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**ARTIFICIAL INTELLIGENCE AND DIGITAL
TECHNOLOGIES IN MODERN MARKETING:
FROM DATA ANALYSIS TO INDIVIDUAL STRATEGIES
FOR INTERACTION WITH CUSTOMERS**

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At the beginning of the third millennium, digitalisation has become one of the most important factors in the economic growth of any country. The digital transformation of the economy, driven by the development of the internet, sustainable communication channels, electronic means and data, cloud technologies and digital platforms, has led to the creation of new business models, new products and services, and new ways of doing business.

Until recently, new technologies and cost reduction were the main factors in manufacturing, but today sales depend directly on marketing, which is also undergoing radical changes under the influence of digital technologies. A customer-centric approach is becoming a fundamental concept in the new digital marketing industry [1].

The effectiveness of marketing strategies, personalisation, and innovative approaches to audience engagement can now be achieved through the use of digital tools. The introduction of innovative tools that provide a more accurate understanding of consumer needs, rapid response to market changes, and effective communication management allows us to move from traditional marketing to data-driven marketing, in which decisions are based on in-depth data analysis.

In the context of the fourth industrial revolution (Industry 4.0), the introduction of digital technologies in marketing is becoming a strategic priority.

The aim of our research is to summarise, systematise and analyse the main areas of application of digital tools in modern marketing, as well as to study the impact of digital innovations on the effectiveness of marketing strategies.

This study used a combined approach that combines qualitative and quantitative methods of analysis to comprehensively study the use of digital technologies in modern marketing, practices of implementing innovative tools in forecasting, personalisation, and data-driven marketing decision-making processes.

In the era of digital transformation, marketing is undergoing profound changes under the influence of digital innovations. The main areas of application for digital technologies in modern marketing are Big Data analytics; CRM systems and marketing strategy automation; augmented and virtual reality (AR/VR) technologies; programmatic advertising, social networks and influencer marketing (SMM (Social Media Marketing)) (Fig. 1.) and other areas of internet marketing, such as SEO, UX (User experience), PPC (Pay per click), etc.:

- Big Data technology is the foundation of digital marketing. One of the most important aspects of applying digital technologies in marketing is the ability to process large amounts of structured and unstructured data from various sources. This can be information from websites, social networks, online stores, CRM systems, bank cards, mobile applications, etc. Analytics tools such as Google Analytics, Power BI, Tableau, and others allow you to segment your audience based on behavioural patterns; identify effective communication channels; predict market trends and consumer demand; and evaluate the effectiveness of marketing campaigns. Data analytics is becoming a key tool for making informed decisions. Companies that use data analytics in marketing have a 23% higher return on investment compared to traditional approaches.

- Customer relationship management (CRM) information systems have become the basis of digital communication in marketing. CRM systems and marketing automation allow you to maintain and effectively manage your customer base, conduct email marketing, and form sales funnels. Among the most popular platforms are Salesforce, HubSpot, and Zoho CRM. Integrating CRM with analytical modules helps to improve the effectiveness of customer interactions.

- Digital social media platforms have become key channels for brand promotion. Social media and influencer marketing offer a number of advantages. With Meta Ads, LinkedIn Marketing, and TikTok Ads, companies get accurate targeting based on interests, behaviour, and geolocation; quick feedback from consumers; and promotion through opinion leaders (influencers). Influencer marketing, especially on Instagram and TikTok, is an effective way to form an emotional connection with your audience. Analytical services such as HypeAuditor and Upfluence allow you to evaluate the effectiveness of campaigns and detect bot activity.

- Programmatic advertising is the automated purchase and placement of advertising in real time using algorithms. It allows you to: perform retargeting; optimise budgets based on user behaviour; achieve higher conversion rates. The use of platforms for setting up and launching media advertising DSP (Demand Side

Platforms), such as Display & Video 360 or The Trade Desk, simplifies the management of advertising campaigns and increases their effectiveness;

– Augmented and virtual reality (AR/VR) technologies allow you to create an immersive experience for consumers, stimulating the senses to form a deep impression of a brand or product, which is relevant in retail, fashion, design, and real estate. Examples of AR/VR use include interactive catalogues, AR clothing fittings (Zara, Nike) and virtual tours for viewing real estate. These technologies contribute to the formation of a positive brand image by increasing engagement and reducing the level of product returns.

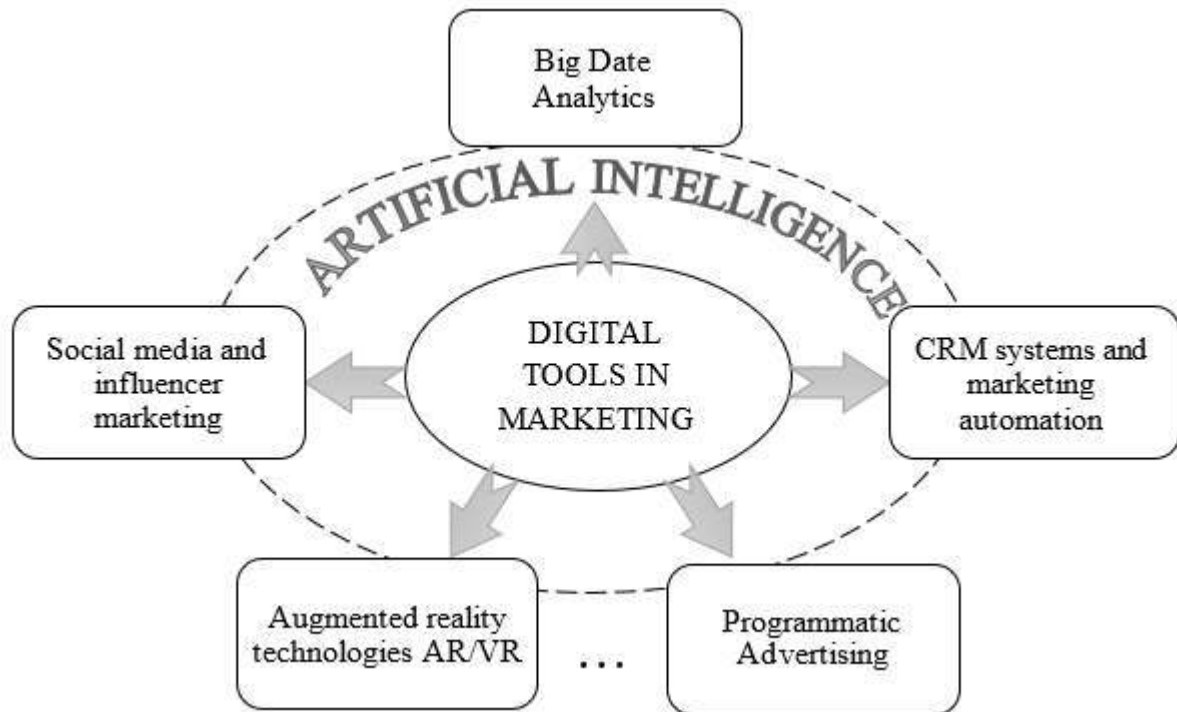


Figure 1. Main areas of application for digital tools in marketing
Source: Developed by the author

Artificial intelligence significantly increases the effectiveness of each of the above-mentioned areas of digital marketing. Artificial intelligence (AI) is now the foundation of virtually every successful marketing strategy. AI-driven marketing has gone from being a competitive advantage to an absolute necessity, as AI is changing every aspect of the marketing function and has already enabled organisations to achieve an average revenue increase of 41 % [2]. AI is transforming marketing at an unprecedented rate and changing the rules of the game for companies seeking to grow and remain competitive.

AI integration enables marketers to address a range of important tasks: from content creation, chatbots, and virtual assistants to predictive analytics, which contributes to more informed strategies, increased personalisation, efficiency, and maximised return on investment (Fig. 2). To perform their daily operations in 2025, 88 % of marketers will use AI [3].

The pace of AI implementation varies depending on marketing activities. Particular attention should be paid to AI's ability to effectively analyse large amounts

of data and generate personalised offers that meet individual consumer needs [4]. Thanks to machine learning methods, AI enables companies to improve the accuracy of marketing forecasts, automate processes, gain a deeper understanding of target audience behaviour, and respond quickly to changes in customer preferences. The use of AI for personalisation leads in terms of implementation rates – 89% of marketers use AI for personalisation on a large scale [2].

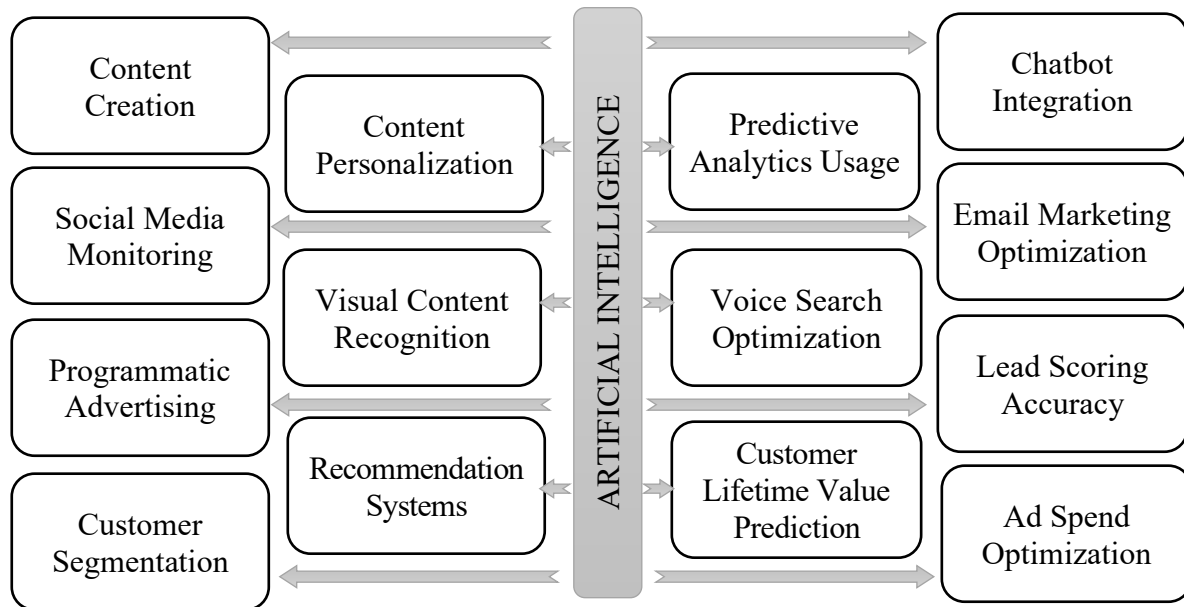


Figure 2. Artificial intelligence in marketing
Source: Developed by the author based on [3]

Currently, 93% of corporate marketers use artificial intelligence to create high-quality content [2]. AI can help in the preparation of marketing materials (articles, posts, etc.). Creating content using AI allows you to achieve the highest ROI in terms of marketing functions (return on investment for individual marketing activities or functions), which as of May 2025 is 412%. This is followed by personalisation, customer segmentation, predictive analytics, ad optimisation, email marketing, social media, SEO, conversion optimisation, and creative strategies. The development of creative strategies with AI remains the least implemented area (47%), although the ROI is also high at 187% (Table 1).

Table 1. Return on investment when using AI and level of AI implementation by marketing function, 2025. ROI by Marketing Function, 2025

	Content Creation	Personalization	Customer Segmentation	Predictive Analytics	Ad Optimization	Email Marketing	Social Media	SEO	Conversion Optimization	Creative Strategy
ROI, %	412	387	356	342	315	298	276	243	218	187
Adaption, %	93	89	87	84	82	79	75	68	63	47

Source: Developed by the author based on [2]

To interact effectively with customers, increase their engagement and responsiveness, about 80% of companies actively use AI-powered chatbots. Chatbots increase conversion by creating a more efficient and personalised customer experience and are an effective mechanism for stimulating sales. They provide instant support, respond to user requests, assist in product selection, encourage customers to make purchases, and accompany them throughout the shopping process, ensuring higher customer satisfaction [3]. The number of voice assistants is growing rapidly worldwide. Today, more than 8.4 billion voice assistants are in use, compared to only 3.25 billion in 2019 [5]. With AI-based voice assistants so popular, 55% of marketers have optimised their content for voice search. Voice search optimisation is critical for brands because, with the development of voice technologies, search engines can prioritise AI-generated content that is convenient for voice communication, changing digital marketing.

68% of marketers use artificial intelligence-based image recognition technology to analyse consumer behaviour and interaction with visual content, enabling them to develop personalised recommendations and content moderation.

AI helps optimise email marketing. Based on consumer behaviour analysis, AI improves email subject lines and structure, adapts content to individual customer preferences, and selects the optimal time to send emails. This personalised approach allows you to achieve maximum effect, increasing the relevance of each individual message and the likelihood of emails being opened by the target audience.

AI tools are used by 85% of brands to monitor social networks and evaluate audience reactions, helping them to understand customer sentiment and consumer psychology, identify new trends in preferences, and thus adjust their customer engagement strategies in real time. AI-based monitoring allows for optimising ad targeting on social media and effectively managing marketing campaigns and the brand as a whole [3].

The combination of machine learning and artificial intelligence technologies for optimisation, along with a number of innovative marketing solutions, has led to the emergence of a technologically advanced method of buying and selling advertising space on the Internet on various online resources – programmatic advertising. AI automates the purchase and management of all digital advertising and targeting to increase return on investment. Displaying personalised advertising based on user behaviour analysis ensures that marketing messages reach the most relevant audience and increase customer engagement.

Making business decisions based on traditional targeting is outdated. Today, companies use market segmentation with artificial intelligence. AI allows companies to create hyper-personalised content and product recommendations based on the analysis of vast amounts of demographic, psychographic, and behavioural data. 79% of marketers use AI to create more targeted marketing campaigns and advanced customer segmentation [6].

Artificial intelligence is becoming a powerful tool for lead generation. Lead generation allows you to collect valuable data about your target audience, which can then be used to improve marketing strategies and personalise customer

communications. AI-driven lead scoring models have increased accuracy by 50%, allowing sales teams to focus on promising customers and keep them engaged [4].

AI enables 60% of companies to accurately predict the long-term value of a customer's lifetime for a brand (CLV) and develop customer retention strategies. By analysing interaction history, behaviour patterns and purchasing habits, AI predicts the long-term value of a customer for a brand [3].

Personalisation continues to rapidly improve in digital marketing. Thanks to personalised product offers, AI-driven recommendation systems have increased sales by 25% for e-commerce platforms.

Based on an analysis of consumer preferences, audience behaviour, and external factors, AI predicts user intentions, allowing you to adjust targeting parameters, optimally allocate advertising spend, and increase the overall effectiveness of your campaign. Companies that use AI to optimise advertising costs have achieved a 30% reduction in customer acquisition costs.

Companies using AI report increased speed and efficiency of work processes, accuracy of decisions, increased revenue, efficiency, personalisation, and growth through various channels and strategies in marketing and sales. With the development of AI technologies, its role in marketing will only deepen.

Thus, the use of modern digital solutions in marketing, such as CRM systems, Big Data, artificial intelligence, automated marketing platforms, social media tools, programmatic advertising, and AR/VR technologies, etc. allows you to increase the effectiveness of marketing strategies, personalise the customer experience, optimise costs, increase profitability and ensure the competitiveness of enterprises in a dynamic business environment.

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