



Iraqi Journal of Applied Art (IJAA)

Journal homepage:

<https://ijaa.mtu.edu.iq>



RESEARCH ARTICLE - COMMUNICATION

Using Artificial Intelligence Techniques in Advertising Production

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Article Info.	Abstract
<i>Article history:</i> Received 02 May 2025 Accepted 30 June 2025 Publishing 16 July 2025	The research revolves around the role of sports commentators in educating and informing the sports audience following football. Sports commentators are the individuals who undertake the task of commentating on football matches. Commentators provide analysis of each match and provide insight into what is happening on the field. The knowledge of commentators helps paint a picture for viewers who may not be familiar with the sports being broadcast. Therefore, in this paper, we seek to study this topic: "The Role of Sports Commentators in the Media in Educating and Awareness of Sports Audiences, Baghdad as a Model." This paper was implemented quantitatively and using a questionnaire. The questionnaire was distributed electronically to those interested in sports commentary, and 400 people completed the questionnaire. The research results were as follows: It can be argued that sports commentators in the media play a role in educating and informing audiences in Baghdad. The sub-hypothesis test also showed that there is a role for sports commentators in the media in teaching professional sports criticism to audiences in Baghdad; that there is a significant role for sports commentators in the media in spreading the attitude towards sports among audiences in Baghdad; Sports commentators play a significant role in fostering a culture of support for teams or famous players among fans in Baghdad.

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Publisher: Middle Technical University

Keywords: Artificial Intelligence; Advertising Production; Recruitment.

1. Introduction

Digital technologies and their elements have always produced works within the elements of art. This work may be partially within the body of artistic visions for each artwork or the working techniques provided by these digital technologies, which form new perceptions for the artist as a result of their intersection with aspects of life and form digital containers that harmonize and interact with the proposals of modern man and with the new language of the era and the impact of this on artistic work, whether through new ideas, theories and proposals or technologies that produce new arts in a different and varied way. Directors face problems in how to integrate the technical world represented by artificial intelligence, which is quickly interacting with advertising and the departure to a world far from traditionalism. This produces a number of aspects represented by the use of artificial intelligence, where the design of the show scenes is treated more aesthetically using this technology, or the formation of a digital space that includes live artificial intelligence programs to work with the actors in a harmonious manner. This is what the director must employ to use this technology in the show while maintaining the foundations of advertisements. However, it must be noted that the recipient interacts more with these new inputs to the visual advertisement, adopting a new digital approach from it. Here, directors must take into account The philosophical foundations of this technology and the creation of a state of harmony between it and the artistic considerations and ethical concepts of society, while carefully considering its artistic and intellectual presentation, while preserving the creative role of the director, the actor, and all live elements of the presentation.

2. Research Methodology

2.1. Research questions

The researcher noted that the problem is summarized in the following question :How are artificial intelligence techniques employed in advertising production.

2.2. The importance of research

- The importance of this research lies in its study of one of the latest modern digital technologies, artificial intelligence, which has created new challenges for advertising production.
- Integrating these technologies with theories and scene production requires imagination and high coordination to create this artistic fusion.
- This research will benefit directors interested in digital production, students, and designers in the field of modern technology.

2.3. Research objective

The research aims to explore the use of artificial intelligence techniques in advertising production.

3. Theoretical framework

3.1. The concept of artificial intelligence and its applications

The explosion of the information revolution and the advent of the digital age represent a unique case in the world's transition to an era of dominance of technology or information systems over the general fabric of social life, driven by significantly evolved communication and interaction patterns. This dominance is a differential criterion for determining the foundations of successful communication and control, and for assessing the extent of its impact and success. This pattern is evident in the use of technologies, including artificial intelligence technologies.

These technologies have been able to penetrate most of the related knowledge and sciences associated with hypothetical methods. They rely on a series of existing elements framed by systems that define their operation. For example, computer systems, internet networks, and a vast amount of data and information are all framed within this space's technologies. Artificial intelligence technologies are innovative and rapidly evolving in their digital applications. They are focused on and strive to be applied in most fields. Artificial intelligence is defined as "a branch of computer science and one of the fundamental pillars upon which the technology industry is based in the current era. It is founded on the assumption that intelligence can be described with such precision that a machine can simulate it" [1].

Artificial intelligence is defined as "the science concerned with creating machines that perform actions that humans consider intelligent, or more simply, making ordinary machines behave like the machines we see in science fiction films" [2].

These technologies have made it easy for humans to meet many of their requirements, reducing effort, time, and precise details due to the precision of the algorithms they employ. They have also added aesthetic creativity. This creativity is embroidered with the most beautiful visual images that impress the recipient as if they were from the imagination, thanks to their creation of imagination and intelligence, which are employed in modern digital aspects. However, this has also affected the true creativity of humans in discovering their talents, imagination, and human intelligence, which has entered into conflict with artificial intelligence and its endless technologies. In another reference to the work of artificial intelligence within an environment of information algorithms that deal with human reactions because it is human-made, it is "an intelligent study that comprehends its environment and takes measures that increase its chances of success through the intelligence demonstrated by machines and programs, mimicking human mental abilities and working patterns, such as the ability to learn, infer, and react to situations not programmed into the machine". This ability, which enables human interaction with this technology, is represented by many elements, such as smart technologies applied to computers and robots, which possess intelligent behavior in performing tasks or solving problems quickly and accurately, because they are within a digital environment that guarantees the ability to master the millions of algorithms employed in this world. This has produced a new philosophy that represents the spirit of the age, surpassing what digital technology and traditional computer programs have provided, as it is almost comprehensive, "as these technologies seek to find faster, more efficient, and smarter ways to accomplish various daily tasks, or even, in other cases, to develop artificial intelligence that exceeds human intelligence" [3]. The emergence of artificial intelligence is not a recent development. Rather, it is based on several references established over previous decades, evolving and adopting scientific methods to reach this point in the digital age. The first of these steps dates back to 1956. "The dream of artificial intelligence pioneers was to build complex machines based on new computers with the same characteristics as human intelligence. This concept was called 'General AI', a machine possessing all human senses and thoughts. The goal was to build a machine that thinks as we do". It is a simulation of the human imagination associated with human intelligence, but this is based on algorithms that include billions of pieces of information and communication systems. These were simple in their beginnings but relied on multiple programming languages. These languages are complex, but they are used in various fields, sciences, and disciplines to facilitate their work and add to the development seen today in various disciplines. The creation of these machines followed multiple steps in the development of these technologies.

One of the applications of artificial intelligence is deep learning, which is "one of the most exciting and interesting fields of artificial intelligence today, due to its enormous capabilities and the complex tasks it can perform, which are accomplished through complex neural networks" [4]. This type of application operates on information network systems, applications, smart websites, and programs that mimic the language of these applications. The algorithms they contain are complex but provide many of the required functions and services. This type is the most widely used application due to its presence in applications and programs. Another application is pattern recognition, which is linked to cybersecurity, security, and state security due to its close connection to image and data analysis, facial and fingerprint recognition, and many other areas of intelligence. This field is considered "a field of artificial intelligence that specializes in recognizing various patterns, whether visual or audio" [5]. The most important application of artificial intelligence is in the world of robotics. This is the most dangerous and prominent application due to its multiple uses and because it replaces human intelligence in many areas and fields. This application "links various computer sciences with mechanical and electrical engineering, enabling robots to think and move like humans. However, their development to date is limited because they lack self-awareness or awareness". For this system to expand and incorporate many engineering and applied sciences into its operation, and for robots to be considered an operational alternative to humans or an assistant, there must be harmony in its operation between humans, these applications, and what these robots produce. These robots are limited in their action and reception, but they can be updated after their manufacture to keep pace with the development taking place. Robots have been used in films, dramas, and some theatrical performances, where "foreign drama has long addressed the idea of robots operating with artificial intelligence coexisting with humans, creating various dramatic situations that audiences have eagerly watched and engaged with" [6]. Creating this practical harmony between robots and humans, and comparing artificial intelligence with human intelligence, is a case for integrating these smart technologies into all visual and applied artistic fields. This integration

must be employed in a correct dramatic manner, under the director's approach to employing these technologies in a theatrical performance or film.

3.2. Employing artificial intelligence

It is possible to rely on AI data to determine the visual identity of an advertisement and to use intelligent systems that change the concept of advertising philosophy and advertising plans. This is a radical change in the structure and design of the advertisement to arrive at the final form of the advertisement.

When examining the term advertising directing or advertising production with all its attributes, changes, history, the degree of influence of its establishment, the extent of its compatibility and harmony with its environment and tools, and the extent of its difference with its opponents, a state of balance is created and an integrated system is created with the requirements presented concurrently. The basic foundation that represents the second balance is the subject of artificial intelligence technologies in advertising. This concept is linked to a state of societal, intellectual, cultural, artistic, and scientific change in a phase that has altered multiple paths globally, from a certain point of view, opinions, studies, and research to an idea that resulted in a visual achievement and tangible benefit. This is coupled with the concept of these technologies, so they can be linked to technology and technical development that accompanied and influenced the need to search for ideas that produce artistic, cultural, and literary images and forms that relate to and express humanity and are in harmony with the requirements of the era, and that have influenced the formation of the directorial vision. This technology provides tools and information that accelerate and facilitate its integration into artistic work. "Artificial intelligence is revolutionizing the advertising industry by enabling machines to learn from data and make autonomous decisions that enhance the effectiveness of advertising campaigns." [7].

"Artificial intelligence has become the primary driver in analyzing consumer behaviour, allowing for the creation of personalized advertising messages instantly and effectively" [8]. This is what we see in various forms of visual and broadcast advertising, all of which are subject to the laws of electronic digitization. This is also present in electronic programs that have added the AI feature to their options, out of their confidence in the cross-pollination between them and the user's taste. All of these elements are integrated digitally to create ideas for the advertising industry, to address the taste of the recipient, and to accurately determine the accuracy of advertising specialization or content that aligns with the target audience. Accordingly, "artificial intelligence enables brands to create customized advertising content that interacts with individual preferences, leading to increased interaction rates and conversion rates" [9]. These preferences enrich the production network or advertising industry while preserving the identity of the advertisement, taking into account the idea, whether presented directly or encrypted, or using robots. This is an automated method that facilitates and enriches the technical work of producing advertisements. "Through machine learning, advertising systems can continuously improve their performance by tracking interaction with advertisements and modifying messages and methods accordingly" [10]. In light of this, "artificial intelligence represents one of the most important technological transformations that have impacted the media and advertising industry, as it has come to rely on data analysis and machine learning systems to understand audiences and direct advertising content" [11]. That is, it has become responsible for leading and directing audiences, analyzing their electronic data based on transmission data, and analyzing the content of broadcast advertisements and the aesthetic, technical, and intellectual awareness they provide to the recipient. [12].

3.3. The results of the theoretical framework of indicators

- Artificial intelligence technologies are innovative and rapid in producing meanings and methods in their digital work, directly connected to the environment in all aspects of life.
- Artificial intelligence creates a new communication and behavioural map that leverages the capabilities of actors in this field, providing information that is summarized in the speed of implementation and modern working methods and techniques.
- The kinetic capabilities of artificial intelligence technologies constitute deeper areas of technology in the artistic space, the features of which emerge in the artist's vision through his ability to employ these technologies.
- The advertising industry constitutes the primary engine for shaping the physical image to create the display architecture in the virtual space.
- The visual network, which artificial intelligence has contributed to shaping, produces a semiotic coding language through visual presentation, which carries multiple interpretations.

4. Search Procedures

4.1. Research Community

The research community consists of advertisements generated using artificial intelligence

4.2. Research Sample

The researcher chose his research sample according to the temporal, spatial and objective limits of the research, because it achieves the researcher's goal of the research in terms of spatial variables and dealing with the output method with them in the aesthetic transformation of the place, and the presentation included the following Table1.

Table1. Presentation included

Advertisement Name	Director	Year of Offer
Coca-Cola–Create Real Magic	Henry-Alex Rubin	2023

And for the following reasons

- Availability of time and space elements within research efforts.
- Compatibility with the theoretical framework and research tool.

4.3. Ad analysis

Coca-Cola's "Real Magic" campaign can be highlighted as an ideal case study that effectively embodies the transformations of artificial intelligence in advertising production. This campaign demonstrated a high degree of dynamism in producing meaning through innovative and rapid artificial intelligence technologies, which were able to directly connect the digital system with the audience's real-world experiences. This interplay between technology and human intelligence gave the advertisement a distinct dimension, extending beyond the traditional message to a visual experience connected to the consumer's cultural and psychological context. Artificial intelligence was not merely a tool for implementation, but rather a catalyst for producing new meanings through its rapid data processing and its strong connection to the human and cultural environment. The campaign, with its operational intelligence in collecting and analyzing data, was a clear example of the formation of a new communication and behavioural map that contributed to redefining the relationship between the brand and the audience. Artificial intelligence provided the advertising director with advanced capabilities to interact with the content on the one hand, and with the audience on the other, by understanding their behaviour and designing content that aligns with it at the same time. Here, the ability to intelligently utilize information appears to be a key factor in building the advertising communication space, using modern technologies that are not limited to delivery but are also integral to the visual, audio, and rhythmic composition of the advertising message. If we look at the kinetic dimension of artificial intelligence technologies, we find that it has been intelligently invested in shaping the movement of image and meaning together. Tools like DALL·E are not only used to generate images but also to create complex visual worlds that transcend reality, offering the viewer a sense of contemporary fantasy without being separated from the brand and its identity. The artist or advertiser here is no longer restricted by traditional tools, but rather possesses a heightened ability to see and embody through algorithmic structures that open up multiple possibilities. From this perspective, technology emerges as an artistic element, not a mechanical one, with its expressive depth and the ability to condense feeling and image within an intelligent visual system. In terms of display engineering, this campaign transformed the advertisement into a complex scene where real and virtual structures intersect. This transformed the advertising space into a symbolic space where the physical image of the product is formed within a symbolic space open to interpretation and interaction. Artificial intelligence enabled the creation of this space by generating atypical images used as part of a comprehensive visual experience, impacting the viewer more deeply than simply displaying a product, but rather as an invitation to enter the world of the brand and its creative discourse. This complex visual composition reflects the ability of artificial intelligence to produce a "visual network" containing overlapping semiotic elements, with multiple levels of meaning and opening the doors to interpretation for the viewer based on their background and visual and cultural experience. Thus, it becomes clear that artificial intelligence has not only entered the level of executive techniques but has also become a fundamental element in constructing the language of advertising and its visual and semantic composition. Advertising discourse has become supported by algorithmic generative capabilities that formulate a message that carries within it a cultural and human dimension, which gives the advertisement a structure that transcends craftsmanship to the level of art and experience. The campaign not only created a new visual communication but also reproduced the relationship between the producer and the recipient in a way that consolidates the concept of interaction rather than passive reception, and redraws the boundaries of advertising as a form of contemporary cognitive and cultural expression.



Figure 1. From a Coca-Cola advertisement that used artificial intelligence [13]

When expanding the analysis of the "Real Magic" campaign, we observe a profound transformation in the directorial structure of advertising. The director is no longer approaching the image from a purely aesthetic standpoint but is instead reconfiguring the relationship between technological tools and the artistic concept simultaneously. This shift has introduced a new intermediary layer within the advertising process, a layer of possibility, that enables the reproduction of visual and narrative content in multiple formats, responding dynamically to real-time data related to the market, audience behaviour, and digital context.

One of the key aspects of this campaign is the inclusion of a creative computational partner in the directorial equation, no longer viewed as merely a technical assistant. The advertising director, by utilizing generative tools, is redistributing creative responsibilities between human vision and responsive systems. This has given rise to what can be described as a hybrid directorial perspective, blending human intuition with algorithmic input to produce a more fluid and adaptable visual narrative.

Moreover, the campaign's interactive nature introduced a subtle directorial dimension by allowing the audience to take on a quasi-directorial role, participating in the creation of visual elements. This participatory framework reflects a decentralized approach to authorship in advertising, where the audience's contributions are not only welcomed but also integrated into the structural composition of the campaign. This Figure 2. evolution opens up the creative process to multiplicity and dynamic exchange.



Figure 2. From a Coca-Cola advertisement that used artificial intelligence[14]

On a semiotic level, the campaign constructed a symbolic visual network that extended beyond straightforward product representation. Instead, it developed a language based on visual association, utilizing elements such as colour, spatial design, and rhythm to evoke rather than directly depict. Generative systems played a role in creating original visual forms that deviated from traditional advertising norms, offering more abstract and interpretative imagery that strengthens the brand's identity with greater flexibility.

Equally significant is the campaign's redefinition of realism within advertising. Rather than aiming to replicate the external world, this approach generated an alternate sense of reality, one born from the interplay between data-responsive processes and human experience. This new realism is more expressive of individual identity within the collective framework of brand storytelling. It marks a substantial departure from conventional strategies, shaping a new visual language that is continually evolving.

As a whole, the campaign signals a move toward a more generative and inventive model of advertising, wherein content is no longer simply composed and delivered, but dynamically shaped and co-created. This new paradigm empowers the director with broader creative freedom, reimagining the boundaries of authorship and visual communication, and aligning the message more closely with future-oriented forms of expression.

5. Results

- The compatibility of the use of artificial intelligence techniques within the production of the advertisement generated an objective debate between the form and connotations of these techniques and the transformations in the conceptual space directly linked to the nature of the dramatic event's transformations. This debate, within an organized framework, provides a set of conceptual sensors for the advertisement's form.
- The techniques used contributed to developing the features of the virtual space and revealing multidimensional spaces. We perceive this aspect in several scenes, their embodiment and transformations, providing aspects that tend toward an intellectual and philosophical direction.
- The conceptual foundation for the embodiment of artificial intelligence techniques is linked to philosophical dimensions and the composition of aesthetic images, which take into account the role of philosophical awareness on the one hand and keep pace with the developments taking place in the creation of the advertisement image on the other. Herein lies the centrality of the techniques used in theatrical presentation, and this effectively aligns with the philosophical and social dimensions and modern aesthetic images.
- The director harnessed artificial intelligence techniques imaginatively through several elements, by containing, performing, or touching on the depths of the advertisement's structural composition and the form of the space it seeks to refer to through the event and its characters. This is framed within the original virtual space of the advertisement, and herein lies the directing element's ability to employ artificial intelligence.

5. Conclusion

- Artificial intelligence techniques possess the ability to send aesthetic and intellectual signals, some directly and others encrypted, that align with the dramatic event in real time. This establishes an objective aesthetic transmission that achieves the objective nature of the advertisement intrinsically.
- Artificial intelligence techniques contribute to creating an aesthetic image that highlights the charm and authenticity of all the concerns and elements within it. This is supported and confirmed by the visual elements and audio effects, which reinforce the power of the reference embodied within the framework of these techniques to the rest of the advertisement's elements.
- The power of artificial intelligence technologies represents a source of strength for all elements of advertising and represents the general framework within which advertising, as well as physical and sensory means, are embedded, in harmony with other elements, establishing the self-sufficiency and strength of these technologies.

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