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THE EFFECT OF AUGMENTED REALITY (AR) TECHNOLOGY ON THE POSTER EXHIBITION PROCESS

ARTIRILMIŞ GERÇEKLİK TEKNOLOJİSİNİN (AR) AFİŞ SERGİ SÜRECİ ÜZERİNDEKİ ETKİSİ

ABSTRACT

The main purpose of graphic design, which is a visual communication design, is to convey a message to the receiver in the most accurate way. The poster is among the most sympathetic elements of graphic design. Poster designs, which have a lot of functions such as promoting a product, giving results as effective as the designs day by day. With the innovations added to the display methods of the poster designs hung on the walls, billboards, and exhibition halls for years, it has had the opportunity to present the value it carries from the past to the present more effectively. Recently, augmented reality technology appears as a poster display method, which is frequently encountered in artistic activities as in many other fields. The augmented reality method adds sound and movement to our lives in works that are prepared in two-dimensional static works such as exhibitions and presentations and makes the works within the scope of exhibiting more effective and remarkable works. The main purpose of the research is to descriptively investigate while using the augmented reality technology in the exhibition method, how this method increases the effect in poster works and which ways and methods are used by the artists. Within the scope of the research, the Artivive augmented reality application example, AMC movie poster, Into the Storm movie poster, Printworks London poster were examined, and it was found that poster designs were presented more effectively and remarkably with augmented reality technology.

Keywords: Poster, Graphic Design, Augmented Reality, Exhibition.

ÖZET

Görsel bir iletişim tasarımı olan grafik tasarımın en temel amacı bir mesajı en doğru şekilde alıcıya aktarmaktır. Afiş, grafik tasarımın en sempatik öğeleri arasındadır. Tanıtım yapmak bir ürünü pazarlamak afiş tasarımının en temel amaçları arasındadır. Afişler tasarım bağlamında oldukça etkili tasarım öğelerindedir, ancak günümüzde gelişen teknoloji ile sergileme aşamasında afişin etkisi bünyesine kattığı ses ve hareket ile daha da arttığı gözlemlenmektedir. Afiş tasarımları sergileme yöntemlerinde de gün geçtikte tasarımlar kadar etkili sonuçlar vermektedir. Yıllardır duvarlara, ilan panolarına, sergi salonlarına asılan afiş tasarımları, sergileme yöntemlerine eklenen yenilikler ile geçmişten günümüze taşıdığı değeri daha etkili biçimde sunma olanağı bulmuştur. Son dönemde birçok alanda olduğu

gibi sanatsal etkinliklerde sık sık karşımıza çıkan artırılmış gerçeklik teknolojisi afiş sergileme yöntemi olarak da karşımıza çıkmaktadır. Artırılmış gerçeklik yönteminin sergi ve sunum gibi işlerde iki boyutlu durağan hazırlanan çalışmalarda hayatımıza kattığı ses ve hareket sergileme kapsamındaki çalışmalarını daha etkili ve dikkat çekici çalışmalar haline getirmektedir. Yapılan araştırmanın temel amacı; artırılmış gerçeklik teknolojisinin sergileme yönteminde kullanılırken, bu yöntemin afiş çalışmalarında etkiyi nasıl artırdığı, sanatçılar tarafından hangi yol ve yöntemlerin kullanıldığı betimsel olarak araştırmaktır. Araştırma kapsamında Artivive artırılmış gerçeklik uygulama örneği, AMC film afişi, Into the Storm film afişi, Printworks London afişi incelenmiş, afiş tasarımlarının artırılmış gerçeklik teknolojisi ile daha etkili ve dikkat çekici bir şekilde sunulduğu tespit edilmiştir.

Anahtar Kelimeler: Afiş, Grafik Tasarım, Artırılmış Gerçeklik, Sergi.

1. INTRODUCTION

In addition to continuing to be produced with traditional methods for centuries, artworks are now able to rapidly carry current methods under the influence of developing technology. The rapid advancement

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of technology affects human life rapidly and may become a necessity over time. Michael expressed this situation with these words "The digital era, which has been intensely affecting life since the 1980s, produces new perception styles on the one hand, and on the other hand brings new possibilities in the expression of these perception styles, which are both existing and deriving or evolving" (1998: 34).

The change required by the technology and the effort to keep up with this change drives people to a lot of excitement. After the new technological changes and information are rearranged in the working environments, they are presented to the audience in detail by removing the secrets. Art keeps pace with technological developments, and this has affected art in all respects. Augmented reality is among the technological developments that affect art in the field of the exhibition. The interaction of artworks with people brings a new perspective to artworks. With this new perspective, people not only look at artworks, but also hear them, watch their movements, and feel as if they are inside the artworks and even live in the artworks.

Augmented reality combines virtual characters and elements with the real world. It gives information about the world around the user with the support of object detection technologies and brings it into an interactive form. Since interactive elements develop a more active attitude in individuals, they turn the passive audience in the exhibition into an active audience and can turn the exhibition into a more effective exhibition (Çoşkun, 2017: 62).

Augmented reality means taking the camera images of the work or the real world and establishing this situation at the same time with the existing programs by connecting with the images made on the computers at the desired points. Augmented reality technology is directly used in the exhibitions to exhibit the work in motion or to transfer the information about the work with the help of augmented reality technology by using audio and video. Thus, while more detailed information can be presented about the artwork, and the artwork can reach a remarkable and impressive dimension. The fact that the works in which AR technology is used in the exhibitions organized with the augmented reality method contain much more than what is seen, makes these exhibitions quite remarkable.

2. AUGMENTED REALITY

Nowadays, with the proliferation of usage areas of virtual reality, augmented reality technology has rapidly taken its place in human life. While virtual reality offers people an environment independent of the real environment, augmented reality shows itself with virtual data connected to space or environment in the real environment. Augmented reality, which is frequently encountered in many fields such as medicine, zoology, biology, art, and design, is one of the most up-to-date environments that combine real and virtual environments and provide rapid access to information. "Augmented reality can be expressed as the real-time, direct or indirect transfer of computer-generated audio, video, graphics or GPS information to the physical world" (Azuma, 1997, 355-385). "There are many electrical signals that go to a person's brain while walking in the open air. These are what the outside world makes people feel. The aim in the virtual environment is to give the same image to the human brain by using computer programs and virtual reality technology devices and to give the feeling of being in a real environment" (Yılmaz, 2008: 12).



Visual 1: Example of Augmented Reality Application (URL 1)

In environments where augmented reality is used, the perspectives of individuals are enriched. Virtual reality perception is created by interacting in the present time in the real environments where individuals

are. Augmented reality, which is thought to be created in a way that can interact with individuals' five senses, is currently believed to be mostly used on visual perceptions (Kipper & Rampolla, 2012: 4). One of the important features of the augmented reality technology is that it enables the presence of reality and life, that is, the visible things that are not visible in the real world from where people sit or walk (Craig, 2013: 16).

Craig talks about three basic components for augmented reality as given below (2013: 16):

- 1) They are enriched with digital information placed in the physical world,
- 2) Information can be viewed as registered in the real world,
- 3) The displayed information is related to the location of the real world or the physical location of the person.

People can easily access augmented reality applications with their mobile phones and benefit from the innovations it offers. With applications downloaded to smartphones and tablets, they can interact with elements such as sound, text, and graphics added to the image in question. Augmented reality applications are rapidly spreading in the fields of medicine, zoology, architecture, and art, and show themselves effectively in poster designs.

3. POSTER

Posters are design products in which art and design concerns are equally weighted. "Poster is a graphic product where visual formations find the widest application area" (Sarikavak, 2015: 4). The purpose of the poster is to give the message to the other party. "The poster should attract attention and be appreciated so that it can place a message in the person's subconscious and encourage the person to have a positive attitude about the message of the poster" (Muller-Brockmann & Muller-Brockmann, 2004: 12). Banners should be intriguing and attention-grabbing. Poster designs are examined under three main headings as social, cultural, and commercial poster designs. Social posters include social issues such as political, environmental, and public. Cultural posters are designed to announce events such as art events, theatre, cinema, concerts, and opera to the public. Commercial posters, on the other hand, are posters designed to sell a product.



Visual 2: Social Content Advertisement Poster (URL 2)

Although posters are design elements that have maintained their importance for years, the exhibition environments have changed over time. The fact that digital art shows itself in artworks also brings out exciting results on the poster. Adaptation to technological developments, which we can also call hybrid approaches in art, can easily carry posters to our mobile phones, tablets, and computers by including sound and motion.

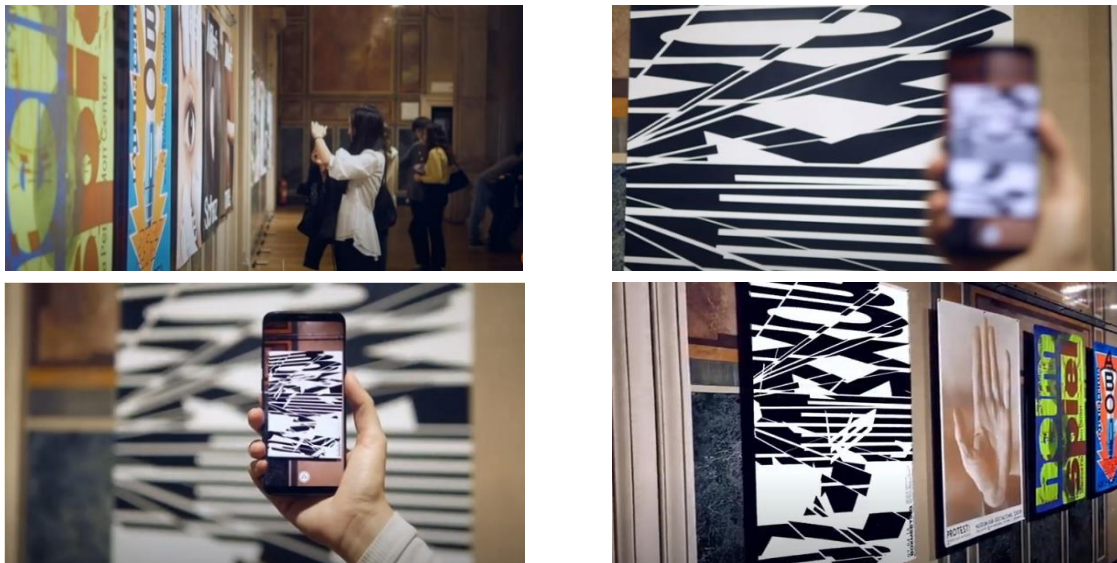
4. EXAMPLES OF AUGMENTED REALITY AND POSTER WORKS

The main purpose of the poster, which is to carry a message or to convey a message to the other party effectively, shows itself effectively in digital environments as well as in traditional presentation areas. Within the scope of the possibilities offered by technology, especially the interactive poster designs or

the flawless integration of the features offered by the augmented reality with the poster leave the consumer under its influence and make it possible for the poster to reach the desired result quickly.

With the innovations brought by technology, the presentation style of the poster has changed and posters with animation, audio, and interaction have appeared on many different platforms. According to Negroponte, "The future will be nothing but the electronics industry. There will be an infinite memory density and it will generate unlimited power. No matter where you look at it, this power will be the power of the computer" (Ertan & Sansarçi, 2017: 85).

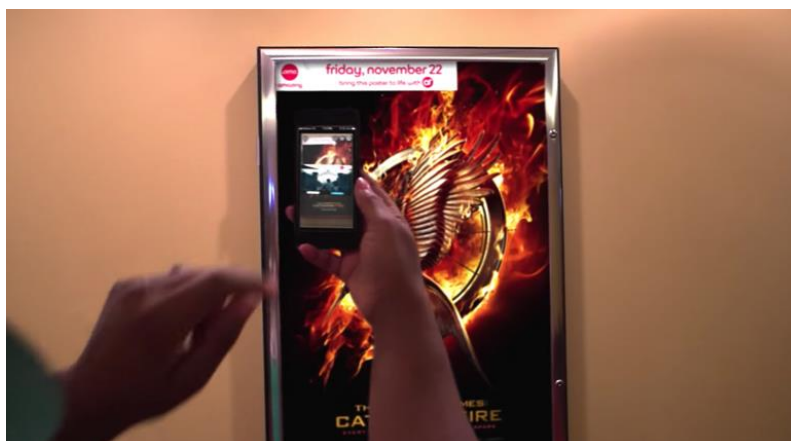
In the poster designs presented with augmented reality, detailed information is obtained about the poster when the QR code is scanned or visualized on mobile devices such as mobile phones and tablets in addition to the poster that appears in the real world. For example, in movie and theater poster designs, detailed information is supplied to people about where to buy tickets, location information, prices, venues by using augmented reality technology. Although the augmented reality technology has just begun to be used in the art field, it is regarded as a very exciting and remarkable application. Because it interacts quickly with people, it enables individuals to reach the desired result quickly.



Visual 3: A Poster Exhibition Arranged Using Augmented Reality Method (URL 3)

Two-dimensional and three-dimensional works are prepared and positioned in the exhibition. Firstly, posters designed in motion type are loaded into the augmented reality program. Then, during the exhibition stage of the printed posters, a mobile device can be positioned on the poster and watched with the augmented reality program. In this way, the message desired to be given in that poster is conveyed to the other party in a much more effective way by incorporating sound and movement.

The visuals, illustrations, and texts used in designs can be presented effectively with augmented reality technology. AMC, a cinema company located in the USA, has presented some of the first examples of augmented real poster designs in the world with the movie posters it designed using augmented reality technology.



Visual 4: AMC Movie Poster (URL 4)

The movie poster "Into the Storm" takes the storm in the movie to the streets of Sydney with augmented reality technology. In the poster display with augmented reality, it is seen that the thunder is very effective when people look at the poster with the augmented reality program they download to their phones, and it is transformed into a window where cars fly around after a violent storm and then fall to the ground.



Visual 5: Into the Storm Movie Poster (URL 5)

Instead of putting a scene from the movie into the poster work, it is thought that a storm scene made on the street where the poster is located will have a much more impact on individuals who pass through that street and view the poster with the augmented reality technology.

At the same time, it is not intended that people try to understand something from the storm image on the poster of the film, but to witness the excitement and violence of the film's content with the augmented reality method and to encourage excitement lovers to the film.



Visual 6: Printworks London Augmented Reality Posters (URL 6)

In the exhibition venue, Omse brought 'Printworks London' to life with remarkable black-and-white 3-D typography and an engaging augmented reality experience. The aim of the project is to announce the Printworks London autumn and winter series in an interesting and remarkable way, also the responsible company presents the value it places to art and culture in an interactive experience. The company, which is the largest printing factory in Europe, has included 3D typographic elements in its design by referring

to the cylindrical shapes used in traditional printing machines in its advertisement prepared with augmented reality.

Generally, the third dimension is added to the two-dimensional interfaces where the advertisements are displayed with the augmented reality technology. With the augmented reality technology, traditional advertisements take themselves to the next level and offer the opportunity to “transition from seeing to living”. These advertising products offer the opportunity to experiment and change the product thanks to augmented reality. Thus, brands open the colorful doors of a virtual world to their customers' thanks to augmented reality. With the opportunities offered by the developing technology, it is available to be interactive customer base and to catch a good market environment without making huge investments.

The poster has become interactive with technological developments today. For this reason, the poster has come out of one-sided communication and gained an interactive dimension therefore it has become available to the target audience. It is seen that the two-dimensional situation in the posters is now more observable, visible, and informative. For example, when we look at a movie poster with an augmented reality application, we can find ourselves in a movie we haven't watched yet.

5. RESULTS

The increasing use of augmented reality technology attracts more attention day by day. Being able to quickly access augmented reality applications with mobile devices that we cannot fail also supports the increase of interest. The field of art and design has also been affected by recent technological developments. Poster designs have the opportunity to reach the other party quickly and affect the target audience thanks to the internet network and computer technology. Augmented reality, which emerged with the possibilities offered by technology, completely changed the exhibition process of the poster and included the audience with the interaction it offers.

By including augmented reality technology in the exhibition method, artists can freely present different forms of expression in their works. In addition to the exhibition by artists, it is a method that attracts attention from everyone who frequently uses the presentation and exhibition method such as exhibition halls, advertising companies, museums.

As a result, augmented reality technology appears in poster designs as a display method as in many other fields. It offers graphic designers a much more creative and interactive space to exhibit their work. With the effective manifestation of the augmented reality method in the world, it will be adopted and used more and more in the field of graphic design.

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