

The Effective Motion Graphics Production

Dr. Abuelainin Hussain
University of Bahrain

Abstract:- The essay looks at how design, technology, and interactivity interact to influence the creation of motion graphics. The creation of graphics and their movement in time and space to accomplish a purpose or tell a story are both parts of the motion graphics production process. To give the impression of motion, the motion graphic components are arranged in a series of frames. Unlike other types of animation, graphics and type are used largely during the development of animated motion graphics. With 3D modelling, surfacing, rigging, character effects, matte painting, lighting, and rendering, the motion graphics production process continues. Animation will proceed through these processes from production through post-production. It integrates viewpoints on media systems and technology with knowledge of the production process, target audience, and trends influencing content. With all its benefits and drawbacks compared to static design, the fact that millions of people utilize motion graphics as a form of expression gives it a position in recent history that no other form of artistic expression or communication has. Another significant change in the structure of the digital world will undoubtedly arise from such a shift in the user/audience-producer/designer connection. The research study investigates the genre, narrative, and technological aspects of motion graphics using the interpretive technique of media analysis.

Keywords:- Motion Graphics, Multimedia Design, Graphics Design, Graphics Production.

I. INTRODUCTION

The rising pace of technology has caused changes in design because visual design is becoming more and more prevalent on television, the Internet, video games, interfaces for electronic devices, posters on low-cost LCD displays, and interactive posters [1]. All of the aforementioned applications represent a logical evolution of static design, much like how film evolved after the development of voice recordings, television evolved following the development of colour television, or the internet evolved following a sharp rise in the usage of broadband connections. There is proof that instructional animation outperforms static images in terms of learning outcomes when it comes to the use of motion graphics in education [2]. Ever more alluring and complex inventions will be produced as a result of rising public demand and advertisers' need for attention. Motion graphics are created by combining animation with a substantial amount of text or animated shapes without a clear story. Animation by itself is not motion graphics. Therefore, it is essential to establish the

criteria that characterise the genre-specific motion graphics production process (as opposed to comparable types of animation), describe the function of interactive motion graphics as a new medium, and specify the tools and technologies used in its creation. Some design studios collaborate with a range of customers to develop cutting-edge online experiences, construct innovative interactive environments, and apply unconventional techniques to traditional media.

The exhibit in Figure 3 uses an infrared camera-based motion detection system to enable users to pursue, shoot, catch, and tease the projected motion graphics. As a less resource-intensive alternative to processor-intensive motion trackers, it employs in-house created algorithms to detect presence and motion. It can be easily set up to function with various installation layouts and lighting situations and is best suited for impromptu encounters. This interactive artwork was likely influenced by action painting, a popular painting technique from the 1940s until the early 1960s. Paint is spontaneously dribbled, splattered, or smeared over the canvas in action painting, also known as "gestural abstraction," as opposed to being done with precision. The resulting artwork frequently highlights the actual painting process as a crucial component of the completed piece or the artist's primary priority. The American critic Harold Rosenberg first used the phrase in 1952, which marked a significant shift in the New York School's artists' and critics' aesthetic viewpoint. The canvas, in Rosenberg's words, was "an arena in which to perform." A number of significant art movements were founded on Rosenberg's redefining of art as an act rather than an object, as a process rather than a finished thing.

II. PROBLEM STATEMENT

Production of motion graphics almost often includes audio, video, animation, photography, illustrations, and typography. The boundaries between these forms are unclear, particularly in multimedia works, but we can say that a video or film depicting a mobile object is not motion graphics unless it incorporates design elements like letters, shapes, or lines, i.e., unless it uses design elements to convey a message, despite the fact that it depicts the object in motion and does so graphically or visually [3]. Motion graphics are created by combining animation with a substantial amount of text or animated shapes without a clear story. Animation by itself is not motion graphics.

III. RESEARCH METHODOLOGY

The time it takes to develop a motion graphic determines the production methods used. Most designers are accustomed to generating a single composition for a single, distinct frame, thus they find it challenging to create motion graphics where a single composition can only be preserved for a limited time and where all the components must ultimately work together as a seamless whole. In motion graphics, the complete piece (much like the film) must work as a semantic whole. This is similar to static design, where it is useless if only a portion of the composition carries out its role. This requirement can run into problems due to the ever more sophisticated demands of contemporary public, saturated and bombarded by interactive communication from all sides. It is no rarity that illustrators, after transiting to the field of motion graphics, which is computer-generated, retain basic illustrational concepts and add hand-drawn elements to complete individual frames.

➤ *Motion Graphics Production tools used for collecting data and material*

- Drawing
- Illustration
- Cartoon

The amount of time it takes to produce motion graphics is a major factor. Without a doubt, Saul Bass would have used a computer to produce the images for the Man with the Golden Arm, and he would have needed just a few hours to complete the task as opposed to several days (the execution itself, not the germination of idea). We can definitely bring up computer-generated motion graphics in the second case. The creation of hand-drawn figures that are digitally transferred into one of the vector programmes where their contours are further cleaned up and vectored serves as an example of such a process, which is the development of motion graphics with dominating illustration. Following that, each artwork is independently imported into a programme that manages the composition's time component. Each piece, such as the background trolley and fire, is then individually animated and added to a bigger composition. The camera is animated as well when the figures and other visual components have been fully animated. We simulate movement across space in this fashion [8]. Motion graphics with key frames selected and presented so that the spectator may freely follow the sequence of events is exactly what is described above as a cartoon, which is the forerunner of motion graphics produced by illustration.

IV. LITERATURE REVIEW

Motion graphics is a modern concept that has been used for a while for a genre of animation. They are a crossroads between animation and graphic design, and typically seek to provide viewers with information by using moving text or graphics, and often have voice-overs that narrate what the text or graphics represent. The term “motion graphics” was first introduced by

John Withney, a well-known animator, in 1960. Saul Bass was the first to make significant use of animation in his work (Asadollahi, 2014). In its simplest definition, “motion graphics” means graphics in movement, it is animation, but with text as a major component. Basically, it’s animated graphic design where sound, motion and graphic design are combined exceptionally well (Shaw, 2018). In the same spirit Joao Paulo (2014) devised the following definition of motion graphics: “The art of combining animation and graphic design in order to convey information and communicate ideas” (Schlittler, 2015). Motion graphics can be considered as a subclass of animation. While animation depends on building a story and characters, motion graphics centers on disposing of pointless substance and communicating with fundamental components such as color, space, and typography (Shaw, 2018). According to Steve Curran (2000), Shir & Asadollahi (2014), motion graphics has become a new tool for getting better and more effective communication. It is a way to communicate with the audience while adding depth to the content of the story.

Mohsen Fathi Dare Shir and Mostafa Asadollahi in their study (2014) concluded that Visual communication plays an influential role in benefiting from the educational concepts of people, and many educational contents are exchanged through positive and effective interactions (Asadollahi, 2014) Motion graphics can be used as a medium to convey information because it is emotionally captivating and thus information can be extracted and understood easily. In addition to being noticeable, it affects our feelings. In fact, it represents a biological response called the affective contagion phenomenon. According to this phenomenon, a person will immediately sympathize and feel the feelings of experiences depicted on the screen. Therefore, we feel physical fear when watching a horror movie. It provides many tools to help you communicate, as moody music, powerful voiceover, and stunning visuals can work together to build an emotionally moving story (Nur Azila Azahari, 2019). Nur Azila concluded in his 2020 research that Motion Graphics is suitable for use in mental health awareness campaigns, for the following reasons: It can convey the message well, and it can attract audience attention. He also set a number of criteria that help in the success of the public awareness advertisements through Motion Graphics, as it is important to use colors to ensure that the audience continues to focus until the end of the video, and he also concluded that the duration of the video should not exceed four minutes so that the audience does not get bored and that each message contains a story to present it in a fun way (Nur Azila Azahari, 2019). The advantage of motion graphics as a tool for knowledge presentation will easily draw viewers' attention (Siregar, 2017).

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depicted on the screen. Therefore, we feel physical fear when watching a horror movie. It provides many tools to help you communicate, as moody music, powerful voiceover, and stunning visuals can work together to build an emotionally moving story (Nur Azila Azahari, 2019). Motion graphics is a visual representation of a complex concept. They are regarded as visual aids because some concepts (particularly large and abstract ones) can be difficult to represent or explain in words or still images. A few seconds of motion graphics will aid in the transformation of problems into clarity. On the positive side, since cartoons can be too childish in a formal business environment, the visual style of motion graphics appeals to a wide variety of viewers. On the other hand, motion graphics will take those cute and amusing aspects and apply them to more serious topics. The appearance of motion graphics will make communications more exciting and engaging. According to research, 65 percent of video viewers can watch a video almost to the end (Brainspark, 2014), which is a feature that not all text-based content can achieve. This demonstrated that motion graphics can be used to illustrate a complex subject in a way that a market can easily understand. Understanding motions, color, and shapes, motion graphics explainer video, tutorials, and data visualizations can help to simplify the complicated nature of awareness mechanics. Whatever form of video is selected, it will generally result in increased traffic, interaction, and conversion rates. (Nhat, 2020).

V. DATA COLLECTION AND ANALYSIS

➤ *Photography*

Gather information via photography. Since there is no difference between photography and illustration at the elementary level other than the number of details, incorporating photography as an element in motion graphics was the natural next step. The employment of rotoscope, a method of illustrating over photographic or film frames on the filmstrip itself, is indicative of the intermediate era. While computer-based graphics can have various levels of realism, video-based motion graphics are photo-realistic. Seductive details, which are typically present in highly realistic photos, may be a drawback of highly realistic images, similar to movies, more so than less realistic computer-based graphics. There are numerous ways to make motion graphics that are mostly made of photography, ranging from stop-motion, where motion graphics are literally made of photography by photographing every single change, to filming with a video camera and using video as a photographic element. Because it needed a lot of memory and processing power, we had to wait a while to have this type of motion graphics. The method of entering data into the computer is the same whether we are dealing with a digital video or a series of photographic pictures, and after it has been entered into the programme that handles this kind of information, it behaves like a movie, a video, or an animation. Because of the quantity of colours, the level of resolution needed for professional usage, and the high-quality sound, the procedure calls for a significant amount of working memory on the part of the computer (and usually also a significant amount

of patience on the operator's part).

➤ *Typography*

Typography in motion graphics takes on the form of kinetic typography, which is on-screen text that moves or changes in some way over the course of time and place. Most of the time, a word does not look like the concept it suggests. The word has a physical presence and a sound when it is pronounced (when seen). A mental picture is formed when the word is read. Such font incorporates communication aspects (emotions and sentiments), which were previously only found in cinema and video (primarily concerned with image reproduction). The text's already potent communicational elements are strengthened by its capacity to convey emotion, rich character traits, and the potential for improved visual attention streamlining. It is crucial when discussing typographic sequences of moving type.

➤ *Software*

Since designers' imagination is their only constraint when creating motion graphics, it is practically difficult to include all the tools available today. A suitably capable computer with multi-core processors, plenty of working memory, and graphics cards (typically two) with enhanced working memory are physical requirements for motion graphics creation. Multiple displays connected to one computer are ideal for a more comfortable working environment. Data entry is accomplished by connecting peripheral devices to the computer, such as a digital camera, scanner, or camera for taking pictures, and transmitting the data through one of the standards, such as USB or Firewire. The collection of software that has advanced dramatically over the past ten years may be the most crucial instrument. Today, Maya or 3D Studio Max are used to create 3D graphics and animations. Adobe After Effects or Apple Final Cut Pro are used to add finishing touches. Adobe Premiere is used for editing. Adobe Flash is used to create vector animations. Adobe Photoshop is used to prepare bitmap graphics. These are but a few of the most popular programmers. Their total number is significantly higher and increasing daily, particularly as the open-source community becomes stronger.

VI. CONCLUSION

A brand-new genre of motion graphics production was made possible by the rise in computing power. Motion graphics are images with text and images that vary over time. The major difference is in the typography since kinetic typography allows us to transform the text to have the appearance of a movie. For instance, by changing the typographic elements over time, it is now feasible to convey the tone of voice, character traits, and emotional states.

RECOMMENDATIONS

To complete the task correctly, a large crew and competent project management are required. However, it needn't be a hassle if you want a motion graphic to be created! Of course, you can feel overwhelmed if you've never created a motion graphic before. Despite knowing that motion graphics have many advantages, you may not know where to begin. Where do you even start with choosing the correct music track, the proper voice actors, and the right aesthetic? Buckle up because we're about to experience everything!

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