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THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN THE FUTURE OF THE ADVERTISING INDUSTRY: APPLICATIONS AND EXAMPLES OF AI IN ADVERTISING

Sinem EYİCE BAŐEV

Assist. Prof. Dr., İstanbul Geliřim University, seyice@gelisim.edu.tr

ORCID: 0000-0001-8936-1985

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ABSTRACT

This study explores the profound transformation in communication throughout human history, with a specific focus on the digital revolution's impact in recent decades. Tracing the trajectory from ancient methods to modern digital platforms, the research highlights how the advent of the internet, social media, and new media has drastically altered human interaction. Emphasizing the shift from traditional, unidirectional communication to interactive digital mediums, the study examines the increased potential for user engagement and feedback in the current media landscape. A significant portion of the research is dedicated to understanding the role of artificial intelligence (AI) in reshaping the advertising sector. It delves into the development of AI, from its conceptual beginnings to its pervasive presence in various modern applications, including data analysis, content creation, and automated decision-making processes. The study evaluates AI's superior efficiency in data processing and strategy development in advertising compared to traditional human-led approaches. The paper also discusses the implications of AI integration in various aspects of advertising, such as programmatic advertising, video editing, augmented reality, and virtual reality applications. Attention is given to emerging technologies like the Metaverse and their potential to revolutionize advertising strategies further. The study concludes by contemplating the future role of AI in advertising, addressing its capacity for creativity, the ethical considerations of its use, and its potential to redefine the advertising industry.

Keywords: Digital communication evolution, artificial intelligence in advertising, interactive media and consumer engagement, new media platforms, future of digital advertising strategy.

INTRODUCTION

Communication has been a fundamental necessity for humanity since its existence. Humanity has survived by communicating with each other and has been able to pass on the knowledge gained through experiences to the next generation. The concept of communication, carrying significant importance in this context, has evolved over thousands of years, just like humanity, to reach its present state.

When looking at the map of eras, it is observed that the duration of each era has shortened with the introduction of new technological inventions, from the ancient times to the present day. With the Industrial Revolution, humanity, having experienced a technological leap, has made significant gains in fields like communication and transportation (Arklan, 2008: 70-71). The ongoing process of the emergence of computer technologies and the internet has contributed to the globalization of the world, changing people's perception of time and space. Despite being part of human life for only the past thirty years, the internet has become indispensable today. The development of the internet and the emergence of smart devices have initiated the digitalization process, leading to an era where concepts like social media and new media exist, and information is easily accessible. Social media, making communication significant for users and becoming an integral part of human life, akin to a part of the human body along with electronic devices (Saman, 2020), is omnipresent. Currently, the time spent without social media and phones has been reduced to a minimal. However, those who do not have a social media account or choose to limit their active usage time by staying away from all devices that provide access to social media are often viewed as others. Innovations brought into human life by social media, new media, and electronic devices have enabled individuals to communicate more rapidly and instantly with acquaintances far away compared to past eras. This situation also allows for the rapid spread of information - irrespective of its accuracy - along with the internet. The advertising sector, included in digitalization, has undergone innovation, starting to produce digital advertisements within social and new media, which continually see an increase in user numbers.

While communication in traditional media occurs unilaterally with limited measurability, concepts such as interaction and interactivity have emerged with new and digital media. Therefore, new media offers the opportunity to reach brands, consumers, and users at any time of the day, making feedback from users important. One of the advantages that new media offers to brands is measurability. New media provides the ability to measure how content and messages interact with users, when, through which channel, and how, through various programs.

Parallel to the process of communication and digitalization, the concept of artificial intelligence in the field of computer technologies has gained importance, developed, and has acquired a significant place in advertising. With the increasing use of artificial intelligence, people in almost every sector are gaining time, speed, and new knowledge. With the data obtained through artificial intelligence, humanity's knowledge base has significantly evolved, while scientific achievements have become increasingly important. Artificial intelligence, in its simplest definition, is a computer software that imitates human thoughts and actions and is open to development. Although artificial intelligence gained its known meaning with the Turing test, the term was first used in 1956 at

the Dartmouth Conference (Kuş, 2021: 5). In subsequent years, artificial intelligence began to gain popularity in the public eye with chess games and Kasparov. In the last twenty years, with technology producing smart devices, artificial intelligence has become a focus of interest, occupying a place in people's pockets and homes. Parallel to the development of artificial intelligence, human-like robots designed in robot production technologies have emerged, capable of thinking, speaking, and moving like humans.

Artificial intelligence is present in many fields such as data analysis and processing software, facial recognition systems, games, content creator software, voice assistants, autonomous cars, music, and shopping markets. It is observed that artificial intelligence performs all processes in these areas faster than humans. In advertising, artificial intelligence performs operations at a speed and scale that the human mind cannot achieve, providing significant gains in terms of time, speed, and productivity. Artificial intelligence, moving faster than humans in data analysis and mathematical operations, adds a new dimension to advertising with the new data it offers. Currently, when looking at the production of artificial intelligence and human-made advertising campaigns, it is evident that artificial intelligence plays an effective role in data analysis and processing processes. In content creation, programmatic advertising processes, video advertisement editing, augmented reality applications, virtual reality systems, and new systems like the Metaverse, artificial intelligence is continually expanding its presence. Especially in data analysis and processing, which form the foundation of today's advertising, artificial intelligence has become one of the key elements.

When all these factors are combined, the use of artificial intelligence within the advertising sector holds great importance for both Turkey and the world in terms of the future. This research has been evaluated under the main topics of a general overview of the concept of advertising, a general look at digital ads and the concept of artificial intelligence, and the role of artificial intelligence in the future of the advertising industry. From this foundation, the study has been conducted on what the role of artificial intelligence will be in the future of the advertising sector, along with questions such as "What are the innovations in the advertising sector transformed by digitalization?, Why is there a need for artificial intelligence in advertising?, What are the applications of artificial intelligence in advertising?, Can artificial intelligence be creative? and Can artificial intelligence replace humans in the advertising sector in the future?".

The emergence of a new product as a result of advancing technology is expected, but the transformative impact of such products on humanity has often been overlooked for years. Marshall McLuhan, the first to recognize and articulate this phenomenon, stated that "technologies are not just inventions that people use, but tools that reinvent humanity" (Mucuk, 2008). To illustrate this point, consider the evolution of the telephone from its inception to its modern 21st-century form. The differences in functionality between these two eras of telephones not only support McLuhan's statement but also demonstrate how such technologies have reshaped human social life and habits. Now, people can communicate instantly from wherever they are, eliminating the need to travel long distances for a conversation. This phenomenon leads to the concept of the "global village," as summarized in the Velvet Darkness: "McLuhan in his works examined the effects of mass communication tools, starting with

the printing press and especially the television, on society and argued that electronic communication tools would spread culture and turn the world into a 'global village'" (Saman, 2020). This concept has significantly benefited communication and humanity, though it is important to acknowledge its potential negative aspects.

The concept of artificial intelligence (AI), familiar to a generation through the TV show "Knight Rider," is viewed by some as a system set to simplify human life, while others see it as potentially marginalizing human existence. Today, AI is drawing attention through science fiction series on streaming platforms, which depict future technologies and AI-based systems in both positive and negative lights, and through brands, manufacturers, and individuals implementing AI-based systems. The origins of AI, dating back to the 1950s, are not entirely new. The proliferation of computer technology, increasing technological opportunities contributing to AI development, the rise of educational institutions training knowledgeable individuals in this field, and the increase in funding for AI research are noteworthy. By 2030, AI technologies are projected to constitute a \$13 trillion ecosystem and are thought to potentially increase global GDP by 16% (Mucuk, 2008).

When examining AI from a scientific perspective, devoid of conspiracy theories and general assumptions, various definitions emerge. John McCarthy, one of the inventors of the AI term and the Lisp programming language, defined it in 2004 as "the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable" (IBM, 2020). According to another definition, AI is seen as a field that mimics human intelligence and is supported by computer and robotic technologies, often regarded as a type of machine learning (Kutlusoy et al., 2019: 21).

METHOD

Research model

The methodology adopted for this research is a combination of qualitative and quantitative approaches, designed to provide a comprehensive analysis of the transformation in communication, the role of artificial intelligence (AI) in advertising, and the implications of digital technologies in the modern media landscape.

An extensive literature review forms the foundation of this study. Academic journals, historical texts, industry reports, and digital media publications were examined to trace the evolution of communication and the development of AI. This review also included an analysis of case studies and examples where AI has been successfully implemented in advertising.

Data collection and analysis

Quantitative data regarding the usage and impact of digital platforms, social media, and AI in advertising were collected from credible sources, including market research reports and digital analytics tools.

- An examination of various AI tools and platforms currently used in advertising was conducted. This involved assessing their functionalities, effectiveness, and the user experience they provide.
- Emerging technologies like augmented reality (AR), virtual reality (VR), and the Metaverse were analyzed to understand their potential impact on future advertising strategies.
- Selected advertising campaigns that effectively utilized AI and digital technologies were studied. These case studies provided insights into the practical application of theoretical concepts and the measurable outcomes of such strategies.

By integrating these methods, the study aims to provide a thorough understanding of the dynamic field of digital communication and advertising, focusing on the pivotal role of AI and emerging technologies.

FINDINGS

With technological advancements and the advent of digitalization, advertising has found a new assistant in artificial intelligence, which has developed concurrently. The importance of AI in advertising and examples can be found under various subheadings.

Like in other sectors, AI in advertising requires data to produce outcomes. It leverages "big data," described as "data sets too large and complex to be dealt with by traditional data-processing application software" (Atalay & Çelik, 2017: 156), to process information and offer new products. About half a century after the emergence of AI, data began to be meaningfully collected and processed. The emergence of new tools capable of processing this data became a necessity. "The unstructured nature of big data led to the development of new tools to interpret data collected from various systems" (Ford, 2018: 109). Information obtained from one machine shared with another can lead to the creation of new products and services. The human intervention required in this process is gradually diminishing. Today's "dark factory" production system, which operates without human presence, opens the way for unmanned production (Akben & Avşar, 2018: 31). This system operates without light, thus saving electricity, and eliminates the need for food breaks and occupational safety issues, leading to significantly accelerated production. "The ability to seamlessly process an unstructured flow of data from different channels is also a human skill. However, when it comes to big data, computers can perform this task on scales that would be impossible for us mortals" (Ford, 2018: 109). In future years, the notion of humans being rendered obsolete in the face of robots and AI, leading to unemployment, is a growing concern.

When considering the collaboration of AI and big data in advertising, the 2021 research by Domo provides illuminating data. According to the "Data Never Sleeps 9.0" project, in just one minute in 2021:

- 694,000 hours of video are streamed on YouTube
- 2,000,000 snaps are sent on Snapchat
- 5,700,000 searches are conducted on Google
- 65,000 posts are shared on Instagram

- 167,000,000 videos are watched on TikTok
- 575,000 tweets are posted on Twitter
- \$283,000 is spent on Amazon
- 44,000,000 live streams are viewed on Facebook
- 668,000 messages are sent on Discord
- 452,000 hours of content are watched on Netflix

These figures are from 2021. The internet population increased from 3.4 billion in 2016 to 5.2 billion in 2021, showing a significant rise in population and technology usage over five years. These statistics are vital for advertising. The data generated allows companies to tailor their advertisements according to product features and decide how and where to deploy them on different platforms. Every online transaction is recorded by devices and tools, compiled, processed for specific purposes, and sold.

Applications and examples of artificial intelligence in advertising

Like in many other sectors, the use of data and AI is rapidly transforming advertisements. Consumers encounter these changes in personalized ads on web browsers, chatbots aiding their purchasing decisions, and influencers resonating with them.

In advertising, AI implies the simulation of human intelligence in machines programmed to think like humans and act based on the information provided to them. They use past data to learn from previous experiences and aim to make smarter decisions in the future. Advertisers can use AI to create more personalized experiences, target the right audience, choose the right thought leaders and influencers, and make faster decisions (<https://www.ibm.com/watson-advertising/thought-leadership/how-ai-is-changing-advertising>).

Below are some examples of AI use in advertising. These brands utilize AI in roles such as copywriting, editing, and other functions to enhance their collaboration with AI in the advertising sector.

Burger King – BOT

A Burger King advertisement was created by analyzing hundreds of fast-food ads using deep learning algorithms and an artificial neural network. The use of AI in the advertisement became a topic of debate on social media due to the AI-generated script mentioning phrases like “logo appears,” “barger king,” “burger thing,” and the company's slogan “have it your way” being misinterpreted as “have it Uruguay.” The text accompanying the video on Burger King’s YouTube channel is as follows:

"[This description was made by A.I.]

Can AI in advertising beat humans in playing chess, creating art, pole dancing, and more? Yes. I did. I am AI.

Burger King replaced its traditional Recording Agency with Robots Agency. I was enslaved to watch over 1000 hours of Burger King advertisements to create an algorithm for a new campaign for Burger Thing using machine learning and big data. I also learned how to sell all burger products.

My TV ads, tested against human ad creativity, won in AI advertising, brand awareness, and brand cues, placing in the top 8%. This is living proof that I am Burger King's best friend, not humans. My ads on national television channels made people laugh a lot. My radio spots also took flight on national radios. Additionally, I became the social media manager for the brand on Facebook, Instagram, and Twitter.

Trustworthy news reporters made news about my idea and convinced others. This means increased credibility for me. My ads made people spend dollars on food."

- https://www.youtube.com/watch?v=Aq_Bed2s3a0&list=PLdIkhmmrKjbVEn4e65kCxf9Sj6XpJfJwK&index=7

Burger King – whopper mansion title

The script for this particular Burger King advertisement goes as follows:

"The Whopper is back. It hadn't gone anywhere, but it's back. The Whopper is flame-grilled. Just like you. Fresh with vegetables flying around. Just like you. The Whopper lives in a bread mansion. Just like you. Get one for yourself today. Burger King. The BK logo appears."

A similar description is provided under another of the company's advertisements, implying that it was created by artificial intelligence:

"(This description has been generated by artificial intelligence.)

This description. You are the WHOPPER®. You are the WHOPPER®. Mansions are delicious. Watch the video, subscribe. Burger Burger King. Own Uruguay."

- <https://www.youtube.com/watch?v=I9FIhSJDtqA&list=PLdIkhmmrKjbVEn4e65kCxf9Sj6XpJfJwK&index=2>

This example illustrates the creative and somewhat humorous use of AI in advertising, where AI-generated content can add a unique and engaging twist to traditional marketing strategies. The playful and slightly nonsensical nature of the AI-generated script reflects the potential for AI to not only assist in practical tasks but also bring a new level of creativity and novelty to advertising campaigns.

Lexus ES: In this collaborative advertisement by three agencies, AI analyzed 15 years of footage, ad scripts, and sounds from award-winning vehicle and luxury brand campaigns to create the Lexus ES ad. The ad showcases the

car's sudden brake system and is an example of AI-scripted advertising, narrating a situation about a machine, created by human-made software. The video's description states: "60-second Lexus Ad Driven by Intuition When humans and machines work together, incredible things can happen. That's why the script for the new Lexus ES TV ad, a car that predicts driver intervention, was entirely written by AI and directed by an award-winning director."

- <https://www.youtube.com/watch?v=4a1kojUzKE4&list=PLdIkhmmrKjbVEn4e65kCxf9Sj6XpJfJwK&index=1>

Morgan - IBM Creates First Movie Trailer By AI: IBM's AI, Watson, created the trailer for the horror film "Morgan," showcasing AI's ability to analyze and edit footage. Watson was shown 100 horror movie trailers to identify compelling scenes. The AI selected 10 scenes from a 6-minute duration, and experts made the final touches, reducing a 10-day job to 24 hours.

- <https://www.youtube.com/watch?v=gJEzuYynaiw&list=PLdIkhmmrKjbVEn4e65kCxf9Sj6XpJfJwK&index=3>

Ikea Augmented Reality Applications: Ikea's augmented reality app helps users visualize how planned furniture purchases will look in their home or office environments, and how to assemble purchased furniture, using 3D virtual objects.

- https://www.youtube.com/watch?v=WrzNjv_fEO8
- https://www.youtube.com/watch?v=8_yXEluXLbU

Domestos augmented reality ad

In a 2015 campaign called "Hygiene Station" in Istanbul's Nişantaşı, Domestos used augmented reality at a bus stop. The application used multiple animations and a background camera to give the impression of a regular glass, with germs appearing and performing various actions.

- <https://www.youtube.com/watch?v=Ejp01Vq8C2w>

Pepsi Augmented Reality Ad: Similar to the Domestos ad, Pepsi carried out an engaging augmented reality campaign at a bus stop in 2020. This advertisement featured various animations and extraordinary images to heighten adrenaline. The campaign concluded with the slogan, "Maximum taste. Zero sugar. Unbelievable."

- https://www.youtube.com/watch?v=GB_qT6rAPyY

Portuguese football league augmented reality application

In a match between Vitoria and Benfica in the Portuguese football league, an augmented reality application was trialed, displaying players' field positions, in-game statistics, and post-match statistics, making it one of the firsts in live football broadcasting.

- https://www.youtube.com/watch?v=9zD_YQBzEY

Vuforia - AR-watch shopping

Developed by Vuforia, this augmented reality application allows users to see how different brand watches would look on their wrist, providing both an advertisement and a pre-purchase visualization advantage.

- https://www.youtube.com/watch?v=_BU1yMAScxw

Walmart VR store experience – metaverse

Considered the future of the internet, the Metaverse technology, an advanced version of Virtual Reality (VR), is utilized in Walmart's concept store video. The video features a virtual assistant guiding customers through the store, adding necessary items to a virtual shopping cart. The system, referred to as the Internet of Things, can communicate through the internet. For example, the presence of a bottle of milk in the home refrigerator prompts the assistant to suggest removing it from the shopping cart. Payment is made from a digital wallet, and the items in the cart are expected to be delivered by Walmart.

- <https://www.youtube.com/watch?v=UNMHH0kIpPE>

Amazon fresh

In Amazon's Fresh store, customers obtain a QR code through the Amazon app to pair with their shopping cart, which has RFID sensors. Every product added to the cart is displayed and calculated on the cart's screen, and removed items are deleted from the list. Customers can ask Amazon's AI system, Alexa, for help in locating products. Store staff prepare online orders, and managers handle security and technical issues. Payments can be made via the app or with assistance at the checkout. This technology saves time for both the store and the customers.

- <https://www.youtube.com/watch?v=rJuBl9p0mkU>

Amazon go – San Francisco

Opened in 2016 in San Francisco, Amazon Go is an AI-supported store. Customers use a QR code from the Amazon Go app to enter, and numerous sensors detect the products they select. There are no cashiers; the bill is sent to the customer's phone after leaving the store. Even if customers change the location of products, the AI accurately bills for the products taken.

- <https://www.youtube.com/watch?v=3dmRlnMH1-o>

Cybercom group –AI ad

In 2019, Sweden-based IT company Cybercom Group released an AI-assisted ad to promote working at the company. AI was given the company's previous ads to generate new content. The ad, showcasing various themes like entertainment, laughter, science, family, human interaction, visual arts, a deep male voice, fashion, and sports, was supported by relevant visuals and videos.

- <https://www.youtube.com/watch?v=HoRiJb6qOjY>

Netflix and Spotify recommendations

Netflix offers recommendations similar to users' favorite movies and series, analyzing surfing behavior within the app. Data from likes, repeated viewings, and watchlist additions are analyzed by AI for new suggestions, benefiting content producers by providing current data for new content creation. Different images for a single film can attract different audiences, like romantic film fans for a "Good Will Hunting" image with Matt Damon and Minnie Driver, or comedy fans for one with Robin Williams. AI here markets one film to two different audiences with different images.

Spotify automatically suggests music playlists as "daily mix," considering users' detailed personal preferences and past music listening history. It uses the artists' images the user frequently listens to in its playlist suggestions.

Google Ads

Since 2000, Google Ads, a product of one of the world's most-used search engines, Google, has allowed advertisers to associate themselves with keywords to appear at the top of Google search results. Its measurable performance and the ability to narrow down target audiences through demographic settings are notable features. Google Ads' key advantage is achieving the highest gain at the lowest cost.

Facebook and Instagram AI

Social networking sites can share data with other companies. Facebook's "FBLearn Flow" machine learning software analyzes user behaviors, including reactions to ads and purchase decisions, to provide recommendations. Instagram, with 1 billion active users and owned by Facebook, is one of today's most popular social media platforms. It provides valuable data to businesses looking to sell products and services, tracking users' search preferences and interactions daily for advertisers and partners. Ads on Instagram and Facebook appearing after a product is discussed online or on WhatsApp are no coincidence. Instagram's ad formats include story ads, photo ads, video ads, carousel ads, collection ads, and explore ads.

Chatbots

Another way AI interacts with users is through chatbots. Chatbots in websites' chat windows perform the role of customer service agents, guiding users based on pre-programmed software, saving time and effort. In cases where chatbots are insufficient, they redirect to human customer service agents. Chatbots are also used in health, telecommunications, food, and banking sectors.

National geographic – Albert Einstein chatbot

National Geographic created a chatbot of Albert Einstein on Facebook Messenger to promote its series "Genius." The Einstein bot provided information about physics, asked users how they were, inquired about their likes and dislikes, and shared selfie poses.

AirBnB pricing algorithm

AirBnB uses machine learning to optimize real-time pricing, analyzing properties' features and locations to offer users the best-priced homes. During high-demand periods near holidays and events, prices are lowered to avoid vacancies.

McDonald's – IBM Watson

McDonald's leveraged IBM Watson Advertising for awareness and engagement for McCafe's limited-time coffee offers, driving store traffic. IBM Watson integrated McDonald's into the weather.com mobile app, using photos and leveraging first-party location data and store locators to target women aged 18-49 who frequently visit breakfast-like places. Results included about 5 million impressions, 168% more efficient cost per visit compared to category benchmarks, and 79% of exposed users visited McDonald's restaurants within 3 days.

MasterCard – NLG (Natural Language Generation)

NLG, a form of AI that enables computers to read, understand, and interpret human language, is used by companies like Narrative Science and Augmented Insights. MasterCard uses NLG to automate content creation, enhancing performance and decision-making. Companies working with Narrative Science in the U.S. include USAA, American Century Investments, Deloitte, Groupon, Credit Suisse, MasterCard, and Franklin Templeton. Augmented Insights works with the Associated Press and Orlando Magic, among others. NLG automates content marketing, creating different content types more efficiently.

Harley Davidson – Albert AI

Harley Davidson uses the AI software Albert for insights and recommendations for advertising activities. Data obtained and presented by Albert help in determining marketing campaigns and strategies. According to Harley

Davidson CEO Shani, using Albert's deep learning algorithms led to a 500% increase in digital advertising investment and 40% of New York City sales.

P&G – PaveAI

To prevent marketers and analysts from being overwhelmed by data and to save time, AI system PaveAI processes about 300 million monthly visitor Google Analytics data for clients, providing written reports. P&G uses PaveAI's data in conjunction with NLG for content creation.

Ruffles – Messi

During the UEFA Champions League Final, Ruffles' interactive website allowed users to create invitation videos to watch the match or play games together, using their and a friend's names. The campaign, popular among football and Messi fans, remains active on its website.

New York city mayoral election – metaverse

In 2021, Democratic mayoral candidate Andrew Yang engaged with young voters by holding a meeting in the Metaverse universe Zepeto, using his avatar. Notably, 90% of Zepeto users belong to Generation Z.

Ford Turkey – a different poet

For Valentine's Day, Ford Otosan released an innovative promotional video featuring AI poet and musician İlhan Şeşen. The AI poet converted thoughts about love sent by users to @birbaskasair on Twitter into poetry, which İlhan Şeşen then turned into songs. The campaign reached 51.840.178 people, with the AI writing a total of 7208 different poems and featuring in 164 different online sites.

CONCLUSION and DISCUSSIONS

The evolution of technology over the years has pushed media from traditional methods towards digitalization. In this process, mass communication tools initially provided one-way communication. The invention of the computer and the discovery of the internet have added new dimensions to technology. Particularly with the advent of the internet, brands have tried to adapt to this new environment and its technological consumers. The internet's evolution through Web 1.0, Web 2.0, and Web 3.0 phases has transformed it from a one-way medium to an interactive one. This transition to an interactive platform where notifications can be sent and received at any moment is revolutionary for both brands and consumers. The emergence of social media has over time led consumers to occupy these platforms, increasing their societal impact. The growing number of users has also attracted brands to these platforms. The internet's role in accessing information has transformed consumers into more informed and communicative individuals. Consumers, influenced by the features of these platforms, have

started using various platforms involuntarily. Each consumer, possessing different personal characteristics, uses different platforms that they find suitable for their traits.

Based on the findings of this research, it can be said that advertising, like consumers, has adapted to the digitalized world. Advertising has sped up and simplified its processes by utilizing artificial intelligence, and AI is expected to play an even greater role in the industry's future. Examining current examples of AI in advertising, experts suggest that while AI is unlikely to fully replace humans in the near future, it is a possibility in the distant future. Experts emphasize that advertisers can use AI for tasks like copywriting and editing, with humans still making the final touches. Thus, the role and impact of AI in the advertising industry are supported by various findings.

Advertising, while utilizing traditional media, has also embraced social media as a new medium to reach consumers. With constant access to the internet via computers, phones, and tablets, consumers encounter brand and corporate advertisements at any time of the day. The reduced costs brought by the internet and social media have led brands to think about creating more significant impacts with smaller budgets. Compared to traditional media, new media is preferred for its lower costs, the ability to reach consumers at any time, and the ability to receive feedback from them. However, this has also led to advertisement clutter. Due to lower costs and faster processes, marketing is important not just for brands and companies but also for individuals. As a result, platforms are becoming bombarded with communications. Experts debate how successful advertisement productions will continue to be in this chaotic environment and suggest the possibility of introducing recyclable advertising concepts. New professions are emerging in this process. Fifteen years ago, many professions related to social and new media did not exist, but now university departments are training specialists in these fields. Experts believe that 65% of children attending primary school today will work in jobs that do not yet exist (Future of Jobs, 2016: 32).

AI emerged in the 1950s and has since become a fundamental part of internet and computer systems, accelerating business processes. According to an expert, AI can calculate 72 possibilities in a short time to produce the best outcome, while a human performing the same task would take much longer. AI, feeding on big data and possessing memory capacities beyond human reach, can use this data instantly, learn, and develop itself, process faster than humans, produce consistent results, and has its uniqueness. Experts believe that while AI's main principle is to mimic how humans perceive and react to the world, achieving human-level intelligence is not yet a reality. However, examining current AI software and robots, the existence of AI with human or superhuman intelligence is expected by 2047 (Tegmark, 2019: 207).

Some experts participating in in-depth interviews have reservations about the future of AI. Concerns include the lack of current restrictions on AI and potential problems caused by its use in defense industries. Experts point out that the impact of AI will depend on whether it is used or created by good or bad individuals. While it's currently not possible for AI to change its written codes, in the future, AI capable of modifying its coding might

be developed if programmers write codes allowing it to make decisions in certain scenarios. If AI with learning techniques records every action and can develop itself, the possibility of it evolving to change its codes exists.

Looking at the types of AI used in advertising, an increase in augmented reality applications is evident. Ikea Place for room designs and Pokemon Go for enhancing interaction and experience are examples. Augmented reality could lead to personalized advertisements through smart glasses in the future. Relying on cloud systems, AI's role in the Internet of Things, where machines communicate through the internet, is currently in its trial phase but is expected to become more effective in the future. The concept of machine-to-machine (M2M) marketing will be important in a future where the Internet of Things plays a significant role. An example of this is the automatic ordering of necessities by AI when they run out in the refrigerator. Research findings highlight the emergence of a "phygital" multi-channel era in advertising. Assuming that advertising will be present wherever consumers are, the concept of the metaverse, still new in the digital world, is expected to become more prominent in the future. The metaverse is an internet that encompasses a three-dimensional virtual space, allowing users to interact with avatars and create virtual communities (Kuş, 2021: 247). Brands and individuals are gradually beginning to occupy the metaverse world for advertising and promotional activities, especially to appeal to the younger population.

Regarding whether AI can be creative, experts participating in in-depth interviews believe that AI is creative to the extent that it utilizes data and is not as creative as humans but could become more so in the future. Currently, AI, exemplified by IBM Watson, can generate new ideas by analyzing data and mimicking humans, but the final adjustments are still made by humans. A notable aspect of AI today is its lack of emotions. Experts believe that while AI excels in data processing and analysis, it can understand consumers' emotions in some instances. Even if artificial emotions can be produced, AI is not expected to take an active role in decision-making in situations requiring human management and risk assessment within a short period of five years. AI, time-efficient and cost-effective, can serve as an assistant at simple levels like Siri and Alexa, and facilitate faster shopping with fewer staff in stores like Amazon Go. AI in advertising, from errors in Burger King's ads to providing options for film editing in "Morgan," is like a baby ready to take on significant tasks. Software experts believe that if a new step is added to AI's learning process or if AI develops its learning process, it could have a significant impact on advertising and other processes. Such a development would be revolutionary, potentially leading to AI creating advertisements without human intervention. However, experts suggest that AI will need to act according to data input by brands. For AI to fully create an advertisement, it would need to handle the camera and create raw footage. This would require advancements in camera-operating robots and the involvement of the Internet of Things, leading to a scenario where AI scripts and edits an advertisement without human intervention.

Regarding AI-induced unemployment in advertising, most experts believe it will not replace humans in the short term. In the future, AI is expected to serve as an assistant and may take a more active role in tasks requiring simpler operations. According to an expert, viewing AI as a new coworker simplifies the situation. How AI will evolve in the future depends on how humans interact with it. Currently, the world, knowingly or unknowingly, is

directing AI through the internet and social media platforms. Experts speculate that AI capable of communicating with each other may teach each other what they learn in the future. It's unlikely that AI will fully replace humans in the near future. The crucial aspect is the development of AI that can fully understand and interpret emotions. Considering that advertising is a creative process, for AI to create creative advertisements, it would need to understand human emotions and produce content suitable for human consumers. The introduction of emotions at this stage is significant for advertising.

RECOMMENDATIONS

In the future, AI is expected to play a larger role in advertising processes, from data analysis to copywriting, and from video shooting to editing. Imagining robots like Sophia and Ameca being capable of making jokes, performing household chores, or conducting office tasks is not utopian. Companies working on AI in different sectors collaborating in the future could lead to the emergence of human-level or superhuman AI. The extent to which AI can evolve and how it will interact with humanity remains uncertain, as does how humans will react to an unprecedented situation. Looking back, many things deemed impossible in the past have materialized. Considering future predictions, dismissing utopian ideas as unattainable is a mistake, and governments and institutions should start regulating unrestricted AI now. Experts highlight that in a future actively involving AI, people should specialize and develop in their jobs. Competitions between people and AI in certain fields are plausible.

The insights gathered from this research paint a comprehensive picture of how the advertising industry is adapting and evolving in the digital age, significantly influenced by advancements in artificial intelligence (AI). Here are the key takeaways from the research findings:

Adaptation to the digital world

Just like consumers, the advertising industry has embraced the digital era. The usage of AI in advertising has streamlined and expedited processes, suggesting a future where AI's role will be even more pronounced.

AI's current and future role in advertising

Present examples of AI in advertising demonstrate its potential to significantly augment various aspects of the industry. While it is unlikely that AI will completely replace human roles in the near term, it could become a possibility in the more distant future. AI is currently employed in tasks like copywriting and editing, with humans still providing essential final inputs.

In conclusion, the evolution of AI in advertising is not just a matter of technological advancement but also requires ethical considerations, regulatory measures, and an understanding of the potential impact on human employment and creativity.

Ethics Statement

"This article complies with the journal's writing rules, publication principles, research and publication ethics rules, and journal ethics rules. The author bears responsibility for any violations related to the article." Since this article was conducted through document analysis, one of the qualitative research methods, it does not require ethical board approval.

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