

- **Research title**

## **Differences in the Utilization and Effects of Visual Effects in Realistic and Fantastic Visual Styles in Films and Video Games**

- **Draft Introduction**

Computer Generated Imagery (CGI) has been integrated with films and other visual mediums since the late 1970s, and visual effects derived from CGI have become an indispensable component of respective visual products. A significant number of contemporary films on the market combine real-world cinematography with digital media to enhance visual effects. In contrast, video games rely on computer-generated imagery and programming to generate every visual element. These works draw inspiration from real-life experiences while also transcending them, and visual effects play a crucial role in enabling these products to surpass reality, making them a vital aspect for both audiences and players. Different visual styles, employed as effects, serve the objectives of film directors and game designers, sometimes diverging significantly and, at other times, converging seamlessly. The aim of this study is to explore the disparities in the usage of visual effects serving the Realistic and Fantastic visual styles in the domains of film and video games. Additionally, the research aims to investigate the fusion and stylistic similarities that have emerged between these styles over the span of half a century. By examining the distinct approaches utilized in these visual styles and analyzing their development and convergence, this study seeks to enhance our understanding of the role and impact of visual effects in the realms of cinema and

gaming.

- **Key words searched**

Film, Electronic game, Realistic art style, Cel-shaded art style, Unreal engine, Visual style,

- **Research Design Methods**

The purpose of this thesis is to investigate the differences in the usage of visual effects between the Realistic and Fantastic visual styles in the domains of film and video games. The research will primarily employ a comparative analysis research approach. The study design entails a systematic review of relevant literature and an analysis of existing visual media. Representative samples of films and games that exemplify the Realistic and Fantastic visual styles, selected from different genres and time periods, will be chosen to ensure diversity and significance in the field of visual effects. In-depth visual analysis will be conducted, including the capture of screenshots and video clips, as well as the examination of pertinent research papers on the respective films and games. The comparisons will be divided into three stages. The first stage involves a comparison between films that employ visual effects in the Realistic visual style and games that utilize visual effects in the Realistic visual style. For the film segment, two films with notable use of visual effects will be selected to analyze the visual effects' impact on specific film sequences and the overall cinematic experience. Three to four scenes featuring visual effects will be analyzed and compared for each film. The second stage

focuses on a comparison between films that utilize visual effects in the Fantastic visual style and games that incorporate visual effects in the Fantastic visual style. Lastly, the third stage involves a comparison of the visual effects styles between one chosen film and one selected game. The anticipated results of this research are expected to significantly contribute to the understanding of visual effects styles in films and games, potentially providing insights for future development and innovation in this field.

#### • **Draft literature review**

There have been numerous authors in books and papers discussing the definition of visual styles in film and games. Hyerim Cho argues that defining visual styles is highly subjective, and conceptual summarization and classification of different visual styles present significant challenges. This difficulty arises from various factors, including the inadequate development of visual information metadata. On the other hand, Owen Demers, in his book "Digital Texturing and Painting," asserts that it is an ancient tradition in art to describe real-world materials and textures through observation, collection, and study of real or photographic samples. Demers defines six visual genres of digital painting: Realistic, Hyper, Stylized, Simplified, Graphic, and Fantastic. This article focuses on studying the Realistic and Fantastic styles as defined by Demers.

In Juan Miguel de Joya's interview article, the conclusion is drawn that with the emergence of new technologies, video games now have the potential to create dynamic and immersive cinematic experiences. The advent of real-time software has accelerated

this change and enabled faster iterations. This development has brought about significant changes and integration in the production of visual content in films and games. Under this premise of integration, concerns and conclusions about imperfect classification of visual styles in describing video games, as held by Andy Donovan and others, have found a solution. Using Owen Demers' six visual genres, Andy Donovan and Hyerim Cho propose a unified classification system for describing the cohesive and unifying visual aesthetics of video games.

Tero Vääräniemi points out that from a gaming perspective, visual effects are used to provide players with a specific kind of visual feedback. While visual effects offer visual feedback that aligns with the players' imagination, they also serve the purpose of conveying gameplay and game mechanics, often enhancing the overall gaming experience. Tero Vääräniemi's article particularly highlights the first-person perspective as a representative example of achieving this enhanced effect.

On the integration of visual effects technology in the film and video game industries, Robert Brookey notes that video games have become more cinematic due to significant technological advancements, allowing games to offer movie-like visual effects and complex narratives. One aspect of this progress lies in the improvement of visual effects. As mentioned in Brookey's work "Hollywood Gamers: Digital Convergence in the Film and Video Game Industries," the term "spectacle" is defined as the creation of visually and aurally stunning sequences that captivate the viewer. This concept of spectacle is also frequently employed in contemporary video games.

- **General outline of each chapter**

1. **Comparative Chapter 1:** In films with Realistic visual style, visual effects are used to compensate for the limitations of the filming process, whereas in Realistic visual style games, visual effects aim to recreate the player's imagined realism from various angles.
2. **Comparative Chapter 2:** Science fiction and fantasy films employ visual effects to visually approximate the unreal content with a sense of realism. On the other hand, Fantastic visual style games continually push the boundaries of people's fictional imagination through various breakthroughs and updates.
3. **Comparative Chapter 3:** The primary purpose of visual effects in films is to provide a sense of realism, while visual effects in games serve multiple functions and experiential purposes.
4. **Comparative Chapter 4:** Certain Realistic art style games increasingly strive for a realistic experience similar to that in films, and visual effects in films are also being produced using techniques employed in game effects production.
5. **Conclusion:** Identify the main contrasting differences and functional distinctions between different mediums. Based on paragraphs 3 and 4, provide predictions on the future development of visual effects in films and games.

- **A draft chapter**

Comparative Chapter 1: in the preliminary plan, this chapter will use the realistic film 1994 American comedy-drama film, Forrest Gump as an example of the visual effects

of the Realistic visual style, and analyze the visual effects and functions used in it. Compared with this movie, The first person shooter game, Call of Duty: Advanced Warfare (Sledgehammer, 2014) compared the war scenes with the purpose of using visual effects in movies and games and the different experiences brought to audiences and players.

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