



Navigating Between Realities: Avatar

Gerçeklikler Arasında Gezinmek: Avatar

ABSTRACT

The study discusses the analysis of the *Avatar* film through the lens of hyperreality, based on Jean Baudrillard's theories. As defined by Baudrillard, hyperreality involves the convergence of reality and simulation, where the simulated world takes precedence over the physical one. In James Cameron's *Avatar*, the protagonist, Jake Sully, immerses himself in the virtual realm of Pandora through an avatar, blurring the lines between reality and simulation. This paper explores how the film exemplifies hyperreality, primarily portraying the Na'vi people and their connection to nature as a heightened, idealized reality, contrasting it with the human characters who represent consumerism and capitalism. The use of avatars in the movie further aligns with Baudrillard's hyperreality theory, as avatars serve as bridges between the real and virtual worlds. Additionally, the film delves into the themes of identity and community within hyperreality, illustrating how one's identity is constructed and mediated through simulations. Ultimately, *Avatar* offers an effective lens through which to examine the dynamic relationship between reality and simulation, illuminating its potential impact on our understanding of reality and identity.

Keywords: Hyperreality, CGI Technology, Digital Design, Film Analysis, Avatar.

ÖZET

Çalışma, Jean Baudrillard'ın teorilerini temel alarak *Avatar* filminin hipergerçeklik merceğinden analizini tartışmaktadır. Baudrillard'ın tanımladığı gibi hipergerçeklik, simüle edilmiş dünyanın fiziksel dünyaya göre öncelikli olduğu gerçeklik ve simülasyonun yakınsamasını içerir. James Cameron'un *Avatar*'ında baş kahraman Jake Sully, bir avatar aracılığıyla kendisini Pandora'nın sanal dünyasına kaptırarak gerçeklik ile simülasyon arasındaki çizgiyi bulanıklaştırır. Bu makale, öncelikle Na'vi halkını ve onların doğayla olan bağlarını yükseltmiş, idealleştirilmiş bir gerçeklik olarak tasvir ederek, onu tüketimciliği ve kapitalizmi temsil eden insan karakterlerle karşılaştırarak filmin hipergerçekliği nasıl örneklendirdiğini araştırmaktadır. Avatarların gerçek ve sanal dünyalar arasında köprü görevi görmesi nedeniyle filmde avatarların kullanımı Baudrillard'ın hipergerçeklik teorisiyle daha da uyumlu hale gelir. Ayrıca film, hipergerçeklik içindeki kimlik ve topluluk temalarını da ele alır ve kişinin kimliğinin simülasyonlar aracılığıyla nasıl inşa edildiğini ve aracılık ettiğini gösterir. Sonuç olarak *Avatar*, gerçeklik ile simülasyon arasındaki dinamik ilişkiyi incelemek için etkili bir bakış açısı sunar ve bunun gerçeklik ile kimlik anlayışımız üzerindeki potansiyel etkisini aydınlatmaktadır.

Anahtar Kelimeler: Hipergerçeklik, CGI Teknolojisi, Dijital Tasarım, Film Analizi, Avatar

INTRODUCTION

Digital technologies have revolutionized film production and television, leaving behind traditional film and analog cinema technology (Alforova et al., 2021). The combination of art and science has always been a characteristic of cinema, and this has continued in the digital age, enabling new aesthetic forms and visual effects (Prince, 2010). Digital design works hand in hand with CGI technology in cinema to create visually stunning and immersive experiences for viewers. In this study, James Cameron's film *Avatar* (2009) is interpreted through Jean Baudrillard's concept of hyperreality, which refers to a condition where reality and simulation become indistinguishable, and simulations begin to replace the original reality. *Avatar* employs cutting-edge CGI and 3D technology to create a visually stunning world that surpasses the constraints of the physical world. The seamless integration of technology with storytelling enhances the hyperreal experience as the audience becomes immersed in the world of Pandora. The vivid depiction of Pandora's flora and fauna creates a hyperreal experience by simulating an environment that is more vibrant and spectacular than the real world. This simulation blurs the boundaries between the actual natural world and the created one in the film. Baudrillard discusses how hyperreality offers an escape from the banality of everyday life into a realm of desire and imagination. *Avatar* caters to this aspect by presenting Pandora. The avatars allow humans to inhabit the bodies of the native Na'vi, blurring the line between the human and Na'vi experience. This blending of identities and realities contributes to the hyperreality perspective

Damla İşbilen¹
Semih Salman²

How to Cite This Article

İşbilen, D. & Salman, S. (2024).
"Navigating Between Realities:
Avatar" International Social
Sciences Studies Journal, (e-
ISSN:2587-1587) Vol:10, Issue:1;
pp:9-17. DOI:
<https://doi.org/10.5281/zenodo.10618926>

Arrival: 25 October 2023
Published: 31 January 2024

Social Sciences Studies Journal is
licensed under a Creative
Commons Attribution-
NonCommercial 4.0 International
License.

¹ Lecturer PhD., Ege University. Faculty of Fine Arts, Design and Architecture. Department of Visual Communication Design, İzmir, Türkiye, ORCID: 0000-0002- 5465-3811. ROR ID: <https://ror.org/02eaafc18>

² Asst. Prof., İzmir Kavram Vocational School. Department of Visual Auditory Techniques and Media Productions, İzmir, Türkiye, ORCID: 0000-0003- 0872- 1980. ROR ID: <https://ror.org/05g59tn70>

by challenging the traditional notion of self and reality. The film engages with Baudrillard's ideas by exploring the allure of a simulated reality, the impact of advanced technology, and the blurring of identities. The overload of visual and auditory stimuli also contributes to the immersive hyperreality and challenges the audience's ability to differentiate between the real and the simulated.

DIGITAL DESIGN

The history of digital design emerged alongside the development of computer technologies and digital communication and continues to evolve in the present day. The early computers were not directly related to visual communication design but were primarily used for mathematical calculations (Lide, 2018). In 1963, Ivan Sutherland, a doctoral student at MIT, presented a thesis titled "Sketchpad: A Man-Machine Graphical Communication System," which combined much of the research from the late 1950s and introduced the first graphical user interface (GUI). Using MIT's human-machine visual communication system equipped with the TX-2 computer, it became possible to draw points or lines on the screen via a light pen (Upton et al. et al., 2016: 384). The Alto computer developed by Xerox PARC introduced mouse-based interaction and a graphical user interface (GUI), making it the first computer to utilize a graphical interface (Purcaru, 2014: 25). In the 1980s, the widespread use of personal computers accelerated the popularization of digital design (Oleck, 2010: 4). Adobe Systems' PostScript software enabled the use of vector graphics in printed materials (Cawkell, 2003: 135).

With the advent of public access to the internet, the potential of digital design emerged. Web design witnessed significant growth with the development of the HTML language. Technologies like CSS (Cascading Style Sheets) and Flash also emerged. The rapid advancement of technology in the 2000s led to the widespread use of mobile devices, enabling users to interact on different digital platforms, which led to the beginning of the digital design field. The digital design field covers various areas such as Advertising, Visual Communication Design, Interactive Media Design, Animation, Digital Game Design, Digital Art, Web Design, Interaction Design, User Experience Design, Film, Television, Marketing, Education, Healthcare, Finance, Engineering, Industrial Design, and Architecture. Digital technology offers advantages such as artistry, diversification, and the integration of science and technology, which contribute to the advancement of visual communication design (Cai & Su, 2022).

Today, digital design continues to evolve continuously in line with technological advancements. New technologies such as Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR) are pushing the boundaries of the digital design field. As a constantly evolving field influenced by technological innovations and user needs, digital design places greater emphasis on user experience-focused design and accessibility. As a result, user experience (UX) and user interface (UI) design became more critical. Also, integrating digital media and the internet has profoundly impacted entertainment activities, similar to the invention of television and cinema (Sadiku et al., 2017). The use of digital technology in visual communication design is crucial for expanding innovation and creating unique visual experiences (Cai & Su, 2022), such as Computer-Generated Imagery technology.

CGI (Computer-Generated Imagery) technology, widely used in various fields such as cinema, television, video games, and advertising, enables the production of digitally created images and animations using computer graphics and visual effects (Nelmes, 2012, p. 47). CGI technology encompasses various software, tools, and techniques used in different areas of digital visual design, such as 3D modeling, animation, lighting, rendering, effects, and integration. In digital graphic design, animators can digitally animate characters with their movements, expressions, and interactions, or they can transfer the facial expressions and movements of a real actor or actress to a digital character (Auslander, 2017).

CGI allows for the creation and processing of visuals in the digital environment. CGI can be used to create impossible camera movements, characters, and spaces (Chastine & Zhu, 2008, p. 280). The designed scenes, characters, or effects can be hyper-realistic and indistinguishable from reality. Moreover, it enables the creation of surreal and fantastical worlds (Sawicki & Moody, 2020, pp. 20-43). CGIs allow for creating realistic-looking aesthetics and enhance the artistry of architectural designs (Degen et al., 2016). One area where CGI technology has significantly impacted is the development of immersive virtual environments, such as the digital full-dome. The digital full-dome utilizes wrap-around cylindrical displays, like the OMNIMAX cinema format, to fully immerse viewers in the presentation (Schnall et al., 2012; Schnall et al., 2012, pp. 561-575). The fusion of old and new technologies in digital cinema has resulted in unique aesthetic characteristics that transcend the original film system. These characteristics include virtual images, spatial and temporal concepts, narrative modes, sound and picture relationships, and movement characters (Chen, 2022). The advancements in CGI technology have undoubtedly provided practicality and cost-effectiveness in areas such as set design, camera work, and lighting; however, it is worth considering the findings from Waterman's (2007) research, which revealed that CGI-animated films released in the United States between 1998 and 2002 had an average cost twice as much as 2D films.

CGI plays a crucial role in strengthening storytelling by pushing the boundaries of imagination. As a result, it can offer the audience a more compelling cinematic experience, both visually and emotionally (Patel et al., 2019). It enables filmmakers to produce realistic and creatively stunning visual effects while facilitating film distribution and marketing. Additionally, digital design contributes to a visual narrative by increasing the aesthetic value of film productions. Advancements in CGI technology have pushed visual storytelling's boundaries and become an integral part of modern filmmaking. Color palettes, lighting, composition, and other visual elements can convey the atmosphere and emotional tone of the story. CGI technology provides more creative freedom in cinema by increasing control over these elements. Companies such as ILM (Industrial Light & Magic), WETA Digital, Pixar, and DreamWorks Animation are among those that use CGI in the cinema industry, playing a significant role in the field.

CGI has revolutionized animation, video games, and virtual reality, allowing for the creation of immersive and lifelike virtual worlds, and replacing traditional hand-drawn techniques in animation, providing greater flexibility and realism. CGI technology has revolutionized video games, allowing developers to create visually stunning and immersive gaming experiences. Virtual reality (VR) has become increasingly popular, and CGI technology is at the core of creating realistic and immersive VR environments. CGI technology allows for seamlessly integrating real and virtual elements, blurring the line between reality and fiction. As technology advances, CGI will undoubtedly continue to shape the future of cinema and digital design.

THE RELATIONSHIP BETWEEN CGI AND CINEMA

The relationship between CGI (Computer-generated imagery) and cinema significantly reflects the concepts of cinema and technology. CGI, especially in Hollywood films, is a powerful technique widely used in science fiction and action genres. Through this technology, the director, producer, screenwriter, and, most importantly, the audience's imagination can come closer to reality. Ghani (2011, p. 5) highlights the limitless potential of Computer Generated Imagery (CGI), which enables writers and directors to bring their imaginative creations to life using computer graphics. CGI is preferred in digital design, video games, television programs, film scenes, and advertising content (Huang, 2019). CGI has found applications in a wide range of fields since 1980. CGI digital technology is widely used in architecture and interior design, scientific computing, industrial design, virtual reality and education, computer games, advertising, film, and television production, among many other areas (Sun, 2023, p. 2).



Figure 1: A scene from *Westworld*

Reference: Crichton, Michael, 1973.

For the past 50 years, filmmakers have utilized CGI to enhance the formal aspect of the dramatic structure of stories in cinema. During the 1970s, CGI found limited usage in films, but by 1975, two significant films had employed this technology. In 1973, the film *Westworld* (Michael Crichton) portrayed a future Western-themed Park through the eyes of an artificial human using 2D computer graphics. In 1974, the sequel *Futureworld* (Richard T. Heffron) utilized 3D-based CGI. Shortly after, the film industry deemed CGI too expensive, causing a decline in usage. However, it remained beneficial for 30-second television commercials since the rendering time was shorter than cinema films, and the pixel count per frame was lower than cinema films (Morie, 1998) regarding efficiency and cost-effectiveness.



Figure 2: A scene from *The Abyss*

Reference: Cameron, James, 1989.

In 1982, Disney released *Tron* (Steven Lisberger), the first computer-animated film that pioneered computer animation. The use of CGI in film production was still in its transitional phase during this time. Consequently, the digital effects technology had to be enhanced to achieve a realistic impact. Although CGI was a new development in filmmaking, the aesthetic quality and composition of the effect scenes were relatively lower (Ryu, 2007, p. 123). Although *Tron* and *The Last Starfighter* heavily relied on the use of CGI (Nick Castle, 1984), these films still needed to achieve the box office success they had anticipated. *Young Sherlock Holmes* (Barry Levinson, 1985) was the first film to incorporate characters created by computers (Sun, 2023, p. 2).

Filmmakers have been showing a growing preference for CGI since the late 1980s. The film industry considers the success of *The Abyss* (James Cameron, 1989) as the beginning of this rise, while *Terminator 2: Judgment Day* (James Cameron, 1991) not only achieved box office success but also served as a turning point that convinced the film industry of CGI's reliability as a powerful tool (Morieid, 1998). Ryu (200, p. 134) emphasizes that *Terminator 2* introduced groundbreaking morphing in visual effects. Morphing is an animation or effect technique demonstrating the gradual transformation of one object or entity into another. The "morphing" technique achieved the flawless transformation of T-1000 (Robert Patrick) into the liquid metal form of a police officer.

Jurassic Park (Steven Spielberg, 1993) left a memorable impact on CGI usage in the early 1990s. The CGI generated from the Dinosaur Input Device (DID) produced hyperrealism through digital simulation. Ryu (2007, p.142) asserts that the realism achieved by DID's digital simulation is hyperreal. Ryu emphasizes that Craig Hayes, *Jurassic Park's* computer interface engineer, takes the reality effect of the dinosaurs' movements through five phases. The first step is to produce DIDs that resemble the joints of a dinosaur. In the second phase, the joint movements are automatically translated into CGI through digital coding after the DID's joints are connected to the computer. In the third phase, the movements of a dinosaur needed in the film are grasped. In the fourth phase, the joint movements of the DID and the movements of the dinosaur are digitally encoded. In the fifth phase, the CGI construction is completed by adding facial expressions and flesh to the dinosaur skeleton encoded through the DID. Moreover, the effect of reality created by the movements of this dinosaur is more than imagination.

The film *The Matrix* (Lana Wachowski and Lilly Wachowski) demonstrated an innovative approach using the "bullet time" technique, where cameras placed along a specific axis allowed to capture a 360-degree instantaneous visual of actors' movements. Schonig (2018, p. 46) describes CGI in films such as *Terminator 2: Judgment Day*, *Jurassic Park*, *King Kong* (Peter Jackson, 2005), *Avatar* (James Cameron, 2009), and *Rise of the Planet of the Apes* (2011) as providing realistic visuals.



Figure 3: A scene from *The Lord of the Rings*

Reference: Jackson, Peter, 2001.

Ghani (2011, p. 8) stated that certain films serve as references for implementing techniques used in CGI effects. For instance, in *The Lord of the Rings* (2001), director Peter Jackson uses CGI to add artificial lighting, create a massive battle scene, and generate fake environments. By using CGI, the director chooses to envelop the surroundings of the character Galadriel (Cate Blanchett) in dark blue tones during the scene where she shows her mirror to Frodo (Elijah Wood). In *The Lord of the Rings* film, CGI draws attention in terms of form and becomes a practical element in creating meaning within the dramatic structure. Prince (2012, p. 133-134) expresses that the character Gollum (Andy Serkis) in *The Lord of the Rings* film is brought to life through a combination of emotion, digital visual effects, and various animation techniques. The author emphasizes the success of the visual effect by stating that Gollum remains the most intelligent character in the trilogy. Rick Baker, a well-known special make-up effects creator, stated, "The stuff in Jurassic Park was great. But those were still dinosaurs stomping around. Gollum was a real character. That is what excited me". For Richard Edlund, "Gollum was the most exciting visual effect to happen in the last decade—a totally believable CG character" (Prince, 2012, p. 134).



Figure 4: Motion Capture Application in *War for the Planet of the Apes*
Reference: Reeves, Matt, 2017.

The Motion Capture technique, an essential element of CGI application, involves recording the movement of a real person to apply it to a digital character (Beane, 2012, p. 275). It is divided into three groups: optical systems, magnetic systems, and mechanical systems (Kitagawa & Windsor, 2008, p. 9). In the optical system, objects wear markers that are either reflective (passive) or light-emitting (active). By combining the images obtained from all cameras with the known dimensions of the object, the exact position of each camera in space can be calculated. The magnetic system is built from sensors placed in the helmet of a military airplane pilot. Between 12-20, tracking sensors are placed on the subject whose movements will be captured. Finally, Kitagawa and Winsor (2008, p. 11-12) explain the mechanical system: "Mechanical systems directly measure the joint angles of a captured subject who wears an articulated device that consists of straight rods and potentiometers. Straight rods are linked with potentiometers at the body's joints, designed to measure joint angles as the capture subject moves. The device looks like an exoskeleton. Other types of mechanical systems include data gloves and digital armature".

HYPERREALITY THEORY

Jean Baudrillard's concept of hyperreality is a central idea in postmodern theory. Hyperreality refers to a condition where the distinction between reality and simulation becomes blurred, and the simulated representations of reality become more real than reality (Lazzini et al., 2021). Baudrillard argues that in contemporary society, the signs and symbols that represent reality have detached from their original referents and taken on a life of their own (Seidman, 1994). This means our perception of reality is shaped by a hyperreal world of images, simulations, and representations, disconnected from any underlying truth (Lazzini et al., 2021). Baudrillard's concept of hyperreality has implications for various fields, including sociology, anthropology, philosophy, and history (Seidman, 1994). It challenges traditional notions of reality and representation and calls into question the authenticity and meaning of our experiences in a hypermediated world (Lazzini et al., 2021). Hyperreality is a crucial aspect of postmodern society, where the boundaries between the real and the simulated are blurred, and the signs of the real are substituted for the real itself (Lazzini et al., 2021). Baudrillard's ideas continue to be influential in understanding the complexities of contemporary culture and how media, technology, and simulation shape our perceptions of reality.

Jean Baudrillard's concept of hyperreality can be applied as an analysis method in cinema, particularly in virtual reality and the creation of simulated worlds. One example of this is the use of avatars in filmmaking. Avatars are digital representations of individuals that can be manipulated and controlled within a virtual environment (Broderick et al., 2018). Baudrillard's concept of simulacra, where a clone exists devoid of its original entity, can be seen in the generation of photorealistic avatars that continue to exist even after the real person is gone (Broderick et

al., 2018). These avatars reinforce the hyperreal nature of cinema, where the simulated representations become more real than reality itself.

Another example is manipulating cinematic time and special effects to create hyperreal experiences. In the book "The Emergence of Cinematic Time: Modernity, Contingency, the Archive," the authors discuss how cinema can manipulate time and create hyperreal experiences beyond reality's constraints (Broderick et al., 2018). Baudrillard's concept of hyperreality can be applied here, as the cinematic representation of time becomes detached from the linear progression of reality and takes on its own simulated existence. Furthermore, the concept of hyperreality can also be explored in the context of online self-presentation and identity construction. In the book "Virtually Me: A Toolbox about Online Self-Presentation," the authors discuss how individuals create and curate their online identities, blurring the line between the authentic self and the constructed self (Broderick et al., 2018). Baudrillard's concept of hyperreality can also be applied to analyze how individuals project idealized versions of themselves online, where the signs and symbols of identity become detached from their original referents.

In the study, the film *Avatar* was examined in the context of hyperreality theory. Thanks to the technological methods used in the visual and story design of this film, characters and spaces representing hyperreality were created. For this reason, the fact that *Avatar* is a prominent film in the use of CGI technology and reflects the theory of hyperreality in terms of form and meaning constitute the basic characteristics on which the analysis is based.

ANALYZING THE FILM AVATAR FROM BAUDRILLARD'S HYPERREALITY PERSPECTIVE

While hyperreality is a concept in which virtual and real-world boundaries become blurred, the film *Avatar* also emphasizes how the viewer questions the boundaries between virtual experiences and real experiences. The film depicts people creating "avatars," which are remote-controlled biological bodies that are mentally attached to the bodies of the Na'vi people living on a wild planet called Pandora. Thanks to this technology, people can travel to Pandora, transcending physical limitations in the real world and experiencing the Na'vi culture. The concept of hyperreality refers to the blurring of boundaries between the virtual world and the physical world, as people take on different identities beyond their physical selves.

The concept of hyperreality in film is characterized by the merging of real and virtual experiences, the perceived increase in value of virtual world engagement, and the ways in which people interact with virtual identities. During a military mission to Pandora, Jake Sully (Sam Worthington) becomes influenced by the Na'vi culture. Princess Neytiri (Zoe Saldana) aligns herself with the Na'vi, paralleling contemporary concerns like digital addiction and the potential dominance of the virtual realm over the real world.

The film questions the interplay between the virtual and the real, using the lens of hyperreality theory to shape its meaning. The audience's acceptance of the hyperreal environment is influenced by Jake's contrasting states of physical paralysis in reality and able-bodied in the simulated universe.



Figure 5: A image from the Pandora region in *Avatar*

Reference: The Things (2023, August 2). *Avatar Scenes Without CGI* [Video]. <https://www.youtube.com/watch?v=Cimy6T1nczw>

Avatar does not limit the theory of hyperreality only to individual experiences but also addresses ecological and ethical dimensions. The Na'vi culture emphasizes the importance of living in harmony with nature and respecting the environment. Thus, while the film questions the environmental effects of humans, it combines the theory of hyperreality with the complex relationships between the natural world and human culture. Some of Pandora's plants are computer-designed, while others are hand-designed, creating a realistic film location. Cinema creates its own cinematic time and space to create its reality. Therefore, the technological elements in the film greatly support the formation of this perception (Ormanlı, 2010).

Srikandi and Hum (2020, p. 8), who state that the film *Avatar* is a representation of James Cameron's imagination, argue that the realities shown in the story (non-human characters, lighting, futuristic structures, special effects) are fictionalized and transformed into reality that depends on the imagination of the author. In *Avatar*, there is only hyperreality instead of the existing reality. People believe and trust in this reality. The deception of reality can generate cultural patterns perceived as reality, leading to a momentary mindset that molds individuals desiring instant accessibility to everything (Hayati et al., 2020, p. 236).



Figure 6: Motion Capture Application in *Avatar*

Reference: Media Magik Entertainment (2023, August 2). *Avatar Exclusive -Behind The Scenes (The Art of Performance Capture)* [Video]. https://www.youtube.com/watch?v=P2_vB7zx_SQ

In *Avatar*, form plays an essential role in applying hyperreality theory. The creation of the planet Pandora and the visual details of the Na'vi characters pushed the boundaries of CGI and gave the audience a realistic experience. The *Avatar* film is an example of CGI technology, the creation of virtual worlds in filmmaking, and the believable realization of characters even without being in the real world. The movements, facial expressions, and anatomical features of Na'vi characters are created with CGI technology, making hyperreality theory formally effective. In addition, the visual appeal and details of the planet Pandora impress the viewer, increasing the believability of the virtual world in the film. The film *Avatar* exemplifies how technological advancements and stunning visual effects can elevate the audience's sensory experience.

CONCLUSION

The study examines the *Avatar* film in the context of hyperreality theory. According to (Ismoyo Pamadhi, 2021), qualitative research methods are suitable for exploring complex phenomena such as hyperreality. They argue that truth can be obtained through dialectics rather than methods, and more questions can be proposed through practical philosophy. The technological methods employed in the film's visual and story design have enabled the creation of characters and places representing hyperreality. That is why the essential qualities on which the analysis is based are the prominence of *Avatar* as a film in utilizing CGI technology and reflecting the hyperreality theory in terms of form and meaning. Baudrillard's concept of hyperreality can be a valuable analysis method in cinema, particularly in virtual reality, manipulating cinematic time, and online self-presentation.

In the film *Avatar*, directed by James Cameron, the protagonist, Jake Sully, enters the virtual world of Pandora through his avatar. This genetically engineered body allows him to interact with the indigenous Na'vi people. This virtual world of Pandora can be seen as a hyperreal space where the boundaries between the real and the simulated are blurred. One aspect of hyperreality in *Avatar* is the representation of the Na'vi people and their connection to nature. Baudrillard argues that in hyperreality, simulations become more real than reality itself. The Na'vi people and their way of life in Pandora are portrayed as more authentic and in harmony with nature than the human characters who represent consumerism and capitalism. This contrast highlights the hyperreal nature of the virtual world of Pandora, where the simulated environment and its inhabitants are idealized and romanticized.

Furthermore, the use of avatars in the film also aligns with Baudrillard's concept of hyperreality. Avatars are digital representations of individuals in virtual worlds, allowing users to project themselves into these simulated environments. In *Avatar*, the protagonist's avatar bridges the real world and the virtual world of Pandora. The avatar becomes a hyperreal representation of the self, blurring the physical and digital boundaries. The film also explores themes of identity and community within hyperreality. Baudrillard argues that in hyperreality, identity is constructed and mediated through simulations. In *Avatar*, the protagonist's identity is transformed through his avatar, and he becomes part of the Na'vi community. This transformation highlights the influence of social structures and the power dynamics within the virtual world. In conclusion, the virtual world of Pandora, avatars, and the exploration of identity and community reflect the blurred boundaries between reality and simulation. By utilizing Baudrillard's concept of hyperreality, one can gain a better comprehension of how cinema generates

simulated worlds that blur the boundaries between reality and simulation, as well as how individuals construct and experience hyperreal representations of themselves in the digital realm.

REFERENCES

- Alforova, Z., Marchenko, S., Kot, H., Medvedieva, A., Moussienko, O. (2021). Impact Of Digital Technologies On The Development Of Modern Film Production And Television. *rupkatha*, 4(13). <https://doi.org/10.21659/rupkatha.v13n4.72>
- Auslander, P. (2017). Film Acting and Performance Capture. *PAJ: A Journal of Performance and Art*, 39(3), 7-23.
- Beane, A. (2012). *3D Animation Essentials*, Indianapolis: Willey.
- Broderick, M., Bender, S., McHugh, T. (2018). Virtual Trauma: Prospects For Automediality. *M/C J*, 2(21). <https://doi.org/10.5204/mcj.1390>
- Cai, J., Su, J. (2022). Application Characteristics and Innovation Of Digital Technology In Visual Communication Design. *Advances in Multimedia*, (2022), 1-12. <https://doi.org/10.1155/2022/8806770>
- Canning, J. (2017). The UK Teaching Excellence Framework (Tef) As An Illustration Of Baudrillard's Hyperreality. *Discourse: Studies in the Cultural Politics of Education*, 3(40), 319-330. <https://doi.org/10.1080/01596306.2017.1315054>
- Cawkell, T. (2003). *The multimedia handbook*. Routledge.
- Chastine, J., & Zhu, Y. (2008, May). The cost of supporting references in collaborative augmented reality. In *Proceedings of graphics interface 2008* (pp. 275-282)
- Chen, C. (2022). New Aesthetic Characteristics Emerging In the Digital Cinema Era. *IJEH*, 1(2), 1-6. <https://doi.org/10.54097/ijeh.v2i1.224>
- Cooper, A., Reimann, R., Cronin, D., & Noessel, C. (2014). *About face: the essentials of interaction design*. John Wiley & Sons.
- Cram, C. (2012). Digital cinema: The role of the visual effects supervisor. *Film History: An International Journal*, 24(2), 169-186.
- Degen, M., Melhuish, C., Rose, G. (2016). Producing Place Atmospheres Digitally: Architecture, Digital Visualisation Practices and The Experience Economy. *Journal of Consumer Culture*, 1(17), 3-24. <https://doi.org/10.1177/1469540515572238>
- Failes, I. (2016). *Masters of FX: Behind the Scenes with Geniuses of Visual and Special Effects*. CRC Press
- Gannaway, J. A. (2001). Awards & Honors Recipients. *PSA Journal*, 67(10), 14-23.
- Ghani, A. D. (2011). A Study of Visualization Elements of Shadow Play Technique Movement and Computer Graphic Imagery (CGI) in Wayang Kulit Kelantan. *International Journal of Computer Graphics & Animation (IJCGA) Vol.1, No.1, April*.
- Gulliksen, J., Göransson, B., Boivie, I., Blomkvist, S., Persson, J. L., Cajander, Å. (2003). Key Principles For User-centred Systems Design. *Behavior & Information Technology*, 6(22), 397-409. <https://doi.org/10.1080/01449290310001624329>
- Hayati, K. R., Adholy, N., & Nashahta, T. B. A. (2020). Hyperreality in Avatar Film as a Form of Hegemony, Domination, and Capitalist Ideology in Facing Society 5.0. 1st International Conference Eco. Innovation in Science, Engineering, and Technology. *NST Proceedings*. Pages 233-237. doi: 10.11594/nstp.2020.0537
- Ismoyo, K. and Pamadhi, H. (2021). Life values in gapura bajangratu. <https://doi.org/10.2991/assehr.k.210602.011>
- Kitagawa, M. & Windsor, B. (2008). *MoCap for Artists: Workflow and Techniques for Motion Capture*. UK and USA: Focal Press
- Lazzini, A., Lazzini, S., Balluchi, F., Mazza, M. (2021). Emotions, Moods and Hyperreality: Social Media And The Stock Market During The First Phase Of Covid-19 Pandemic. *AAAJ*, 1(35), 199-215. <https://doi.org/10.1108/aaaj-08-2020-4786>
- Lewis, J. (2012). *Andy Serkis-The Man Behind the Mask*. Kings Road Publishing.
- Lide, D. R. (2018). *A century of excellence in measurements, standards, and technology*. CRC Press.

- Morie, J. F. (1998). CGI training for the entertainment film industry. *IEEE Computer Graphics and Applications*, 18(1), 30-37
- Nelmes, J. (2012). *Introduction to film studies*. Routledge.
- Oleck, J. (2010). *Graphic design and desktop publishing*. The Rosen Publishing Group, Inc.
- Ormanlı, O. (2010). Tasarım ve Teknoloji Olguları Bağlamında “Avatar” Filminin Çözümlemesi. *Sanat ve Tasarım Dergisi*, 1(6), 95-109. Retrieved from <https://dergipark.org.tr/tr/pub/sanatvetasarim/issue/20661/220414>
- Patel, S., Toulson, R., & Azuaje, L. (2019). The Beginning of a Beautiful Relationship: A Case Study of an Immersive Filmmaking Process. *The Palgrave Handbook of Screen Production*, 257-268.
- Pennington, A., & Giardina, C. (2013). *Exploring 3D: The new grammar of stereoscopic filmmaking*. Taylor & Francis.
- Preist, C., Schien, D., Bleviss, E. (2016). Understanding and Mitigating The Effects Of Device And Cloud Service Design Decisions On The Environmental Footprint Of Digital Infrastructure. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. <https://doi.org/10.1145/2858036.2858378>
- Prince, S. (2010). Through the Looking Glass: Philosophical Toys And Digital Visual Effects. *Projections*, 2(4). <https://doi.org/10.3167/proj.2010.040203>
- Prince, S. (2012). *Digital Visual Effects in Cinema: The Seduction of Reality*, New Brunswick, N.J.: Rutgers University Press.
- Purcaru, B. I. (2014). Games vs. Hardware. *The History of PC video games: The 80's*. Purcaru Ion Bogdan.
- Ryu, J. H. (2007). *Reality & Effect: A Cultural History of Visual Effects*, Dissertation, USA: Georgia State University. <https://doi.org/10.57709/1059335>
- Sadiku, M. N. O., Shadare, A. E., Musa, S. M. (2017). Digital Entertainment. *IJARCSSE*, 8(7), 62. <https://doi.org/10.23956/ijarcsse.v7i8.22>
- Sawicki, M., & Moody, J. (2020). *Filming the fantastic with virtual technology: filmmaking on the digital backlot*. Routledge.
- Schnall, S., Hedge, C., Weaver, R. (2012). The Immersive Virtual Environment Of the Digital Fulldome: Considerations Of Relevant Psychological Processes. *International Journal of Human-Computer Studies*, 8(70), 561-575. <https://doi.org/10.1016/j.ijhcs.2012.04.001>
- Schonig, J. (2018). Contingent Motion: Rethinking the “Wind in the Trees” in Early Cinema and CGI. *Discourse*, 40(1), 30-61.
- Seidman, S. (1994). *The Postmodern Turn..* <https://doi.org/10.1017/cbo9780511570940>
- Srikandi, C. N. & Hum, M. (2020). Hyperrealities in Popular World Films. *Journal Fascho in Education Conference-Proceedings*, 1(1). Retrieved from <https://journal.stkipmbogor.ac.id/index.php/Proceedings/article/view/8>
- Sun, Zhentao (2023). What Does CGI Digital Technology Bring to the Sustainable Development of Animated Films? *Sustainability* 15. 10895. <https://doi.org/10.3390/su151410895>.
- Turnock, J. (2009). Before Industrial Light and Magic: the independent Hollywood special effects business, 1968–75. *New Review of Film and Television Studies*, 7(2), 133–156.
- Upton, E., Duntemann, J., Roberts, R., Mamtora, T., & Everard, B. (2016). *Learning computer architecture with Raspberry Pi*. John Wiley & Sons.
- Waterman, D. (2007). The effects of technological change on the quality and variety of information products. *Economics of Innovation and New Technology*, 16(8), 587–594.