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GLOBAL TRENDS IN THE USE OF ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING

Kurpayanidi Konstantin Ivanovich
Professor, Candidate of Economic Sciences. International Institute of Food Technologies and Engineering Fergana Polytechnic Institute
antinari@gmail.com

Abstract: The article is devoted to the study of the impact of artificial intelligence (AI) technologies on the transformation of digital marketing. Emphasis is placed on the key role of AI in ensuring high quality of goods and services, as well as in simplifying complex marketing processes. Key applications of AI are reviewed, including content personalization, predictive analytics, automated content creation and management, customer support, marketing automation, and advertising campaign optimization. It is concluded that the significance of further development of AI in digital marketing is significant due to the emergence of new opportunities and challenges.

Modern artificial intelligence (AI) technologies are having a significant impact on the evolution of digital marketing, becoming an integral element in improving the quality of products and services. These technologies play a key role in optimizing marketing processes, ensuring accurate target audience reach, increasing the effectiveness of advertising campaigns, and reducing the complexity of strategic decision-making. By supporting marketers in developing and implementing strategies, AI contributes to more effective customer relationship management and increased ROI [1].

With the introduction of advanced machine learning tools, marketing analytics and forecasting are reaching a new level. Machines that mimic human cognitive abilities are able to perform tasks related to data analysis, interpretation, decision making and process optimization. This is made possible by the widespread use of machine learning, natural language processing, and predictive analytics technologies, which allow automating marketing operations and creating unique personalized user scenarios [2].

Empirical studies confirm the steady growth and adaptation of AI in the marketing industry. In particular:

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- Markets forecasts the global AI market in marketing industry to reach $40.09 billion by 2025.

- Data from https://www.salesforce.com shows that 51% of marketers are already using AI in their practices, while 27% plan to integrate AI into their marketing strategies in the next two years.

- Adobe research demonstrates that companies that use AI to optimize marketing strategies are twice as likely to achieve their business goals compared to those who do not use such technologies [3].

Application of AI in digital marketing:

1. Personalization: AI enables the creation of personalized user experiences by analyzing customer actions and preferences in real time. Using algorithms to process data, marketers can tailor content, recommendations, and offers to individual user needs, increasing engagement and conversion.

2. Predictive analytics: AI algorithms analyze historical data to predict new trends and user behavior. By processing large amounts of data and identifying patterns, marketers can make informed predictions, improve customer insights, and increase campaign effectiveness.

3. Content creation and curation: AI tools such as natural language generation (NLG) and recommendation engines make content creation easier. These technologies can automatically generate articles, product descriptions and social media updates based on pre-set parameters and user preferences, saving time and resources.

4. Customer Support: AI-based chatbots and virtual assistants provide 24/7 support by answering frequently asked questions, solving problems, and helping with the buying process. These technologies improve the customer experience and foster customer loyalty.

5. Marketing Automation: AI automation systems simplify routine tasks such as Email marketing, social media posting. Automation allows marketers to focus on strategic tasks, making campaigns more efficient and scalable.

6. Targeting and Ad Optimization: AI algorithms improve targeting and ad optimization by analyzing big data to identify the most relevant audiences, keywords, and ad positions. Applying predictive modeling and dynamic optimization techniques allows advertisers to continuously improve campaigns and increase ROI [4].

Thus, AI is transforming digital marketing, making it more accurate, personalized and effective.

Industries using artificial intelligence in digital marketing

1. online retailers: Artificial intelligence-based recommendation engines are becoming key tools for online retailers such as Amazon and Alibaba. These systems provide personalized product recommendations to help increase conversions and sales. For example, Amazon uses AI to analyze purchase history and search to suggest products that a user might be interested in, and also introduces cross-selling and add-on sales, which significantly increases the total value of purchases [5]. In Uzbekistan, online store Uzum is also actively applying AI to create recommendations and personalized offers, improving customer experience and increasing sales.

2. Retail: In retail, companies like Walmart and Target are applying predictive analytics to forecast demand for goods and optimize inventory management. AI algorithms analyze sales data and consumer trends to more accurately identify market needs. This allows not only to improve inventory, but also to adapt marketing strategies to individual customer preferences. In Uzbekistan, retailers such as Makro and Korzinka are beginning to adopt similar technologies, which is helping to improve the efficiency of their operations and customer satisfaction.

3. Financial sector: Financial institutions such as JPMorgan Chase and Goldman Sachs are using AI to analyze transactional data and identify fraudulent transactions, assess credit risk and personalize financial products. These technologies help not only to improve the security of financial transactions, but also to improve customer service. In Uzbekistan, banks such as National Bank of Uzbekistan, Uzumbank, Kapitalbank and others are actively promoting AI to improve security systems and optimize credit decisions.

4. Healthcare: In healthcare, AI technologies such as chatbots and virtual assistants play an important role in providing medical advice and organizing appointments. Examples include systems developed by companies such as Babylon Health and IBM Watson Health that help patients receive medical advice and manage their appointments. In Uzbekistan, medical institutions such as Hayat Medical Centre, Horev Medical Center, Medion Clinic Network (Tashkent) and several others continue to implement AI to improve access to medical services and enhance the quality of patient care.

5. Travel and Hospitality: AI systems used in the travel industry, such as those offered by Expedia and Booking.com, provide personalized hotel and itinerary recommendations, simplify the booking process and improve customer experience. In Uzbekistan, hotel chains such as Hyatt Regency Tashkent and travel agencies such as Canaan Travel, 360Travel, ANUR TOUR Tashkent have already implemented and are using AI elements to improve service and increase customer loyalty.

With the development of artificial intelligence (AI) technologies, its importance in digital marketing is steadily increasing, contributing to the creation of personalized user experience and optimization of marketing strategies. Modern marketers are increasingly focused on data analytics and process automation to effectively predict the needs of target audiences and build highly accurate communications. Integrating AI into analytics platforms and advertising tools is becoming standard practice, allowing companies to not only improve forecast accuracy but also strengthen customer engagement.

However, alongside the benefits of widespread AI adoption are increasing ethical and data privacy requirements. Responsible use of technology requires marketers to be transparent, keep information secure, and respect consumer rights.

Conclusion

Artificial intelligence technologies are having a revolutionary impact on digital marketing, changing traditional approaches to strategy development, data management, and customer engagement. Tools such as predictive analytics and AI-powered automation are opening up new opportunities to improve the efficiency and accuracy of marketing campaigns.

The future of digital marketing lies in the further expansion of AI, which will enable companies to adapt to the rapid changes in the digital environment, achieve business goals, and strengthen their competitive advantage. Success will largely depend on companies' ability to balance technological innovation with ethical principles, ensuring long-term sustainability and audience trust.

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SIRDARYO VILOYATIDA QISHLOQ XO‘JALIGINI BARQAROR RIVOJLANTIRISH UCHUN INNOVATSION TEXNOLOGIYALARNI JORIY ETISH VA OZIQ-OVQAT XAVFSIZLIGINI TA’MINLASH

Eshpulatov Dostonbek Boxodir o‘g‘li
Guliston davlat universteti tayanch doktoranti
eshpolatovdoston@gmail.com
Elnazarova Sharifa Isroilovna, Li Kristina Alekseyevna
Guliston davlat universteti magistrlari

Annotatsiya. Ushbu tezisda Sirdaryo viloyatining qishloq xo‘jaligida innovatsion texnologiyalarni joriy etish va oziq-ovqat xavfsizligini ta’minlash orqali iqtisodiyotni barqaror rivojlantirish masalalari ko‘rib chiqiladi. Sirdaryoda suv resurslarining cheklanganligi va resurslardan samarali foydalanish zaruriyati mavjud. Mazkur tadqiqotda raqamli texnologiyalar, "aqlli" dehqonchilik, va zamonaviy sug‘orish tizimlari kabi yondashuvlar tahlil qilinadi va ularning iqtisodiy, ekologik afzalliklari ko‘rsatiladi. Oziq-ovqat xavfsizligini ta’minlashga qaratilgan chora-tadbirlar va ularning ijtimoiy-iqtisodiy ahamiyati yoritiladi.

Kalit so‘zlar: Sirdaryo viloyati, qishloq xo‘jaligi, innovatsion texnologiyalar, oziq-ovqat xavfsizligi, barqaror rivojlanish.

Kirish. Qishloq xo‘jaligi sektori O‘zbekiston iqtisodiyotining muhim tarmoqlaridan biri hisoblanadi, chunki mamlakat aholisining oziq-ovqat xavfsizligi va iqtisodiy barqarorligi ushbu sektorga bog‘liq [1]. Shu ma’noda, mamlakat viloyatlarida qishloq xo‘jaligini zamonaviy texnologiyalar asosida rivojlantirish orqali samaradorlikni oshirish va mavjud resurslardan oqilona foydalanish dolzarb vazifalardan biridir [2]. Sirdaryo viloyati mamlakatning qurg‘oqchil hududlaridan biri bo‘lib, bu hududda suv resurslarining cheklanganligi va iqlim o‘zgarishining ta’siri sezilarli darajada namoyon bo‘lmoqda [3]. Shu sababli, Sirdaryo viloyatida suv va yer resurslarini samarali boshqarish orqali barqaror qishloq xo‘jaligini rivojlantirish muhim ahamiyat kasb etadi.

Oziq-ovqat xavfsizligi mamlakat iqtisodiy barqarorligi va xalq farovonligi uchun asosiy omil hisoblanadi. Bu borada oziq-ovqat mahsulotlarini o‘z vaqtida yetishtirish va yetarli darajada ta’minlash muammosi yuzaga keladi. Shu sababli, Sirdaryo viloyatida innovatsion texnologiyalar yordamida qishloq xo‘jaligini rivojlantirish orqali oziq-ovqat xavfsizligini ta’minlash muhim ahamiyatga ega [4].

Innovatsion texnologiyalar, jumladan, raqamli dehqonchilik, dronlar yordamida kuzatuv va monitoring, “aqlli” sug‘orish tizimlari va biologik o‘g‘itlardan foydalanish kabi usullar qishloq xo‘jaligi samaradorligini oshirish imkoniyatlarini yaratadi. Bu texnologiyalar nafaqat iqtisodiy jihatdan samarador, balki ekologik muammolarni bartaraf etishda ham muhim omil hisoblanadi [5].

Mazkur tezisda Sirdaryo viloyatida oziq-ovqat xavfsizligini ta’minlashda qishloq xo‘jaligini innovatsion texnologiyalar asosida rivojlantirish yo‘nalishlari va