The place of poster in the digital era

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The place of poster in the digital era

by

Karo Ahmadi Dehrashid

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Graphic Design

Program of Study Committee:
Paul Bruski, Major Professor
Anson Call
Tejas Dhadphale

The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University
Ames, Iowa
2021

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ABSTRACT

Animated posters are a relatively new medium in graphic design, which seem to have been significantly ignored by researchers. This thesis examines the interaction of animation, technology, and interactive media shaping animated posters. Thus, by defining our current understanding of animated posters. Also, examining the effectiveness of animated posters on viewer’s recall, we explore that whether, in the peak of the digital screens, motion graphics, and advanced interactive technologies, the poster design is still bound to the print technology or must be entirely reconceived as a specific form of the digital medium? And eventually, what would be the next generation of posters? Accordingly, two online surveys were conducted with a general audience and an informal critique with informed designers, as was a literature review and an analysis of existing animated posters. Respondents were randomly separated into three groups and asked to answer two sets of questions with two separate surveys. Survey respondents indicated that animated poster is the most popular poster form, and this form seemed to indicate that recall was good. However, this research indicates that mobile screens and social media are the primary places where these viewers have seen animated posters almost exclusively. The results indicate that adding animation on the time scale of 10 to 15 seconds to the poster seems to be optimal for attention-grabbing and recall up to one week. Further research is needed to isolate design principles involved in motion graphics, augmented reality (AR) and to strengthen the potential effectiveness of animated poster
CHAPTER 1: INTRODUCTION

The merging of visual communication mediums with technological advancement has been established as the new interactive experience through the past a few years. The impact of those technological tools, which started in the late 20th century and still is growing, has transformed our world. However, as a visual communication form, graphic design has integrated technology with its mediums to correspond to the communities’ communications needs in all aspects. The one integral approach is using motion to craft and distribute the messages by evolving computer-related software and electronic media. Accordingly, since the first generation of computers and electronic screens, designers, photographers, and cinematographs could take the motion as a communication strategy (Stone & Wahlin, 2018). On the other hand, the advent of smartphones and rapid progress in augmented reality (AR) in recent years, and emerging sensory-detection screens and sensory design approaches have aroused considerable interest in the designers to wipe out the boundaries of visual communication and advancement of technology and mix them into one another. Designers worldwide observe an exponential rise in the application space, interaction design, product interfaces, kinetic data visualizations, branding design, title design, dynamic advertisements, exhibitions, and environments. Accordingly, as an essential medium of advertisement and social awareness, poster design has always connected with technological advancements and new design methods in visual communication. It has been proven that a poster is an effective medium for promoting a message, raising awareness, and establishing a specific idea. Although there is no uncertainty in print posters’ significant role as a communication form, the poster is no longer just a static experience on the walls or corners of the streets. Studies have found that digital screens, which have enabled designers to present the animated content through them, and design computer software(s) that have expedited producing
motion are the main factors that are transforming the traditional posters into new generations (*A New Poster Movement – Eye on Design*, n.d.). Before the current extensive use of digital computers and technical authoring tools, designers of the 50s and 60s found the importance of representation through kinetic methods. They started to experiment with those tools that they had at their disposal at the time. (Krasner, 2013) introduces a couple of pioneers such as Man Ray, Mary Ellen Bute, Hans Richter, and Oskar Fischinger, who have shaped our understanding of narrative, space, time, form, and kinetics. Thus, the next generation of graphic designers have created a space that we know as motion design and reinforced the visual language that mixed the boundaries of print and traditional media and movement. The animated posters, which they have also known as motion posters, are the new generation of traditional or printed posters. Despite the growing number of animated posters, research on how to utilize motion graphics and animation on the poster has remained limited due to lack of the theoretical information in the correlation of animation and poster characteristics. However, due to the implementation of digital screens and environmental obstacles, designers have not done a comprehensive research on animated posters’ technical tools such as what would be the appropriate time and frame that can be used in posters. Thus, this relatively new medium needs new studies and research to fulfill the current theoretical and practical gaps to build a better solid structure of the animated posters such as adding time and choosing a suitable frame or screen. Accordingly, this thesis aims to understand animated posters adequately and examine and define our knowledge and perception of motion graphics and their implementation on the printed posters. It will ask does addition of motion graphics and animation to poster design increase the viewer's engagement, retain attention, and enhance the poster recall?
Today, electric billboards, interactive kiosks, and personalized advertisements have appeared in our community and enhance our lifestyles. Even though the necessary actions for determining the visual communication problem continue the same, the improvement of technology has produced new paths for designers to approach problems that satisfy modern society's needs, such as adding animation to immobile designs. If making dynamic designs creates a better user experience for modern society, how can utilizing the correlation of motion graphics, posters, and new technologies increase the viewers' recall and attention-grabbing process?

The research methods applied to this study are based on qualitative analysis. We have defined exclusive research methods for each research question to help collect and analyze the data accordingly. As the thesis's primary question is examining the animated poster’s effect on the viewer’s attention retain and poster recall by asking “Does animated posters increase the engagement, retain attention, and enhance the recall?”, thus, appropriate case studies and analysis were conducted to point out and render the findings that could assist with this research's achievement. The Case Study (Animated Poster Review) is the subsidiary part of the literature review to help to understand the animated posters' structures and analyze the concepts of frame and time, which are two significant factors in motion design and animated posters. Therefore, fifteen case studies of animated posters that various designers around the world have designed were selected and analyzed through different aspects to collect the essential data and information, which was a significant help to create a framework that has been applied in the animated poster design section of the research.

The second phase, which is also the central part of this thesis, include the design, survey, and viewer testing. Thus, for this phase, nine printed, animated, and AR posters designed and
through a viewer testing that compasses 42 viewers they examined. A comprehensive parallel analysis conducted to examine differences in the findings among the posters' printed and animated versions.
CHAPTER 2: LITERATURE AND MEDIA REVIEW

The History of Motion Graphics

For the purpose of this thesis, looking back into history and learn about where and how motion graphics has started would be notable source for examining the current state of motion graphics and also predict what might be the next generation of motion graphic and motion design in the future. Accordingly, Michael Betancourt, who has done various research about motion graphics, has written a book called “The History of Motion Graphics” and he explains that motion graphics was the last significant artistic discovery of the nineteenth century to develop during the twentieth entirely. This book, as the author explains, grew from a specific need for the in-depth, historically robust examination in experimental media that contemporary motion graphics has implicitly assimilated from the earlier abstract cinemas, visual music performances, and video art practices of the twentieth century (Betancourt, 2020).

Moreover, Throughout the first decades of the twentieth century, some artists and filmmakers such as Walter Ruttmann and Man Ray did some experiments with film, lighting, and sound designing, shaping our understanding of motion graphics. Later in 1940-1950, other designers like Oscar Fischinger accomplished extended work on animating abstract models, converting to more minimalist and geometric artworks; attention should be devoted to sound like an essential character of the reproduction of this period emerging from related “concrete” experimentations, the connection between sound and motion graphics placed in the period continues a basis of the art till now. (Paulo & Schlittler, 2014).
Motion Graphics

There are numerous definitions of motion graphics according to its functionality. Some researchers solve the meaning by defining the motion graphics in correspondence to the field of animation. In the “The Theories and Practices About Motion Design” assert that motion design represents a convergence of media, philosophy, and activity. It is a synthesis of visual and animation design principles used to communicate and/or amplify the meaning of message. This accomplished by showing dynamic spatial change over time, utilizing the layering of temporal elements such as movement, speed, sound, rhythm, depth, layering, responsiveness, and direction. The authors emphasize that we are no longer constrained to the printed surface. Electronic media has more easily enabled us to craft distribute kinetic messages (Stone & Wahlin, 2018). In addition, the Oxford Dictionary describes motion graphics as “The procedure of photography consecutive positions of models or gestures to produce a delusion of movement when the film is presented as a sequence.” Moreover, through the animation process, animating increases the value of the motion graphics and the viewing experience associated with it
(Manovich, 2006). However, motion graphic is different from traditional animations. They are time-oriented visual design art, which is non-narrative and non-figurative. Comparing with traditional animation, motion graphic is more informative and practical. The creative style is usually more experimental. It can convey information in a short time and deepen the viewer’s personal experience and increase the recognition of them. Feeling and sense of input, which is suitable for today’s rapidly changing social characteristics.

Despite the motion graphic’s mission, all graphics distribute a commonality associated with their effectiveness. Thus, the quality of motion graphics can determine how effectively the motion graphics can convey their dedicated message(s). For instance, The New York Times page on Instagram produces daily graphics that includes motion graphics for its stories to offer visual descriptions and increase the engagement of its stories.

**Motion Graphics as a New Medium**

As we are no longer attached to the printed surface. Motion graphics with correlation of the digital devices has become a new art form and medium. But using motion graphics needs a comprehensive knowledge about its methods and mindsets. Thus, (Shaw, 2019). In his prominent book, “Design for motion” introduce a combination of art and design elements with artistic storytelling and professional savvy. According to Shaw, this book covers everything a serious motion designer needs to create their artistic visions and positively produce clients' compositions (Shaw, 2019). The author also explains how the revolution in the technology world has impacted the visual arts and helped motion graphics become accessible to everyone. This book explores the fundamentals of motion design principles.
However, in a paper written by (Peng, 1998), the researcher analyzes the psychological feeling of motion graphics that can be performed on a non-moving graphic design space. The main purpose of this article is to analyze and develop appropriate categories to compare with motion approaches, also to define the main contents and discuss each graphic design element. This paper also analyzed the ways in which motion was used through a range of graphic design provided a wider understanding of design, and the ways in which these approaches could contribute more activity, life, and expression to visual communication.

In addition, another article which is one of the notable sources of motion graphics in graphic design is written by Vincent, C, Cole, A, Schincariol, Z. This research study conducts an experiment in developing graphic design and motion design in an interdisciplinary work concentrated on typography. The researchers in this article begin with training graphic design skills, highlighting textual elements' expressive potential. Then, the same subject is re-compiled for display on video. When one examines each media's specifics, the expectations converge in provoking a broader view of typography as a design component. (Vincent et al., 2006).

Using metaphor in visual communication is a crucial and the most important approach. Now with emerging new media technologies. The relation between visual communication and motion graphics is well-established; a research by (Farouk & Eldesouky, 2013; Reese & Bendito, 2014) concluded that as motion graphics begin to dominate within digital design communications, methods and pedagogies that incorporate sound cognitive science theories may contribute to the effectiveness and efficiency of message communication.
New Media Technologies

In the past couple of decades with the rapidly improvements in internet speeds, this enabled graphic design and particularly motion design to craft, design and transmit effective messages throughout different and numerous new media technologies such as, variable screens, social media, and interactive platforms. Thus, the recent progression of traditional design to new media has developed to new territories, unique collaborations, and specializations in the intermediate new areas. Currently, a graphic designer combines various media into one multimedia form to enhance the message's effectiveness. (Sperka & Stolar, 2005). In another book “New Media Design” which is written by (Austin, T., & Doust, 2007) explain how graphic designers can use different media tools and methods to combine words, images, motion, music, and user interactions. The authors' extensive perspective-taking in everything from designing and illustration to motion, environmental, and wearable graphics describes the increasing impact of new media on graphic designers in producing new experiences for the universal information and production industries. Sections on online design and imaginative worlds, including virtual platforms, digital VFX, and games, outline contemporary and future technological advancements and their connections for today and tomorrow's designers. Moreover, while design fundamentals are often the same even in old or new mediums, new media technologies can re-create, re-shape or add more principles in their application in a profound way. In the Design Fundamentals for New Media written by (Bennett, 2013) introduces and examines the base principles of design from the view of a generation of designers that practiced on new media. Foundational design ideas are investigated in full-page spreads that combine text and artwork to illustrate modern digital media design methods, merging timeless teachings with leading-edge technology. Design
Fundamentals for New Media unlocks the door to a productive and satisfying way of exploring contemporary design techniques.

However, experimental animations become sutured smoothly and continuously into live-action imaging within the latest digital media platforms, blurring between the camera footages and anything a computer generates digitally. The combination of computer-generated animations into most other forms of media, linked with many experts' reliance on computer modeling as a means of leading research, has led to an increased blurring of science and popular media's visual cultures. With the rise of extensive data as a device for identifying phenomena whose dimensions surpass human perceptual abilities, animation has become even more integral to the practice of scientific visualization in the twenty-first century. Numerous animations are not perceived in any traditional understanding; alternatively, they are part of a mixed media ecosystem where divisions between photographic, animated, and computational modes of design cease to exist. (Banner & Ostherr, 2015).

**Augmented Reality**

In a recent article written by (Cipresso et al., 2018), he defines Augmented reality (AR) as a novel technology than (Virtual Reality) VR, and it presents an interdisciplinary design framework, in which, nowadays, teaching and learning seem to be the most field of research. Indeed, AR facilitates learning, such as increasing understanding of meaning and retention of memory, and incentive to learn. However, AR still evolves in the experimental plots, VR helps specific research fields. However, according to the (Geroimenko, 2012) The Google Scholar Search study showed that while the number of Augmented Reality researches reported in 2008 was 2100, in 2009, there were 3700, 5600 in 2010, and 5100 in 2011. Thus, I did new research about “Augmented Reality” (AR) to update the statistics, and according to Google Scholar, the
number of academic researchs is about 2,070,000 results by the date 2020. Therefore, Geroimenko explains the reason for the popularity of VR by several reasons. First, Augmented Reality (AR) is a simple method of exploring 3D objects and data visualization, as it mixes virtuality with reality and brings it into a world where we live. Second, there are unlimited AR opportunities, such as visualization of information, real-world navigation, advertisement, military, emergency services, art, sports, design, guided tours, learning, culture, economics, performance, presentation, etc. all the above features of AR have already been identified. In recent years, what has brought Augmented Reality to life is that AR apps are now usable on every mobile or equivalent handheld computer (such as iPad Pro) and, in other words, AR has moved from research laboratories to the pockets of street people. In theory, AR can be executed to view both the physical world and simulated computer-generated objects on every screen and portable device through camera within devices to observe the "see-through" experience. Moreover, the concept of Virtual Reality (VR) is also used to describe devices that aim to simulate hybrid 3D components such as graphics and sound for any or more of the user's actual world experience. Usually, modern devices use head-mounted displays that guide the user manually to manipulate virtual objects, along with a sense of immersion in the virtual environment around them (Feiner, S., MacIntyre, B., & Seligmann, 2003).

In addition (Bryson, 1996), Virtual Reality (VR) describes virtual reality as the use of devices and human-computer interfaces to construct a three-dimensional world with a strong understanding of three-dimensional presence, including interactive objects. By demonstrating that virtual reality is computer-generated, three-dimensional, and immersive, he explains his concept. We need to establish the effect, according to Bryson, of communicating with objects,
not with pictures. Note that we assert that virtual reality is an effect or phenomenon, not an illusion of things. Virtual reality should not seek to create an illusion of the objects or real world.

**Poster Through Time**

Undoubtedly art is the creation of mankind’s imagination. Humans tend to observe the world through images, signs, and shapes and their daily life generally involves in visual communication forms in their surroundings. If art was not able to create deep engagement with the audience before the advent of the poster; but the poster, according to its defined-functions must catch the attention and attract the gaze and invite the audience by giving more inspection (Price, Charles, 2018) and the primary goal of the poster is not its clear message, but what the way it is to embed together talk about society (Gallo et al., 2001) introduced itself as a new medium of graphic art. The poster was within the media hierarchy, which had a complex method dated back to the 1830s. In addition, Bradford R. Collins (Collins, 1985) in his article explains that during 1830 the classic principles and old-qualitative hierarchy of art academy which were focused on fine arts such as painting, sculpting, and architecture attacked by two movements. The first group was Realists which stood against the hierarchy in art. The second group was decorative-art-reforms who fought to bring up the decorative and applied arts to the level of fine arts. Hence, the poster engaged in this shifting the hierarchy, and then the result of this overcoming on the old-academic principles was the outstanding posters designed by Jules (Collins, 1985).

Accordingly, Chere became a pioneer in poster design and claimed the title poster designer as the result of his experiments with the lithographic with the combination of illustration. This integration of Lithographic and illustration had been abled by Alois Senefelder whose discovered the lithographic process in 1796 in Munich (Holden, 1984), although it was
not useful in the first years of its emergence, but eventually progressed and updated. By 1848 it was used for book printing but Chere started to print colorful posters with lithographic technique (Barnicoat, 1972). Therefore, the style that Chere innovated for designing his posters was influenced Japanese prints and Avant-Grade movements and then followed by Toulouse-Lautrec, Grasset and their followers, Hardy, Hassall, and Beggarstaff Brothers. This style was different from the traditional realism of Royal Academicians, which their designs were for soap and biscuit manufacturers. Also, it was not like cluttered and detailed designs which were for theater and commodity works that designed by provincial printers. It was characterized by the minimum number of details, simplified forms with a correlation of flat colors, minimal background, and strong outlines to reinforce the composition to bring it up to the surface of the poster and focus on its decorative-patterned effect (Hewitt, 2002). Thus, the journey of poster began in the late nineteenth and poster like the other fields of applied arts had become extensively accessible and collectible. Then poster turned into a phenomenon that spread from Europe to the USA.

Neil Harris in his article (Harris, 1998) explains that there are two major factors that were involved in the development of posters in Europe and the USA. “The sudden arrival in the early 1890s of well-designed, carefully painted, and colorfully illustrated announcements, commissioned principally but not entirely by literary magazines, publishers, and newspapers
transformed the status of the lowly posters. […] Also, at almost the same time, Continentals also began to organize poster shows and catalog their contents […] the result was both in Paris and provincial cities, exhibitions of poster art drew excited crow” (Harris, 1998).

Figure 3. Paris Exhibition Posters

Therefore, the poster proved itself as an effective vehicle for presenting and promoting products, events, and mass media. The lithography technology at the time was an innovative mass production which used for posters by designers. According to Barnicoat, the poster design pioneers used lithography technology as a creative medium at that time (Barnicoat, 1972).

Although there were numerous old printing techniques that were popular and well-developed lithography on the stone was a fantastic innovation for poster design at the time. Using the lithography on the stone had a great impact on the quality of the new modern posters. However, the invention of lithography was not the only reason for spreading posters around the world. After 1900, a novel distribution method and system was initiated in Switzerland to place the posters in a particular public space to work as an announcement. This method became a standard system for outdoor advertising and is developed according to the so-called Weltformat 128/90.5 centimeters (Staber, 1993). Accordingly, the emerging of lithography and the poster’s
new distribution system where an explosion at the beginning of the twentieth century and paved the road to easier and faster methods of mass production.

Figure 4. Litography Printed Posters

Between the two world wars modernism had an extensive effect on various art styles and movements. The old classic arts and methods rapidly transformed due to increased industrial society and the result of that transformation was arousing the modern art movements such as Cubism, Fauvism, Futurism, Expressionism, and Dadaism. Therefore, Simultaneously France, Germany, and Switzerland launched the first graphic design courses, and it was a crucial and historical moment in the evolution from illustration to graphic design. On the other hand, during the 1930s a cultural transition happened in the Soviet Union which it was intended to spread the culture to the illiterate majority of the Soviet Union people (Romanenko, 2010). Thus, the Soviet Union government decided to use the newspaper which was one of the main communication forms in cultural information in the Soviet Union to send out its propaganda posters. However, at the same time using photos alongside the type and illustration were so popular in the Soviet Union, and famous artists such as Aleksander Rodchenko, El Lissitzky, Varva Stepanova, and Gustav Klutsis all had accomplished a tremendous result by using their own taken photos as their
primary technique in their propaganda poster series and turned them to photomontage posters (WITKOVSKY, 2009). Accordingly, what happened in the Soviet Union was a new phenomenon and a start point of collaboration between the poster and existent technologies. They used photographs as in their posters to create a deeper engagement with their people and, they utilized newspapers as a new form of media to carry out the posters into all layers of society.

Figure 5. Soviet Union Propaganda Posters

Poster stood in the realm of the printed medium for approximately four decades and had an effective impact on public engagement between massage and viewer at the time. Although computer-based graphics had previously been utilized in critical areas of science and technology, its impact was not yet perceived in the art and design field. The main roots of computer graphics backwards in 1950s (Šperka, 1994). At the beginning of its expansion, it was to be supposed that the forms of computer graphics would be blended into the fine arts. However, the latest situation influences one to presume that computer-generated works will advance into a new field of the aesthetically oriented experiment that can neither be categorized as part of the existing classical divisions of design nor be recognized as art. Thus, a new profession could develop, as was the
situation with photography and cinematography. The various aesthetically designed projects are produced, allowing the viewer to enter a connection with the posters; by this expansion, new design methods with graphic elements developed. Also, as experience has shown, such activities were pleasurable and positively impacted the posters and viewers' communication. The process utilized by computer and design software(s) makes it feasible to achieve a series of pictures by adjusting the settings and not only one picture. Changing the parameters deliberately and step by step, the rough designs and materials for motion graphics are obtained. The original pictures taken as single shots appear in a motion picture. It became possible to adjust the screen images to stimulate continuous images in motion immediately by improving performance speed and memory size. Accordingly, the computer has initiated the opportunity to go a step beyond the boundaries existing so far and to enter the field of endless experimentation with shapes and colors (Staples, 2000).

On the other hand, screens and displays were immensely influential in development of poster and poster design. As several technologies were considered to have turned images into different visual environments, including the emergence of computer-aided image production, interactivity, and multimedia forms, users could perception multisensory experiences and interfere with them. (Strauven, 2016).
Therefore, Computer art's evolution as a distinguished field of production was a side-effect of scientific experiments achieved with the invention of digital screens and computers. Many designers worldwide started to use new developments in computers for design and artistic purposes, which started early in 1960. In his book, (Betancourt, 2020) Asserts that digital techniques' advancement was an immediate adaption of related procedures already provided with printings and digital imaging's technological improvement made possible toward ever-greater control over the image. Thus, digital technology's importance to produce motion graphics and the increasingly stable relationship between previously different industries such as film, television, and video games became evident during the first decades of the twenty-first century as designers trained in motion graphics started experimenting on title design for media such as Saul Bass (1920-1996).
CHAPTER 3: PRECEDEENTS

To begin this section, a comprehensive definition of animation and motion graphics is needed to determine their differences. Therefore, a working definition is an artificial creation that generates the illusion of movement in static lines, forms, and shapes (Wells, P. 2013). Thus, it can be stated that motion graphics are a kind of animation. According to Wells, the animation is an umbrella term that includes all fields of moving images, but motion graphics is just related to graphic design elements (Wells, P. 2013). Thus, animated poster is a new phenomenon representing a merging of utilized layers of design elements, such as color, shape, image, form, and type mixed with dynamic spatial variation components such as rhythm, depth, layering, and direction. The whole process exists on a continuum of time-dependent/time-independent messages. In motion graphics, time is a crucial element which, like most narratives, includes the series of information based on beginning, middle, and end (Stone, R. B., & Wahlin, L, 2018). Therefore, a comprehensive analysis of animated poster is needed to examine the application of time and frame in motion graphics on posters.

To initiate this review, a collection of 15 posters is selected from a variety of designers globally. These animated posters are collected through a qualitative exploration in the social media and the internet such as through Behance and Art station. To find and collect the animated posters, the word #animated_posters has been used to discover those posters designed by motion graphics deliberately. The main factors that were involved in selecting the posters were their design which was according to two concepts of time and frame. While I was searching through the different sources that mentioned above, I was looking for those posters that are designed deliberately accordance with presenting their information by using different animation speed and different compositions.
In this research, two main factors being reviewed. The first one was time, and the second factor was the frame. This examination helps us to understand the significance of the time and frame in motion graphics with the formal principles (structure) of poster design to discuss the production of meaning (message) and eventually can assist us in integrating all those elements in different fields of design and starting to create a coherent framework as Armin Hofmann (Hofmann, A. 1965) states that "Adding a new dimension means an extension of the principles of design, not merely in the sense of a numerical increase of existing disciplines, but rather in the sense of completing a constantly expanding unit" (Hofmann, 1965, p. 10). The below table has been created to start a qualitative examination and analysis to review the selected animated posters' time and duration.
Table 1. Time Analysis

<table>
<thead>
<tr>
<th>Poster</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>07</th>
<th>08</th>
<th>09</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>15s</td>
<td>13s</td>
<td>5s</td>
<td>10s</td>
<td>30s</td>
<td>15s</td>
<td>5s</td>
<td>6s</td>
<td>5s</td>
<td>10s</td>
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<td>5s</td>
<td>5s</td>
<td>10s</td>
<td>8s</td>
</tr>
<tr>
<td>Median</td>
<td>9.7s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

It must be considered that some of the animated posters in that collection were published in the GIF (Graphics Interchange Format), which does not provide accurate information about the original designed poster. Therefore, the animation in those posters is played in a loop duration. Moreover, the durations assembled from selected posters do not indicate the time that those posters were designed to be displayed to the viewers. Animated posters are usually designed to be presented in a loop, and the viewer chooses how long to see the poster. Nevertheless, the average duration in those 15 posters is approximately 10 seconds (9.7). The most extended poster was 30 seconds. On the contrary, six posters were 5 seconds, which was the shortest duration amongst those collections.

**The Concept of Time in Animated Posters**

Until recent decades in which technology affected graphic design, we have never considered time as an element of design. In animation time is a crucial element, and as same as other narratives, it includes some sort of events/facts with three stages of beginning, middle, and end (Stone, R. B., & Wahlin, L, 2018). Time effects all the other elements in a particular design or an artwork and it gives rules to each one of them like actors on stage. Each element needs to be designed as part of a performance in which time is a director who shape and unify them to present a solid performance. When we add the element of time to other ingredients of a specific
medium, we make that an animation. Therefore, time shifts the scale of the hierarchy, contrast, proximity, repetition, and balance in a medium and it can increase the interaction with the viewers. It is usually considered that animation can improve viewers mentally visualize a dynamic process instead of immobile pictures; nevertheless, this assumption is still questionable. Researchers have concluded that animation visualization gives a realistic representation of the to-be-explained processes, promotes a more profound understanding of dynamic systems, and encourages more motivation to engage (Höffler & Leutner, 2007; Mayer, Hegarty, Mayer, & Campbell, 2005).

**The Concept of Frame in Animated Posters**

In the art and design fields, Canvas or the artwork frame is a visible surface that artists and designers use place their ideas and artworks to present them to the publics. Each field or medium has its own frame and canvas which it has dedicated to its duty to convey a specific message. This research determined that more than half of the posters (9 posters) had retained all their elements, including motionless and moving components in the poster border. As stated, a subgroup in this category consists of posters that only change their position or rotation, while other posters are more involved in (complex) animation. In some other posters, all the elements stay motionless, and just the color or the background create animation by flashing. In the a few posters; different design components appear and leave both sequentially and concurrently. Accordingly, the concept of frame is varying, and it depends on the animation and the scenario the designers define for those elements that are impacted by animation.

In this analysis, I choose a couple of posters according to their animation and frame. I categorized them into 3 different categories. The First one is “All in frame” the second one
“Partially in frame” and the third one “Out of Frame”. This categorization helps the readers to read an organized analysis.

Moreover, I did not consider the theme, subject and the message of the poster as this examination is in regard of technical analysis of the posters and the posters’ message or topic has not any impact on our result and findings.

In the first poster (Poster No. 09) of our analysis all the elements and animations are in the frame (All in Frame) and everything happens whiting the poster frame. The poster consists of image, text, shape, and a background and due to its composition, the views eyes will be captured by the middle image of the poster regardless of the around an image of an old, ruined castle which a man is looking toward the audience. Although this is an animated poster, but it is not generic as much as the previous posters were.

Therefore, we can see a huge circle, a block of text that carry a piece of information and an image of a castle that they all are static and motionless. The only animation is a slow loop of 3D-shaped text layer which spins around the image.

The (Poster No. 10) is a notable example for (Partially in frame) animated poster, the animation is only generated by swapping the text out of the frame and return into the it. This
poster is produced of two main layers. The first layer is the typography, a solid black color distributed according to a grid. The second layer contains the wine glass in the foreground.

![Figure 9. Case Study 2 – Poster No.10](image)

Animation in this poster consists of moving the text in the background sequentially, and the wine glass material affects the scale of the text as it moves behind the wine glass. Although the typography is going out of the frame and come back in a time-based animation, we can still observe and obtain the specific information we receive when we see the poster. Moreover, the animation is not used to exhibit information in a time-based experience and is applied to create a visual narrative.

In opposite, in the poster below (Poster No. 11), the animation affects all the components more complex than the previous examples. The animation includes computer-generated animation and also, video footage of an explosion. This poster can be divided into five phases that make its structure. The first stage shows a blast of fire or smoke that rises from out of the poster frame toward the top. In the second stage, the white ball falls from the up-left side of the frame, hits some of the texts, and causes chaos in the typography. Moreover, in the last phase, three pieces of text information appear at the end of the poster's motion loop.
The significant difference we see in this poster compared with the previous one is the elements that appear in the frame, and they stay until the end of the loop. Therefore, the poster initially has just a solid red background with the primary texts, then the other elements appear and complete the poster. The video footage in this poster is mixed with a hue effect which changes the color of the blast from red to blue shades. Therefore, the message of the poster can finally be perceived by the viewers. This method remains until all the details and information are correctly transposed to the viewers. This animated poster's style depends on the motion more than the loop ones, as if we use the poster without the motion or even remove one of the animation's frames, the poster will be incomplete.

**Design Process**

**Thesis Parameter**

<table>
<thead>
<tr>
<th>Presentation</th>
<th>3 animated posters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>8 seconds (e/p)</td>
</tr>
<tr>
<td>Format</td>
<td>HDTV 1280x1920 p</td>
</tr>
<tr>
<td>Frame Rate</td>
<td>30 frame rate per second</td>
</tr>
</tbody>
</table>
**Used Software(s)**

Adobe After Effects
Adobe Photoshop
Adobe Illustrator
Artivive

**Target Audience**

The target audience includes general viewers who may visit either my website or college of design located in the Iowa State University (ISU)—ranging in age from 18 to 75 above. This audience group covers ISU students, staff, and working people visiting the college of design 3rd floor at ISU.

**Design Ideation**

The poster was the first medium I started to work with when it came to graphic design. I have always been fascinated by its impact on message transmission, functionality, and the workflow that it creates between art and design. During the past years that I was working on the posters, I have always been looking for a new style, form, and method to improve my poster design skill as a graphic design student. If we look at the history of the poster, we realize that the posters' effect on society and viewers was always significant. Just with a quick review, we will notice that WW1 and WW 2 posters were some of the most valuable and popular art and design mediums during the France industrial revolution.

On the other hand, poster design is an experimental design process. This means it explores all the areas in the art and design, and in the end, it will be created by the mix of those fields. For example, some posters are designed using photography and silk-screen print, or some posters
have been designed through coding and generative art. Therefore, depends on the message and the purpose, posters will be designed by using the other art and design fields and material.

Posters are divided into different graphic design categories: Social, Promotional, Cultural, Political, and advertising posters. For this study, as the COVID-19 pandemic is the biggest challenge for humankind, I decided to design three posters that promote a social movement called "Social Distancing," which means that each person needs to take 6 feet distance from another person to avoid spreading the virus. Thus, I established a campaign, and I named it "#COMBATCOVID".

Although my primary intention was to examine the technical aspect of poster design regarding its relation to technology, I wanted my posters to express something genuine and authentic in our societies, such as COVID-19. Therefore, I decided to apply the motivational style on my posters. The reason to work with motivational style was upon the idea that I had a quote which it was necessary to be large and bold. However, I had overlayed metaphorical images that I used them to increase the viewer’s attention. The aim of motivational poster style is to reveal the various problems to the audience. My posters were designed through the abstract forms to present the importance of the social distancing. It was crucial to design the posters in a modern-abstract style to enhance their effectiveness as the “call to action” posters the typography, color, composition, and images were all in service of one purpose.
Sketches

To see more sketches and design variations please refer to the Appendix A.

Color Palettes

I created a color palette for all the posters. The main reason was to have a unique uniform in my posters to become a social health promotional campaign and avoid creating any biased ideas in the viewers’ attention.
On the other hand, and regarding color theory, I selected these color palettes to enhance the posters’ effect. In the psychology of the colors, Yellow is a color for sending the warning message. It is a symbol for an indication of hazard. Moreover, Purple is a color of fear and instability. Also, I used black and white for the text and the layout as these two colors can complement each other, and they are not effective on the viewers’ attention.

**Font & Typeface**

*Lato Black AaBbCcDdEeFfGgHhIiJjKkLIM*

*Figure 13. Font*

For the typeface and layout, I choose to work with “Lato.” This font has been designed by Łukasz Dziedzic, a polish designer, in 2010. Lato is a sanserif typeface family font that means “summer” in Polish. Lato includes nine different weights, from lightweight to heavy.

**Final Design**

As the design phase of this thesis, nine posters were designed for viewer testing. Three different posters were created in three versions: static, animated, and augmented reality (AR) based to provide more excellent perception and more robust data. These three posters were deliberately designed to promote the Covid-19 social distance awareness.
Figure 14. Designed Posters

The viewer survey expected output to understand if adding animation to static posters may increase the viewers' information recognition and attention-grabbing or not. The goal was to examine how much time it takes the viewers to process and understand the poster visually. My objective was to create three posters that are similar in terms of color and layout. The significant differences they had were their composition and their design style. This differentiation helps the viewers to engage with them individually and observe various designs of one message. These three posters were purposely designed individually to see how various dynamic components could differ in each viewers' test results. There were visually distinguished from one another, one poster is text-based in design, and another one is image-based. The third poster is illustration-based. Nevertheless, to have a steadier result ultimately, all the posters, each was designed so that the amount and the proportion of both the visual and written information presented on each poster stay the same and similar.

As discussed in the animation analysis section, these posters could easily be recognized as two distinct approaches regarding animation's extent from the 15 analyzed animated posters.
The first method had used motion extensively and as a fundamental tool to present their communication. In the second method, the animation is restricted only to minor elements, and it is only utilized as an additional technique on a static poster. Therefore, for all designed posters for the test section, three animated versions were created. The first one uses animation as a primary engine in the design and the second version utilizes motion in a more bounded way as opposed to the first version. Moreover, the third one, the motion, has just been applied to the text.

**Posters Designs**

**Poster A**

Although all three posters promote the same message, “Social Distancing,” individually, they present this message in different ways. The poster A resembles two people who are climbing on a surface. Using this image as a metaphor of keeping your distance and if you get too close, we may both fall off from the surface was the notable idea.

*Figure 15. Poster A*
The design process of the poster can be separated into three methods. The first layer that can be considered is the image. The background is yellow, and the body's color is different shades of purple. A gradient map has been used to recreate the realistic resemblance of the shadow and light in the poster environment. The second layer is those two white circles around the climbers. Using those circles was to create a formative composition in the poster and represent each border to stay within and warn another not to come less than six feet. The third layer is those two text blocks and the main title "Stay Six Feet Away" to cover the entire poster and as an element that creates the balance for the other elements.

Figure 16. Poster A. Time Analysis

The animated version of Poster A is a continuous loop of three seconds mp4. Video. The main idea of adding motion to this poster was to grab the viewer's attention by the next movement in the first layer and then by moving and scale-changing circles representing the
individual distance from one another. The motion occurs by moving the main title text out of the frame and bring it back sequentially left to right and right to left. Then, the circles are moving around the man and woman with a displacer effect as a continuous loop. Throughout the whole animation, the climbers' main image and the two-text block are visible and motionless. The purpose of adding motion to the main title text and the circles was to examine how they can be added to different forms and how they can notice or remember by the viewers. Also, the speed of the animation was not linear. Because if it was linear, the legibility of the main title was not apparent to the audience. Thus, I added an easy-ease speed value to push the text forward and slow it down before completely stop it.

Poster B

The second poster presents information about the six feet distance. The most apparent and central part of this design is the heavyweight typography says, “Stay Six Feet Away” and occupies most of the poster (Figure 16).
The other central part has been dominated by two giant arrows pointing to the outside of the poster. Those arrows play a crucial role in creating a formative composition that conducts the viewers' eyes out of the poster and metaphor its resemblance of taking distance from one another or split away. Moreover, the last part of the design is the information pieces placed close to the edge of the poster and beneath the main title. This information presents the CDC information about social distance and its definition.

The animated version of the poster is a nine-second loop animation with a perpetual cycle. It is imperative to mention that all texts are still and fixed in the poster, and the arrows are the elements that motion has applied to it.

On the other hand, the arrows getting distance from each other through a smooth easy-out animation, and they go to the edge of the poster. The animation style is an easy out animation that creates a sharp speed line, and the arrows release fast, and they lost their speed when they reach the edge of the poster. The intention to create such an animation was first to grab the
audience's attention then encourage them to stay six feet away by using the easy-out animation. This animation model is the best way to resemble the traffic lights, and people can interact with them easily.

**Poster C**

The third poster illustrates the idea of do not touch each other and keep distance. Although it uses the same slogan, which is “Stay Six Feet Away” due to the consistency in the uniform, the illustration is showing the hand of Adam and God painting by Italian artist Michelangelo (Figure 18).

![Poster C](image)

*Figure 19. Poster C*

Using this illustration was to create a solid metaphor to enhance the poster's impact and grab their attention rapidly. This poster's symmetrical composition helps the viewer pay attention to each block of the text by using the hands as an eye conductor. The position of the hands is in the way which it seems they are pointing at the texts. While the poster is in its static version, the viewer first will be captured by the hands, and then they will look at the text, which says stay six feet away. On the other hand, the typography in this poster is a self-explanatory element. The
word "AWAY" has been separated by a long dash line and pushed to the end of the block to represent the distance's meaning.

The animated version of this poster is made of two frames (fig). Two varying static illustrations of the hands that when they are played in a loop animation, will create the motion for the poster.

Figure 20. Poster B. Time Analysis

In this poster, most of the elements are static. However, the motion is used to highlight the illustration to grab the attention and then forward the viewer's eyes to the main title, "Stay Six Feet Away." Moreover, in each frame, the hands will be changed simultaneously to create an engaging motion.
CHAPTER 4: RESULTS

Online Survey

Forty-two participants were involved in this survey and testing. Most of the participants (61.90%) were between 25-34, and (21.43%) were between 18 to 24, while five people were 35-44 and two people were 45-54. As the intention of conducting this research was to examine the viewers' engagement and motion effect, the background, and gender of the viewer was not considered as an essential factor. Accordingly, the main questions were about the individual's engagement and preference toward animated posters.

The viewer experiment was conducted separately at various locations such as online and in-person and at separate times. To start the study, the testing process and consent form was presented to the viewers. Then each participant has given a total of nine posters. They saw the first poster in the static version, the second poster in animated, and the third poster in Augmented Reality (AR). All participants were given the same posters.

After observing the posters, each participant was also asked to answer how much time is needed to perceive the information from an animated poster and a static poster. According to the animated poster examination held before in this study, the answers were based on the average times that the posters were designed. Measuring these times was a crucial component of this research that will be described later.

Because there are no conventional tools for presenting animated posters, however, they are mainly shown on giant digital screens. These posters were presented on a laptop and a 32' inches monitor. It was also tried to have the presented posters matching the dimensions of the standard static posters. When this size is compared with the standard poster sizes such as 18" x 24", it can be stated that the dimensions of the shown posters are moderately close to the poster
standard sizes. After the poster presentation, the users were asked to complete the survey created through Qualtrics and presented them through a website in which posters were being uploaded. This survey included 14 questions that were identical for all the participants. However, the survey consisted of two parts. The first section dealt with demographics and 11 general questions about posters/motion posters. To conclude the survey, there were three more specific questions regarding viewers’ general experiences: how they perceived information and how they can recall the posters.

**Poster and the Audience**

This study's initial idea was based upon the poster is still a popular mass media or not? How many people are still counted as the poster audience? These ideas shaped three questions that were being asked the participants to receive their feedback. The main question was “*How often do you see a poster?*”, “*How often do you see an animated poster?*” and “*How often do you see an AR poster?*” The intention between each question was to create a parallel comparison to determine which one has the most audience.

The result shows that static poster and animated poster both are at the same level in terms of viewers. But the AR is a new platform that people are not familiar with, and most of the participants answered that they have never seen an AR poster.
Figure 21. Posters’ Audience Testing (Static Poster)

Figure 22. Posters’ Audience Testing (Animated Poster)
According to the survey (Fig 21, 22, 23), 39.53% of the participants have seen static posters, and 34.88% have self-defined as seen it “a lot”. On the other hand, 58.14% of the Participants have seen the animated posters sometimes. In the opposite direction, statistics show although 30.23% of the participants had experienced the AR posters, 51.16% of them have never seen the AR posters. Therefore, animated posters have more audience than the Statics and A.

**Time in Poster**

Time performs an essential part in the poster's primary mission: delivering the proposed message quickly to the viewers. Studying and understanding the necessary time a viewer notices
and observes a poster is a piece of valuable information. Hence, regarding animated posters, this information helps determine the intro and outro measurements of the motion that will be used in the poster. Therefore, in this survey, participants were asked “In your opinion, on average how much time is needed to perceive the information from the static and animated posters?” their opinion and feedback was a qualitative data required for this research. The results show that the participants’ majority opinion agree on that at least 10 seconds is needed to process the posters, either static or animated. The two pie charts below demonstrate the answers to two questions with equal answers to select. Also, the respondents stated that approximately more time is required for animated posters to be perceived.

Figure 24. Time Responses Testing
Although both static and animated posters need to be designed to deliver the message in about 10 seconds, statistics show that viewers need more time to engage with the animated posters. According to the survey, 32.56% need 20 to 30 seconds to perceive the information from the animated posters, while in the static posters, 26.19% need more than 10 seconds. The reason for that is because the required time for each poster depends on several circumstances such as the content of the poster, design and the composition of the poster, the area that the poster is installed on, the layout and time-length of the animation that is designed for the poster, etc.
Location and Poster

Location is another crucial factor in poster design that should not be ignored. Choosing the right place to present the poster has a significant impact on the poster’s success. Thus, in this study, the participants were asked to answer a question that “Where they are most likely to see a static or animated poster?” The question was being asked separately in the survey, but the answers were the same.

Figure 26. The most popular place for the posters by viewers' responses
The result shows that with the development of digital devices and internet access, Social Media is the prominent place that viewers are most likely to see the posters, both static and animated. As the survey states, 48.84% said they see the static posters on social media and, 67.44% said they see the animated posters on social media. The intention of asking this question was to determine the most popular place that audience may see the posters. It helps the future research to conduct various studies on social media and its role between audience and posters.

**Grabbing attention and the help to recall**

When it comes to a successful poster, two major factors determine the poster quality and its success. Grabbing attention and the quality of being retained after a while is among the essential characteristics of a well-designed poster. Accordingly, two main questions were being asked from the participants to determine which version of the poster grabs their attention the most. The first question was “Which one is most likely to grab your attention?” and “Does adding animation help you to recall the poster?”. These questions were divided to get the measurements of each question separately and we were able to analyze the participants’ responds clearly. The purpose of this questions was to receive the majority opinion about to help us to answer the main research question of this study.
Figure 27. Grabbing Attention Responses

Figure 28. Adding Animation Responses
While the animated poster has the highest rank in grabbing attention with 52.38% among the other mediums, it has also, considered with 62.79% the best component in the poster design, which helps the participants remember and recall the posters. Besides being an essential element in retaining the poster content and information, the animated poster is the viewer’s personal preference among the static poster, animated poster, and AR poster.

According to the survey’s statistics, 51.16% of the participants said animated posters are their personal preferences among the other mediums such as Printed and AR posters. Compared to the animated poster, Printed posters with 33% and AR posters with 16% are the least preferable medium as selected by the respondents.

*Figure 29. Viewers' Preferences*
Viewer Testing

In the second phase of this thesis, the 42 participants were divided into three groups of 14. All the participants were being asked to visit the thesis website and observe the posters. To provide a deep understanding and engagement, each poster had a separate page on the website, and participants observed them individually. After the first survey, the second survey was sent out on different dates and times for each group. For example, group A received the second survey two days after the first survey, group B received the second survey four days after the first survey, and finally, group C received it a week later.

Table 2. Second Survey Groups

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

The viewer testing expected output was to see if adding animation to static posters may help the viewer experience information recognition and attention-grabbing? The questions were designed to get the responses descriptively from the participants. It helped us get the qualitative data to analyze, and the results is a supplement for the first survey questions.

The procedure that was conducted to analyze the qualitative data was based on different keywords. If the participants mention them in their responses, they will be counted as the intended answers that we consider as the correct keywords.

The first question asked from the participants was to explain what the posters’ subject was about? Therefore, the intended keywords were COVID, COVID-19, Social Distance, Stay
Six Feet Away. These keywords were the measurement tool for us to calculate the participants’ responses in a qualitative method and provide a solid and authentic comparison.

The second question was about the elements that they can recall and name. This question was coded with a couple of keywords such as Motion, Animation, Colors were used in the posters, shapes, and the images.

The third question, on the other hand, was more open-ended. The participants were asked to describe the differences between the posters. It was expected to see whether they can recall the differences by the various animations used in the poster or the metaphor used to communicate with the viewers.

It is essential to be mentioned that the questions for all three groups were the same, but the time and date were different. This is because time is the most crucial factor in the recall process in mind. Therefore, to evaluate a poster's effectiveness, we measure how much it can be saved in the viewer's mind and how the poster's element can impact this process. Hence, this survey's significance is because it helps us determine and examine the animation's impact on the participants' recall on different dates and times.

**Second Survey Results**

**Question 1**

According to responses we received from those responders that replayed to the second survey’s questions, all the participants were able to point out the expected keywords. 95.8% of the respondents mentioned Covid, Covid-19 or social distancing. Only one of the participants did not recall the posters’ subject correctly and the answer was “political experiments”. The result that can be extracted is that almost all participants had a stable connection with the poster and the posters were fulfill their duty and transmit their message successfully.
Table 3. Results from the second survey

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Respondents</th>
<th>Correct Answer</th>
<th>Wrong Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups A</td>
<td>10 out of 14</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Groups B</td>
<td>6 out of 14</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Groups C</td>
<td>8 out of 14</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

Question 2

The second question that participants were asked was “What do you recall of the designs the most?” and the most correct answers were from the poster A and C. The words (Animation, Moving Text, Yellow, Color, Climbers’ image, and Two Hands) were the keywords that all participants mentioned them in their responses.

Figure 30. Viewers Second Question Responses
This primary reason that participants could easily remember the animation and the images is that, using metaphorical images alongside the animation can be remembered easily than a full-text poster such as the Poster B. Moreover, the responses to this question show that the viewers will be attracted to the non-linear application of animation in the posters as the Poster A and Poster C both had non-even motion. Also, adding motion to the static images may result in better recognition process in the viewers.

**Question 3**

In the third question that asked the participants to describe the differences in the posters. There were not any coded keywords or pre-intended answers to measure the result. Instead, we calculated their point of view toward the posters to see how they will distinguish the posters from one another. The result of this question was surprisingly beyond our expectation. Almost all respondents in the three groups could remember the different animation used in the posters. 92% of all respondents in the three groups explained that they noticed each poster has its own animation which just affects one element. They pointed out that the Poster A was captured their attention while the image was not related to COVID-19 but the movement of the ellipses around the climbers was interesting as it represents the personal six feet distance.

On the other hand, just 6% of the participants could remember the images and the design style of the posters. The findings of this study highlight the importance of the animation used in the posters and how it can manage the viewers’ attention and help them to recall the posters. The most notable explanation which the respondents referred to address the differences between the posters were “Animation was differ”.

Poster Design Informal Critique

To summarize this section, an informal critique was conducted to receive feedback from other designers, as I questioned the utility of AR posters and motion in the poster form, and wished to simulate, to a degree, the feedback I would receive in a design firm or studio. The primary purpose of this was to hear designer opinion toward the future of poster design and their reaction to Augmented Reality, as well as Animated Posters. The process for receiving the feedback was first, I hung up all the posters on the 3rd floor of the College of Design at Iowa State University, near the graphic design and graduate studios. I randomly asked people to review the posters in three different versions and asked for their opinion of the design, but mostly the differences in the use of technology. Five people were being asked to participate in this informal critique inquiry, all were graphic design students and one faculty of the College.

The reviewers were asked to answer that how they see the future of poster design? In their opinion, which one of these three different versions could be more effective? All five reviewers, as was expected, agreed on the animated posters’ attention-grabbing. Three of them emphasized how the poster should use the time to transmit the information to the viewer is a confusing part. Another one mentioned that he believes animation can capture the full attention, and the other elements might be ignored. Thus, time and animation should be distributed in a way that, poster’s balance stays undamaged. Also, they stated that it would be interesting if we had electronic devices in public places just for animated posters like the old, rounded poster statues in European countries. According to the review, they believe that animated poster is still a static poster just we add another element which is time and motion. We should combine all together in a way that grab the attention as best as it can.
On the other hand, although they were interested in using Augmented Reality (AR) in the posters as new creativity, they were not optimistic about its popularity. Hence, when they were asked that why they do not believe AR posters can be famous? Four of the participants stated that we should install an app to see the posters around the city or any other places? We will never risk our phone’s privacy to scan a poster and see what will happen after. They mentioned that the nature of the poster is its quick connection. Using AR needs to install an app and then scan a barcode to see the poster, which takes much time. The other participant said if it becomes a typical method to present the AR posters in the galleries and exhibitions, it might be much more exciting and reliable as we know who the curator of the exhibition and what app is, we are going to install on our platforms. Personally, I believe that animated poster is the better method of presenting information attractively, offering the viewer more natural access to the contents, message, and enhanced understanding. The animated elements in the poster are supposed to perform self-explanatory, which means that the viewer can decide on the information process’s depth and duration. The result would be a better recall of that poster and the information. In comparison to traditional posters and also our current accessibility to AR devices animated poster has the better position in terms of design and execution. For instance, as learning to how convert a poster into an AR poster needs a particular knowledge of specific software(s) and presenting the posters need a third-party phone application to display the AR.
CHAPTER 5: CONCLUSION

This thesis's primary goal was examining the combination of animation with posters, and discover if this improves or modifies interaction, communication, or information recall. Poster design, and technological advancements have always been tied together, from the first printing presses to on-screen motion graphics, the poster form has evolved and adapted.

In this study, according to the results, we observed that most of the audience opinion is toward animated posters, so the printed poster's place might be overtaken by animated posters in the near future. While the printed poster has been seen much more than the animated poster, people are getting much more interested in animated posters, perhaps for their novelty. It is possible that the traditional poster does not offer adequate space for the contents such as texts, images, and other visual elements necessary to convey the main message, which causes the inability to communicate contents and information concisely. Moreover, adding animation can help the more significant achievement of the poster and which is to get the viewer’s attention. It is possible that animation may help with information recall. Additionally, while there is still no standard platform for playing the animated poster; the critical confirmation is that these viewers stated that social media is the central platform that the large portion of printed and animated posters are seen.

Lastly, according to the data collected through surveys and informal critique, Augmented Reality could be an option for the future of poster design; however, according to the reviewers’ feedback, currently it is not an appropriate option to be used on the poster. With the current electronic devices, the viewers will not prefer AR to Animated or the printed posters. The main reason was the lack of willingness to install a third-party app to enable the AR performance.
However, as we have seen with QR (Quick Read) codes recognition becoming standardized in cell phones, it is possible this technology could become more prevalent. Recently, with new high-tech projectors and smart phones the boundaries and limitations are blurring more. For example, the new (and cheaper) generation of projectors called “LightForm” enable us to create interactive spaces that react to the human’s movement. It has an upgraded camera optic that improved sensors and audio reactivity. With this new technology we will be able to push the boundaries of experiential spaces forward and create impactful integration between interactive art, AR, and projection mapping.

**Limitations**

The findings of this study must be seen within the light of some limitations. There are significant limitations in this study that could be discussed in future research:

- Increasing the sample size to understand how different demographics may understand the poster forms as we see them today.
- Isolating potential design variables (color, composition, animation/motion speed and style)
- Examining the influence of style for viewers
- Testing viewers recall in more detail (ex: time elapsed between viewing and test, types of information to be recalled, etc.).
- A wider variety of expert designer opinion for the design critique

This thesis can be considered a base study for future research as it has highlighted several topics, perhaps in too broad a sweep. There are various gaps in our research around social media, time in animation, and the future of Augmented Reality that follow from our findings
and would benefit from further research, including new evaluations to continue and further
test the theory we have developed. Future studies might, for instance, look at new devices
such as Google Glass to examine their capability for AR.

This study has also observed that social media is the main platform that people encounter
with posters. This has demonstrated the importance of social media and digital world for the
designers and artists. How might social media transform the traditional communication
mediums such as a poster? In what ways AR platforms can be enhanced to convert the real-
time data to a stable and easy to access personalized experience? It is inevitable that for now
mobile devices and online presentation are the best ways present animated and AR posters.
But technology and poster both are moving forward. Technological advancements will
manage the future for animated posters. As posters are supposed to respond to their society
and environment, designers will be required to create work that combines information
collected by cameras, generated by codes, or made by audio devices.

Also, the main question that remains for future studies is that, with all these new methods
and technology involved in poster design, are they still poster? What terms should be used to
define these new forms of the poster? I believe numerous comprehensive studies are required
to determine the impact and function of these new forms and methods in poster design.

Today, with the integration of coding, design, and art increasing, as these tools become
more available and easier to utilize, they will enable us to design and create various new
interactive interfaces for enhanced the communication. Powerful camera optics, high
resolution displays, new generation of projectors allow us to break the traditional poster
frames and the poster alter any shape and frame, perhaps to such a degree, we may not even
see them as a ‘poster’ though they will still serve the same purpose: getting our attention.
REFERENCES


Peng, Y.-Y. (1998). Motion in graphic design [Rochester Institute of Technology]. https://scholarworks.rit.edu/theses


APPENDIX A. SKETCHES
WEAR YOUR MASK
Social distancing, also called "physical distancing," means keeping a safe space between yourself and other people who are not from your household.

To practice social or physical distancing, stay at least 6 feet (about 2 arm lengths) from other people.

CDC
Social distancing, also called "physical distancing," means keeping a safe space between yourself and other people who are not from your household. To practice social or physical distancing, stay at least 6 feet (about 2 arm lengths) from other people. CDC
APPENDIX B. IRB

IRB Approval

<table>
<thead>
<tr>
<th>Date</th>
<th>02/24/2021</th>
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</thead>
<tbody>
<tr>
<td>To</td>
<td>Karo Ahmadi-Dehrashid, Paul Bruski</td>
</tr>
<tr>
<td>From</td>
<td>Office of Research Ethics</td>
</tr>
<tr>
<td>Title</td>
<td>The place of poster in the digital era</td>
</tr>
<tr>
<td>IRB ID</td>
<td>21-089</td>
</tr>
<tr>
<td>Submission Type</td>
<td>Initial Submission</td>
</tr>
<tr>
<td>Exemption Date</td>
<td>02/24/2021</td>
</tr>
</tbody>
</table>

The project referenced above has been declared exempt from most requirements of the human subject protections regulations as described in 45 CFR 46.104 or 21 CFR 56.104 because it meets the following federal requirements for exemption: 2018 - 2 (ii): Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) when any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation. 2018 - 3 (i.B): Research involving benign behavioral interventions in conjunction with the collection of information from an adult subject through verbal or written responses or audiovisual recording when the subject prospectively agrees to the intervention and information collection and any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation. - 3 (ii) If research involves deception, it is prospectively authorized by the subject.
Email Invitation Letter

Hello There,

My Name is Karo Ahmadi. I am an MFA Graphic Design graduate student at Iowa State University. I am inviting you to participate in my thesis by completing this online survey as a part of my MFA thesis. I am interested in understanding Does adding motion graphics increases the engagement and recall in the viewers? This survey should take roughly 10 minutes of your time. Your participation will be anonymous, and your identifiers, such as IP address or personal information, will not be stored. You will not be paid for doing this survey. This survey has no risk for you, and there will be no personal benefit for your participation. This research study includes only people who choose to take part and your participation is completely voluntary and you can stop at any time. Your choice of whether to participate or not will have no effect on you as a student or employee in any way. I will be pleased to explain any questions you have about this study.

You are encouraged to ask questions at any time during this study. For further information about the study, contact Karo Ahmadi (karo@iastate.edu) or Prof. Paul Bruski (bruski@iastate.edu).

If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office of Research Ethics, Iowa State University, Ames, Iowa 50011.

Best Regards,

Karo Ahmadi

Who is conducting this study?

This study is being conducted by Karo Ahmadi a graduate MFA Graphic Design student at Iowa State University.

Why am I invited to participate in this study?

You are eligible to participate in this study if you are above 18 years old.

You should not participate if you are under 18 years old.
**What is the purpose of this study?**

The purpose of this study is to present the analytical framework, background review, conceptual hypotheses, case analysis, and purposes of continuing thesis study on the digital screen and motion graphic’s place in poster design. The author examines how the new generation of displays and screens affects posters’ perception and creation and how the multiple models, usability, and mutability of digital screens contribute to the posters’ character and duty through motion graphics and augmented reality. In this study, the author examines whether, in the peak of the digital screens, motion graphics, and advanced interactive technologies, the poster design is still bound to the print technology or has to be entirely reconceived as a specific form of the digital medium.

**What will I be asked to do?**

If you agree to participate, you will be asked to install a phone app called "Artivive". The purpose of this app is to convert the static posters into Augmented Reality (AR) version. You can install the app through App Store or Google Play Store just by searching the "Artivive" app name. You are able to uninstall the app after the survey. The app does not ask you to register or any other personal information.

Your participation will last for about 10 minutes.

**What are the benefits of participation in the study?**

It is hoped that the information gained in this study will benefit society by introducing new methods in poster design and the presentation of a combination between art and technology.

**What measures will be taken to ensure the confidentiality of the data or to protect my privacy?**

Research records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available without your permission. However, it is possible that other people and offices responsible for making sure research is done safely and responsibly will see your information. This includes federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy study records for quality assurance and data analysis. These records may contain private information.
To protect confidentiality of the study records and data, the following measures will be taken:

1- I will use Qualtrics which Iowa State University provides for conducting surveys.
2- I will work within the ISU Okta cloud platform which prevents the collection of identifiable information including IP addresses.
3- I will not use public Wi-Fi or networks that are not password protected.
4- I will remove participant contact/identifier information from data, or link indirectly via codes and a key. and I will store the key linking identifiers and data in a secure location separate from the data.

Information about you, including your biospecimens, will only be used by the research team for the project described in this document.

Information about you, including your biospecimens, will only be used by the research team for the project described in this document.

Information about you, including your biospecimens, will only be used by the research team for the project described in this document.

Participants Rights

Participating in this study is completely voluntary. You may choose not to take part in the study or to stop participating at any time, for any reason, without penalty or negative consequences. You can skip any questions that you do not wish to answer. Your choice of whether or not to participate will have no effect on you as a student or employee in any way.

If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office of Research Ethics, Iowa State University, Ames, Iowa 50011.

You are encouraged to ask questions at any time during this study. For further information about the study, contact Karo Ahmadi (karoiastate.edu) or, Prof. Paul Bruski (bruski@iastate.edu).

Your Consent

By clicking below, you are agreeing to participate in this study. Make sure you understand what the study involves before you agree. If you have questions about the study after you agree to participate, you can contact the research team using the information provided above.

You may print a copy of this form for your files.
APPENDIX C. SURVEYS

Survey 1

1- What is your age?
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 and older

2- How often do you see a poster?
- Never
- Occasionally
- Sometimes
- Often
- Regularly
- Do not know

3- Where do you often see a poster the most?
- Street
- Shop
- Mass transits stop/station
- Gallery
- Social Media
- other

4- In your opinion, on average how much time is needed to perceive information of a poster?
- A glance
- About 10 seconds
- Between 20 to 30 seconds
- Longer than 30 seconds

5- How often do you see an (ANIMATED) poster?
- Never
- Occasionally
- Sometimes
- Often
- Regularly
- Do not know
6- Where do you often see AN ANIMATED poster the most?
- Street
- Shop
- Mass transits stop/station
- Gallery
- Social Media
- Other
- Never

7- In your opinion, on average how much time is needed to perceive information of an
(ANIMATED) poster?
8- A glance
9- About 10 seconds
10- Between 20 to 30 seconds
11- Longer than 30 seconds

12- How often do you see an (Augmented Reality AR) poster?
- Never
- Occasionally
- Sometimes
- Often
- Regularly
- Do not know

Please describe where did you see the AR Poster?

13- Regarding grabbing attention, which one do you think is successful?
- Printed Posters
- Animated Posters
- AR Posters
- None

14- Which one is your personal preferences?
- Printed Posters
- Animated Posters
- AR Posters
- None
15- In your opinion, adding animation to posters helps with better information recall?
• Yes
• No
• Maybe
• Unsure

Please describe your answer

Survey 2

What were the posters about?
What do you recall of the designs the most?
Please describe the differences between the three.