaptive nature of the tool, this approach to using technology for learning is different to the use of search engines, where learners are given options and critical thinking skills are applied to synthesize information from a variety of sources (Knight & Littleton, 2015). When both lecturers and learners interact with ChatGPT, AI meta and other generative AI, the information is already synthesized, without attribution to sources (unless specifically requested). Research about learning with and from tools built on generative AI will be of great importance on how they are included in formal learning environments, and how to still ensure lecturers and learners develop analytic and critical



thinking skills. There has been much discussion and debate about the possibilities for using generative AI to assist with reducing workloads for teachers. There is some early evidence suggesting that ChatGPT can provide effective feedback (Dai et al., 2023). However, the disciplinary domain in which this early study was carried out is data science and, similar to research about adaptive and personalized learning in higher education, there are questions about how procedural (as opposed to conceptual) the task for which the feedback was provided is.

The overall work of educational and instructional design seems to require human input. The generic lesson plans produced still require knowledge of the context of learning taking place. Given the emerging power of both the LLMs and the applications being built on top of these models, it is expected that there would be a rapid development in this space. If these are successful, they will build on the fundamental notion that high quality learning is relational. Understanding how these technologies can be used to assist with teaching in tertiary education will, therefore, require careful consideration. There is still more work to be done, as misconceptions about what AI tools is and how it works remain common. However, there is also more work needed on understanding the skills needed to engage with generative AI, for teaching and learning but also in professional situations. There is an obligation for those in tertiary institutions to continually update their knowledge and skills in relation to generative AI, not only to support their own practice but also to critique, adapt and expand their knowledge as new platforms become available. (Thompson, 2023).

Statement of the Problem

The emergence of big data, cloud computing, artificial neural networks, and machine learning has enabled engineers to create a machine that can simulate human intelligence. Building on these technologies. Inevitably, such smart technologies will revolutionize the workplaces of the future (Horakova, Houska & Domeova, 2017). Thus, while AI can interact and help humans perform at higher levels, it is emerging as the next disruptive innovation (Lawler & Rushby, 2013). AI is currently viewed by many as a driver that is integral to the fourth industrial revolution, and it may trigger the fourth revolution in education. Learning about AI has also begun to be part of school curriculum (Dai, Chai & Lin, 2020). However, just as the emergence of television and computers was once touted to be game changers of education, they have been shown to in fact enhance access to information without substantially changing the core educational practices. Nonetheless, educators are obliged to review current AI capabilities and identify possible pathways to optimize learning. Given the increasing attention, it is timely to review recent AI research in education to provide educators with an updated understanding of the field as a preparation to possible changes. AI has been increasingly propagated as having strategic value for education (Seldon & Abidoye, 2018). Loeckx (2016) suggested that AI could be an effective learning tool that lessens the burdens of both teachers and students and offers effective learning experiences for students. Coupled with current education reforms such as the digitalization of educational resources, gamification, and personalized learning experiences, there are many opportunities for the development of AI applications in education. Some researchers wondered whether advancements in AI would challenge or even replace teachers since many other jobs are being replaced by automation (Lacity & Willcock, 2017). There is an emerging recognition that teachers' professional roles need to be adjusted as AI advances and this will trigger new organizational forms (Fenwick, 2018). Emerging challenges also included lecturers and students' attitudes towards these changes (Flogie & Abersek, 2015). To some extent, students as digital citizens are able to leverage AI to improve learning outcomes. Nonetheless, they may fail to use suitable AI techniques appropriately for a specific learning context, which would result in negative attitudes towards learning (Ijaz, Bogdanovych, & Trescak, 2017). Also lectures need to develop themselves in the use these AI tools so they can build up competencies in order to teach the learners. Without understanding the



impact and applications of AI in education as well as the functioning of AI technologies, business educators might fail to effectively implement AIED applications and activities, not to mention raising and investigating valuable AIED research issues. For example, an AI application might play the role of a tutor who observes students' learning processes, analyzes their learning performance, and provides instant assistance to them based on their needs. Based on the potential needs of students, an interdisciplinary team (e.g., composed of computer and learning scientists) can develop an intelligent tutoring system that enables students to learn, practice, and interact with peers or teachers but also provides hints, guidance, and supports to individuals based on their status or needs. On the other hand, knowing the capabilities and features of AI technologies, lecturers could adopt suitable AI applications in their classes to promote students' learning performances, motivation, or engagement, while educational researchers can study the implications of the AI applications (Hwang et al, 2020). They can also get to understand which AI are best to be used in research and personal development. The primary purpose of this study is to assess the application of AI tools by business educators for personal development and research productivity in tertiary institutions.

Research Questions

1. To what extent do business educators in tertiary institutions apply AI tools for personal development?
2. To what extent does the use of AI tools influence research productivity among business educators?

Methodology

The researcher used descriptive survey research design for the study. Descriptive survey design gives the accurate assessment of the characteristics of the whole populations of people. It is also more realistic than the experiment in that it investigates phenomena in their natural setting. This research design also focused on people, their beliefs, and opinions. The descriptive survey research according to Umoru (2015), determines and reports the current situation. It involves analyzing individuals' attitudes and perspectives toward other people, institutions, activities, and events. The population of the study comprised business educators in six tertiary institutions in Kwara State. The total of the population from the six institutions in Kwara State offering business education amounted to 51. The researcher used the entire population of fifty-one (51) business educators in all the six institutions in the study area, and this was because the population of the study is of manageable and sizeable, hence it is a census technique. This is supported by Okoli and Ifeakor (2011), who asserted that where the population of the study is small, the entire population can be used.

E-questionnaire developed by the researcher titled: 'Application of AI tools by Business Educators for Personal Development and Research Productivity (AABEPDRPQ) was used for data collection. The questionnaire was made up of questions arranged systematically based on the research questions to gather data from the business education lecturers in the (6) six tertiary institutions used in this study. The questionnaire was divided into two sections of A-B. Section A consists of respondent's demographic data. Section B consists of 10 items on each of the research questions. Questionnaire items were developed with response categories as follows: For section B: Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The reliability of the instrument was determined by the statistical analysis of the data collected from the pilot study. The split half method was used to determine the reliability of the instrument; the instrument will be divided into halves of odd and even numbers. The Spearman Rank Order Correlation coefficient was used to calculate the reliability estimate of one-half (odd number) and



Spearman Brown prophecy formula was used to calculate reliability estimate of the instrument which yielded 0.85. The data collected were analysed using frequencies and percentage for personal data of the respondents. Frequencies, percentage mean and standard deviation were adopted to analyse the research questions. The level of acceptance or rejection of each questionnaire items were determined based on the mean ratings of items interpreted relative to real limits of numbers as shown below:

Response Category	Rating	Real Number Limits
High Extent	4	3.25 – 4.00
Moderate Extent	3	2.50 – 3.24
Low Extent	2	1.75 – 2.49
Very Low Extent	1	1.00 – 1.74

Results

Research Question 1: To what extent do business educators in tertiary institutions apply AI tools for personal development?

Table 1: Mean and standard deviation of responses on application of AI tools for personal development

S/N	ITEMS	\bar{X}	SD	Remark
1.	ChatGPT is a conversational AI tool that can be used to act as a virtual tutor and generate contents.	3.27	1.20	High Extent
2.	Gradescope is an AI-powered grading and assessment platform designed to help teachers. It uses computer vision algorithms to instantly grade written work, coding projects, and bubble sheet tests.	2.96	0.53	Moderate Extent
3.	<u>Dragon Speech Recognition</u> allows lecturers to dictate their work and have it transcribed into text.	2.90	0.94	Moderate Extent
4.	<u>Knowji</u> is an AI-powered vocabulary-building tool that creates adaptive vocabulary lessons personalized to each student.	2.39	0.92	Low Extent
5.	<u>Quillbot</u> is an AI writing assistant that helps students strengthen and enhance their writing through rephrasing, grammar corrections, and summarization.	2.86	1.08	Moderate Extent
6.	Slidesgo is an AI tool that provides access to free templates via Google Slides.	2.04	0.69	Low Extent
7.	Eduaide is an AI-assisted lesson-development tool that provides educators with more than 100 resource types to choose from to create high-quality instructional materials.	1.94	0.61	Low Extent
8.	Curipod is a website which enables teachers to create interactive lessons in minutes using AI.	2.08	0.84	Low Extent
9.	Audiopen is an AI-powered web app that can be use on computer or phone. The app takes words and enhances them as it generates the text, which one can edit as needed.	1.94	0.99	Low Extent
10.	Grammarly is an AI powered tool used to correct grammars and typographical errors in text.	2.76	1.19	Moderate Extent
	Weighted average	2.52	0.90	Moderate Extent

Source: Field Survey, 2024



Data in Table 1 show the mean and standard deviation of response on the extent to which business educators in tertiary institutions apply AI tools for personal development. The Table reveals that respondents indicate that ChatGPT is a conversational AI tool that can be used to act as a virtual tutor and generate contents to high extent (mean= of 3.27). The respondents indicates that Gradescope is an AI-powered grading and assessment platform designed to help teachers. It uses computer vision algorithms to instantly grade written work, coding projects, and bubble sheet tests; Dragon Speech Recognition allows lecturers to dictate their work and have it transcribed into text and Quillbot is an AI writing assistant that helps students strengthen and enhance their writing through rephrasing, grammar corrections, and summarization to moderate extent (mean= 2.96; 2.90 and 2.86 respectively). Also, the respondents indicates that Knowji is an AI-powered vocabulary-building tool that creates adaptive vocabulary lessons personalized to each student; Slidesgo is an AI tool that provides access to free templates via Google Slides; Eduaide is an AI-assisted lesson-development tool that provides educators with more than 100 resource types to choose from to create high-quality instructional materials; Curipod is a website which enables teachers to create interactive lessons in minutes using AI and Audiopen is an AI-powered web app that can be use on computer or phone. The app takes words and enhances them as it generates the text, which one can edit as needed to low extent (mean= 2.39; 2.04; 1.94; 2.08 and 1.94 respectively). Same way, the respondents indicates that Grammarly is an AI powered tool used to correct grammars and typographical errors in text to moderate extent (mean= 2.76)

All ten items in Table 1 have a standard deviation ranging from 0.53 to 1.20. This means that the responses of the respondents are not widespread as they are close to the mean. On-the-whole, the weighted mean of 2.52 and standard deviation of 0.90 indicate all constructs on the extent to which business educators in tertiary institutions apply AI tools for personal development are rated to moderate extent. This implies that business educators in tertiary institutions apply AI tools for personal development to a moderate extent (mean=2.52; SD=0.90).

Research Question 2: To what extent does the use of AI tools influence research productivity among business educators?

Table 2: Mean and standard deviation of responses on the use of AI tools for research productivity

S/N	ITEMS	\bar{X}	SD	Remark
11.	ChatGPT is a conversational AI tools a powerful AI language model that can assist researcher with a wide range of tasks. From answering questions and explaining complex concepts to generating essay ideas and providing study tips.	3.35	0.74	High Extent
12.	Perplexity AI is an advanced research tool that helps researchers find relevant information quickly.	3.49	0.50	High Extent
13.	Gemini's AI is a multimodal AI tool that can respond to a range of content types, such as text, video, audio, and programming code.	2.18	1.09	Low Extent
14.	<u>Consensus</u> is an AI-powered search engine that concentrates on providing users with unbiased and accurate information from diverse and reliable academic sources.	2.63	1.13	Moderate Extent



15.	Grammarly an AI powered tool used to correct grammars and typographical errors in text.	3.49	0.54	High Extent
16.	Quillbot is an AI paraphrasing tool. It can help people understand complex research by rephrasing text in different ways.	3.55	0.61	High Extent
17.	<u>Scite</u> is an AI tool for research that uses artificial intelligence to enhance the way researchers discover and analyze scientific articles.	2.57	0.94	Moderate Extent
18.	<u>PDFgear Copilot</u> , an AI-powered assistant, extracts and summarizes information in PDF documents.	3.45	0.61	High Extent
19.	<u>Connected Papers</u> is an AI research tool that helps scientists and scholars efficiently explore the literature relevant to their work by providing a visual, similarity-based mapping of related academic papers.	2.04	1.04	Low Extent
20.	<u>Litmaps</u> is a literature mapping tool that helps researchers discover new and relevant research papers, visualize the relationships between papers, and share their research.	1.65	0.74	Very Low Extent
	Weighted average	2.84	0.80	Moderate Extent

Source: Field Survey, 2024

Data in Table 2 show the mean and standard deviation of response on the extent to which the use of AI tools influence research productivity among business educators. The Table reveals that respondents indicate that ChatGPT is a conversational AI tool, a powerful AI language model that can assist researcher with a wide range of tasks. From answering questions and explaining complex concepts to generating essay ideas and providing study tips and Perplexity AI is an advanced research tool that helps researchers find relevant information quickly to high extent (mean= 3.35 and 3.49). Also, the respondents indicate that Gemini's AI is a multimodal AI tool that can respond to a range of content types, such as text, video, audio, and programming code and Connected Papers is an AI research tool that helps scientists and scholars efficiently explore the literature relevant to their work by providing a visual, similarity-based mapping of related academic papers to low extent (mean= 2.18 and 2.04). Same way, the respondents indicate that Consensus is an AI-powered search engine that concentrates on providing users with unbiased and accurate information from diverse and reliable academic sources and Scite is an AI tool for research that uses artificial intelligence to enhance the way researchers discover and analyze scientific articles to moderate extent (mean= 2.63 and 2.57). The respondents indicate that Grammarly an AI powered tool used to correct grammars and typographical errors in text; Quillbot is an AI paraphrasing tool. It can help people understand complex research by rephrasing text in different ways and PDFgear Copilot, an AI-powered assistant, extracts and summarizes information in PDF documents to high extent (mean= 3.49; 3.55 and 3.45 respectively). Finally, the respondents indicate that Litmaps is a literature mapping tool that helps researchers discover new and relevant research papers, visualize the relationships between papers, and share their research to a very low extent (mean = 1.65).

All 10 items in Table 2 have a standard deviation ranging from 0.50 to 1.13. This means that the responses of the respondents are not widespread as they are close to the mean. On-the-whole, the weighted mean of 2.84 and standard deviation of 0.80 indicate that all constructs on the extent to which the use of AI tools influence research productivity among business educators are



rated to a moderate extent. This implies that the use of AI tools influence research productivity among business educators to a moderate extent (mean=2.84; SD=0.80).

Discussion of Findings

Findings from the research questions one implies that business educators in tertiary institutions apply AI tools for personal development to a moderate extent (mean=2.52; SD=0.90). This finding is against the assertion of Arrieta et al., (2020) which says better understanding of generative AI remains a critical issue for business educators and other technology related areas such educational technology researchers for the foreseeable future. On the other hand, Hwang et al, (2020) asserted that knowing the capabilities and features of AI technologies, lecturers could adopt suitable AI applications in their classes to promote students' learning performances, motivation, or engagement, while educational researchers can study the implications of the AI applications. This means that lectures still need to do better in the usage of AI for personal development in tertiary institutions.

The second research question implies that the use of AI tools influence research productivity among business educators to a moderate extent (mean=2.84; SD=0.80). This findings agree with the statement of Thompson, (2023) who said there is an obligation for those in tertiary institutions to continually update their knowledge and skills in relation to generative AI, not only to support their own practice but also to critique, adapt and expand their knowledge as new platforms become available. Overall, the results highlight a cautious but progressive adoption of AI among business educators. The moderate engagement level in both personal development and research productivity points to an evolving stage of AI integration rather than full assimilation. This gradual uptake may be reflective of infrastructural limitations, uneven access to AI resources, and insufficient professional development initiatives. Nonetheless, the findings reinforce the strategic potential of AI to transform academic practice—provided that systemic and institutional efforts are made to build capacity, ensure ethical integration, and promote discipline-relevant applications. This implies that tertiary institutions lecturers still need to do better in the usage of AI for research productivity. These results suggest that although there is some engagement with AI tools, the level of usage remains insufficient when compared to the potential benefits and the growing importance of AI in education.

Conclusion

The study concluded that there is still need for more engagements with AI tools for personal development and research productivity. Thus, AI has the potential to act as an intelligent tutor, tool, or tutee, facilitating decision-making and enhancing educational practices. The integration of AI in education offers unprecedented opportunities to improve the quality of teaching and learning experiences. For lecturers in tertiary institutions, the application of AI tools holds immense promise for personal development and research productivity. AI-powered systems can assist educators in various aspects, including assessments, data collection, and the development of innovative teaching strategies. These intelligent systems can enhance learning progress by providing personalized feedback and supporting the creation of more effective educational approaches. Moreover, students can benefit from AI-driven smart tutors and asynchronous learning environments that promote better learning outcomes. The integration of AI into education represents not only a technological transformation but also a significant shift in human knowledge, cognition, and cultural practices.



Recommendations

Based on the findings of the study and the conclusions derived from the study, the following recommendations were made

1. There is a need for institutions to target professional development programs aimed at enhancing the understanding and use of AI tools among business educators in tertiary institutions. These programs should focus on practical applications of AI in personal development and research, ensuring educators are equipped with the necessary skills to integrate AI effectively into their work.
2. AI literacy should be integrated into the curriculum for business educators by curriculum planners, ensuring that they not only understand AI but also know how to apply it in their teaching and research. This could include modules on AI applications, ethical considerations, and the impact of AI on education.

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