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ARTIFICIAL INTELLIGENCE IN ADVERTISING

In times of innovative technologies evolution in the marketing communications the interest to the new ways of advertising creation as an effective influence instrument on consumer behavior is growing. Digital advertising is one of the most successful areas of marketing that has adopted artificial intelligence.

Artificial intelligence (AI) is a branch of computer science that simulates the processes of human intelligence.

Artificial intelligence is a very young field of research, started in 1943 by American neurophysiologists W. McCulloch and W. Pitts, who developed the first "neuron" model based on the theory of human brain activity. In 1950, the English mathematician A. Turing formulated the first definition of artificial intelligence. 1956 is considered the year of official recognition of AI as a scientific field of research [1].

Considering artificial intelligence, it is important to take into account its main components:

- Machine learning (ML) – studies methods of constructing algorithms;
- Deep learning (DL) – focuses on data classification;
- Artificial neural networks (ANN) – reproduces the work of the human brain;
- Natural language processing (NLP) – specializes in speech recognition technologies.

Artificial intelligence in business is a today reality that few people notice. Video games, self-driving cars, chatbots, facial recognition technologies, voice assistants Alexa, Google Assistant, Siri, and even advertising on social networks work on the basis of AI.

According to the IBM Global AI Adoption Index 2022, 35% of companies use artificial intelligence (AI) in business, and another 42% are exploring the possibilities of its usage [1].

At this technologies stage, AI helps to personalize advertising, direct it to a specific consumer accordingly, which significantly increases the probability that the customer will make a purchase. In fact, AI takes communication with the client to a new level. When offering visitors advertising, the system takes into account their needs, age, gender, interests, etc. This advertising format can be adapted to the season, time of day and many other factors. This is done in order to provide the most convenient service. How does it work? When you search for a product or service on the Internet, AI instantly remembers what you need and suggests similar things on other different platforms. You have become a target audience for brands and companies that offer services or products that you are interested in. AI is widely used on platforms such as Facebook, Instagram, Google and Snapchat. This technology helps companies to show the most relevant advertisements to the target audience at the right time, which ultimately improves the performance of the ads and leads to more sales [2].

For example, thanks to machine learning technologies, Google has increased the volume of online advertising and improved search results. The corporation is also working on the LaMDA (Language Model for Dialog) project.

The main launch of the last year in this area is Google Performance Max. The system with artificial intelligence manages advertising at once on all Google platforms. The user only needs to provide materials for creatives, describe the target

audience and perform a few more settings. The algorithm itself will collect creatives and select the strongest ones, optimize the campaign budget, adjust the display time and specify the target audience.

Performance Max is a special type of campaign that can be selected in Google's advertising cabinet [3].

Google used AI not only to manage online advertising, but also for offline promotion. So, the creative director of Google Unskippable Labs, Noel Paasch, talked about a case with outdoor advertising in London.

Google Outside has combined 160 advertising structures across the city to support the search. Advertising banners showed recommendations about nearby routes, events, recipes and ideas for the evening to the passers-by. The content of the banner changed depending on the time of day, weather, geography, latest news and search trends.

This is how AI helped to optimize external advertising. 81% of passers-by who saw the Google Outside campaign called Google the most innovative brand. And every fifth user installed Google Search on their phone after that [4].

The use of artificial intelligence in advertising has its disadvantages:

- job loss: it is expected that 85 million people will lose their jobs between 2020 and 2025 due to the automation of processes;

- social manipulation: Philippine politician Ferdinand Marcos Jr., who owns a bot farm in TikTok, won the 2022 elections thanks to this;

- because TikTok works on the basis of artificial intelligence, each user receives content according to their preferences. The algorithm is unable to filter harmful or inaccurate content;

- financial crises due to AI algorithms: the financial industry most often involves AI to solve many issues. Therefore, experts predict that possible errors in algorithms can cause a financial crisis [1].

Artificial intelligence is a new tool in human history, the invention of which is as important to technological progress as the internal combustion engine once was. AI significantly simplifies life and performs tasks much faster, and due to the progress, more precisely than people. It calculates, analyzes huge volumes of data, generates interesting ideas for advertising. Many companies already use it. And the AI segment will grow every year, even month. That is why our future lies in the technologies of artificial intelligence, and we need to adapt to the cooperation terms with it and the duty to limit it, so that this power is not used by criminals or the AI itself does not get out of our control. This is how we will make our future safer, more developed and happier.

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