Augmented Reality and Transforming Advertising

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Article Info	Abstract
	Augmented reality (AR) is the presentation of images of objects in the world by enriching them with additional data such as computer-generated graphics, audio, video and location data. AR basically refers to the addition of design-developed virtual reality elements onto the image obtained by video cameras. This is a technology that processes and presents 3D real-time data on the physical environment of the individual. In AR environments, virtual and real objects are presented to users in harmony. In essence, this is a virtual reality application in which users interact with the real world, interacting with virtual objects in the real world, without an application to affect the real world. AR applications in many different areas are seen intensively in the fields of education, entertainment, communication, health and advertising. Especially with the widespread use of mobile phones, the advertising industry has turned to digital applications. In this way, people are exposed to advertisements everywhere and at any time in their daily lives. With the new media form, content is embedded in advertisements and mobile phones produce advertisements with more information than can be seen with the naked eye. Advertising uses creative strategies while developing brand-product-customer relationship. Today's digital people develop reactions in line with the messages they are exposed to. AR, as a structure that pushes and stretches the boundaries of people's thinking, enables advertising messages to turn into remarkable, different, interesting and impressive presentations. In this context, AR is an important and indispensable field for brands that want to gain prominence among their competitors and make a name for themselves. AR applications are among the important strategies used in the context of digital advertising, and it is important to analyze digital advertising.

Introduction

Film is a motion-sensing program of consecutively viewed frames. The combination of many rules such as image, light, script and photography has pioneered the development of the film industry. In the process following the cinema, television's becoming a means of entertainment and visual communication for large masses paved the way for developments in image technologies and content production. In the historical process, television's access to widespread viewing levels all over the world has also taken an important place in the world of advertising, which is at the center of production-consumption relations. In addition to print advertising, commercials made to be broadcast on television have begun to take their place in history. Advertising activities have started to give priority to fictional productions shaped over multi-message (verbal, visual, auditory and written, etc.) techniques.

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Advertising includes a set of messages designed to appeal to all senses and persuade by managing perceptions. Advertising, in essence, is the transmission of messages appealing to the senses, informing the consumer about the existence of a product or brand, through paid channels in order to enable them to prefer the relevant brand and product. "Ads designed to transform sensory and emotional interaction into desire creation in the perception process can be applied to almost every sector. The structure of commercial or social-oriented advertisements may differ in various ways according to the channels that the target audience to be reached can be affected. Visually static advertising works generally consist of printed elements" (Vural, 2020: 822). The delivery of the advertising message to the "right" person(s) is related to the selection of the right medium. Newspapers, magazines, television, billboards and internet broadcasting, which are used in the current sense, are some of the channels through which advertisements can reach the relevant audience.

Advertising film production has been shaped by the developments in the cinema industry. Advertising films were created with the technical infrastructure and scenario techniques in the movie shooting process. In the studio environment, in addition to developing the effect during the shooting phase, the use of computer technology on the film frames is also common. "The sounds, colors, forms, graphic visuals and movements that make up the structure of the advertisement; By combining it with the product or service and presenting it to the consumer, it is aimed to achieve the purpose of the advertisement. The main elements of the technical arrangement are cameras, sound equipment, assembly tables, animation, digital graphics and visual effects programs. Besides, the time limit for creativity and technical effort is usually not very long" (Vural, 2020: 823). The development of technology has provided the opportunity to reveal "virtual" realities. Augmented reality is a variation of virtual reality technology. "Augmented reality is created by superimposing digitally computer-based data enriched with multimedia elements such as images, audio, and video onto real-time media. In other words, augmented reality is a live, direct or indirect physical view of the real-world environment and its contents enhanced by computer-generated audio, video, graphics and GPS data" (Öztürk Göçmen, 2018: 176). In this process, reality is changed and enriched on the computer. Augmented reality technology, besides being a game of perception, also maneuvers on the individual's view of reality. Since this maneuver is done in real time and environmental factors are included in the process, the perception of reality is high.

Augmented reality basically refers to the addition of designally developed virtual reality elements to the image obtained by video cameras. This is a technology that processes and presents three-dimensional (3D) real-time data on the physical environment of the individual. Products/messages with augmented reality are offered through various applications on internet browsers, mobile smartphones and tablets. With these applications, consumers can access the advertisements that offer messages with devices such as cameras and microphones within the framework of their equipment, and they can be included in augmented reality environments (Coşkun & Sever, 2019: 586). Various companies have taken the process of increasing the sense of reality through smart technologies and wearable technologies to a much higher level through virtual reality and augmented reality technologies. The advertising world has followed this process closely and used augmented reality technology in the message transmission process. "The fact that fantasies, which can take the place of reality in a sense, can be shared massively through the media, seems to have brought with it a structure that both transforms reality and pacifies individuals in a sense. In an emerging sense, one of the best places to watch the new reality is undoubtedly the advertisements" (Demirci, 2016: 103). The advertising sector, which uses language and visual images intensively, has developed strategies to use technology-mediated communication. "Thanks to the applications revealed by digital technology, the individual, who is a prisoner of 'augmented' realities, can easily enter a mental process that accepts the reality of 'virtual' and 'artificial' without questioning them (Öcal, 2020: 1).

The media's effort to construct technology/tool and content-oriented reality points to the use of complex cognitive structure. The advertising industry, which uses the media extensively, also functions to impose a new and utopian lifestyle as a part of the marketing processes targeting the consumer. This

role that advertising plays in the world of the individual is closely related to the trend of reconstructing reality in the media. The increase in surreal advertising content and the use of this method in the promotion of almost every product reveals that advertising plays a role in reinforcing the relationship between reality and fantasy. In this context, examining the world of augmented reality and digitalized advertising is important in terms of revealing today's conditions.

Technology and Augmented Reality

Augmented reality is the presentation of images of objects in the world by enriching them with additional data such as computer-generated graphics, audio, video and location data. Augmented reality application can be traced back to the 1950s. "Towards the end of the 1950s, the young cinematographer Mort Heiling invented the Sensorama simulator, and with it 3D movies, stereo sound, mechanical vibration, fan and fragrance were combined together and at the same time. The first augmented reality application was created by computer graphics pioneer Ivan Sutherland in the 1960s. A small group from the US Military Air Force Armstrong Laboratory continued their research by NASA and the University of North Carolina throughout the 1970s and 1980s. In 1975, Myron Krueger, one of the pioneers of virtual reality, enabled the interactive use of an augmented reality system with virtual objects for the first time (quoted Uğur & Ceylan Apaydın, 2014: 148). This technology, which enables real-time interactive learning and knowledge discovery in the real world, points to the process that has been taken since the 1960s to obtain virtual images. This structure, where the real world and computer technology are intertwined, is the reconstruction of the images of the objects in the world through the enrichment of the data produced by computers. The concept of "augmented reality", which began to be used in its current sense in 1990, meets a technology created by placing new objects designed on real object (Şahinaslan, 2020:36-37). The process of animating images has gained a different position with the developing technology. While the animation made in the physical area remains artificial, the animation based on the applications in the computer environment can have a more realistic and lively appearance. It consists of animated images, drawings, texts, objects, effective elements and graphics. Such elements that support the visual structure of the film can be applied during and/or after the shooting. "While the commercials aim to present an entertaining advertisement content to the audience in a short time, the texts that are especially requested to be read in the advertisement content are used in the form of typographic arrangements in order to increase the effect in the perception process. It is necessary that the texts read in the display environment should be more understandable. The planning of this reading takes place during the film design process with the editing of when and how the articles will be seen" (Vural, 2020: 824).

In augmented reality environments, virtual and real objects are presented to users in harmony. In essence, this is a virtual reality application in which users interact with the real world, interacting with virtual objects in the real world, without an application to affect the real world (Coşkun & Sever, 2019: 588). In this structure, augmented reality creates the interactive environment between the virtual and real world. Augmented reality, unlike the artificial world offered by virtual reality, takes the information created in the digital environment such as image, sound, video, touch sensation and superimposes it on the real environment. "Although augmented reality technically has the potential to be used to develop all senses, its common use today is visual" (Ağca & Kozbekçi Ayranpınar, 2021: 4).

Smart technologies and mobile applications have seriously transformed human practices. Access to data anytime, anywhere, the presentation of reality, 3D virtual environments have transformed the way individuals organize their lives. Although augmented reality is an intervention to reality, it provides data and visual presentation in every field that people need in real life. Within the framework of these developments, the widespread use of smartphones has played an increasing role in the application of mobile applications in advertising campaigns. The use of augmented reality technology in games has revealed the concept of advergame. "In augmented reality, the targeted object or image gives the user a sense of depth rather than the impression of navigating in a virtual environment. Thanks to the superior technology used here, the user has more information and makes his life easier. For example,

looking at a movie poster, you can watch the trailer of the movie, see how and what to do in the service maintenance of the car, measure the distance or the speed of the vehicles in front while driving on the road" (Uğur & Ceylan Apaydın, 2014: 146). The field of application of augmented reality is gradually expanding, this application can be used in all areas including human life: health, education, transportation, cinema, advertising, entertainment, etc. It is observed that augmented reality applications are frequently used with the developing digital advertising.

The continuity of digital transformation reveals new ways of production and business. The network structure between people, institutions, institutional structures, systems and objects is getting more and more complex. While information processing processes lose their human specificity, machine tool algorithms take their place. Computer-based reasoning and decision-making mechanisms represent a structure called smart technologies. In today's world, where technology has gained a decisive position in every field, "without breaking away from the real world, it can be used on real objects and surfaces in different formats, sound, video, animation, 3D model, text, etc. Augmented reality applications where it is possible to reach additional information" (Hançer, 2020: 490) have become widespread. The prepared content can be accessed via devices via certain triggers (matrix code, GPS, compass, gyroscope, accelerometer, etc.). The widespread use of the internet, which supports digitalization and the network structure, has enabled augmented reality applications to take their place in every moment of human life.

Digital Advertising and Augmented Reality Strategies

Today, brands frequently apply to augmented reality applications. In particular, automobile companies (Nissan, Toyota, BMW etc.) apply to magazine advertisements based on their niche market understanding and present 3D images of car models to the consumer audience with an augmented reality application. Such practices are also found in cinema and television. Augmented reality applications, which are frequently encountered especially in animation and science fiction feature film productions (Transformers, Iron Man and Star Trek, etc.), play a transformative role in the viewing experience of the viewer. Augmented reality applications in many different areas are seen intensively in the fields of education, entertainment, communication, health and advertising. Especially with the widespread use of mobile phones, the advertising industry has turned to digital applications. In this way, people are exposed to advertisements everywhere and at any time in their daily lives. With the new media form, the content is embedded in the advertisement and more informational advertisements are produced with mobile phones than can be seen with the naked eye. "Augmented reality applications are reshaping the foundations of advertising and marketing. 360 degree marketing integration is provided with augmented reality applications. Innovative companies that develop and implement augmented reality applications, especially on social media, the effect of such advertisements becomes stronger" (Uğur & Ceylan Apaydın, 2014: 149). While the relationship between mobile and social media over the network is constantly developing, such applications cause an increase in the time interval spent in digital environments. Augmented reality applications become meaningful especially in the advertising industry when combined with ideas and creativity.

Augmented reality is observed in different forms in advertising applications: Applications are made on mobile phones, on real products, with virtual products in real places, with location-based associations, in competitions, with virtual placements in the real world. In mobile phones, there are selfies that are associated with the brand. "Pitch Perfect 3 is an example of the application of adding a brand-related element as a filter to selfies taken with the front camera. In applications made on real products, product enrichment is done by adding a virtual information screen to the product displayed on the rear camera or by providing a digital experience on the product. It has opened the doors of a new experience for its customers with the virtual information screens added on the areas inside the store at the world's largest Starbucks branch in Shanghai" (Öztürk Göçmen, 2018: 181). In applications made with a virtual product in real space, three-dimensional renders of the product are placed on the real image in real time. Ikea and Amazon have sample applications. Lacoste, on the other hand, uses an application that shows how

clothing and accessories will appear on the person virtually. In location-based association applications, it is possible to interact with the brand mascot and character through location. An example of this is the augmented reality billboard in Disney Park. Going out on the street is encouraged with geo-based location marking methods used in competitions. Participants trying to solve the game secrets of the brand in the real world are in virtual interaction with the brand, while maintaining their ties with real life. Pokemon Go is a notable example (Öztürk Göçmen, 2018: 181).

Augmented reality applications can overlap with the efforts of brands to be different and extraordinary from others. When an augmented reality application is designed, the attention of those exposed to advertisements can be drawn more, and motion, effect and action elements increase attractiveness. Combining real product images and virtual images in commercials makes the advertisement beautiful, likable and attractive, but also makes the message more understandable, more informative and impressive in less time. Customer orientation, which is an extension of the modern marketing approach, acts as a compass in the digital adventure of businesses, and advertisements are produced with a customer-oriented approach. Augmented reality applications within the intertwined structure of product, experience, entertainment and emotions serve the purposes of brands in terms of processes (Aydın, 2020: 321). In the context of augmented reality in the field of advertising, the use of QR codes in printed materials is common. A QR code is a square of black shapes on a white background. The code directs individuals to the content through a QR reader or a device with a program installed. Augmented reality applications provide the combined and simultaneous use of different advertising environments. It is possible to benefit not only from print advertising opportunities, but also from all digital platforms. By reading the QR codes, product videos can be watched, so that both audio and video can be delivered to the consumer without time and space limitations.

Augmented reality applications, which were primarily developed as aerospace and space science applications and in line with military objectives, became widespread and commercialized as soon as they were included in civilian life. Marketing and advertising sectors also apply to augmented reality technology in order to create awareness and interest in order to present innovations to consumers for new developments and changing consumer trends as an extension of modern marketing understanding and to maintain experiential marketing activities. "Augmented reality advertising campaigns offer new possibilities for brands to interact with consumers, especially consumers who use social media extensively, via augmented reality supported smartphones and tablets" (Coşkun & Sever, 2019: 591). "The applications of augmented reality technology in the field of advertising abroad are quite common. For example, using the augmented reality application of the American Apparel brand, the customers in the store have the opportunity to see the different colors of the product and to read the experiences of other customers who have bought the product. Volkswagen also used the traditional media, the newspaper, together with the augmented reality application, to run its launch campaign. In Turkey, with the cooperation of Blippar with Milliyet in 2013, a newspaper was made interactive with augmented reality technology for the first time in Turkey. Milliyet readers could not only read the news, but also watch their videos and browse their photo albums. In the same period, the cover of MediaCat magazine became interactive. With the cartoons that Selçuk Erdem worked specifically for the cooperation of Blippar and Cafe Crown, Cafe Crown has also made its traditional channels interactive. It is possible to give many examples of these applications around the world" (Öztürk Göçmen, 2018: 180).

Digital marketing is essentially human-oriented, and in today's conditions, it does this through technology. In this respect, it is similar to traditional marketing. It is important to establish a relationship with the consumer in marketing processes in order to arouse interest in the product, develop demand and increase sales. Marketing strategies are being developed to address a global market in today's production approach. In this context, establishing a connection between the supply chain and branches/offices around the world, and developing ties with consumers and customers requires developing business practices over the internet network. Since marketing in the digital environment does not require large budgets, local and national enterprises are also willing to be in this network

structure. "The most essential thing for digital marketing is to be innovative and attract attention. Digital marketing, which uses interactive methods, develops with technological innovations rather than consisting of specific techniques. In digital marketing, it is sufficient for businesses to reach more people globally, to send target messages that meet their interests and needs, to communicate with communities in real time and to receive collective feedback from them, and to have a smaller budget for this and the power of control in this process. It is seen that it is possible to be found in enterprises" (Köse & Yengin, 2018: 82).

The ecosystem that the brand will establish physically and digitally (phygitally) with its consumer depends on the correct development of marketing strategies. The phygital approach explains the new generation marketing approach that blends physical and digital experiences and provides the right way to reach the consumer. Phygital marketing means the blended and effective use of the physical and the virtual. In today's conditions, product promotion, price and location studies, which are traditional marketing mix elements, require the combination of physical and digital experiences. "In terms of physical communication, the brand stands out with the product itself, the packaging of the product, advertising messages, printed materials and loyalty cards. Digital communication includes social media, brand communities, websites, e-mails and their content. Phygital also develops as a creative channel, providing more and more useful data, as well as enabling the creation of more creative campaigns" (Köse & Yengin, 2018: 83). Phygital marketing, as a new marketing approach, makes it possible to touch on what brands can do for their consumers, how and when they should do this.

Advertising uses creative strategies while developing brand-product-customer relationship. Today's digital people develop reactions in line with the messages they are exposed to. Augmented reality, as a structure that pushes and stretches the boundaries of people's thinking, enables advertising messages to turn into remarkable, different, interesting and impressive presentations. In this context, augmented reality is an important and indispensable field for brands that want to gain prominence among their competitors and make a name for themselves. Augmented reality applications surprise people when they least expect it, direct them to watch the application carefully, sometimes scare them by making them think that it is real, and finally make them have fun by liking it. Participation of consumers by being exposed to such a practice ensures that attention is drawn to the brand, paves the way for the message to be catchy and causes appreciation. The message given to the consumers who are drawn into the application is effective, more memorable, and with its entertaining aspect, the message can enable the development of brand love.

Discussion/Conclusion

It is witnessing a tremendous development on top of the astonishing technology of the 1960s. Information and communication technologies have become an important part of human life in a short time. The fact that technology offers a practical and facilitated life has made it possible to adopt developments easily. While technology, which dominates every moment in practical life, has been rapidly adopted by the sectors, technology-based investments have also increased. The developments experienced have become an opportunity that many sectors gain advantage while providing wide-scale interactions around the world. In today's world, businesses develop technological infrastructure from product design to R&D studies, production, marketing and distribution channels. The current century foresees technology-mediated communication and interaction. In this context, reality applications as a result of network structure and technology have become a part of daily life. Augmented reality applications; It is preferred in many fields such as education, entertainment, design, marketing and advertising. Augmented reality applications enable to expand and develop the possibilities of the current space and to establish higher interaction with individuals, especially when considered within the scope of marketing and design. "Augmented reality is a platform that maintains its connection with the real world, where data and images can be added to real world images, and allows virtual and real objects to be perceived together on the same platform" (Erdem, 2021: 242).

Unlike traditional media, there is a close connection between the reality created by the new media and the use of media. "Especially the post-industrial period, which can be expressed as post-modernism, the period that is also called with many different terms such as late-modernization, post-modernism has been a time period in which great transformations were experienced in both individual life and media technologies. Individualization and social fragmentation can be shown as two fundamental changes that symbolize this period and have wide effects on social life" (Demirci, 2016: 102). In the social structure based on individuation, individuals are under the influence of distant life patterns around the world rather than their immediate physical environment, especially since they are fed from the virtual and digital ones. Individuation not only reveals a willingness to protect oneself from uncertainty, but also causes an endless curiosity towards the world. In this context, the individual often takes advantage of new media technologies and withdraws to the virtual world in order to avoid fears based on uncertainty and to satisfy his curiosity about the world.

Production mechanisms, which are oriented towards the curiosity of the transformed individual and his desire to be safe, are trying to attract the attention of the new consumer by applying augmented reality applications. The widespread use of augmented reality applications in the field of advertising and marketing in recent years exemplifies a structure where virtual and reality meet, a simultaneous atmosphere is created and the three-dimensionality that allows reality to be felt is reflected on the screen. Augmented reality studies are shaped in line with the viewing habits of the digital individual (Erdem, 2021: 243). While the digital is being transformed day by day, the exposed one gets its share from this transformation.

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