

Artificial Intelligence Supported Marketing Communication: A Conceptual Evaluation

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Abstract: This study examines the significant evolution of artificial intelligence (AI) in marketing communication, offering a comprehensive assessment of its transformative impact on theoretical frameworks, consumer interactions, and ethical considerations. The integration of AI technologies, including predictive analytics, content automation and conversational agents, has precipitated a novel epoch of personalised marketing strategies that challenge and redefine traditional communication models. By examining the historical progression of AI from its inception to its present-day applications in the marketing landscape, this study underscores the pivotal significance of understanding consumer perception and trust regarding AI-driven communications. Furthermore, it addresses key ethical issues, including privacy concerns and algorithmic bias, that emerge in this rapidly evolving context. This study sets out to redefine classical and contemporary marketing theories in light of advancements in AI technology. The study's ultimate aim is to position the field for ongoing academic exploration and practical application in an increasingly digital environment.

Keywords: Digital marketing, marketing communication, artificial intelligence, consumer behaviour.

I. INTRODUCTION

In the contemporary digital landscape, the integration of artificial intelligence (AI) technologies into marketing communication processes represents a significant shift, extending beyond mere technical innovation to fundamentally alter the theoretical framework and application domains of marketing theories. AI-driven applications enable personalised, data-informed, and diversified interactions between brands and consumers, surpassing the limitations of traditional communication models.

This transformation necessitates a comprehensive reevaluation of the theoretical foundations of marketing, starting with the historical development of AI. In today's business environment, conventional marketing communication models are experiencing substantial reform due to the rise of digitalisation and AI-based applications. Current practices—including personalisation, content automation, predictive analytics, chatbots, and creative AI—are disrupting established boundaries within marketing communication, thereby redefining the operational landscape for businesses.

In this context, it is essential to understand the development trajectory and application areas of AI-enhanced marketing communication, as well as to examine consumer perception, trust, and ethical considerations. While the existing literature often addresses the technical and operational impacts of AI in marketing, a notable gap exists in comprehensive evaluations that explore how these technologies underpin the transformation of marketing communication theories, reshape consumer perceptions and trust, and raise ethical concerns such as privacy and algorithmic bias. Notably, the paradigm shift initiated by digital transformation, along with the emergence of next-generation tools such as the metaverse and emotional AI, introduces both conceptual innovations and multidimensional debates within the field of marketing communication.

This study aims to investigate AI-supported marketing communication from multiple perspectives, including historical, theoretical, and practical dimensions. It seeks to deliver a comprehensive evaluation of the areas of application while also examining the ethical and social responsibilities that arise from the digitalisation process. The primary goal is to reassess both classical and contemporary communication models in the context of AI advancements. Furthermore, the project plans to analyse current application examples and propose future research directions.

II. ARTIFICIAL INTELLIGENCE: ITS CONCEPT AND DEVELOPMENT

Artificial intelligence (AI) is a complex technological concept that encompasses the ability of computers and machines to perform cognitive processes similar to those of human intelligence. These processes include capabilities such as

learning, reasoning, problem-solving, perception, and natural language processing [1]. The term 'artificial intelligence' was first introduced to academic discourse by John McCarthy in 1956 and gained formal recognition during the Dartmouth Conference [2], [3]. At that time, the research conducted was limited to experimental stages, relying on computers with restricted processing power.

The historical development of AI is generally analysed in three main periods. During the initial period, known as the symbolic AI era (1950-1980), the focus shifted towards the development of symbolic algorithms, which were informed by conceptual approaches such as Alan Turing's theory of computation and cybernetics [4]. During this period, theoretical discourse on the mechanisation of intelligence underwent significant intensification. The subsequent period, the connectionist AI period (1980-2010), witnessed the development of neural networks, expert systems and machine-learning techniques [5]. The third period, which continues to increase its influence today, is characterised by deep learning and AI applications supported by big data. The acceleration of this evolutionary process is concomitant with the development of data mining, cloud computing and artificial neural networks [6].

The advent of AI has precipitated a paradigm shift, engendering not only technological transformation but also profound structural changes in social and economic systems. This is especially evident in the marketing domain, where AI is profoundly altering the way consumers and brands interact. Haenlein and Kaplan [3] propose a definition of AI in the context of marketing as a communication tool that can anticipate consumers' needs and provide personalised services through systems that mimic human intelligence. In this context, AI is not only an operational tool but also an interactive platform that influences strategic brand positioning.

In contemporary discussions, AI systems are classified into three main categories: narrow AI, general AI, and super AI. Narrow AI refers to systems designed to perform specific tasks without possessing general intelligence. The current technological landscape has witnessed the rise of advanced applications, including recommendation engines, chatbots, voice assistants, and content creation software, all of which fall under this category [7]. General AI represents more advanced systems capable of thinking like humans and performing a variety of tasks. The concept of super AI, on the other hand, remains largely theoretical, denoting cognitive abilities that exceed human intelligence [4].

The functionality of AI enables it to achieve significant success, particularly in areas such as pattern recognition, knowledge engineering, robotics, healthcare, financial modelling, and manufacturing [8]. The integration of AI into organisational structures is encouraged by several factors, including the automation of operational processes, the optimisation of resource utilisation, and the acceleration of decision-making mechanisms. In this process, issues such as data security, ethical responsibilities and interaction with staffing are also discussed.

The future of AI is evaluated within the framework of Artificial General Intelligence (AGI). The objective of AGI is to develop systems capable of comprehending a broad spectrum of tasks, transitioning seamlessly between diverse contexts, and exhibiting exceptional learning capabilities [9]. However, this potential development brings significant risks, including ethical dilemmas, privacy concerns, labour transformation, and algorithmic biases [10].

As a paradigm that transcends mere technological progress, AI is at the nexus of social, ethical and strategic transformation. In this context, while analysing the history and evolution of AI, it is necessary to approach not only technical developments but also the transformations emerging in the individual-society-technology triangle from a holistic perspective. The development of responsible, transparent and ethical AI systems is a prerequisite for leveraging technology to enhance social welfare.

III. THE TRANSFORMATION OF MARKETING COMMUNICATION THEORIES IN THE CONTEXT OF DIGITALISATION AND ARTIFICIAL INTELLIGENCE

Marketing communication is defined as a strategic communication process that performs the functions of informing, persuading, and reminding consumers [11]. Traditionally conducted through mass communication channels, this process is undergoing a profound transformation due to the impact of digitalisation and AI technologies. This transformation is reshaping not only the tools used but also the theoretical framework of marketing communication theories.

A. Conventional Marketing Communication Models

Classic marketing communication models are primarily based on a one-way communication understanding. In this understanding, marketers create the message and convey it to the consumer, positioning the consumer primarily as a passive receiver. Within this framework, one of the most commonly used models is the AIDA model, which consists of the steps of Attention, Interest, Desire, and Action, defining the mental processes the consumer undergoes leading to the

purchase decision [12], [13]. Another important model is the DAGMAR model (Defining Advertising Goals for Measured Advertising Results), which includes the stages of Awareness, Comprehension, Conviction, and Action and explains how advertising messages create measurable behaviour changes by guiding the consumer through these four mental processes [14]. Shannon and Weaver's Mathematical Communication Model describes the communication process through its components: sender, message, channel, receiver, and noise. In the field of marketing, this model emphasises the necessity of clear and effective communication to ensure the message reaches the consumer accurately [15]. All these classic models aim to ensure that messages are effectively transmitted during the marketing communication process and that consumer behaviours are directed predictably.

B. Communication Paradigms Evolving with Digitalisation

Digitalisation is transforming marketing communication from a one-way structure into a multi-faceted and simultaneous interaction process. With the proliferation of social media platforms, the consumer is not only positioned as the receiver of the message but also as the content creator and interpreter [16]. In this context, marketing communication is moving away from a centralised structure and evolving into a network-based structure.

During this process, the concept of Integrated Marketing Communication (IMC) is gaining importance. IMC aims to create more effective consumer engagement and brand value by ensuring consistency and synergy across different communication channels [17]. The combined use of traditional and digital methods provides strategic coherence in marketing communication.

C. Reinterpreting Marketing Communication Theories with Artificial Intelligence

The integration of AI technologies into marketing communication processes not only provides operational efficiency but also reshapes theoretical frameworks. AI analyses large datasets to understand consumer behaviour and generates real-time personalised content. As a result, marketing messages, recommendations, and campaigns are optimised according to the targeted consumer needs, deepening engagement and increasing brand loyalty and conversion rates [18].

The integration of AI vehicles into marketing communication processes not only provides operational efficiency but also necessitates a reconsideration of theoretical frameworks. AI-based chatbots strongly influence the key factors of perceived benefit and ease of use, which determine users' intent to use, as validated within the context of the Technology Acceptance Model (TAM) [19].

On the other hand, studies conducted within the framework of parasocial interaction theory suggest that AI influencers are capable of establishing meaningful emotional connections with users and can elevate the perception of trust to a level comparable to that of human influencers [20].

Recent developments in marketing necessitate the creation of innovative theoretical frameworks that surpass traditional models, such as AIDA (Attention, Interest, Desire, Action) and DAGMAR (Defining Advertising Goals for Measured Advertising Results). These new frameworks should focus on interactive, participatory, and algorithm-driven processes, reflecting the evolving dynamics of consumer engagement.

D. The Broad Impact of Digitalisation on Communication Paradigms

Digitalisation is not only about marketing; it is redefining communication paradigms in various areas, including language, management, intercultural communication, education, and social media [21]. In the context of brand communication, the impact of digitalisation is becoming more apparent; for example, global brands like Turkish Airlines are seen to utilise digital tools strategically [22]. The integration of AI tools into marketing communication creates transformations at both strategic and theoretical levels, along with big data analysis, machine learning, and real-time content production. Research shows that AI-based marketing applications—especially personalised campaigns—significantly enhance customer engagement, loyalty, and conversion rates [18]. This impact not only improves user experience but also necessitates a redefinition of classical models such as AIDA and DAGMAR, as AI presents a dynamic communication paradigm that makes consumer engagement real-time and data-driven.

Additionally, AI-supported digital marketing tools, particularly chatbots, are strengthening the bond between brands and consumers and increasing brand loyalty. Chatbots demonstrate the contribution of personalisation to communication [23]. On the other hand, systematic literature reviews indicate that AI is being used effectively in areas such as digital advertising, budget optimisation, social media strategies, and e-commerce [24]. All these developments are transforming AI from merely being a technological tool in marketing communication into a strategic process that necessitates a redefinition of theoretical approaches.

E. Projections for the Future and Ethical Considerations

The integration of AI technologies into marketing communication processes allows for the establishment of more personalised and interactive relationships with consumers. The incorporation of AI-based applications into digital marketing processes offers significant contributions in areas such as data analytics, customer segmentation, and content personalisation [24]. However, these developments also raise ethical concerns, including data privacy, algorithmic biases, and a lack of transparency. In particular, the lack of transparency regarding how AI systems working with big data collect, interpret, and utilise consumer data calls into question the reliability of marketing practices [25].

Additionally, the lack of clarity regarding how algorithms operate increases the likelihood of biased decision-making and may lead to discrimination among users. Therefore, it is becoming essential to apply ethical principles such as transparency, accountability, and fair use to AI systems in marketing communications. Ali and his colleagues [25] demonstrate that AI systems adopting ethical principles in marketing practices both enhance brand trust and strengthen long-term customer relationships.

AI solutions developed under these ethical protocols not only pave the way for technological transformation but also for theoretical transformation. Thus, marketing communication is evolving from merely being a persuasive tool to a genuine effort to establish trust-based relationships that incorporate social responsibility.

IV. APPLICATIONS OF ARTIFICIAL INTELLIGENCE-SUPPORTED MARKETING COMMUNICATION

The primary applications of AI technologies in the field of marketing communication, the advantages they offer, the ethical risks that may be encountered, and the proposed solutions are comprehensively summarised in Table 1. Building on this general framework, each application area is detailed under separate headings in the following sections.

TABLE I COMPARATIVE SUMMARY OF AI-SUPPORTED MARKETING APPLICATIONS

Application Area	The Benefit Provided	Risk/Ethical Issue	Practical Suggestion
Personalisation	Customer loyalty, conversion rate	Algorithmic bias	Regular audits, transparency
Chatbot/Voice Assistant	24/7 rapid response, cost savings	Data security	Robust cyber security
Estimation-Based Analysis	Targeted campaign, increase in sales	Privacy, transparency	Informed consent and traceability
Social Listening/Sentiment	Brand perception management	Incorrect analysis/interpretation	Multiple data sources
Creative AI (Generative)	Scalable content, innovation	Copyright, brand compliance	Human oversight, ethical boundaries

Table 1 has been prepared based on current studies by Alhitmi et al. [26] and Karami et al.[27], adapted from the relevant literature. It presents a holistic view of the various application areas of AI in marketing communications, outlining the benefits it provides, the risks and ethical issues encountered, and the proposed solutions. In this context, both the potential contributions of each application type and the accompanying risks are taken into consideration, emphasising the necessity of a multidimensional assessment for sustainable and responsible AI integration.

A. Personalisation and Content Automation

The integration of AI's marketing communication is creating a significant transformation in the fields of content personalisation and automation. Machine learning, natural language processing, and predictive analytics techniques enable marketers to establish more relevant and meaningful communication with their customers [28].

Applications of personalisation supported by AI encompass a process that begins with the analysis of customer data. Data such as consumer behaviour patterns, purchase history, and browsing habits are analysed by algorithms to create customised campaigns through micro-segmentation. This increases customer engagement and strengthens brand loyalty [29].

Additionally, AI can automatically generate content tailored to various customer segments through dynamic content production. This content can be produced across a wide range, from email subject lines to social media visuals. Particularly, natural language generation technologies enable the personalisation of marketing content by providing text tailored to individual customers. Furthermore, SEO optimisation is also a part of AI-supported content strategies. AI can analyse the search behaviour of target audiences to determine the most appropriate keywords, optimising content accordingly [30]. As a result, the digital visibility and performance of marketing campaigns are also improved.

However, the success of AI-supported personalised content automation is closely related to data quality, algorithmic bias, and ethical responsibility. AI systems learn from patterns in historical data, and errors or biases in this data can misdirect the model. For instance, algorithms that generate recommendations for sensitive demographic groups can lead to discrimination if not adequately monitored [27]. Current research emphasises that continuous monitoring, transparency of algorithms, and sound data governance strategies are essential for detecting and correcting such biases. Therefore, marketers must ensure traceability of algorithmic outputs and adopt a transparent approach to data privacy.

B. Chatbots and Voice Assistants (Conversational AI)

Conversational AI offers a significant transformation in customer service and interaction management. Chatbots and voice assistants facilitate real-time communication with users, making the customer experience more personalised and accessible [31].

Chatbots are software that can be integrated into multi-channel digital platforms. By automating frequently asked questions, providing recommendations, and performing simple tasks, they enhance the efficiency of customer services and reduce the need for human resources [32].

Voice assistants can understand users' voice commands and generate responses in natural language, offering hands-free experiences on mobile devices and smart home systems. Voice marketing creates a new channel by enabling brands to appear in voice search results and reach consumers through voice applications [33].

Through the use of conversation AI, businesses can create seamless customer journeys and make significant contributions to marketing objectives, such as generating potential customers and increasing conversion rates [34]. Therefore, while chatbots and voice assistants offer cost savings and operational efficiency advantages for businesses, these tools must be designed with a reliable, ethical, and user-centred approach [35].

C. Predictive Analytic and Targeting

Data-driven analytics is at the heart of strategic decision support systems, as well as AI-supported marketing applications. This approach predicts customer behaviour by learning from historical data and helps optimise the effectiveness of marketing campaigns [36].

AI produces predictive insights across various areas, from dynamic pricing to campaign optimisation. The estimation of metrics such as customer lifetime value, churn risk, and cross-selling potential enables marketers to shape their strategies proactively [37].

At the same time, AI-supported targeting enables the presentation of content tailored to each consumer through micro-segmentation. Personalised content delivery and recommendation engines increase customer satisfaction and the likelihood of purchase [38]. All these processes ensure that marketing activities become data-driven, transparent, and optimisable.

However, ethical issues such as data security, transparency, and algorithmic bias should also be considered when developing AI-based decision support systems. Hybrid structures, supported by human creativity and strategic thinking, should be preferred [37].

D. Sentiment Analysis and Social Listening

In analysing consumer opinions in digital communication, AI techniques enable brands to monitor and fully interpret online discussions. This approach involves analysing user-generated comments and news headlines through text mining within the framework of social listening, providing businesses with strategic insights. A comprehensive review of social listening conducted by Garhwal [39] indicates that such applications offer significant advantages in enhancing customer engagement and loyalty.

Sentiment analysis, supported by machine learning and AI, enables the measurement of consumer sensitivity more comprehensively through multimodal data (text, visual, and audio) and contextual analysis [40]. Additionally, content and campaign strategies can be tailored to the emotional responses of target audiences, thereby enhancing customer engagement and campaign success [41].

However, for the accurate analysis of ironic, metaphorical, or culturally sensitive messages, it is essential to continually improve emotion analysis systems and pay attention to linguistic sensitivities [42]. Additionally, factors such as data privacy, ethical oversight, and transparency are fundamental criteria that determine the responsible use of these tools.

E. Creative Artificial Intelligence (Generative AI) – Visual and Text Production

Creative AI is revolutionising content production processes in marketing communications. Large language models, such as GPT-3, generate text, while models like DALL-E or Midjourney produce visual content; this facilitates the scaling and personalisation of marketing campaigns [43].

In content creation, areas such as slogan writing, social media postings, and email marketing now offer rapid prototyping and personalised messaging possibilities with AI support [44]. In visual content, innovative solutions like virtual trials, advertising visualisation, and automatic adaptation to different formats have been made possible through AI [45].

Additionally, generative AI enables the simultaneous creation of variants of marketing campaigns tailored to different demographic groups, providing a competitive advantage in the digital marketing landscape by meeting the need for diverse content [46].

However, the content must be monitored continuously by developers for copyright, accuracy, and brand integrity. Human creative teams need to review AI-generated outputs and adapt them to align with the brand strategy for quality and consistency [47].

Generative AI facilitates creative collaboration between brands and consumers, automating content production and increasing engagement. However, it should be implemented carefully, considering ethical, legal, and strategic factors, and a balanced integration between AI and human creativity must be achieved [48].

V. CONSUMER PERCEPTION, TRUST AND ETHICAL DISCUSSIONS

A. Consumer Privacy, Data Security, and Algorithmic Bias

AI-supported marketing communication enhances personalisation, efficiency, and strategic decision-making processes while also introducing ethical issues such as consumer privacy, data security, and algorithmic bias. AI-supported marketing poses a risk to the security of consumers' personal information due to the large amounts of consumer data collected [26]. This situation increases the risks of data breaches and cyberattacks, potentially causing severe financial and reputational damage to businesses. To mitigate these risks, businesses must adopt robust security policies and transparent data collection methods [49].

Algorithmic biases are also a key ethical dimension of AI in marketing communications. AI systems can perpetuate biases inherent in the data on which they were trained, resulting in discriminatory outcomes for consumers [50]. To mitigate these biases, it is necessary to implement accuracy checks and develop fair algorithmic methods [51].

Indeed, recent research has demonstrated that AI applications can amplify biases based on gender, age, and cultural background. In particular, women and older individuals may be disproportionately affected by algorithmic discrimination in AI-driven advertising [27]. Additionally, in developing countries, inequalities may emerge in marketing communications due to the digital divide.

However, although AI-supported marketing provides operational and strategic benefits, algorithms fed with incorrect data can lead to discrimination and misleading results. Additionally, the misuse of consumer data or security vulnerabilities can severely damage a brand's reputation [26].

B. The Perception of Trust, Transparency, and Authenticity in Communication with AI

The integration of AI in marketing communications has transformed interactions with consumers and facilitated the creation of personalised experiences. However, this situation raises sensitivities regarding consumer trust, transparency, and authenticity. The adoption of AI systems and the establishment of consumer trust critically depend on the use of explainable and transparent models [52].

In the digital environment, consumers can experience decision fatigue due to the constant flow of suggestions and notifications; the lack of transparency in algorithms can also lead to algorithmic anxiety and trust issues. The psychological barriers that consumers face in their decision-making processes directly impact the effectiveness of marketing communication. Therefore, the use of explainable and transparent algorithms emerges not just as a technical necessity but also as a critical factor that positively influences consumer psychology [53].

The presentation of content and decision-making mechanisms created by AI (artificial intelligence) enhances consumers' trust in systems transparently. Furthermore, it states that the transparent presentation of AI-generated content does not negatively affect brand authenticity and consumer attitudes; on the contrary, it supports consumer engagement [53], [54].

C. Theoretical Approaches and Ethical Frameworks

Different theoretical approaches are used to understand consumer perceptions and trust in AI-supported marketing communication. The Technology Acceptance Model (TAM) is an effective tool for determining consumers' perceptions of AI acceptance levels, focusing on the perceived benefits and ease of use [55].

The Theory of Information Security emphasises that ensuring the security of consumer data is directly related to consumer trust [56]. Furthermore, the Perceived Control and Consent Models outline consumers' perceptions of control over data sharing and the consent processes, revealing the impact of these elements on consumer trust. In addition, the Holistic AI Enhanced Marketing Framework (HAEMF) aims to strengthen consumer trust by combining human creativity and ethical considerations with technological innovations. The Dynamic Capability Theory highlights the adaptation of marketing strategies and the continual need for innovation [57].

As a result, it is essential to strike a balance between privacy, security, and ethical considerations in AI-supported marketing communication. For businesses to maintain consumer trust and fulfil their ethical responsibilities, they must prioritise ongoing research and development processes and adopt transparent, fair, and explainable AI models.

VI. THE FUTURE OF MARKETING COMMUNICATION WITH AI: CONCEPTUAL FORECASTS

A. Evolution with New Tools Such as the Metaverse, Artificial Humans, and Emotional AI

The future of marketing communication continues to be shaped by innovative tools, including virtual reality platforms like the metaverse, artificial intelligence, and emotional AI. The combination of these technologies not only remains limited to technological evolution but also deepens the quality of the relationships established with consumers [58].

Emotional AI possesses the ability to analyse consumer emotions by blending the analytical capacity of AI with emotional intelligence, thereby producing personalised marketing strategies based on these analyses. In this way, brands can enhance customer loyalty by establishing interactions on both cognitive and emotional levels [59].

Artificial humans (digital characters), when supported by principles of artificial empathy design, can function as real-time, personalised, and emotional marketing representatives [60].

B. The Transformation of Marketing Communication into Human-Machine Interaction

Marketing communication is evolving into a structure where human-machine interactions have become central, alongside AI and related technologies. The significant data processing capacity of AI, along with its capabilities in natural language processing and machine learning, enables more effective content personalisation, customer engagement, and strategic decision-making processes [61].

AI-supported chatbots and digital assistants facilitate personalised communication with consumers 24/7, making interaction continuous and effective. These interactions enhance the consumer experience not only at a functional level but also at an emotional level.

By leveraging predictive analytics powered by AI, marketers can refine their strategies in advance by forecasting consumer behaviour, optimising their campaigns, and enhancing the customer experience [62]. However, these developments also raise ethical considerations, including data privacy, consumer consent, and algorithmic fairness [63].

VII. ACADEMIC RESEARCH PROPOSALS AND NEW THEORETICAL NEEDS

The transformation occurring in AI-supported marketing communication necessitates a review of existing theoretical frameworks and the development of new areas of research. There is a need to enhance the theoretical depth of topics such as personalisation, emotional AI, the metaverse, and human-machine collaboration.

The main academic research proposals for the future are as follows:

- Consumer behaviour and brand interaction in metaverse environments,
- The effects of artificial humans on trust, authenticity, and brand loyalty,
- The success of empathetic marketing strategies with emotional AI,
- Hybrid communication models based on human-AI collaboration,
- Ethical governance mechanisms and regulations in the use of AI.

These studies will ensure that marketing communication evolves not only in response to technology but also on human-centred and ethical foundations.

VIII. CONCLUSION

In this section, the theoretical background, evolution, and current application areas of AI-driven marketing communication are addressed holistically. It has been demonstrated that AI technologies have not only enhanced operational efficiency but also brought about significant changes in strategic brand positioning, customer engagement, and communication paradigms. In particular, personalisation, content automation, chatbots, predictive analytics, and creative AI applications are enhancing the effectiveness of marketing communication and providing new theoretical insights that extend beyond traditional communication models.

However, the widespread adoption of AI-supported marketing communication also brings important issues such as data privacy, algorithmic bias, transparency, and ethical responsibilities. Therefore, the development of AI systems that are ethical, explainable, and fair is crucial for establishing brand trust and ensuring the sustainability of long-term customer relationships.

Looking to the future, it is anticipated that the metaverse, artificial humans, and emotional AI, as new-generation technologies, will continue to profoundly transform both the theoretical framework and practical applications of marketing communication. In this context, there is a need for further conceptual work in the literature, multidisciplinary research, and the development of ethically grounded application proposals. As a result, AI-supported marketing communication should be regarded as a paradigm shift that is not merely a technological advancement but rather a human-centred and socially responsible approach.

REFERENCES

- [1] S. J. Russell and P. Norvig, 'Artificial Intelligence: A Modern Approach'. Accessed: Jun. 28, 2025. [Online]. Available: <https://jmvidal.cse.sc.edu/lib/russell03a.html>
- [2] V. Rajaraman, 'John McCarthy — Father of artificial intelligence', *Resonance*, vol. 19, no. 3, pp. 198–207, Mar. 2014, doi: 10.1007/s12045-014-0027-9.
- [3] M. Haenlein and A. Kaplan, 'A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence', *Calif. Manage. Rev.*, vol. 61, no. 4, pp. 5–14, Aug. 2019, doi: 10.1177/0008125619864925.
- [4] B. Goertzel and C. Pennachin, Eds., *Artificial General Intelligence*. in Cognitive Technologies. Berlin, Heidelberg: Springer, 2007. doi: 10.1007/978-3-540-68677-4.
- [5] J. Zhang and J. Li, *Intelligent Satellite Design and Implementation*. John Wiley & Sons, 2023.
- [6] F. Jiang *et al.*, 'Artificial intelligence in healthcare: past, present and future', *Stroke Vasc. Neurol.*, vol. 2, no. 4, Dec. 2017, doi: 10.1136/svn-2017-000101.
- [7] T. Davenport, A. Guha, D. Grewal, and T. Bressgott, 'How artificial intelligence will change the future of marketing', *J. Acad. Mark. Sci.*, vol. 48, no. 1, pp. 24–42, Jan. 2020, doi: 10.1007/s11747-019-00696-0.
- [8] D. Inazarov and P. Puzyrova, 'Theoretical Concept of Artificial Intelligence, Its Impact on The Modernisation of Business Processes and Strategic Development of Enterprises', *Management*, vol. 39, no. 1, pp. 78–89, Dec. 2024, doi: 10.30857/2415-3206.2024.1.7.
- [9] M. M. Islam, 'Artificial General Intelligence: Conceptual Framework, Recent Progress, and Future Outlook', *J. Artif. Intell. Gen. Sci. JAIGS ISSN 3006-4023*, vol. 6, no. 1, pp. 1–25, 2024.
- [10] O. M. Makhallina and V. N. Makhallin, 'Artificial Intelligence: a Driver of Economic Development or a Generator of Problems and Threats?' *Beneficium*, 2024.
- [11] G. E. Belch and M. A. Belch, 'Advertising and Promotion: An Integrated Marketing Communications Perspective, (6th ed.)', 2004.
- [12] H. C. Link, *The new psychology of selling and advertising*. Macmillan New York, 1932. Accessed: Jun. 28, 2025. [Online]. Available: <https://psycnet.apa.org/fulltext/2005-04164-000-FRM.pdf>

- [13] B. S. Wijaya, 'The development of hierarchy of effects model in advertising', *Int. Res. J. Bus. Stud.*, vol. 5, no. 01, pp. 73–85, 2012.
- [14] H. Aktaş and M. Zengin, 'DAGMAR modeli: Deterjan reklamları örneğinde görsel bir çözümleme', *Selçuk Üniversitesi Sos. Bilim. Enstitüsü Derg.*, no. 24, pp. 31–43, 2010.
- [15] D. McQuail and S. Windahl, *Communication models for the study of mass communications*. Routledge, 2015. Accessed: Jun. 28, 2025. [Online]. Available: <https://www.taylorfrancis.com/books/mono/10.4324/9781315846378/communication-models-study-mass-communications-sven-windahl-denis-mcquail>
- [16] J. H. Kietzmann, K. Hermkens, I. P. McCarthy, and B. S. Silvestre, 'Social media? Get serious! Understanding the functional building blocks of social media', *Bus. Horiz.*, vol. 54, no. 3, pp. 241–251, 2011.
- [17] D. E. Schultz and H. F. Schultz, 'Transitioning marketing communication into the twenty-first century', *J. Mark. Commun.*, vol. 4, no. 1, pp. 9–26, Jan. 1998, doi: 10.1080/135272698345852.
- [18] S. O. Babatunde, O. A. Odejide, T. E. Edunjobi, and D. O. Ogundipe, 'The role of AI in marketing personalization: A theoretical exploration of consumer engagement strategies', *Int. J. Manag. Entrep. Res.*, vol. 6, no. 3, pp. 936–949, 2024.
- [19] S. Nagy and N. Hajdú, 'Consumer acceptance of the use of artificial intelligence in online shopping: Evidence from Hungary', *Amfiteatru Econ.*, vol. 23, no. 56, pp. 155–173, 2021.
- [20] A. Shil, 'AI Influencer Marketing: Building Adaptive Parasocial Customer Relationships', Accessed: Jun. 28, 2025. [Online]. Available: <https://aims-international.org/aims22/22AProceedings/PDF/A433-Done.pdf>
- [21] Y. Han, 'The Impact of Digital Media on Language Styles and Communication Methods–Based on Text, Image, and Video Forms', *Lect. Notes Educ. Psychol. Public Media*, vol. 40, pp. 211–219, 2024.
- [22] E. Güven, 'Digital Evolution in Brand Communication', in *Impact of Digital Transformation on the Development of New Business Models and Consumer Experience*, IGI Global Scientific Publishing, 2022, pp. 231–252. doi: 10.4018/978-1-7998-9179-6.ch012.
- [23] H. Chandrakumar, 'The Use of AI-Driven Personalization for Enhancing the Customer Experience for Gen-Z', *Open J. Bus. Manag.*, vol. 12, no. 6, pp. 4472–4481, 2024.
- [24] C. Ziakis and M. Vlachopoulou, 'Artificial intelligence in digital marketing: Insights from a comprehensive review', *Information*, vol. 14, no. 12, p. 664, 2023.
- [25] E. Ali, M. Riaz, and M. Rashid, 'Ethical Considerations in Use of Artificial Intelligence in Digital Marketing', *J. Peace Dev. Commun.*, vol. 8, no. 02, 2024, Accessed: Jun. 28, 2025. [Online]. Available: <https://www.pdfpk.net/ojs/index.php/jpdc/article/view/587>
- [26] H. K. Alhitmi, A. Mardiah, K. I. Al-Sulaiti, and J. Abbas, 'Data security and privacy concerns of AI-driven marketing in the context of economics and business field: an exploration into possible solutions', *Cogent Bus. Manag.*, vol. 11, no. 1, p. 2393743, Dec. 2024, doi: 10.1080/23311975.2024.2393743.
- [27] A. Karami, M. Shemshaki, and M. Ghazanfar, 'Exploring the Ethical Implications of AI-Powered Personalization in Digital Marketing', *Data Intell.*, p. In-Press, 2024.
- [28] D. P. Gowri, 'Impact of AI in Personalized Digital Marketing: Boosting Customer Engagement through Tailored Content', *J. Commun. Manag.*, vol. 3, no. 03, pp. 216–221, 2024.
- [29] M. Kubovics, 'Innovative Content Production in Marketing Communication Through AI', in *European Conference on Innovation and Entrepreneurship*, Academic Conferences International Limited, 2024, pp. 377–383. Accessed: Jun. 28, 2025. [Online]. Available: <https://search.proquest.com/openview/45967d87805119a42a363b707bc4bc9d/1?pq-origsite=gscholar&cbl=396494>
- [30] Y. Elkhatibi and R. Benabdelouhed, 'Digital revolution: How AI is transforming content marketing', *Int. J. Adv. Multidiscip. Res. Stud.*, vol. 4, no. 5, pp. 775–777, 2024.
- [31] E. Adamopoulou and L. Moussiades, 'An Overview of Chatbot Technology', in *Artificial Intelligence Applications and Innovations*, vol. 584, I. Maglogiannis, L. Iliadis, and E. Pimenidis, Eds., in IFIP Advances in Information and Communication Technology, vol. 584, Cham: Springer International Publishing, 2020, pp. 373–383. doi: 10.1007/978-3-030-49186-4_31.
- [32] C. Prabha and S. Kumari, 'AI in marketing: AI-powered chatbot', in *Ethical AI and Data Management Strategies in Marketing*, IGI Global, 2024, pp. 11–25. Accessed: Jun. 28, 2025. [Online]. Available: <https://www.igi-global.com/chapter/ai-in-marketing/351023>
- [33] H. Hilgert, 'Voice Marketing: Voice Assistants as Tools for Marketing Communication', PhD Thesis, Otto-Friedrich-Universität Bamberg, Fakultät Sozial-und ..., 2025. Accessed: Jun. 28, 2025. [Online]. Available: <https://fis.uni-bamberg.de/entities/publication/9200ae10-3fd8-4238-ab29-7f92d7d9abff>
- [34] G. Pavone and K. Desveaud, 'Strategic Implications of Chatbots in Marketing: Exploring Applications and Factors of Customer Acceptance', in *The Impact of Digitalization on Current Marketing Strategies*, L. Matosas-López, Ed., Emerald Publishing Limited, 2024, pp. 1–18. doi: 10.1108/978-1-83753-686-320241001.

- [35] E. Ruane, A. Birhane, and A. Ventresque, 'Conversational AI: Social and Ethical Considerations.', *AICS*, vol. 2563, pp. 104–115, 2019.
- [36] L. Luthra, S. Sharma, M. H. Krishna, N. V. Limbore, and R. Sobti, 'Intelligent Marketing: Using AI to Segment and Target Customers', in *2024 International Conference on Communication, Computer Sciences and Engineering (IC3SE)*, IEEE, 2024, pp. 1508–1513. Accessed: Jun. 28, 2025. [Online]. Available: https://ieeexplore.ieee.org/abstract/document/10593574/?casa_token=Cs8USArqj2MAAAAA:BVtDc9kKailnytH ZHPkthbBa5qcEAXPUafAGydZFAVsmsfZbg5JeW5Pin-1Qy4PxSmlldLXvse_o4
- [37] D. K.-A. Kushnarevych, 'Usage of AI Tools in the Process of Creating Marketing Communication', *Mark. Identity*, p. 405, 2024.
- [38] S. Arora and S. R. Thota, 'Using Artificial Intelligence with Big Data Analytics for Targeted Marketing Campaigns', *No June*, 2024, Accessed: Jun. 28, 2025. [Online]. Available: https://www.researchgate.net/profile/Saransh-Arora-4/publication/381739165_Using_Artificial_Intelligence_with_Big_Data_Analytics_for_Targeted_Marketing_Campaigns/links/667cf25a2aa57f3b8253578a/Using-Artificial-Intelligence-with-Big-Data-Analytics-for-Targeted-Marketing-Campaigns.pdf
- [39] R. Garhwal, 'Social Listening – A Review and its Use for Customer Engagement & Customer Retention by Organizations', *INTERANTIONAL J. Sci. Res. Eng. Manag.*, vol. 07, pp. 1–11, Oct. 2023, doi: 10.55041/IJSREM26431.
- [40] A. Farshi, 'Enhanced Sentiment Analysis in AI Systems: A Multimodal, Contextual, Privacy-Preserving, and Energy-Efficient Approach', 2023, Accessed: Jun. 28, 2025. [Online]. Available: <https://assets-eu.researchsquare.com/files/rs-3044415/v1/5af858a9-1dd8-42b6-84d9-af9170129586.pdf>
- [41] P. Dash, J. Mishra, and S. Dara, 'The Sentiment analysis on Social network data and its marketing Strategies: A review: Sentiment analysis', *SGS-Eng. Sci.*, vol. 1, no. 01, 2021, Accessed: Jun. 28, 2025. [Online]. Available: <https://spast.org/techrep/article/view/1979>
- [42] M. K. Singla and A. A. Alhussan, 'A Review of Artificial Intelligence for Sentiment Analysis in Social Media Data', *Metaheuristic Optim. Rev.*, no. Issue 2, pp. 01–13, Jan. 2024, doi: 10.54216/MOR.020201.
- [43] B. B. Routray, 'The Spectre of Generative AI Over Advertising, Marketing, and Branding', *Authorea Prepr.*, 2024, Accessed: Jun. 28, 2025. [Online]. Available: <https://www.authorea.com/doi/pdf/10.22541/au.170534566.63147021>
- [44] S. Dimitrieska, 'Generative artificial intelligence and advertising', *Trends Econ. Finance Manag. J.*, vol. 6, no. 1, pp. 23–34, 2024.
- [45] T. Islam, A. Miron, M. Nandy, J. Choudrie, X. Liu, and Y. Li, 'Transforming digital marketing with generative AI', *Computers*, vol. 13, no. 7, p. 168, 2024.
- [46] D. Leslie and F. Rossi, *ACM TechBrief: Generative Artificial Intelligence*. ACM, 2023. doi: 10.1145/3626110.
- [47] B. K. Sidhu, 'Generative artificial intelligence: Unveiling the potential and challenges', *Int. J. Sci. Res. IJSR*, vol. 13, no. 4, pp. 1127–1135, 2024.
- [48] D. Grewal, C. B. Saturnino, T. Davenport, and A. Guha, 'How generative AI Is shaping the future of marketing', *J. Acad. Mark. Sci.*, vol. 53, no. 3, pp. 702–722, May 2025, doi: 10.1007/s11747-024-01064-3.
- [49] G. El Refae, A. I. Aljumah, and M. T. Nuseir, 'Balancing AI Advancements and Data Privacy in Digital Marketing: A Conceptual Exploration of Ethical Considerations and Consumer Rights', in *2024 International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS)*, IEEE, 2024, pp. 263–267. Accessed: Jun. 28, 2025. [Online]. Available: https://ieeexplore.ieee.org/abstract/document/10776477/?casa_token=11UOz35eugwAAAAA:qFe625s7vjPrfUtsS7VckdTNJyr9ylCmH0CzGUEmTptxzHfcUF9bcjC5xlkQ1TUaLOclpyk5lyUq
- [50] A. K. Sharma and R. Sharma, 'Considerations in artificial intelligence-based marketing: An ethical perspective', *Appl. Mark. Anal.*, vol. 9, no. 2, pp. 162–172, 2023.
- [51] M. Al Haj Eid, A. Hashesh, A. A. Sharabati, A. Khraiwish, S. Al-Haddad, and H. Abusaimh, 'Conceptualizing Ethical AI-Enabled Marketing: Current State and Agenda for Future Research', 2024, Accessed: Jun. 28, 2025. [Online]. Available: <https://europepmc.org/article/ppr/ppr839463>
- [52] S. Baker and W. Xiang, 'Explainable AI is Responsible AI: How Explainability Creates Trustworthy and Socially Responsible Artificial Intelligence', Dec. 04, 2023, *arXiv: arXiv:2312.01555*. doi: 10.48550/arXiv.2312.01555.
- [53] C. Lee and K. Cha, 'Toward the Dynamic Relationship Between AI Transparency and Trust in AI: A Case Study on ChatGPT', *Int. J. Human-Computer Interact.*, vol. 41, no. 13, pp. 8086–8103, Oct. 2024, doi: 10.1080/10447318.2024.2405266.
- [54] A. Kirkby, C. Baumgarth, and J. Henseler, 'To disclose or not disclose, is no longer the question—effect of AI-disclosed brand voice on brand authenticity and attitude', *J. Prod. Brand Manag.*, vol. 32, no. 7, pp. 1108–1122, 2023.
- [55] H. Choung, P. David, and A. Ross, 'Trust in AI and Its Role in the Acceptance of AI Technologies', *Int. J. Human-Computer Interact.*, vol. 39, no. 9, pp. 1727–1739, May 2023, doi: 10.1080/10447318.2022.2050543.

- [56] A. Leschanowsky, S. Rech, B. Popp, and T. Bäckström, ‘Evaluating Privacy, Security, and Trust Perceptions in Conversational AI: A Systematic Review’, *Comput. Hum. Behav.*, vol. 159, p. 108344, Oct. 2024, doi: 10.1016/j.chb.2024.108344.
- [57] V. Kumar, A. R. Ashraf, and W. Nadeem, ‘AI-powered marketing: What, where, and how?’, *Int. J. Inf. Manag.*, vol. 77, p. 102783, 2024.
- [58] E. Sánchez-Amboage, V. Crespo-Pereira, M. Membiela-Pollán, and J. P. Jesús Faustino, ‘Tourism marketing in the metaverse: A systematic literature review, building blocks, and future research directions’, *Plos One*, vol. 19, no. 5, p. e0300599, 2024.
- [59] R. Velmurugan, J. Sudarvel, R. Bhuvaneswari, N. Jayanthi, R. S. Ganesh, and M. S. R. Mariyappan, ‘Artificial Intelligence and Emotional Intelligence in Marketing’, in *Balancing Automation and Human Interaction in Modern Marketing*, IGI Global, 2024, pp. 82–95. Accessed: Jun. 28, 2025. [Online]. Available: <https://www.igi-global.com/chapter/artificial-intelligence-and-emotional-intelligence-in-marketing/343907>
- [60] Y. Liu-Thompkins, S. Okazaki, and H. Li, ‘Artificial empathy in marketing interactions: Bridging the human-AI gap in affective and social customer experience’, *J. Acad. Mark. Sci.*, vol. 50, no. 6, pp. 1198–1218, Nov. 2022, doi: 10.1007/s11747-022-00892-5.
- [61] H. N. D. Şenyapar, ‘The future of marketing: The transformative power of artificial intelligence’, *Int. J. Manag. Adm.*, vol. 8, no. 15, pp. 1–19, 2024.
- [62] C. Olson and J. Levy, ‘Transforming marketing with artificial intelligence’, *Appl. Mark. Anal.*, vol. 3, no. 4, pp. 291–297, 2018.
- [63] C. Dube, ‘Cognitive Automation and Data-Driven Innovation in Marketing: Advanced Frameworks and Future Directions’, Dec. 2024, doi: <https://doi.org/10.31219/osf.io/vn5q9>.