Enlightenment and challenge of the concept of metaverse to film and television creation

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ABSTRACT

Starting from the enlightenment of the concept of metaverse to film and television creation, this paper puts forward that metaverse will be possible to reconstruct digital virtual space-time, open a new context of interactive narration and replace real actors with virtual personification. The role of film and television audience will also experience the transformation from viewer to experiencer, from audience to player, and from audience to creator. In addition, the virtual world constructed by the metaverse may cause ethical risks due to the unlimited creative freedom, domesticate the film and television audience into a new “container”, encourage users to form a value orientation from reality to emptiness, and also pose new challenges to the film and television content audit mechanism and management in the digital virtual space.

Keywords: interactive narration; integration of shadow and travel; virtual human; ethical reflection

1. Introduction

The emerging concept of metaverse depicts the future of Internet evolution, which is a grand world outlook and brand-new imagination. In the metaverse, the boundary between reality and virtual is broken, and new concepts and technologies such as “virtual actor”, “holographic presentation” and “real-time interaction” will be widely used, and the text of film and television works will also show unprecedented interactivity and openness. The realization and application of metaverse is bound to bring new ways of information dissemination, which may set off a revolutionary wave in the field of film and television. This paper will analyze the possibility of metaverse to film and television creation, discuss the changes that metaverse will bring to the role of film and television audience, and estimate the risks and challenges that metaverse may bring to film and television creation.

2. Possibilities brought by the metaverse to film and television content creation

2.1. Reconstruction of new digital virtual space-time

The composition of time and space in traditional film and television works relies on the grouping of shots to achieve, each shot represents a
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unit of time and space, through the grouping of each shot to complete the continuation or transformation of time and space. Metaverse reconstructs a brand-new space and time by building a virtual world that highly mirrors the real world. This virtual narrative space-time integrates reality and imagination, and has both virtuality and authenticity. It is not only independent of the real narrative space, but also the digital simulation and reconstruction of the real narrative space.

Andre Bazin, a French film theorist, believes that human beings always have the original desire to preserve life and pursue the longevity of body, which is the inherent “Mummy complex” of human beings. From photography to film to television, all reflect the human desire to “keep the truth”. The initial prototype of the image is an attempt to completely record the state of natural motion. However, even for the film with 3D visual effect, the three-dimensional sense created by it is only a visual illusion artificially created by using the visual differences of human eyes, and the essence is to present the content on a two-dimensional plane. However, the virtual world constructed by the metaverse will break the obstacles of film and television to restore reality, and restore and recreate a highly simulated world in an all-round way with the help of holographic projection, 3D modeling, real-time rendering and other technologies metaverse will thus build an all-round, free and three-dimensional audio-visual language, make the image close to the complete myth of realism, and truly achieve “constructing a dream world with image”[1], so as to bring digital real experience and brand-new space-time perception to the film and television audience.

In the metaverse, users can use head mounted display devices, intelligent sensing devices, VR, AR technology, eye and gesture tracking technology to watch and interact with film and television content in an all-round way. With the help of the carrier of “Digital Avatar” in the virtual space, users can cross the barriers between reality and virtual, enter the narrative space of film and television, experience the plot of the story and feel the spiritual connotation of the work. Similarly, when the barrier between the real physical world and the virtual imaginary space is broken, the creator’s narration also has an open possibility. In the metaverse, the creative space of film and television creators will be greatly expanded and their imagination will be better brought into play.

2.2. Open a new context of interactive narration

The metaverse world will open a new interactive narrative context. In the illusion where the boundary between virtual and reality is broken, the user behavior in real time and space will interact with the film and television works in virtual time and space, so as to build a new form of art in the narrative space where virtual and real coexist.

Some scholars have pointed out that the interactivity of narration lies in that the main characters constructed by narration actively participate in the process of plot construction[2]. In the virtual digital space with three-dimensional characteristics built by the metaverse, the connection mode between film and television and the audience will be reconstructed. The audience can talk with the characters in film and television, or use their own behavior to influence the virtual world and change or create new content through interaction. In the future, film and television creation in metaverse will pay more attention to the provision of rich plot direction and the ingenious design of interactive links and narrative clues. Film and television creation in metaverse will become a dynamic process formed by the interaction and influence of plot, role and audience.

The narrative mode of dynamic interaction will endow the film and television works in the metaverse with “hypertext”. Hypertext is a representative product of the information society. It is based on hyperlinks. It is a “hypermedia” and “multi sequence reading text” that accommodate and link different forms of text[3]. At present, the existing interactive film and television works have the primary characteristics of hypertext film and television
to a certain extent. For example, the interactive film “Black Mirror: Pandas Nicky” launched by Netflix in 2018 sets a node for the audience to choose the plot direction. During the viewing process, the audience can collage and reorganize the story text according to their own choice, and finally obtain different outcomes. However, there are many problems in the current interactive film and television works, such as incoherent narrative rhythm, too few options and insufficient plot lines. The massive content platform, powerful computing power and the ability to flexibly access information possessed by metaverse may break through these limitations and produce “hypertext” film and television with rich plot clues, multiple interactive playing methods and coherent narrative rhythm.

When the narrative moves from closed to open, the narrative mode of traditional film and television is replaced by the interactive narrative mode of metaverse film and television. How to build a better open platform and mechanism for users to interact and create content will become the focus of attention. The provider of metaverse film and television content needs to design an idealized “semi open” narrative platform[4]. On the one hand, it provides users with the possibility of content interaction, so that users can experience the fun of creation. On the other hand, it also needs to strengthen the platform’s audit, control and guidance of user generated content, so as to ensure the positive and healthy value orientation of film and television works.

2.3. Virtual human will replace real actors

In the future metaverse film and television, virtual human will become the “digital Avatar” of real actors, and real users and digital virtual human will jointly participate in the generation of film and television works. On the one hand, it meets the requirements of rapid content generation of film and television creation, on the other hand, it can enhance the imagination of film and television creation, and bring rich commercial value and broad artistic creation space to the film and television industry.

The film Simone once showed the idea of virtual actors: a talented programmer gave Victor a set of programs that can design highly realistic three-dimensional animation. Victor created a virtual image of “perfect woman”—Simone, and successfully made a new film as an actor. Simone has also become a popular idol because of her perfect performance. In the assumption of the film, the virtual actor will break through the limitations of the real actor image, better meet the audience’s fantasy, and have stronger controllability. The reality of Simone’s image of immortality and immortality is also questioned.

In Simone, virtual actors only exist as the theme of performance and discussion. Simone’s role is played by real actors. As Ray Kurzweil, Google’s chief futurist, said, this is a film about virtual actors without virtual actor technology. At present, the development of many new technologies provides the possibility for the birth and application of “super real” virtual actors. In recent years, the game industry has made in-depth exploration in the production of virtual human that can render in real time, high fidelity and interact, and developed an efficient virtual human production tool, which allows users to quickly generate virtual human in the way of automatic mixing and manual adjustment, so as to provide diversified “virtual actor” roles for different scenes in the virtual world Metahuman creator, launched by American game company Epic Games in 2021, is a modeling tool that can help users easily create digital humans. Based on the high-quality face material library provided by the software, users can freely choose the required human skin color, hair, face, bone, body shape, clothing and other features to create photo realistic digital characters in a few minutes. Users can also use performance capture tools such as face and action to drive digital people to perform in real time, synthesize various voice through microphone, and build their own digital avatar in virtual scene. This technology allows users to quickly generate virtual human that is difficult to distinguish the true from the false in the way of automatic mixing and manual adjustment, which provides technical support for the creators of film and television works in the meta space to produce virtual
actors that meet the needs of virtual production.

3. The change of metaverse to the role of film and television audience

3.1. From viewer to experiencer: Holographic immersion

In the traditional drama, film and television art, there is often a “fourth wall”, that is, a fictional “wall” in the traditional three wall mirror frame stage or film and television screen, which symbolizes the boundary between the audience and the actors, and between reality and virtual. Metaverse will break the restriction that the audience can only watch the drama “outside the wall”, set the limit of plot development in the world, let the audience change from “outsiders” to “people in the play”, experience various colorful plots in the works from the first-person perspective, and produce a holographic immersion feeling.

With the technical support of high capacity, multi connection, low delay and high transmission rate brought by 5G era, scene modeling, intelligent interaction, AR and VR technologies will be widely used in metaverse film and television creation. The user’s language, action, expression and other behaviors are transmitted to the cloud server through sensors, and the real-time virtual interaction is completed through the processing of Internet and new media technologies such as perceptual interaction, rendering processing and high bit rate transmission, so as to generate film and television content and build a holographic and immersive experience of virtual and real integration for film and television audiences. As Nicholas Negroponte said: “In virtual reality, you can open your arms, embrace the Milky way, swim in human blood, or visit Alice in Wonderland.”

Mary Raul Ryan believes that immersion has three ways: spatial immersion, from the environment; time immersion, from the story; emotional immersion comes from characters. Metaverse’s construction of user immersion also exists in these three dimensions: space immersion is the material and environmental basis of user immersion, time immersion is a realistic path for users to obtain excellent experience by improving users’ autonomy, and emotional immersion will upgrade users’ immersion to the level of psychological identity.

Firstly, the sense of immersion of metaverse film and television works is reflected in the spatial immersion brought by the digital perception system. The generation of user’s digital avatar is bound to be accompanied by the comprehensive digitization of the body, and the human perception system will also experience a process of digital reproduction, which means that users can get contact and perception of the environment in the film and television in the metaverse film and television works, and the audience outside the screen can personally enter the screen, so as to produce an immersive experience.

Secondly, metaverse film and television creation will also give users a stronger sense of immersion in the time dimension. Traditional film and television generally follow the narrative logic such as time or causal sequence to present the story, and the duration of film and television works is fixed. Metaverse will break the narrative rules of traditional film and television, and it will no longer be necessary to build the story structure with montage. Users can not only freely choose, collage and reorganize the content, but also flexibly control the length of time to experience the work. This independent exploration will greatly enhance the interest and attraction of the story to users.

Thirdly, users’ emotional immersion will also be significantly improved in the metaverse. Audiences of metaverse film and television works can transcend reality and virtual, become “actors” in digital time and space, and play any role from the first-person perspective. Like the heroine in Woody Allen’s film “the purple rose in Cairo”, who enters the film screen and personally performs the film plot, the metaverse can make us all become the protagonists in the film. When the audience becomes an actor, the emotion and consciousness of the audience
will also be put into the content due to the transformation of identity, so as to obtain the sense of emotional immersion.

3.2. From audience to player: Gamification interaction

Bazin believes that film art integrates the characteristics of music, dance, painting, sculpture and other arts in the process of text adaptation, and then has the characteristics of “impure” art noumenon. The multiple artistic features of the film show its openness to integrate with other art forms[7]. Video game is a “link montage” composed of image fragments, while film and television is a “editing montage” composed of lens pictures. They have heterogeneous isomorphic similarities[8]. The similarity between films and Games shows that the Gamification of metaverse film and television works has a certain practical foundation and feasible path, and the integration of film and game will become a distinctive feature of metaverse.

“The relationship between movies and video games can be summarized into four forms: review, adaptation, quotation and combination, but only the last one is the key to the problem[9].” In the discussion of film researcher Jean Michel Frodo, the combination of game and film is a very challenging work. There have been attempts to integrate film and television with games for a long time, such as “crooked boy Scott against the world”, “number one player” and “out of control player”, which set challenges such as “breakthrough mode” or “looking for colored eggs” in the film to bring the audience a preliminary sense of gaming experience, or works adapted from popular games such as Tomb Raider, biochemical crisis and final fantasy. However, in such works, the audience can only watch the film and television works as spectators, and cannot personally participate in and experience the pleasure of controlling the game. The traditional relationship of “presentation viewing” has not been separated between the audience and the film and television works. Therefore, these attempts cannot bring real interactive experience to the audience, let alone turn the audience into players.

Metaverse will bring revolutionary subversion to the integration of games and film and television. In the metaverse, the boundary between film and television and games will become more and more blurred. People consume film and television in the form of games and experience games in film and television content. Users are both viewers and players. Roblox provides a high degree of interaction between users and the game creation method, just as Roblox provides a high degree of interaction between users and the game creation method, which can maximize the interaction between users and the game creation method. In the virtual space built by the metaverse, users can not only enter the story through their own “digital Avatar” to experience the fate of the characters, but also gain the fun of the game through interactive experience, which will upgrade the audience independent of the screen into immersive game players.

3.3. From audience to creator: An open subject

Metaverse has the characteristics of open source and openness, which can enable film and television users to move from a closed text to an open world, explore freely in the virtual film and television narrative space, enrich the plot clues and experience different endings. Film and television creation in the metaverse context, users can not only create or change their own virtual image and scene layout, but also affect the plot trend through their own behavior, so as to create a new narrative structure. The independent selection and creation of the audience
will become an important component of the content of the film and television works and the core driving force to promote the development of the story. In addition, the film and television narrative space of the metaverse gives users multiple exploration elements. Users can independently complete the splicing and reorganization of the plot with the help of the rich narrative materials provided by the content creator in the bottom story framework set by the work, unlock more branch sections and secondary characters, and freely control the rhythm of narration and the process of plot development. This will shift the creator’s creative focus to the construction of narrative scenes, the arrangement of interactive nodes, the creation of rich branch plots for users to explore, and the design of bottom stories that run through the overall situation.

In the metaverse, the power of text production is delegated to the audience. Film and television works will reflect the connotation of John Fisk’s “producer text” and can become an open text. This will truly confirm the predictability of Roland Barthes’s assertion that “the author is dead”, return the power of speech to the audience itself, rebuild the audience’s subject consciousness and give further play to their creativity.

At the same time, the collective wisdom brought by the decentralization of text production will also greatly improve the content expressiveness, plot richness and artistic appeal of film and television works. In the process of interaction and creation, the will, emotion and attitude of the audience can be immediately sent out and reflected in the works. The film and television works in the metaverse will also be affected by the audience’s own cultural accumulation, aesthetic tendency and values. The audience and the works will form a benign dynamic interactive relationship in continuous interaction and feedback.

4. Risks and challenges brought by the metaverse to film and television creation

4.1. Ethical risks caused by unlimited creative freedom

The high degree of freedom of creative content and form, as a double-edged sword, indicates the possibility of ethical risks in metaverse film and television creation. Freedom and limitation always come together. In the metaverse with highly liberal subjectivity, if there is no guidance of unified values and restriction of relevant measures, there may be works with excessive entertainment, commercialization and even distorted values.

More than half a century ago, the modern film movement with French “new wave film” as the core tried to break all ethical rules in artistic expression and realize the pursuit of free creation. However, this unwarranted ethical resistance made the values of decadence and nothingness unduly highlighted. The American drama “western world” is also like a metaphor about excessive freedom and its counter-attack: The human in the drama tries to become the creator and builds a theme park full of cruelty and desire, but is rebelled by the robot NPC (non-player character) who obtains independent consciousness, that is, the characters controlled by non-players. Finally, the artificial intelligence robot Dolores in the play walked out of the paradise and killed the human creator Ford.

As the philosopher Krishna said, “if there is no order, integrate the host of the innovation column: Yang has no freedom, and the two complement each other[10]. In order to prevent the meta space from becoming such an indulgent “paradise” and ensure that the creation of film and television works does not lose the bottom line of ethics and morality, constraints and management measures accompanied by freedom are needed. In the future, metaverse film and television industry, as a platform for the builders of interactive participation mechanism, creators as content providers and users as content consumers will become restricted objects. For the platform, we should formulate a strict review mechanism for the massive information generated by the metaverse, and do not blindly pursue
profits and allow the dissemination of vulgar and over entertainment content. For creators, we should adhere to the correct creative orientation, and give full play to the value leading role of film and television works while providing entertainment for users. For users, they should interact and experience the film and television content in the metaverse with a self-discipline attitude and not be manipulated by low tastes and desires, so as to build a richer spiritual world by using the highly free participation mechanism and rich open-source content of the metaverse. In addition, relevant management departments also need to control at the macro level and formulate scientific and reasonable policies to restrict and guide the creative practice of metaverse film and television works. Media literacy education for users in the context of metaverse also needs to be put on the agenda. Only through the efforts and cooperation of management departments, platforms, creators and users can we give better play to the synergy and standardize the creation ethics of film and television in the metaverse.

4.2. Domesticating the audience into a new “container person” leads to the degradation of social ability

Neil Postman believes that media is metaphor. Each media defines the real world with a hidden but powerful hint. This metaphor can change the way of human thinking and the content of culture\cite{11}. As a brand-new medium, metaverse, while innovating human social style, may also domesticate the film and television audience and degrade the communication ability of individuals in real life.

Japanese scholars once put forward the concept of “container man” to describe Japanese young people who grew up in the era of television media: Their isolated and closed inner world is like a canned container. Because the communication between individuals is difficult to reach the inner depths of each other, they always keep a certain distance from each other. The digital living mode built by the metaverse may disconnect the intimacy of social relations from the sense of distance in physical space, resulting in the gradual weakening of social emotional connection and the increasingly indifferent and alienated relationship between people. Like prisoners imprisoned in cyberspace, people may gradually evolve into new “container people” immersed in the virtual world, which will not be conducive to the bridging and unity between social groups. Zuckerberg once wrote on his blog: “We believe that we can use technology to move closer to the ‘reality’ of augmented reality—encouraging everyone, including ourselves, to stand up, go outside and connect with others and the world around us. This is what we humans are born to do. It is the result of human evolution for 2 million years. Therefore, these are the happiest things for us Technology should be used to make these core human experiences better, not replace them.” The development goal of metaverse film and television creation should also be the same: Let media technology better strengthen the communication and connection between individuals and groups, rather than promoting isolation and individualization.

4.3. Promote the value orientation from reality to emptiness

In the science fiction novel Snow Crash, the source of the concept of metaverse, the protagonist Ah Hong is a courier in real life, living with others in a warehouse called “deposit with you”, while in the virtual space “super meta domain”, that is, the metaverse world, he has a beautiful big house\cite{12}. In Snow Crash, the existence of metaverse is a utopian world full of fantasy and possibility, which can make up for the shortcomings in real life.

Similarly, in the number one player, the real-world suffering from energy crisis is on the verge of collapse. People indulge in the illusory world of “oasis” to seek comfort. The popular culture in the virtual space has become a necessity for people to maintain spiritual satisfaction, and the society has therefore become a virtual entertainment society. This leads to the shrinking of real economy and industry in the real world, and people become more and more addicted to the metaverse due to the de-
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cline of the real world, thus forming a vicious circle.

In fact, the ideal relationship between the real world and the virtual space should be mutually integrated and promoted. Although the landscape presented by the metaverse can bring a highly immersive experience to the audience, if there is no obvious boundary between reality and virtual, it may also lead to the user’s value orientation from real to virtual. As the rebel leader Morpheus said in the matrix: “What’s the definition of reality? If you mean touch, smell, taste and vision, it’s all electronic signals received by computers.” When it is difficult to distinguish between real and virtual, and the virtual world shows a look beyond the real world, the balance between reality and virtual may be completely broken, and users and even the whole society are excessively biased towards the virtual world. This will not only damage the individual’s autonomy and initiative, make people lose their ability to explore and imagine the real world, but also make the real-world desolate day by day.

In the number one player, there is a particularly moving line: “Embrace reality, because that’s the only real thing”. Therefore, how to grasp the balance between reality and virtualization, give play to the value guiding role of film and television works to the audience, spread and establish the mainstream values of society, and improve personal values will become an important direction of film and television creation in meta space.

5. Conclusions

Reviewing the development history of media, we will find that the ultimate goal of all media evolution is to serve and meet the needs of mankind, and mankind’s invention and renewal of ancient and modern media are also to break the communication barriers and obtain greater freedom and initiative. As a product of the digital transformation and upgrading of human society, metaverse can extend people’s senses and various nervous systems through technology. Film and television creation in the context of metaverse will also flourish to better meet the needs of human beings to obtain a higher sense of experience.

All new technologies contain infinite possibilities. At present, the universe is still in the stage from the construction of the meta space to the realization of the huge meta space. For the metaverse film and television creation with great development potential, we are not sure whether it can let us get the experience of returning to the essence, reshape our perception of the world, or introduce us into the deeper and bottomless pattern of “entertainment to death”. In order to avoid the realization of Huxley’s metaphor of “beautiful new world” and avoid technology monopoly and human nature crisis, we should not ignore the importance of human nature while respecting technology. The future development of film and television creation in meta space needs an overall control, which requires us to meet and respond with dialectical thinking, perfect audit mechanism and mature management system.

In the future realization of the metaverse, human society will gradually experience great changes across the times, which will affect all fields of society. McLuhan once pointed out: “So far, no society has had enough understanding of its own operating mechanism, and thus cultivated an immune mechanism against new extensions and new technologies. Today we are beginning to feel that art may provide such an immune mechanism” [13]. As an important form of artistic expression, film and television may have such a force that can guide the benign development of the metaverse. Therefore, film and television creation in the metaverse should play an important role in guiding and conveying mainstream values, and improve the spiritual realm and cultural connotation of film and television works through vivid stories and sincere emotions, so as to correctly guide and improve the ideological realm and aesthetic level of film and television users.

Conflict of interest

The authors declare no conflict of interest.
References

1. Huang W. On reality of image. Social Sciences 2007; 11: 182–187.
2. Aylett R, Louchart S. Towards a narrative theory of virtual reality. Virtual Reality 2003; 7: 2–9.
3. Landow GP. Hypertext: The convergence of contemporary critical theory and technology. Baltimore: Johns Hopkins University Press; 1992. p. 4.
4. Kong S. From immersion to flow experience: A reconsideration of immersive communication. Journal of Capital Normal University (Social Science Edition) 2019; 4: 74–83.
5. Negroponte. Being digital. Hu Y, Fan H (translators). Beijing: Electronic Industry Press; 2017. p. 115.
6. Ryan M. Narrative as virtual reality 2: Revisiting immersion and interactivity in literature and electronic media. Baltimore: Johns Hopkins University Press; 2001.
7. Andre B. What is a movie? Cui J (translator). Beijing: Culture and Art Press; 2008. p. 83–108.
8. Wang D. Yinqing dianying, dianzi youxi yu dianying de ronghe (Chinese) [The integration of engine film, video game and film]. Film Art 2007; (3): 123–125, 4.
9. Frodo JM. Impure nature of films—Films and video games. Yang T (translator). World Film 2005; (6): 169–173.
10. Krishna M. On freedom. Jiang Z (translator). Beijing: CITIC Press Group; 2013. p. 159.
11. Postman N. Amusing ourselves to death. Zhang Y (translator). Beijing: CITIC Press Group; 2015. p. 19.
12. Stephenson N. Snow crash. Guo Y (translator). Chengdu: Sichuan Science and Technology Press; 2009. p. 28.
13. Marshall M. Understanding media—The extensions of man. He D (translator). Beijing: The Commercial Press; 2000.