

Relevance of Artificial Intelligence in Marketing Education in Higher Institution in Nigeria

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Abstract.

This paper focused on the relevance of artificial intelligence in marketing education in higher institution in Nigeria. The paper reviewed artificial intelligence; functions; barriers; tools that help facilitators work more effectively; the best artificial intelligence for students and the future of artificial intelligence in marketing education in higher institutions in Nigeria. It is recommended that: (i) government and relevant stakeholders should jointly ensure that necessary policies, and infrastructural facilities for effective and continuous application of AI in teaching and learning are put in place, (ii) that less expensive tools should be purchased first and followed by the expensive once. (iii) that organisations should organise training and development so that employees will be able to use the tools judiciously; and (iv) management of institutions must be proactive in communicating the benefits of AI technology to their employees to ensure that the transition is successful.

Keywords: Artificial Intelligence, Marketing Education, Tools and Higher Institution.

Introduction

Artificial intelligence (AI) is revolutionising the educational landscape by providing tools that enhance learning and teaching experiences. With the rise of Generative AI and personalised platforms, education is evolving from traditional models into more interactive, dynamic, and efficient system (Consensus, 2024). Technology is gradually permeating all sectors of the economy in all countries of the world. The educational sector is not exempted from the various technological stride and development that took place within the twenty-first century. Many technologies used

in teaching and assessment such as Computer Instruction (CI), computer - based testing among others have found substantial application in the field of education. Alonsode-Castro and Garcia-Penalvo(2022) assert that the global advancement of technology has influenced people's ways of living in employment, health, education, and training, and that these effects can be positive and negative.

However, educationists are still in need of technologies that can enhance teaching and learning processes in a variety of disciplines, helping to promote a more personalised education, to enhance learning, to aid with curriculum planning, data management and to enhance students assessment among others especially in higher institutions. Higher education's future, according to Osetskyi et al. (2019), is directly related to the advancement and capacity building of new intelligence machine that can support vast volumes of knowledge, self- learning, and improvement.

Artificial intelligence is still new in the educational sector. According to Balaram (2021), artificial intelligence is still in its infancy, and only few academic institutions have partnered on the project. This has left vacuum in the body of knowledge regarding the role of AI and the possible AI tools for students and lecturers in higher institutions in Nigeria. Thus, the purpose of this review is to examine the roles of AI as possible tools for marketing education in higher institutions.

AI in Marketing Education

Internet social media and mobile devices have drastically increased the interactions between students and lecturers and between firms and consumers, with the information encoded in rich media formats such as text, image and video. It is imperative for firms to understand consumer's perceptions and preferences and obtain brand positioning insights based on this rich media content (Ma & Sun, 2020). The ever-increasing amount of consumer data available online, in big data systems or mobile devices, makes AI become an important ally in marketing, as it is based on data analysis in almost every area of its application. Marketing takes advantage of data to a large extent from consumer needs research, market analysis, customer

insight, and competition intelligence through pursuing activities in various communication or distribution channels to measuring results and effects of the adopted strategies. Marketing becomes a natural beneficiary of developing information technology (Mazurek, 2011a, 2011b, 2014).

AI contributes to automating, optimising, and augmenting three fundamental marketing processes, data collection, insight gathering through data analysis, and customer engagement. Modern marketing builds on intelligence technologies to capture relevant users data from the interactions with the brand. The benefit for the user is better assistance on immediately expressed needs and the anticipation of the expressed ones, from a longer- term perspective (Mari & Alex, 2019). Traditional marketing practices of promoting host of products through newspapers, radio and television are also taking backstage because of reduced customer attention and giving way, to online and digital marketing promotion platforms (Mahadevan, 2000) in the like of content marketing, search engine optimisation, search engine marketing, social media optimisation, social media marketing. Social media marketing channels are only augmenting consumer buying powers as more and more consumers are voicing their opinions about company and brands and related product attributes. Marketer's inability to deliver products in tune with customer requirement can take a toll on company's brand image and values through customer disengagement with said products and brand through online communities and word of mouth (Vishnoi & Bagga, 2019). AI has been making its presence felt quite strong in the day-to-day digital world of today. With technologies like Chatbots and voice recognition helping business offer seamless customer service, it won't be too long for AI to mark the future of digital marketing.

Functions of Artificial Intelligence in Higher Education

Zaorodnia (2022) listed the following functions artificial intelligence can perform in higher education:

- Personalisation of educational platform: Artificial Intelligence uses adaptive educational programme, edutainment in higher education, and software taking into account the facilitator individual needs of students of higher education to create an educational environment. Personalisation ensures the completion of education tasks of varying complexity and at one's own pace; data analysis of higher education applicants and their comparison with the parameters of higher education applicants. The more data the Internet user transmit about himself, the more personalised the content of the training programme will be;
- Virtual Tutors: Artificial Intelligence: based tutoring system using edutainment tools in higher education;
- New ways of interacting with educational information: higher education students gain new opportunities for research with the introduction and development of new technologies;
- Feedback channel for teachers and student's system of higher education: Artificial Intelligence system using edutainment tools in higher education can monitor the progress of students of higher education and notify teachers about their possible problem;
- New dynamics with teachers: Since Artificial Intelligence is becoming more and more integrated into the education system, using edutainment tools in higher education, teachers can supplement classes with tasks with variable solutions;
- New ways for training, recruitment, and support: Through intelligence data collection, the Artificial Intelligence system can provide recommendations and information to improve the lives of higher education applicants and the work of higher education institutions themselves;
- Reduction of social and academic pressure: An environment is created for students of higher education where they do not feel pressure, but are equal –

co- organisers of the educational environment, comparing themselves with their colleagues;

- **Accessibility of Education:** In combination with an Internet connection, software, Artificial Intelligence systems, and support allows higher education seekers to study at any time and from anywhere in the world (Goddard, 2020);
- **Motivation:** Involves the study of any material from a practical point of view, where the result is visible from the first execution of the task. It is important during training not to forget about game elements that inspire higher education students to master professional skills in the long term;
- **Measuring the progress of the educational field:** Makes it possible to track the progress of a higher education student in the development of reading, pronunciation, and writing skills;
- **Easy integration provides the future of Artificial Intelligence in the field of education through customised products, but it is worth considering the data privacy policy.**

Barriers to AI Adoption in Nigeria.

The adoption of AI by higher institution is most often encountered by incorrect perception issues, while others are existential. Therefore, we will look at some of the issues that higher institution regard as challenges preventing them from jumping into the trend of AI adoption.

They include:

1. **Cost:** Higher institution in Nigeria most often feel that the cost of deployment or adoption of AI and its numerous technologies are inhibitive in nature in terms of cost. Hence, they tended to stay away from them.
2. **Lack of Internal Infrastructures:** Higher institutions lack the internal infrastructures needed to deploy AI in teaching and learning hence, they shy away from it.

3. **Skills:** The deployment of AI requires some form of skills to effectively and efficiently utilise it; however, most higher institutions lack these skills requirements and lack of financial resources to attract human resources that can handle it.
4. **Resistance to Change:** The notion of “this is how we used to do it” has prevented higher institutions; especially those that may be regarded as human or material resources in Nigeria from adopting technology and AI in higher institutions. They are afraid to change old ways, sometimes for fear of the unknown and uncertainties that may result from accepting AI.
5. **Fear of Job Loss:** Some lecturers in higher institutions in Nigeria refuse to adopt AI for emotional reasons, such as making people not to lose their jobs. They believe that when technologies are adopted, it may lead to retrenchment, and retrenchment may also lead to losing their source of livelihood.
6. **Regulations:** Some higher institutions are mindful of the regulations surrounding the use of AI, especially as they relate to using student-sensitive data that may be made available by AI. Therefore, for the fear of not running the law, they decided to stay away, at least for now.
7. **Awareness Issues:** At the centre point of higher institutions, perceived lag in the deployment of AI in Nigeria is knowledge deficit. They are either unaware of the existence of AI or completely lost in the area where AI is adopted or deployed. This is one of the most important challenges higher institutions face in the adoption of AI for their higher institutions in Nigeria.
8. **Poor National Infrastructure:** To operate efficiently, some infrastructures outside the control of higher institutions must be in place. Infrastructure such as fibre optic cables for internet penetration

and electricity negatively affects higher institutions that could want to adopt AI.

9. **Ethical/ Religious Issues:** Some higher institution in Nigeria and Africa refuse to adopt technology citing and ethical and religious issues. They say that it is not ethical to allow machines to interact with students, while other believe that AI is associated with the end-time manifestation, hence, they would not have anything to do with it.
10. **Lack of Digital Strategy/Agility:** The lack of digital strategy is a reason why few higher institutions can implement their DT plans. Most higher institutions in Africa and Nigeria lack the strategies and policies that support delving into technologies and AI for their students (Hess, Matt, Benlian & Wiesbock, 2016).

Seven (7) Tools That Help Facilitators Work More Efficiently

Poth2023 mentioned the following apps and websites that can help teachers/ lecturers in teaching marketing subjects and boost productivity, personalised learning and create lesson contents, save time would be spent with students:

1. **Audio Pen:** For years, Audio Pen has been used as voice-to-text to write plans. This is an AI-powered web app takes your words and enhances them as it generates the text, which you can edit as needed.
2. **Canva Magic Write:** Canva now offers an AI text-to-image generator called Magic Write, which can inspire creativity in writing. It provides ideas, help with brainstorming, and supports lesson planning, making it a useful tool for educators for creating a presentation or other graphic for classroom use. Magic Write can assist with many writing tasks that educators may have by analysing the word prompts and then helping with brainstorming, creating an outline, writing lesson plans, or generating a visually engaging presentation in far less time.

- 3 **Curipod:** This website enables teachers to create interactive lessons in minutes using AI. Students can explore various topics, and the AI functionality helps generate customised lessons tailored to their learning needs. Teachers simply type the topics, and a ready-to-run lesson is generated with text, images, and activities such as polls, open-ended responses, word clouds, and more. There are even activities to build in that focus on SEL check-ins.
- i) **Eduaide AI:** This is an AI-assisted lesson development tool that provides educators with more than 100 resource type Checkto create high-quality instructional materials. It offers the ability to translate the generated content into more than 15 languages instantly. Educators can generate a syllabus, create discussion prompts, use the “teaching assistant” for help with creating individualised education programme plans, write emails, or even compile a list of accommodations for students. Eduaide AI has a content generator, teaching assistant, feedback, free-form chat, and assessment builder.
- ii) **Open AI:** The recently released Teaching with AI guide for teachers was created to help educators use ChatGPT in their classroom. The guide comes with several suggestion prompts and includes explanations that clarify exactly how ChatGPT works and what its limitations are, and it provides reminders of the importance of verifying information and checking for bias. With ChatGPT 4, which is a paid version, there is greater accuracy and reliability of information than with the original version.
- iii) **Quizz:** With this, teachers can design quizzes that will create a personalised learning path based on each student’s responses. Teachers can create lesson with Quizz, which now has an AI enhancement that can adjust questions difficulty, check grammars, and redesign questions to reflect real-world scenarios, with more features on the way.
- iv) **Slidego:** This tool provides access to free templates via Google Slides and now has the AI presentation Maker. With this new functionality, presentations can be created within minutes. Simply choose a topic, select a tone such as

casual, creative, or professional, make changes, and download your presentation. A time-saver for sure? Creating and sharing these resources with our students lead to rich conversations about the benefits of AI and proper use of this technology for creating and learning.

Study Smart: The 10 Best AI Tools for Students

According to Consensus (2025) AI tools have become essential for enhancing the learning process, enabling students to better manage their academic journey and boost their academic performance. Whether you are conducting research, writing essays, or organising study materials. AI powered tools are designed to make education more efficient. The following are the AI tools listed below:

- **Consensus:** When it comes to academic research, Consensus is a game-changing tool. As an AI-based academic search engine, consensus allows students to search through over 200 million research papers, helping them find and understand the best science faster. The platform's AI-powered insights save students hours of combing through academic papers by summarising findings and presenting only the most relevant content.
- **Grammarly:** One of the most widely used AI tools for students. Grammarly offers more than just spelling and grammar checks. Grammarly helps students refine their writing style by providing suggestions for clarity, tone, and engagement. It also includes a plagiarism checker to ensure academic integrity.
- **Notion:** Notion is an AI-powered knowledge management platform that helps students organise notes, track projects, and collaborates on assignments. Notion's flexible, customisable environment supports everything from managing study notes to planning critical decisions for group projects.
- **QuillBot:** Quillbot is a powerful AI tools designed to assist students with paraphrasing and editing content. It helps students rephrase sentences to improve the flow and avoid plagiarism while retaining the original meaning.
- **Socratic by Google:** Socratic is an AI powered tutoring system by Google that helps students find answers to their homework question quickly. By simply

taking a photo of a problem, students receive explanations and solution for a variety of subjects, making learning more interactive and dynamic. Socratic is a valuable tool for K-12 students needing assistance with challenging homework questions or preparing for examination.

- **Synte**a: Synte is an AI-powered tutoring system that enhances the learning pace for students across various subjects. This platform offers AI-based personalised by adapting to each student's individual needs and learning style. It integrates interactive elements into its lessons, making student learning more dynamic and engaging, particularly in digital learning platforms and interactive learning environment.
- **Gradescope**: Is a powerful tool designed to streamline the grading process, improving the productivity of educators and offering faster feedback for students. Widely used in online education. Gradescope enhances user interaction by allowing educators to grade assignments and exams with minimal effort.
- **Tutor AI**: is an AI-powered tutoring system designed to offer personalised assistance to students in real-time. This interactive learning tool provides answers to a range of questions by integrating Generative AI to simplify complex concepts. It adapts its learning approach based on each student's needs, offering an interactive and dynamic learning environment.
- **Copyscape**: Copyscape is an essential tool for ensuring the originality of academic content. This AI-powered tool helps students and educators alike check for plagiarism in assignments, ensuring the integrity of academic submissions. Copyscape integrates smoothly into the educational landscape, making it a valuable resource for maintaining coherent and preventing plagiarism in quality course content. It helps in detection of plagiarism and have interactive features.
- **Otter.ai**: Otter.ai is a cutting-edge AI-based tool designed to assist students and educators with transcription services. It helps users capture and transcribe lectures, meetings, and discussions offering material accessible for later review.

With the ability to integrate into online education platforms, Otter.ai ensures that students and educators can easily manage large volumes of information, enhancing knowledge management and overall student engagement.

Future of AI in Marketing

Artificial intelligence can assist marketers in developing marketing strategies and planning activities by assisting with segmentation, targeting and positioning (STP). Aside from STP, AI can assist marketers in determining a company's strategic direction Huang & Rust, (2017). A marketer's analytic tool based on artificial intelligence can access the suitability of product design to customers needs and, as a result, customers satisfaction (Dekimpe, 2020). Topic modelling enhances the system's ability to innovate and design services (Antons & Breidbach, 2018). AI will become the tools for strategic development of all the four Ps in marketing.

Product

AI with its data analytics will be able to decide and strategise the type of product that would be saleable in the market. AI has the ability to customise offerings to meet the needs of customers (Kumar et al, 2019).

Price

Price modelling will completely depend on AI modelling. The economies of demand and supply will be set aside and the results of systematic survey and data analytics will be the rule for price fixation.

Place

For increase in customer satisfaction, product access and availability and critical components of the marketing mix. Product distribution is largely mechanical and receptive in nature, relying on networked relationships, logistics, inventory management, warehousing, and transportation issues. Cabot's for packaging, drones for delivery, and order refilling make AI the ideal solution for place management (Huang & Rust, 2020).

Promotion

Due to global digital transformation, digital marketing and social media campaigns have gained traction. Customers determine the content, location, and timing in today's technological world. AI allows for message personalisation and customisation based on the customer's profile and preferences (Huang & Rust, 2020).

Conclusion

The coming and invention of Artificial Intelligence has changed the way activities are done in the entire world. Effect of AI can be seen in almost all sectors of world affairs from economy, agriculture, marketing, education, health, transportation and the host of others.

The use of AI in education is here to stay, the Nigeria will probably make use of it to meet its educational objectives, improved knowledge acquisition in formal learning environments and at home. The technology brings several benefits in education. Most of the benefits in education can be seen in the areas as follows: Teaching and learning, grading providing feedbacks to teachers and students, personalisation of instruction and learning resources, fosters conducive environment for learning. Despite the benefits of AI in marketing education, the technology faces some big challenges, some of the challenges faced by the AI borders on a lack of policy framework, lack of infrastructure and skill manpower, privacy and security problems.

Suggestions

The paper suggests that:

1. The government and relevant stakeholders, collaborate together by ensuring that necessary policies, and infrastructural facilities for effective and continuous application of AI in teaching and learning be put in place in this modern age.
2. It is also suggested that less expensive tools should be purchased first and followed by the expensive ones.

3. It is equally recommended that organisation should organise training and development so that employees will be able to use the tools judiciously. Since AI technology is consistently evolving, and higher institutions must continuously invest in training and education to stay up-to-date with the latest advancement.
4. The management must be proactive in communicating the benefits of AI technology to their employees and engage in effective change management to ensure that the transition is successful.

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