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Research Article

EXPLORING EXCELLENCE IN MEDIA EDUCATION: DEPARTMENT OF MASS COMMUNICATION, AUCHI POLYTECHNIC

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Abstract
Artificial intelligence (AI), defined as the simulation of human intelligence by machines, enables automated data analysis, personalized marketing, and enhanced consumer interactions. This study explores the integration and effects of AI in advertising, revealing that while advertisers increasingly leverage AI technologies for efficiency and effectiveness, consumer awareness of AI's role remains limited and fragmented. This review was anchored on Technological Determinism theory. The research, using secondary data, highlights AI's capability to tailor advertisements, predict consumer behavior, and improve engagement through tools like chatbots and virtual assistants. Despite privacy concerns, AI's precise targeting and personalized content are revolutionizing advertising strategies, driving innovation and satisfaction. The study emphasizes the need for a comprehensive understanding of AI's applications and effects, suggesting that AI is a primary driver of change in advertising, influencing consumer behavior and industry practices. The ongoing evolution of AI technology is expected to further advance advertising techniques, reinforcing its role as a critical force in the digital age.
Keywords: *Effects, Artificial Intelligence, Modern Advertising Practices.*

Introduction

Komodromos and Nicoli (2016) assert that the effect of technology is building a new 'Information ecology'. This involves changes in the way we communicate, carry out diverse jobs and exchange meaning with one another. One of such phenomena that has progressively crept into man's daily activities is artificial intelligence. According to Konar (2018), artificial intelligence is a discipline of computer science that deals with the creation of computer programmes that execute activities that would ordinarily necessitate human intellect. This means that jobs that were previously performed by people have now been transferred to machines. According to Borges et al. (2021), artificial intelligence is the capacity of a system to efficiently absorb outside information, process it, use what it has learnt to accomplish goals and objectives, and modify its behaviour as necessary. The fact that artificial intelligence is starting to relieve humans of significant duties is very evident.

However, it is vital to bring to the fore that man was formed with a thinking faculty which of course is the human brain. The first man, Adam was formed with the ability to think for himself, identify creatures around him and carry out ordinary duties without the help of any machine.

As time advanced and changes began to occur, Rohrer (2004) believes that people are creating technology and then technologies are creating people. According to Chesbrough (2003), technical advancements have also

significantly enhanced the capacities of modern businesses. And one of such technical developments worthy of notice is the computer. Saltzer and Schroeder (1975) describe a computer as an electrical machine that takes and analyses input to generate result termed information. According to the authors, the computer takes data through the input unit and the result is created through the output unit. The input devices include the keyboard and mouse for entering data into the computer while the output device includes the monitor and printer.

All of these have evolved into various fields of human endeavour. Instead of man to think, and the computer to carry out simple routine chores, artificial intelligence has now entered into the scheme of things. Khan (2016) opines that electronic communication and information technology, as opposed to more conventional ways may convey more information to more people quicker at a cheaper cost, while simultaneously improving the communality, processing, and amazing recombinant potential.

According to Bartneck et al. (2020), artificial intelligence has different schools of thought which include the following:

a. The first school that focuses on producing machines that thinks like humans. This school of thought aims to imitate the processes of the human mind, representations and outputs in some form on a machine.

b. The second school designs technology that imitates human behavior. Its concentration is on the actual acts of the agent or robot in the word, rather than the person by whom they get at such behaviors.

c. The third rational robots relate to optimality. These artificial intelligence systems are engineered to always perform approximately or do the right thing.

d. The last school of thought focuses on computers that can reason rationally. These machines generate the most efficient plans and decisions conceivable.

Since machines can understand and act logically like humans, they are beginning to question if the human brain is no longer needed at the rate artificial intelligence is developing (Agar, 2020). This is because people are animals capable of thinking and acting logically, hence training computers to do so entails presenting them with data drawn from human actions. This unfortunately, generates the appearance that a lot of work goes into making robots act exactly like people. And one significant area where artificial intelligence is growing dominant is advertising.

Advertising is as ancient as time itself. Man has, in one way or another, disclosed information about what he is offering for sale in order to draw attention and enable a meaningful transaction to occur. Historically, commerce took the form of trade by barter, in which a person would offer goods to another person in return for a service or goods that person required or found beneficial. Bringing these phenomena into the Mass Communication profession, advertising is one important sustenance of the media sector. It is the lifeblood of the mainstream media. Rabindranath and Singh (2024) explain that advertising is regarded largely from two distinct angles: one

from the marketing point of view which argues that it is any paid type of nonpersonal presentation of products and services or ideas by an identifiable sponsor. The second approach according to Richards and Curran (2002) is from the communication standpoint which describes advertising as a tool that is controllable, recognizable, persuasive by way of mass communication medium.

Richards and Curran (2002) assert that advertising with all its key aspects may be summed up as non-personal communication, paid-form of communication, done through the mass media, used for physical and intangible commodities, ideas and any other communicable phenomenon, involves persuasive communication and with recognized sponsor targeted at pre-determined clients or audience.

Therefore, advertising that wishes to attract a relatively changing audience needs to meet up with present trends. According to Kietzmann et al. (2018), customers communicate their needs and desires, attitudes, and values in numerous forms (via search, comments, blogs, Tweets,

"likes", videos, discussions and across multiple channels (online, mobile, and face to face). As a result, many marketers are turning to artificial intelligence to translate this (huge) data flow into meaningful customer insight (Kietzmann et al., 2018). Based on the aforementioned, artificial intelligence has the remarkable ability to enhance advertising. As a result, it becomes important to assess the role of artificial intelligence in contemporary advertising practices.

It appears that while the target audience is intrigued by artificial intelligence, they are not wellversed in everything that artificial intelligence involves. If the advertiser and consumers are not properly aware about Artificial Intelligence, it calls to question the effect of Artificial Intelligence on advertising. This call for assessment to see if the audience has embraced the artificial intelligence phenomenon or not. It is therefore evident that the application of Artificial Intelligence in advertising need to be understood from the angle of the advertiser and the consumer.

Despite the incorporation of Artificial Intelligence (AI) into current advertising methods, there is a lack of complete information of its overall affects. This study tries to solve this gap by examining the effects of AI on several areas of current advertising, including its influence on consumer behavior. Specifically, this study will assess the effects of AI-driven advertising on consumer behavior, found out if members of the public are aware of the existence of artificial intelligence in modern advertising practices and if advertising practitioners understand the application of artificial intelligence in advertising.

Literature Review Concept of Artificial Intelligence

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think, learn, and solve problems like humans (Konar, 2018). The area of AI integrates computer science, data science, and cognitive science to construct systems capable of doing tasks that traditionally require human

intellect. Artificial intelligence (AI) technology allows computers and robots to replicate human intellect and problem-solving activities. The ideal characteristic of artificial intelligence is its ability to rationalize and take action to achieve a specific goal. AI research began in the 1950s and was employed in the 1960s by the United States Department of Defense when it trained computers to mimic human reasoning (Frana & Klein, 2021). A subset of artificial intelligence is machine learning (ML), a concept that computer programs can automatically learn from and adapt to new data without human assistance.

Artificial intelligence technology allows computers and machines to replicate human intellect and problem-solving capabilities. Algorithms are part of the structure of artificial intelligence, where simple algorithms are used in simple applications, while more complex one's help frame strong artificial intelligence. Artificial intelligence technology is apparent in computers that play chess, self-driving cars, and banking systems to detect fraudulent activity (Škavić, 2019).

Artificial intelligence commonly brought to mind the implementation of robots. As technology advanced, earlier criteria that define artificial intelligence became outdated.

According to Ji (2020), technologies that enable Artificial Intelligence include:

i. Computer vision enables computers to detect objects and people in photographs and photos. ii. Natural language processing (NLP) allows computers to interpret human language. iii. Graphical processing units are computer processors that help computers produce visuals and pictures through mathematical computations. iv. The Internet of Things is the network of physical gadgets, cars, and other items equipped with sensors, software, and network connectivity, that gather and exchange data. v. Application programming allows two or more computer programs or components to connect with one other.

Types of Artificial Intelligence

Ji (2020) listed the following as types of Artificial Intelligence:

Narrow AI: Also called Weak AI, this system is meant to carry out one single duty. Weak AI systems include video games and personal assistants like Amazon's Alexa and Apple's Siri. Users ask the assistant a question and it answers it for you.

General AI: This kind contains strong artificial intelligence systems that carry on the tasks deemed to be human-like. They tend to be more intricate and complicated and may be found in applications like self-driving automobiles or hospital operating rooms.

Artificial intelligence may be applied to various sectors and businesses, including the healthcare industry for proposing medicine doses, finding therapies, and helping with surgical operations in the operating room.

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Awareness of AI in Advertising

Advertisers are increasingly taking advantage of AI tactics when dealing with prospective customers, notably in data collection and message targeting, but how consumers perceive or understand the use of AI in advertising has remained uncertain (Campbell, 2020). A recent study by Chen et al. (2021) found that while consumer comprehension of AI is intuitive, it is also scattered. The survey revealed that consumers are unable to identify the subtle variations between the links among AI and other related concepts including machine learning, deep learning, natural language processing, and robotics.

Consumers are similarly split over their impression of AI in terms of two crucial areas: Functionality and emotion. Consumers regard voice-assisted AI as a beneficial addition to their life for easy tasks and convenience. However, the same consumers are hesitant in creating emotional ties with AI gadgets, even when a minor emotional connection arises. Consumers regard AI advertising as inescapable and usually acceptable, but they don't feel that it necessarily effects their purchase decisions or behaviors (Chen et al., 2021). And to some degree, consumers are astonished by what AI can achieve and its level of intelligence and sophistication (Puntoni et al., 2021). The power of AI advertising to tailor experiences and advertising messages is something people are interested about. But customers do not feel that all the benefits of AI or voice-assisted AI transcend their overwhelming privacy worries.

A lot of individuals are not aware of the effect of AI on the customers since the consumers are rarely provided explanations of how their online conduct influences the tailored suggestions (Kaplan & Haenlein, 2019). Simultaneously as AI and algorithms are being developed and refined, customers are perceiving and using technology like never before. Based on this, customers are getting more tech proficient which shows that most consumers would have the capacity to comprehend what AI is and how this works (Kaplan & Haenlein, 2019).

Application of AI by Advertising Practitioners

Advertising practitioners are increasingly integrating artificial intelligence (AI) in different areas of their business to boost efficiency and effectiveness (Haleem et al., 2022). AI systems like AdCreative.ai allow practitioners to develop conversion-focused advert creatives, texts, headlines, social media posts, and even whole advert packages using generative AI. These technologies help practitioners to save time on design processes, enhance conversion rates, and acquire insights from their own data to personalize results.

For advertisers, the value of AI comes in the form of insights, shaping plans, and generating better engagement techniques. Consumers are concerned because AI technology makes it possible for marketers to easily access a variety of consumer data (Kietzmann et al., 2018). Price, strategy and planning, product, promotion, and place management are the main marketing categories of AI projects. These divisions have proven crucial in focusing marketing scenarios on AI-based systems. The importance and significance of additional topics such as targeting

and positioning, scenarios, and thinking models towards the product design and endcustomer wants have been identified as vital parts of advertising for AI applications (Haleem et al., 2022).

Additionally, organizations like the Association of National Advertisers (ANA) provide resources to assist advertisers apply AI in their strategic roadmaps and everyday processes (Roetzer & Kaput, 2022). The ANA's AI practice strives to equip advertisers with practical resources and insights on integrating AI in advertising strategy, as exhibited in events like the ANA AI for Marketers Conference. However, the use of generative AI in advertising creates regulatory problems, as emphasized by the Advertising Standards Authority (ASA). The ASA underlines the significance of ensuring that AI-generated material conforms to advertising standards, avoids damaging stereotypes, and stays socially responsible (Roetzer & Kaput, 2022).

Advertising practitioners are rapidly embracing AI technology to speed up content development, customize marketing activities, and enhance advert performance (Babatunde et al., 2024). Understanding AI applications in advertising is vital for practitioners to harness the full potential of these technologies while maintaining ethical and compliant advertising practices (Rodgers & Nguyen, 2022).

Effects of AI-Driven Advertising on Consumer Behavior

Consumer buying behaviour involves the study of how people, groups, or organizations select, receive, consume, and dispose of items, services, experiences, or ideas to suit their requirements (Madhavan & Kaliyaperumal, 2015). It investigates into consumer's emotional, mental, and behavioural responses, influenced by numerous aspects classified as cultural, social, personal, and psychological. Khan et al. (2023) revealed that AI is guiding the way forward for both enterprises as well as consumers. As businesses innovate, consumers respond, driving more modifications from enterprises. This loop results in improved buyer satisfaction and greater business transactions.

Chowdhury et al (2024) stated that AI's influence on advertising is revolutionary, altering how firms communicate with and cater to their audiences. A new age in client connection is being heralded by the integration of AI into advertising tactics, which prioritizes accuracy, relevance, and individualization. AI-powered chatbots, virtual assistants, and conversational interfaces have transformed consumer interactions, offering fast, modified, and context-aware responses. This not only improves customer service but also produces a unified and engaging user experience (Chowdhury et al., 2024).

Peyravi (2020) revealed that the combination of AI into advertising operations has substantially improved efficiency throughout many phases of the advertising lifecycle. From data analysis and predictive analytics to tailored consumer interactions and real-time insights, AI has become a dynamic asset for today's advertising. By automating ordinary tasks, delivering important insights, and allowing personalized consumer experiences, AI

not only improves advertising efficiency but also guarantees businesses remain competitive in the ever-changing digital arena.

Datta (2022) observed that the emergence of artificial intelligence (AI) has significantly accelerated digital transformation, ushering in a new age of disruption in corporate enterprises. The advertising industry is undergoing substantial modifications due to the integration of artificial intelligence at a profound level. In their study, Westerman et al. (2014) shown that the increasing use of smartphones and the impact of social media have resulted in a significant shift in how businesses engage with customers, due to the rise of digital technology. This transition has emphasized the necessity for businesses to adjust to a changing environment, where mobile devices and social platforms play a crucial role in communication. Embracing these changes can lead to broader exposure and more revenue for businesses.

According to Stone et al. (2020), AI-based promotional strategies have become a powerful marketing tool for efficiently targeting customers. As customers become more aware of AI, its impact on them has also intensified. Display, video, and personalized adverts are visually attractive marketing instruments that effectively captivate attention. Nevertheless, many buyers remain reluctant to make online purchases of costly things. Artificial Intelligence (AI) is essential in advertising as it enables the development of more advanced search engines, intelligent advertisements, improved content delivery, the use of bots, continuous learning, prevention of fraud, data security, image and voice recognition, sales forecasting, language processing, predictive customer service, customer segmentation, and other applications (Johnsen, 2017).

Artificial intelligence helps organizations to get deep insights into customer demands, leading to greater sales and income production. Chowdhury et al. (2024) found that consumers are connected to Artificial Intelligence and its consequences, prompting a curiosity regarding its effect on their lives. This information, connected through AI technologies, helps firms to enhance their strategy, reaching customers with the correct offers at the right time.

As AI continues to grow, its influence on advertising efficiency is expected to expand, impacting the future direction of advertising tactics. With its growing capabilities, AI will remain a foundation of innovation in advertising. Its power to produce highly targeted content, foresee client behavior, and react to dynamic marketing landscapes makes AI a vital tool in current advertising techniques (Haleem et al. 2022). AI integration indicates not simply a technological breakthrough but a fundamental transformation in how organizations communicate with their consumers in the digital age (Haleem et al. 2022).

Theoretical Framework This study is anchored on Technological Determinism Theory Technological Determinism Theory

The technological determinism theory posits that technology plays a significant role in shaping societal change and development. It asserts that advancements in technology are pivotal moments that drive new phases in human

history (Edge, 1995). This theory, coined by Thorstein Veblen in the 20th century, suggests that changes in communication technology profoundly influence how individuals think, feel, act, and how societies operate as they transition from one technological age to another (Dafoe, 2015).

Technological determinism emphasizes that technology has the power to transform societal order by altering sensory capacities and fundamentally changing the way people live. It highlights the idea that technology is not just a tool but a defining force that influences various aspects of human life and society. The theory also explores how technology can lead to unintended consequences, known as 'technological drift,' where individuals navigate uncertain outcomes due to technological advancements (Bessant, 2018).

Applying this theory to this study, it can be noted that Ai is not just a tool but a transformative force that fundamentally changes how advertising operates. AI's capabilities in data analysis, customer segmentation, and personalized marketing enable advertisers to craft highly targeted campaigns. This shift signifies that technology (AI) is a primary driver of evolving advertising practices rather than merely a supportive tool.

The theory posits that technology shapes social behavior. AI in advertising influences consumer behavior by delivering personalized content, predicting consumer needs, and engaging them through chatbots and virtual assistants. This interaction suggests that AI technology is directly shaping how consumers perceive and interact with advertisements, altering the traditional consumer-advertiser relationship.

Technological determinism implies that as technology advances, it redefines job roles and industry structures. In advertising, AI automates many tasks traditionally done by humans, such as media buying, content creation, and performance analysis. This automation potentially reduces the need for certain roles while creating new ones centered around AI management and data analysis, thereby transforming the job landscape in the advertising industry.

Technological determinism suggests that the development and integration of AI in advertising will continue to drive future innovations and trends. The ongoing evolution in AI capabilities, such as enhanced natural language processing and predictive analytics, will likely lead to even more sophisticated and interactive advertising techniques, reinforcing the idea that technological advancement is a continual force shaping the industry.

Conclusion

Consumer awareness of artificial intelligence (AI) in modern advertising practices is limited but evolving. While many consumers intuitively understand AI, their comprehension is often scattered and lacks depth, particularly concerning the distinctions between AI and related technologies like machine learning and natural language processing. On the other hand, advertising practitioners are increasingly proficient in leveraging AI to enhance advertising efficiency and effectiveness, as evidenced by the growing integration of AI tools in content creation, personalized marketing, and performance optimization. Additionally, AI-driven advertising positively impacts

consumer behavior by enhancing engagement and satisfaction through more precise and relevant interactions, thus fostering a dynamic interplay between businesses and consumers that drives innovation and satisfaction on both ends.

Recommendation

Based on this review, the following recommendations are made:

i. Advertising agencies should launch educational campaigns that demystify AI and its applications in advertising while consumers should embrace interactive tools, such as online tutorials and webinars that can help them grasp the concept of AI, machine learning, and related technologies.

ii. Given the increasing use of AI by advertising practitioners, it is crucial to expand and deepen training programs by Organizations like the Association of National Advertisers as well as regular updates on emerging trends.

iii. To maximize the positive effects of AI-driven advertising on consumer behavior, businesses should focus on using AI to create highly personalized and relevant advertising experiences.

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