

## ARTIFICIAL INTELLIGENCE (AI) APPLICATIONS FOR MARKETING: A LITERATURE-BASED STUDY

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### Abstract:

Artificial Intelligence (AI) has vast potential in marketing. It aids in proliferating information and data sources, improving software's data management capabilities, and designing intricate and advanced algorithms. AI is changing the way brands and users interact with one another. The application of this technology is highly dependent on the nature of the website and the type of business. Marketers can now focus more on the customer and meet their needs in real time. By using AI, they can quickly determine what content to target customers and which channel to employ at what moment, thanks to the data collected and generated by its algorithms. Users feel at ease and are more inclined to buy what is offered when AI is used to personalise their experiences. AI tools can also be used to analyse the performance of a competitor's campaigns and reveal their customers' expectations. Machine Learning (ML) is a subset of AI that allows computers to analyse and interpret data without being explicitly programmed. Furthermore, ML assists humans in solving problems efficiently. The algorithm learns and improves performance and accuracy as more data is fed into the algorithm. For this research, relevant articles on AI in marketing are identified from Scopus, Google scholar, ResearchGate and other platforms. Then these articles were read, and the theme of the paper was developed. This paper attempts to review the role of AI in marketing. The specific applications of AI in various marketing segments and their transformations for marketing sectors are examined. Finally, critical applications of AI for marketing are recognised and analysed.

**Key Words:** Artificial intelligence (AI), Ap plications, Customer, Data analysis, Decision, Marketing.

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### Introduction:

Artificial Intelligence (AI) will eventually be a crucial component of all businesses worldwide. The AI landscape has seen significant changes, which are reflected in the latest trends in AI-driven automation. It is apparent in the reshaped concepts, passions, and financial commitments to the enterprise's adoption of AI. The ability to recognize faces and things thanks to this technology's sophistication has significant ramifications for a range of business applications. Individuals can be identified for security purposes using facial recognition, while photos can be identified and analysed using object detection. By treating human photos similarly to cookies, AI enables more individualized services according to client preferences. To determine their consumers' moods and propose

products accordingly, some companies are experimenting with facial recognition technology. In digital marketing, AI is mostly focused on lead conversion and user retention. Through the use of intelligent email marketing, interactive web design, AI chatbots, and other digital marketing services, it can steer a user in a route that is consistent with the objectives of the company. The effect of AI on digital marketing depends on a number of things. Computer programs that access data and utilize it to learn on their own are the focus of machine learning (ML), a subset of artificial intelligence. It gathers information from a variety of sources, such as websites, online reviews, menus, and social media accounts. After that, AI makes use of the data to create and provide audience-relevant content.

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With AI for social media and digital platforms like Facebook and Instagram, digital marketing offers customers a distinctly positive experience. Before sending consumers to offers that suit their needs, these platforms carefully evaluate their information. Additionally, AI helps marketers predict and identify trends. It guarantees that the money is used wisely and keeps the business from overspending on digital advertising. Computer vision is the term used to describe a computer's capacity to identify objects, scenes, and actions in images. Among the applications are security surveillance, public safety, facial recognition, and medical imaging analysis. When AI and computer vision are integrated effectively, robots can anticipate future events and respond appropriately to possible shifts. Building client profiles and understanding the customer journey process have been made easier by AI. It enables marketers to swiftly and simply offer valuable, customized content for the different customer profiles at every point of the marketing funnel and across all channels. Artificial intelligence (AI) solutions in digital marketing can identify the content that would most likely drive customers back to the website based on prior data. AI analyzes which qualities are common among unsubscribers and determines which customers are more likely to stop using a particular service. Marketers may use these insights to plan their upcoming campaigns and put strategies in place that encourage people to stick around.

#### **Artificial intelligence's necessity in marketing:**

AI is an exciting and innovative technology that enhances an organization's existing content strategy. Natural language processing, machine learning, deep learning, computer vision, and many more technologies are all included under this umbrella term. Because machine learning (ML) can analyze data and give analytical tools, it has a huge impact on the digital marketing environment. Consequently, it helps marketing teams to perform needs-based evaluations. AI-enabled businesses save time by concentrating on other facets of digital marketing. AI is a broad and continuous technical development with significant ramifications. Therefore, it is recommended

that AI be used in digital marketing in order to promote creativity and boost output in the upcoming years. With the use of AI, marketers can better understand how to classify and move clients to the next stage of their journey while delivering the greatest experience possible. By carefully analyzing customer data and understanding what consumers actually desire, marketers may boost ROI without investing in futile attempts. Additionally, they can save time by avoiding mind-numbing advertisements that annoy customers. AI will customize advertising in a number of ways. In order to better meet the needs of their customers, several businesses are already utilizing AI to personalize their emails, videos, social media postings, websites, and other resources. Automating tasks that formerly required human intelligence is one of artificial intelligence's main objectives.

#### Goals of the research:

In order to boost engagement and influence consumers to convert or make a purchase, brands are utilizing artificial intelligence (AI) to personalize marketing emails according to their interests and behaviour. Based on each recipient's lifecycle stage, the AI automated the segmentation process and started delivering personalized content via email, SMS, and in-app notifications. AI will increase the efficacy of current cyberattack strategies, such as spear-phishing, and expand the number of players who can execute them by circumventing labour constraints. AI can help protect privacy and the ownership of private data and its derived assets, despite the fact that it is commonly characterized as a threat to privacy.

#### Particular applications of AI across different marketing domains :

The different main marketing segments of AI efforts. Targeting AI-based systems in marketing situations has required careful consideration of pricing, strategy and planning, product, promotion, and place management. Other challenges like positioning and targeting, scenarios, and thinking models in relation to the product design and end-user needs have been identified as crucial components of marketing for AI applications.



### **Artificial intelligence applications for marketing:**

AI is employed in marketing campaigns across various industries, including finance, government, healthcare, entertainment, retail, and more. Each use case yields different outcomes, such as improved campaign performance, enhanced customer experience, or increased marketing operations efficiency. Through programmatic advertising, marketers are using AI to address various challenges. Programmatic platforms use ML to bid on real-time ad space relevant to target audiences. AI may also aid in the reduction of mistakes in marketing procedures. So long as supervision and instruction exist, AI can execute specialised activities more efficiently than humans. AI is considerably more likely to result in a higher return on investment since it can substantially speed up the process of marketing campaigns, cut expenses, and improve efficiency. This technology can perform tactical data analysis faster than humans and use ML to arrive at quick decisions based on campaign and customer context. It frees up time for team members to focus on strategic projects, which can subsequently be used to guide AI-powered marketing. Marketers can use real-time analytics to make better media choices rather than wait until the end of a campaign to make AI decisions. Discusses the significant applications of AI applications for marketing.

### **Artificial intelligence applications for marketing:**

AI is used in marketing initiatives in a number of sectors, such as retail, healthcare, government, entertainment, and finance. Different results are obtained from each use case, such as better campaign performance, better consumer satisfaction, or more efficient marketing operations. Marketers are utilizing AI through programmatic advertising to tackle a number of issues. Programmatic platforms bid on real-time ad space that is pertinent to target audiences using machine learning. AI may also help reduce errors in marketing processes. As long as there is supervision and training, AI can perform specialized tasks more efficiently than humans. By significantly speeding up marketing campaigns, reducing costs, and improving efficiency, AI is much more likely to yield a higher return on investment. AI can perform tactical data analysis more quickly than humans and use machine learning (ML) to make quick decisions based on campaign and customer context. It also frees up team members' time to work on strategic projects, which can then be used to direct AI-powered marketing. Instead of waiting until the conclusion of a campaign to make AI judgments, marketers can use real-time analytics to make better media selections.

### **Conclusion:**

The term artificial intelligence (AI) describes methods that enable machines to carry out cognitive tasks that call for human intelligence. These consist of reasoning, learning, and interacting with the environment around the machine. Two of the most popular AI methods are machine learning and deep learning. AI can produce a more customized brand experience, which will facilitate the development of customer loyalty and engagement. To enhance the user experience, marketers employ language-based AI as engagement managers, payment processors, and sales tools. Customers may now rely on chatbots to complete the purchasing process for them rather than them having to figure it out on their own. Rapid advancements are being made in language-based AI,

which automatically optimizes to produce an even better experience the following time by "learning" from past experiences.

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