

# Impact of Artificial Intelligence on Digital Media

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**Abstract**—This research will explore the effects and significance of artificial intelligence in digital media, particularly within social media marketing. A social media marketing expert could train a computer through algorithms related to machine learning to recognize trends in posts that align with targeted content on social networks, thus opening pathways for specialized analytical categories. This training procedure can be performed on a computer. The findings reveal that potential users of AI Media software exhibit a strong sense of curiosity and confidence in its significant offerings. In this era of digital transformation, businesses have unprecedented access to extensive customer data regarding their behaviors. One of the major challenges linked to social media marketing is predicting individuals' interests to deliver content that is relevant to them. This research marks just the initial phase in understanding how individuals who will utilize the AI media software developed as part of the Future Web research initiative intend to leverage the programmer's features to benefit them. Given the quantitative nature of the research and the random selection of interviewees from various countries around the world, the outcomes of this study should be interpreted with some caution.

**Index Terms**—Digital Marketing, Social Media Marketing, Artificial Intelligence, Machine Learning, Deep Learning, Virtual Reality, Augmented Reality, Image Analysis, Audience Analysis, Sentiment Analysis.

## I. INTRODUCTION

As is widely recognized, the world is experiencing a shift from manual processes to digital technologies. The methods of movement and utilization are evolving rapidly. The term "artificial intelligence" has quickly gained prominence within the realm of computing. In 1956, American computer scientist John McCarthy introduced "artificial intelligence" as a novel concept in the field of Computer Science.

Long before the advent of Cortana, Siri, or Alexa, the U.S. Department of Defense was invested in exploring artificial intelligence to enable computers to think like humans. Artificial intelligence (AI) functions effectively by analyzing large amounts of data, processing it swiftly and repeatedly, and employing advanced techniques. AI encompasses a wide array of subjects, such as "machine learning, neural networks, deep learning, cognitive computing, computer vision, natural language processing," among others. Thanks to AI technology, computers are capable of performing an extensive range of cognitive tasks. Voice assistants like Alexa, Siri, and Google Assistant can comprehend our speech as proficiently as any human. Services like Netflix and Amazon leverage AI to recommend products based on user behavior and preferences. Artificial intelligence (AI) harnesses data to forecast, analyze, and make suggestions. Over the last decade, digital technology has transformed social media into a platform for business activities. It is remarkable how intelligent social media platforms are becoming. AI is fundamentally shaping our interaction with social media sites and networks. An AI evaluates previous outcomes, internet searches, and various other factors, integrates them into our timelines, and alerts us. Most of us first encountered artificial intelligence (AI) in the form of chatbots. These programs are designed to provide responses based on pre-defined answers. Examples of AI application in digital marketing include "the Indian Railways' chatbot Disha, Netflix's algorithm-driven recommendations, restaurant suggestions on Zomato and Swiggy, real-time traffic updates on Google or Apple Maps, smart cars and drones, as well as the dynamic pricing models of Ola and Uber." We can observe all of these examples on Zomato and Swiggy.

According to a study by Salesforce, 51% of marketing executives globally are utilizing artificial intelligence (AI). An additional 24% of these executives plan to adopt AI within the next two years. It is anticipated that the market for AI applications in social media will see growth exceeding \$2.1 billion by 2023.

## II. LITERATURE REVIEW

According to Siau and Yang (2017), "Artificial Intelligence (AI) refers to the intelligence or creative capability that is assigned to machines, which do not possess imagination or independent thought." Advancements in technology have led to the emergence of artificial intelligence. Technology has impacted all domains of society. As stated by Kose and Sert (2017), AI has introduced new elements, including improved customer service and automated marketing processes. These innovations encompass features like Slack bots. The integration of voice and facial recognition capabilities helps maintain a competitive advantage over its various alternatives. In marketing, AI has swiftly emerged as an essential component. Trends in AI-driven social media marketing include "deep learning, facial recognition, AI-enabled semiconductors, cloud storage, and stricter privacy regulations" (AI). The implementation of AI in marketing strategies has fundamentally altered the marketing landscape. The advancement of artificial intelligence has opened up numerous previously untapped opportunities and topics for new investigation. The incorporation of AI technology into marketing has broadened the research possibilities on this subject. Organizations have explored social media as a marketing tool. AI utilization in social media platforms has enhanced the analytics of social media marketing. This convergence has altered the fundamental principles of marketing. Consequently, the strategy has evolved from relying solely on traditional methods to effectively leveraging digitalization. In today's online environment, every consumer has a voice. Utilizing only an Excel sheet makes it challenging to accurately gauge consumer emotions and behaviors. The current trend of hashtags and emojis complicates the extraction of numerical data on specific preferences and aversions due to their visual nature. In light of the existing circumstances, the data

gathered by analysts would be significantly more valuable with the presence of intelligent analytics.

## III. ARTIFICIAL INTELLIGENCE: THE PRESENT AND FUTURE OF SOCIAL MEDIA

The rapid growth of technology in recent decades has resulted in the development of artificial intelligence, which stands out as the most prominent technology today. In the near future, all of humanity is expected to rely heavily on this technology. AI has unlocked a new realm for service-oriented businesses such as retail, aviation, hospitality, and others. It has also influenced social media platforms. Social media networks that incorporate artificial intelligence have provided significant support for startups. Because of social media, individuals across the globe find it easier to connect and communicate. It focuses on meeting new people, exchanging knowledge, engaging with others, and maintaining a social presence. (Zeng et al., 2010). Social media platforms represent a vast space for individuals to exchange services. These services benefit people, businesses, and society as a whole. The advantages of utilizing social media are immense, with artificial intelligence playing a crucial role in these advantages. The use of artificial intelligence in everyday life continues to grow. Implementing artificial intelligence on social media platforms like "Facebook, Twitter, and Instagram" has significantly enhanced the functionality of these sites. LinkedIn consistently employs artificial intelligence technology, aiding professionals in discovering improved job prospects for themselves and their organizations. Furthermore, it has significantly contributed to the expansion of businesses via social media. In the foreseeable future, artificial intelligence is poised to influence every aspect of the world. Erdomuş and Cicek (2012) suggest that humans may be supplanted by artificial intelligence in the near future, fostering a strong connection between companies and their respective customer bases. Recent years have seen a substantial impact of artificial intelligence (AI) on social media.

## IV. RESEARCH METHODOLOGY

Leveraging real-time analysis of social media, Yoo et al. (2018) created a system capable of predicting users' emotional states based on their posts. Our

ultimate objective is to create AI software that identifies logos within social media posts by employing deep learning algorithms and convolutional neural networks. Unstructured data, such as that found in social media content, which typically includes a blend of text, images, audio, and video, is particularly suitable for machine learning applications. The degree of understanding regarding machine learning in social media marketing (SMM) and the regularity of machine learning algorithms' application in SMM initiatives are dependent variables in this study. Conversely, the amount of SMM experience has been identified as an independent variable. Additionally, the proposed research model incorporates audience, imagery, and sentiment as target variables for future AI media evaluations.

#### V. CONCLUSION

Due to the heavy usage of social media by customers, marketing professionals must leverage AI technologies designed specifically for these platforms. This approach will enhance their global competitiveness. Social Media Marketing specialists can examine posts, categorize them, and conduct comprehensive analyses of customer sentiments regarding the products and services promoted on social networks. This report includes survey results from digital business owners, managers, and freelancers involved in social media marketing (including agency owners, marketers, and independent contractors). The research focused on the anticipated features of AI Media software by utilizing social media data to demonstrate audience analysis, imagery, and sentiment assessments. The aim of this study was not to forecast the future capabilities of AI Media tools based on audience perceptions but to investigate the relationships between social media marketing experience, machine learning knowledge, and the frequency of machine learning algorithms employed in social media marketing campaigns. Decision-makers should promote investments in technologies like AI Media tools that foster sustainable profits and a deeper understanding of online customer experiences. One such technology is augmented reality (AR), which enables individuals to interact with virtual environments in real time. Social Media Marketing

experts provide a significant competitive edge to the companies or projects they support by mastering the use of AI technologies.

#### REFERENCES

- [1] S.Chen,B.Mulgrew,andP.M.Grant,-Aclustering techniquefor digital communications channel equalization using radial basis function networks,||IEEETrans.on Neural Networks, vol. 4, pp.570-578, July1993.
- [2] J. U. Duncombe, -Infrared navigation—Part I: An assessment of feasibility, ||IEEETrans.ElectronDevices, vol. ED-11, pp. 34-39, Jan.1959.
- [3] C.Y. Lin, M. Wu,J.A. Bloom,I.J.Cox,andM.Miller,-Rotation, scale, and translation resilient public watermarking for images ,||IEEE Trans. Image Process., vol. 10,no.5,pp.767-782, May2001.  
(Book style)
- [4] A. Cichocki and R. Unbehaven, Neural Networks for Optimization and Signal Processing, 1sted.Chichester, U.K.: Wiley,1993, ch.2, pp.45-47.
- [5] W.-K. Chen, Linear Networks and Systems, Belmont, CA: Wadsworth,1993, pp. 123-135.
- [6] H. Poor, An Introduction to Signal Detection and Estimation; New York: Springer-Verlag, 1985, ch.4.