AI Ethics in Film Industry: Two-way Interaction and Balance between Technological Innovation and Humanistic Care

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Abstract: *With the rapid development of AI technology, it has shown great potential in script creation, role design, visual effects, post-production, personalized watching experience and so on. However, the extensive application of AI technology has also had a profound impact on the creativity, diversity, employment structure, copyright ownership and humanistic care of the film industry. In order to balance technological innovation and humanistic care, some strategies are put forward such as strengthening the position of humanistic care, improving the transparency and controllability of AI technology, cultivating interdisciplinary talents and establishing ethical review and social responsibility mechanisms. The purpose is to provide a useful reference for the film industry to maintain a healthy development in the wave of artificial intelligence technology.*

Keywords: *Film industry, AI technology, Technological innovation, Humanistic care*

1. Introduction

In the wave of science and technology in the 21st century, artificial intelligence (AI) technology is gradually infiltrating and profoundly changing all works with its infinite potential, and the film industry is no exception. In recent years, AI technology has been widely used in film production, from script conception, character shaping, visual effects to personalized watching experience, which show its powerful influence. However, with the in-depth application of AI technology, a series of ethical problems have emerged, which have had a far-reaching impact on the traditional values, creativity, employment structure and humanistic care of the film industry. In this background, this paper aims to analyze the application status of AI technology in the film industry and its ethical challenges, and explore how to find a balance between technological innovation and humanistic care. In the face of the impact of AI technology, it provides useful guidance for film creators, practitioners and audiences[1].

2. The Application of AI Technology in the Film Industry

2.1 The intelligent script creation and role design

In the field of script creation, AI technology can generate script framework, plot development and dialogue content that meets market demand and audience preferences by analyzing a large number of movie scripts, literary works and audience feedback data. For example, Scripted. A, an American screenwriter software company, can use deep learning algorithm to automatically generate multiple script outlines and plot development plans according to keywords and themes input by users. And it can intelligently adjust according to user feedback to improve the efficiency and quality of script creation. In the aspect of character design, AI technology can provide accurate casting suggestions for the film production team by analyzing the performance style, historical works and audience evaluation of actors. For example, in Blade Runner 2049, the performance styles and characteristics of actors Ryan Gosling and Harrison Ford are analyzed by using AI technology, so as to ensure that their performances in the film are highly compatible with their role setting. In addition, AI technology can automatically generate the appearance, personality and behavior characteristics in line with the role setting according to the theme and plot of the film, and provide more comprehensive and meticulous guidance for role shaping.

2.2 Visual Effect and Automation of Post-production

In the visual effects field, AI technology can automatically generate realistic virtual scenes, characters and special effects through deep learning algorithms and image recognition technology. For example, in the series of The Avengers movies, AI technology is applied to the production of battle scenes and explosion special effects. By training the deep learning model, the realistic effects of flame, smoke and explosion are simulated, which makes the battle scene in the film more shocking and realistic. In post-production, AI technology can improve the efficiency and quality of film production through automatic editing, color matching and sound processing. For example, the Premiere Pro software developed by Adobe Company integrates AI editing function, which can automatically generate various editing schemes according to the plot and rhythm of the film, save the time and energy of the editors, and intelligently adjust according to the audience's preferences and feedback, making the film editing more smooth and compact.

2.3 The realization of personalized watching experience

In terms of watching experience, AI technology can provide viewers with personalized movie recommendations and watching experience by analyzing their watching history, preferences and feedback data. For example, streaming media platforms such as Netflix use artificial intelligence algorithms to analyze users' watching behaviors, thus generating personalized recommendation lists for movie and TV series. These recommendations are not only based on the user's watching history, but also consider the user's preferences, age, gender and other dimensions, making the recommendations more accurate and intimate. In addition, AI technology can also provide an immersive watching experience for the audience through virtual reality and augmented reality. For example, in movies such as Ready Player One, viewers can enter the virtual world of the movie through VR devices, and interact with the characters and take risks. This immersive watching experience helps to enhance the audience's sense of participation and substitution, and brings new business opportunities and innovative space for the film industry.

3. The Ethical Challenges Brought by AI Technology to the Film Industry

3.1 The threat of creativity and lack of diversity

Although the application of AI technology in script creation and role design can improve the production efficiency, it will also pose a threat to the creativity of the film industry. The scripts and characters generated by AI are often based on big data analysis and algorithm prediction, which will lead to the homogenization of film content and a lack of new ideas. For example, when the AI system generates scripts by analyzing a large number of successful cases, it often copies those elements that have been verified by the market, thus limiting the emergence of new stories and novel characters. Creativity is a unique advanced psychological function of human beings, involving the unique combination and novel expression of information. The widespread application of artificial intelligence technology will weaken this ability of human beings and lead to the decline of creativity in the film industry. In addition, AI's algorithm bias will also lead to the lack of diversity of movie content. In the training process, the algorithm will be affected by data bias, thus generating content with specific tendencies, and then limiting the performance of the film to different cultures, genders, ages and other groups.

3.2 The influence of the employment and career transformation of the film industry

The automation of AI technology has had a far-reaching impact on the employment structure of the film industry. With the wide application of AI in visual effects and post-production, many traditional positions such as animators and editors are at risk of being replaced by machines. This will lead to a large number of employees losing their jobs and damage the ecosystem of the entire industry. From the perspective of sociology, technological progress is usually accompanied by changes in the employment structure. However, the change is not always fair. In the film industry, the introduction of AI technology will aggravate income inequality and occupational differentiation. People who can master AI technology will get higher income and better career development opportunities, while those who can not adapt to new technologies may face the risk of unemployment and marginalization.

3.3 The prominent complexity of copyright and ownership

The application of AI technology in film production has also leads to the complexity of copyright and attribution. When AI systems is used to generate scripts, character designs or visual effects, the copyright ownership of these contents becomes blurred. On the one hand, AI systems are generated based on a large number of data and algorithms, which come from multiple sources. It is difficult to determine the originality of the content. On the other hand, the legal relationship among the developers, users and content producers of AI systems is not clear. In copyright law, the originality of a work is the key factor to obtain copyright protection. However, the content generated by AI meets this requirement remains controversial. In addition, even if the content generated by AI is regarded as an original work, its copyright ownership may involve many stakeholders, such as developers, data providers, users of AI systems, etc. This complex legal relationship not only increases the risk of copyright disputes, but also hinders the further application of AI technology in the film industry.

3.4 The lack of humanistic care and emotional alienation of audience

The wide application of AI technology in film production will also lead to the lack of humanistic care and the emotional alienation of audience. As an art form, the core of film lies in touching the audience's heart through stories, characters and emotions. If AI technology is overused in film production, it will weaken the humanistic care and emotional expression of the film. For example, scripts and characters generated by AI are lack of realism and depth, and it is difficult for the audience to resonate. Film is not only entertainment products but also the reflection and inheritance of social culture. If the film industry relies too much on AI technology, it will lose its attention to social reality and its critical spirit thus weakening its function as a social and cultural carrier. In addition, the widespread application of AI technology may also lead to emotional alienation between the audience and the film. If the audience accepts watching movies generated by AI, they will gradually lose the ability to perceive the true feelings and the depth of humanity, thus creating a sense of distance from the movies[2].

4. The Balance Strategy between Technological Innovation and Humanistic Care in the Film Industry

4.1 The reinforcement of the position of humanistic care in film creation

Humanistic care is the soul of film art, and it is also the key to touching the hearts of the audience. With the increasing popularity of AI technology, film creators should adhere to the bottom line of humanistic care as the core value of film creation. As an art form, the essence of film lies in expressing human nature. For example, director Zhangke Jia's works often pay attention to the living conditions of people at the bottom of society, and show the brilliance and darkness of human nature through delicate narration and real performances[3]. Under the context of the intelligent age, film creators should continue to dig deep into the theme of human nature, capture those neglected life segments with lenses, and let the audience feel the warmth and strength of human nature in the movies watching. The success of the film lies not only in the shock of the visual effect but also in whether it can arouse the emotional resonance of the audience. For example, the film Die for Survival reveals the living conditions of vulnerable groups through true stories and profound themes, which has aroused widespread concern and in-depth thinking in society. Film creators need to learn from such successful cases, pay attention to emotional transmission and resonance, and let the audience get spiritual comfort in the process of watching movies. In addition, the film is not only entertainment products but also carriers of cultural inheritance. With the help of AI technology, film creators need to explore and present historical and cultural elements more conveniently and enrich the cultural connotation of films. Under the context of the intelligent age, film creators should continue to dig deep into the theme of human nature, capture those neglected life segments with lenses, and let the audience feel the warmth and strength of human nature in the movies viewing. The success of the film lies not only in the shock of the visual effect, but also in whether it can arouse the emotional resonance of the audience. For example, the American director sean penn's Dawn of the Owl chose the gangster theme with social significance, and showed the humanistic care with the help of real and direct narrative. This kind of deep excavation and true presentation of human nature makes his works both entertaining and of profound thinking value. Film creators need to learn from such successful cases, pay attention to emotional transmission and resonance, and let the audience get spiritual comfort in the process of watching movie[4]. In addition,

the film is not only entertainment products, but also carriers of cultural inheritance. With the aid of AI technology, film creators need to explore and present historical and cultural elements more conveniently and enrich the cultural connotation of films.

4.2 The improvement of the transparency and controllability of AI technology

AI technology has been widely used in the film industry but its transparency and controllability have become an important factor restricting its development. In order to ensure the status of humanistic care in film creation, it is necessary to improve the transparency and controllability of AI technology. The film industry needs to establish a set of perfect AI technical standards and specifications, clarify the application scope and limitations of AI technology in film production, specifically cover the data collection, processing and analysis of AI technology, and ensuring that the use of AI technology meets the requirements of laws, regulations and ethics[5]. At the same time, the supervision and evaluation mechanism of AI technology should be established, and the application of AI technology should be reviewed and evaluated regularly. Through supervision and evaluation, possible problems in the use of AI technology can be found and corrected in time to ensure that it will not have a negative impact on humanistic care. In addition, it is necessary to actively promote the transparency of AI technology so that creators and audiences can understand the working principle and decision-making process of AI technology more clearly. At the same time, we will strengthen the interpretation of AI technology so that creators can better master the skills of using AI technology and avoid technology abuse and misuse.

4.3 The cultivation of interdisciplinary talents

The balance between technological innovation and humanistic care in the film industry can not be separated from the cultivation of interdisciplinary talents. Creators with multidisciplinary knowledge and skills can flexibly use AI technology in film creation while maintaining a deep insight into humanistic concern. The film industry can establish a close cooperation with related disciplines and jointly build an interdisciplinary education system. Through curriculum setting and practical teaching, we will cultivate compound talents with multi-disciplinary knowledge such as film production, computer science and psychology. International exchange and cooperation is an important way to train interdisciplinary talents. We can actively participate in international film festivals, seminars and other activities, exchange experience and technology with foreign counterparts, and introduce advanced educational ideas and teaching methods. At the same time, encourage domestic creators to go abroad and participate in international film production projects, broaden their horizons and improve their creative level. The film industry needs to provide a relaxed creative environment and sufficient resources for creators, and encourage them to innovate and experiment in film production. For example, by setting up special funds and holding creative competitions, the enthusiasm and creativity of creators are stimulated, and the deep integration of AI technology innovation and humanistic care in the film industry is promoted.

4.4 The establishment of ethical review and social responsibility mechanism

In the film industry, ethical review and the establishment of social responsibility mechanisms are important guarantee to ensure the implementation of humanistic care. The film industry needs to set up a special technical ethics review agency to review the technical ethics content in film works. Through the review, we can ensure that the film works meet the mainstream social values and ethical requirements, and avoid bringing adverse effects on the audience. Film creators should enhance their sense of social responsibility and put humanistic care through the whole process of film creation. While pursuing commercial interests, we should pay attention to the promotion of social benefits, convey positive energy through film works, and guide the audience to establish correct values and outlook on life. At the same time, actively promote industry self-discipline, establish industry norms and standards, and strengthen the supervision and guidance of creators and production agencies. Through industry self-discipline, the moral level and creative quality of the entire film industry can be improved, and more high-quality film works can be provided for the audience.

5. Conclusion

In the wave of artificial intelligence technology, the movie industry is experiencing unprecedented

changes and challenges. The balance between technological innovation and humanistic care is not only the core proposition of the sustainable development of film art, but also an important yardstick to measure the civilization and progress of film industry. This paper analyzes the application status of artificial intelligence technology in the film industry and the ethical challenges, and puts forward some strategies such as strengthening humanistic care, improving the transparency and controllability of artificial intelligence technology, cultivating interdisciplinary talents, and establishing ethical review and social responsibility mechanisms. However, the balance can not be achieved overnight, and it needs the joint efforts and continuous exploration of film creators, practitioners, audiences and even the whole society. In the future film industry, we look forward to see more excellent works that combine humanistic care with scientific and technological innovation, which can not only meet the aesthetic needs of the audience, but also lead the positive development of social culture and make the film art shine more brightly in the intelligent era.

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