

ANIMATION AND COMPUTER GRAPHICS IN THE FILM INDUSTRY: A STUDY

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ABSTRACT

The fundamental goal of this study is to provide insight into how the animation and film industries have been affected by computer graphics and animation. As a result of the rapid advancements in technology, computer graphics and animation have emerged as the most significant means of communication in today's culture. The progression of computer graphics and animation, as well as the development of cinema media, are highly intertwined with one another in a variety of fundamental ways. In addition to providing information and enjoyment, the cinema media also offers a great deal of chances, both directly and indirectly, to those individuals in India who are now without work. Through the use of computer graphics and animation, thousands of films are released each year. Film productions that cost several billions of rupees are increasingly rather frequent in India. All film projects are now using computer graphics and visual effects into their productions. There are similarities in the visual effects, despite the fact that 3D animated films and regular commercial films have been different. A significant number of well-known Indian cinema filmmakers have made use of visual effects in order to successfully portray their vision. Our knowledge, attitudes, and actions are all influenced by computer graphics, which have an impact on the audience that they are intended for. Resources such as images, animations, and three-dimensional models are indispensable in the creative industries. The computerized format is currently the only determinant of advertising on television, newspapers, and other forms of electronic media. An examination and evaluation of the influence that computer graphics and animation have had on mainstream film is the primary objective of this research paper.

A communicative analysis of the use of computer graphics in cinema media is also included in this article.

KEYWORDS: 3D animated feature films, cinema, communication, computer graphics, visual effects, and creative industries.

I. INTRODUCTION

When it comes to film production, India is unrivalled. Hundreds of films are produced annually by Tamil Cinema, which ranks first among Indian Cinemas. Its development has also taken technological advancements into account, allowing it to quickly adopt new technologies. Films made recently, with cutting-edge technology like 3D animation and graphics; attract a wide age range of viewers. Any creative effort that can be seen visually in a cinema is considered a film. The projection of successive static photographs, which make up film, gives the impression of motion. Frame is the name given to each individual picture in a photograph. Graphic design was initially employed in 1922 by designer W.A. Dwiggins. One of the first steps in making a film is graphic design. First, there is pre-production; second, there is production; and third, there is post-production. Throughout the whole production process, from brainstorming to post-production, graphics and animation are enhancing communication. Some examples of graphic and animation applications in the film industry include storyboards, full title sequences, and special effects. During the editing process, graphical effects are also employed. It is from Graphics that the transition between the two photos is built.

II. 3D ANIMATION AND GRAPHICS

In graphic design, there are three competing priorities. It is important to prioritize "the greatest good for the greatest number" according to utilitarianism. A design need to be understandable, legible, and practical when discussing graphic design. It has to stand out, it has to be aesthetically beautiful, and it has to have its own distinct style. One of the reasons graphic design is both a difficult and rewarding profession is that it requires designers to be alert to competing ethical ideologies, as designers who don't do this seldom produce innovative work. Creating something for our colleagues isn't always about resolving communication issues. Presenting visual representations is not bringing in the gold. It is the designer's ultimate objective each and every

time. Promoting dangerous items and praising previously seen visual designs are examples of bad stereotypic creations that manipulate people. Whether it's printed or displayed on a screen, a message may effectively sway an audience with the use of language, graphics, and color. Lots of people who work in computer graphics think that soon we will be able to make entirely created stunts and even characters who seem like humans and talk. In addition, the marketing department has success with the technology. Graphic designer Glaser claims, "Our whole view of culture is linked to money and success" and acknowledges that graphics may be an effective marketing tool. Consequently, there is an urgent need to study the issue of using animation and graphics in messaging.

III. THE LUMIERE BROTHERS' CAMARA ORIGIN STORY

The 'Cinematograph,' a small, portable device that could be set up to function as a camera, projector, or printer—was created by the Lumiere brothers. They saw cinema as nothing more than a natural progression from photography, being photographers themselves. The Lumiere brothers did not tell a narrative but rather recreated an environment. The word "actualities" was thus used to describe these short-animated recreations. Thus, whereas the Lumiere brothers established cinematic realism, I led the path to "expressionism" and the cinematic magic. While Lumiere's realism brought the "mise en scène" to cinema, me lies was the first to use "stop motions photography" to make his countless "trick films" look magical. His movies were recognizable for their elaborate sets and effects.

A. Movie Vocabulary

Cinema functioned primarily as a mechanical recorder, preserver, and reproducer of moving visual spectacles (such as the life of the theater or a little mise en scène) prior to the widespread adoption of expressionism. A "mise en scene" is just a video of an event as it happens, without any cuts or transitions between shots. Battleships Potemkin (Russian) were developed between 1910 and 1915 Birth of a Nation. Rhythmic intercuts and high-tech sound effects were just two of the editing techniques used to create these flicks. Film language was first developed by D.W. Griffith, Porter, and Melies. Created the masking backdrop, as well as the double-and multiple-exposure techniques. Pan shots, dissolve, fade in, and fade out were all inventions of his. Cinderella and A Trip to the Moon, Melies's magnum opuses, were the pioneering examples of studio and location filming. The Second World War wiped out the

most of his oeuvre. "The Great Train Robbery," the first narrative feature film, was directed by Porter, among other things.

B. Sergei Eisenstein

He came up with the techniques of intercutting, parallel montage, tracking shots, pan shots, and close ups. The most important and groundbreaking of these was montage, which was based on Griffith's masterwork. Montage was the artistic foundation of cinema. The medium was elevated from simple animated photography to that of an art form.

C. Alfred Hitchcock

He revolutionized cinema language by incorporating techniques such as extended mise-en-scène, dynamic camera movements, high-angle shots, and captivating visual effects. His notable works include 'The Psycho', which was the first film to employ a top angle to conceal a message, as well as the groundbreaking seven-shot picture 'The Rope' and 'The Bird', which are renowned for their exceptional sound effects and settings.

D. Satyajit Ray, An Iconic Figure In Indian Cinema

Ray's study delineates the fundamental characteristics of the middle class in contemporary India. He first pursued a career in advertising before transitioning to become a film director. He utilized monies from the film division of the Bengal Government to produce films. His films, including the Apu Trilogy (comprising of Pather Panchali, Aparajito, and Apur Sansar), have received international acclaim and continue to be screened worldwide. He received the prestigious Lifetime Achievement Oscar Award in recognition of his significant contributions to the film business. In addition, he produced documentary films such as Tagore and Sikkim. The Film Finance Corporation upped the standards in 1906 for aspiring filmmakers. It offers financial loans and other related services. The FFC commenced operations in a professional manner, exclusively providing loans to renowned filmmakers. However, in 1906, low-budget filmmakers also obtained funding for their films through the process of film production.

IV. ANIMATION AND GRAPHICS

Walt Disney pioneered the development of the first two-dimensional animated films in 1928. The iconic characters of Mickey and Mouse were created during the period. During that period, matte painting emerged as the optimal alternative for set design. Matte painting is the technique of creating visual art and film backdrops on glass using everyday materials. It is akin to selectively

concealing a specific region. Alfred Hitchcock employed the technique of matte painting in his film Psycho (Extraordinary ghost bungalow). Software such as Flash Mix Professional and Toon Boom enhance the realism of two-dimensional short films. Prior to the introduction of computer graphics software, fine art grads and painters painstakingly drew each frame individually on white backgrounds. The postures, actions, and gestures of each character, including their happy and angry expressions, were depicted on art sheets. It requires not only inventiveness but also diligent effort. Creating a 1-hour animation feature requires film companies to dedicate a whole year to the process of bringing it to life.

A. Three Dimensional Characters

Three-dimensional characters are currently created using applications such as 3DstudioMax, Maya Softimage, and others. Jurassic Park (Dinosaurs, Forest Setup), Titanic, Star Wars: The Independence Day, Armageddon, and The Terminator are just a few examples of films that make extensive use of 3D animation and special graphics effects. Currently, animated feature-length films such as "The Narnia" and "The Ice Age" are operating successfully. Currently, the graphics and animation industry is expanding rapidly.

B. Nasscom Evaluation

"Nasscom survey" predictions for 2007 indicate a rise in demand for animation and visual effect technicians. In addition to graphics, the software is utilized for titling, editing, and virtual sets.

V. INDIA'S TAMIL FILM INDUSTRY

Its own growth and developments have been witnessed in the Tamil cinema industry. Its origin cannot be pinpointed to a certain time. It was at this period when the Tamil film industry merged with the Telugu cinema industry. It was shot by Nataraja Mudalier in 1919. It was the first Tamil film. That film was devoid of dialogue. A speech with it was included in the film Kali Dos after a while. Accordingly, it was thought to be the first film to feature spoken dialogue. Following then, the industry experiences incredibly rapid expansion. It grew all the strategies used both behind and in front of the screen. For many, going to the movies was an integral part of their daily lives. Because our country had no entertainment at that time. The people's real lives are mirrored in cinema. In particular, films that began with the letter "Pa" have a profound effect on audiences. The people's lives were strongly intertwined with it. Not to mention the movies The Tamil film industry has been greatly enriched by the works of directors such as Balachander, Bharathi Raja,

and Bakiya Raj. Every person have unique qualities. Because of the passage of time, the field undergoes its own transformations. Fashions have shifted. The film business underwent a little shift in its overall aesthetic. Newcomers like Shanger, Kadir, and Lingusami brought fresh perspectives and cutting-edge ideas to the table. These are some crucial directors who consistently bring new ideas to all levels of the organization. Here, the researcher zeroes down on the film industry and the ways in which the aforementioned ideas are applied there. Virtual sets are utilized in filmmaking in lieu of constructing massive sets such as bungalows, studio setups, and backdrops.

In the Tamil cinema industry, you can find films like 'Jeans,' which features two Prasanth characters who are identical, and 'Anniyan,' which features a virtual three-dimensional set of Nokia songs, and 'Alavandhan,' which uses sophisticated visual effects to expose the mightiest character. "Indian" (the scene where Netaji Subash Chandra Bose accepts the award) and "looty" are just two examples of the many films that feature software-related works.

A. Virtual Sets

Virtual sets are merely sets that are generated by applications running on a system. Following the cinematography process involving blue backdrops, the backdrops are eliminated utilizing software applications such as Combustion. The match movie technique is utilized to harmonize two distinct camera angles, namely the cinematography camera angle and the system camera angle.

VI. CONCLUSION

The research generally leads to the conclusion that the film industry not only generates enormous sums of money, but also makes substantial contributions to society through the provision of entertainment and social, political, economic, cultural, and other forms of awareness. Science and technological progress must be incorporated into the film industry in order to provide effective entertainment and communication. The integration of more imaginative computer graphics and animations into film media has a profound effect. The success of contemporary films is predominately determined by children and adolescents aged eleven to eighteen.

On the whole, animation and visual effects in films tend to appeal more to youthful audiences. Thus, the utilization of computer graphics, visual effects, and animation in film unquestionably alters the perspective of newer generations with regard to scientific progress. This study posits that

the integration of computer graphics and animations into film media has the potential to enhance the communication and entertainment value of the film.

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