

# *Digital Media Art and Film and Television Culture and Creative Industry Combine the Development and Inheritance of Monkey Pictographic Culture and Art*

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**Abstract:** Monkey pictographic culture and art development as the research object, through the concrete analysis the monkey image in film and TV culture industry evolution to analyze the development of digital media art and the relationship and mutual influence, film and television culture creative industry and then further explore the development of digital media art in film and television culture creative industry in value, finally discussed under the influence of digital media art, film and television culture creative industry's development path. This paper adopts the method of case analysis to take the Monkey King as the main line, and the research object includes all the Monkey King images on the "screen", including the cartoon and the live-action movie. From a broader perspective, I try to find the common elements of characters on the screen in each era, classify them and summarize them, classify them from the historical background, and try to find their general principles. According to imedia's strawberry pie data survey and computer system survey, 34.1% of the Internet users said that they like such domestic animation movies very much and see the hope of domestic animation in them. 27.5 percent of Internet users think there is still room for such films and TV programs to improve and expect domestic animation to become better. 15.7 percent of netizens believe that even with the application of digital media technology, the plot of such film and television art works is still relatively thin and the picture production needs to be strengthened. Although the film and television cultural and creative industry has achieved rapid development with the help of digital media art, its industry foundation is still relatively weak, starting late, and the overall production level still lags behind that of foreign enterprises. However, it is precisely because of these deficiencies that the digital media art and film and television culture creative industry have a huge development space.

## 1. Introduction

As an emerging combination of art and art, digital media art has become a new situation of contemporary art development and a new trend of future art design and art forms [1]. The cultural and creative industry, which is closely combined with digital media art, has more abundant knowledge and can integrate information technology, Internet of things technology and big data technology organically, so as to create more advanced cultural and creative products [2]. The evolution and development of monkey image in the film and television cultural industry can precisely illustrate the promotion role of digital media art in the film and television cultural and creative industry [3]. With our image of monkey, the Monkey King image, for example, Sun Wukong image in the film and television play with the different periods, different stages of interpretation and showed great difference, especially in the modern traditional aesthetic, postmodern culture field of vision the Monkey King show that the variability of subversion, this not only let us see the image of Sun Wukong deduce the aesthetic possibility because of different levels, more can capture the different periods of cultural information and the social values change traces [4-5].

At present, there are few literatures on the research of the concentration of Sun Wukong film image and digital media art in China. The research direction of Sun Wukong phenomenon is mainly focused on the literature field, such as li angang's "on the image culture of Sun Wukong" and li xiuhua's "the evolution of Sun Wukong image in the continuation of the late Ming and early qing dynasties" [6]. On the other hand, the research on the film image of Sun Wukong is relatively unitary [7]. Only in the animation, film or television and other aspects of the study of the wukong image. In terms of animation, liu zhiming's research on the shaping and development of the Monkey King cartoon image, lai shuchun's changes of the Monkey King cartoon image in China and Japan, and zhao wei's changes of the Monkey King cartoon image in China mainly discussed the changes of the Monkey King cartoon image [8]. When studying the changes of the image of Sun Wukong, most of the literatures focus on the discussion of the cultural direction of the image of Sun Wukong, such as the multi-layered cultural interpretation of the image of Sun Wukong by shi Lin and the spirit of The Times and cultural implications of the image of Sun Wukong by zhou xianshen [9]. When studying the changes of aesthetics and the image of Sun Wukong, most of them focus on the interpretation of single film and television works, such as zhou zhu's reconstruction and innovation of the traditional era with the return of Monkey King and shi zhongyang's aesthetic interpretation of Sun Wukong havoc in heaven [10-11].

The paper has a clear logic, and the biggest innovation lies in the innovation of topic selection and research content. In the topic selection, this paper takes the development and inheritance of Sun Wukong film and television image as the research object, and further studies the relationship between digital media art and film and television culture and creative industry. The combination of theory and practice is adopted in the research methods. In this paper, the film and television image of Sun Wukong is divided into four stages, from "god" to "emotion" to "human" and then to "monkey", and the film and television image of Sun Wukong is linked with digital media art to find out the reasons for its change and the relationship and influence between each other.

## 2. Method

### 2.1. Core Concepts

#### (1) Concept of digital media art

Digital media art can be divided into narrow sense and broad sense. In the narrow sense, it mainly refers to taking the Internet and digital technology as the basis, presenting a new perspective

in the dissemination, bearing and creation of artistic content, and producing changes in artistic thinking, experience and aesthetics[12-13].

The artistic form of leather. In a broad sense, it mainly refers to all forms of artistic expression with digital media as the carrier. Digital media art is a kind of digital art, such as web pages, digital animations and movies that we often come into contact with in our daily life. The forms and contents of digital media art are also rich and varied, mainly including online games, digital animation, digital TV, digital movies, online music, online painting and Internet art[14-15]. Therefore, it can be said that digital media art is the design industry with the closest relationship between art and science and technology in the current era, which occupies a large proportion in the current film and television design. Digital media art can get rid of the narrow two-dimensional expression form and carry on the three-dimensional multi-level expression form. Nowadays, digital media technology has penetrated into our lives. It can show the characteristics of technological life through advanced technological means and embody the visual art under multiple technological conditions. In recent years, digital media technology has gradually matured and expanded into various fields of social life. The difference between digital media art and other forms of art is that in art design, a large number of modern advanced science and technology should be combined to carry out post-rendering work, improve the investment in film and television animation design, and integrate the images to achieve good animation continuous effect. Try to compress the unnecessary steps, change the mistakes in the previous manual drawing, and perfect the animation design with the new scientific and technological means. Digital media art has the following characteristics: first, it is mainly based on the Internet and digital technology, through the equal sharing of digital technology, synchronous interaction, multimedia integration and other artistic creation; Second, media art is more creative in its transmission, bearing and creation, conveying a variety of emotions, thoughts and information to people.

#### (2) Cultural and creative industries

Cultural and creative industry is an emerging industry with creativity as the core under the background of economic globalization, which emphasizes that the main culture or cultural factors rely on individuals (teams) to develop and market intellectual property through technology, creativity and industrialization. The cultural and creative industries mainly include creative groups in radio, film, animation, audio and video, media, visual arts, performing arts, craft and design, sculpture, environmental art, advertising and decoration, clothing design, software and computer services. In recent years, China has witnessed a booming cultural and art market and increased construction of public exhibition venues (such as the national center for the performing arts and the 798 art zone). In addition to seeking a way out with the advantages of the existing manufacturing industry, China has also begun to attach importance to the development of cultural and creative industries.

## 2.2. Application Characteristics

#### (1) Digital media art is widely used

Initially, the digital media art in the application of film and television animation is only a single animation scene, eventually evolved into animation and are mixed in some scenarios, to later, become can deduce real-life scenarios, we see not hard, scope of the application in digital media art, film and television animation is becoming more and more widely. In today's film and television animation works, the application rate of digital media art is almost 100%, that is to say, almost every modern film and television animation works are inseparable from the application of digital media art.

#### (2) Digital media art produces obvious effects

Application of digital media art in the film and television animation, not only makes the character, scene a lot more obvious vivid detail, expression and the expression of behavior is more delicate and accurate, and even some macro scenes, also got good rendering, so full of the whole works, so that the audience at the time of watching, it becomes more comfortable and investment.

(3) Throughout the entire film and television animation works

Digital media art in the application of film and television animation can say from beginning to end, from the early stage of the film and television animation plot ideas, thinking about the design scenario requires application of digital media art which characters are shown, by the middle of film and television animation production, for some characters, character expression, performance, and deductive way with digital media art to combine, then to the screening of the late film and television works, you need to use the tool can show the digital media art equipment, such as 3 d eyes, digital media art throughout the film and television animation production.

### 2.3. Research Methods

First, case analysis. The image of Sun Wukong in different film and television works is analyzed as an example. Second, comparative analysis. This paper compares the image of Sun Wukong in different stages and finds the differences, and analyzes the relationship between film and television creative industry and digital media art in different stages. Third, the investigation analysis method. Conduct data survey and analysis on the website and summarize some comments on the website as well as include the box office in the data survey. Fourth, work research. In-depth study in accordance with the order of the time line wukong image in the works of various periods of different animation characteristic, the longitudinal comparison, seize the difference, from the form, language, color, story, idea characteristics, cultural implications, the relationship between the creator and role, character, national character of subconscious comparison research, find out the driving force behind the image change and thoughts of history, and culture connotation, and further to show "with" "vision", the uniqueness of the animation image of Sun Wukong has a clear understanding. Fifth, literature reading. See references. Through a large number of literature collection and reading, the research development status in this field is learned, and the research is generally classified, to find out from which aspects of the existing research, what conclusions have been drawn, using its conclusions to focus on the animation image of Sun Wukong, and then find out their own research direction. Sixth, interdisciplinary research. In literature creation, film and television works adaptation to find the difference and combination of the two points, overall attention to film and animation and the artistic characteristics of the text, the combination of the three "collision" out of the new artistic characteristics and aesthetic characteristics to grasp.

After decades of continuous adaptation and re-creation of journey to the west, a number of refreshing works have been produced. These works and their interpretation have become a part of national memory with the development of history, and many in-depth research works have been produced accordingly. However, in the field of animation, there are few relevant researches. On the one hand, the artistic genre of animation came into being relatively late, and its development is not on the right track in China. Moreover, after the decline of animation art in the 1980s and 1990s, there are few excellent works in China. Researchers on the other hand for most studies of these Chinese cartoon stay on the surface of the aesthetic of "Chinese wind", "wash cartoon", "elements of traditional opera" and so on, the analysis of the use of Chinese traditional culture is the animation image of Sun Wukong, fully affirmed the animation creation with Chinese characteristics, the creation of painting techniques, performance programs in animation and heritage, did not delve into its animation image in the decades of development in the representation of "Chinese elements" behind the cultural connotation of Chinese animation, what kind of changes have taken place in the

national spirit, also did not delve into the Monkey King outside, in the form of animation image has become a classic. The animation of China starts relatively late, and no industrial reform in proper development period, a variety of reasons causing Chinese animation since "Chinese school" no peak and the return of the risk 'of 2015 can be seen as a "state" is gradually rise landmark event, this thesis will take the risk to the return of the film as a representative to the comprehensive system research.

### 3. Experiment

#### 3.1. Sources of Experimental Data

In this study, films and television works in the past 30 years were randomly selected for investigation and research. The monkey images in these films and television works in different stages presented different artistic effects due to the different development and application degree of digital media art. The selection of these research objects is mainly based on the factors of development level, the combination of technology application, the application of information technology, the economic factors and the development status in different years. Meanwhile, the relevant scholars and a large number of audiences are surveyed by questionnaires. The comprehensive consideration of these factors is conducive to the representativeness and typicality of experimental data.

#### 3.2. Experimental Content

This article lists the representative films and television works related to the Monkey King in chinese-speaking regions from 1995 to 2017. It can be seen that most of the film and television works have retained the basic image of Sun Wukong, who is free in personality, dares to resist, never gives up, and is optimistic and kind. Such as 1999 CCTV produced the cartoon "journey to the west"; The sequel to the classic "journey to the west" was supplemented by the original 86 in 2000. On the basis of keeping the original image of Sun Wukong, some works have their own emphases and considerations. For example, Chen haomin played the Monkey King in 1998 and zhang weijian played the Monkey King in 2002. In 1999, "journey to the west", Sun Wukong was greatly exaggerated with his heroism halo, and The Three Kingdoms collapsed in the critical moment still need to be saved from the fire and water. Of course, some works deconstruct and subvert the image of Sun Wukong. For example, a romantic comedy co-produced by chow xingchi color star film company and xi 'an film studio in 1995. The supreme treasure played by Stephen chow in the film is the previous life of the Monkey King, compared with the previous film and television images of the Monkey King. Stephen chow's version of the Monkey King is not to learn from the scriptures, is just a joke one heart longing for true love of the mountain thief. After all the trials and tribulations of finding true love, losing loved ones, and never being able to control one's own destiny. Give up the dust, the road to learn. In 2005, the same way to take the subversive line of "love madness" and "dahua xiyou" in the same vein but the evaluation of two poles. Overturning and ignoring the spirit of Sun Wukong is difficult to strike a chord with the audience. The same goes for 2008's time-travel drama the forbidden kingdom. The Monkey King in the film is just a mold, the core and the original conveyed deep spiritual connotation is far from. Any superhero can replace the Monkey King in this movie. Stephen chow returns with his director's "journey to the west to conquer the demons." the Monkey King in "journey to the west to conquer the demons" is transformed from the "Monkey King of heaven" to the "king of demon Kings." the director portrays the Monkey King as a small, ugly, evil demon. After nearly 20 years, the anti-system "hero" in the director's mind has become "demon king". In 2015, the hero of nirvana, the Monkey King: the

return of the Monkey King: the journey to the west, has exceeded 700 million yuan at the box office in 20 days. The Monkey King, with his flesh and blood and human nature, is not so much the subversion of the image of Sun Wukong as the improvement of the "invincible" tall and full-size image in the new era. The local animated film Monkey King: hero is back, which not only inherits and innovates, but also promotes positive social energy, has won both box office and public praise.

### 3.3. Experimental Implementation

First of all, the development of digital media art in different ages was understood, and the changes and development of monkey images in different stages of development were summarized. Through the digital modeling and analysis of relevant situations, the paper scientifically summarizes the changes and influences of the film and television cultural and creative industry under the application of digital media art. Analyze the relationship between the two, and actively explore the new way of mutual coordination and promotion between the two. When choosing the dependent variable, with reference to most of the scholars in the monkey's image in the film and TV culture industry cultural evolution is analyzed when the selection of variables, the application of digital media art can comprehensively reflect the film and television creative cultural industry technology level, management level and the comprehensive competition strength, so is the important key indicators of the film and television culture creative industry competitiveness.

## 4. Discuss

### 4.1. Monkey Image Theme in Related Movies and TV Plays

For the performance of the Monkey King in movies and TV dramas, both the ethos of The Times and the right of discourse have had a very important and obvious influence. In the 1980s, China's reform and opening up had just begun, and the ideology and culture of this period were still relatively conservative. Films and TV plays related to journey to the west showed respect for the original works, and the image building of Sun Wukong could be said to be moderate, and the mainstream aesthetic elements were added. The relevant films and TV plays of this period are shown in table 1 below.

*Table 1. Relevant film and television works of the Monkey King in the 1980s*

Time	Title of the Work	Type of the Work	Director
1982-1986	Journey to the West	TV Play	Yang Jie
1983	The Fake vs Real Monkey King	Beijing Opera movies	Fang Ying
1983	The Monkey King Causes Trouble in the Bottomless Pit	Beijing Opera movies	Li Zexiang
1983	The Mountain of Flames	Beijing Opera movies	/

In this stage, one of the special types of films and TV plays with the theme of journey to the west is opera films. In the 1980s, Beijing Opera films flourished, and the 1983 works such as flaming mountain, true and false Monkey King, and the Monkey King making a bottomless pit were popular with the audiences at that time. Beijing Opera is the quintessence of China, also is the outstanding representative of Chinese traditional culture, while in the fast pace of modern life style, exaggerated shows in Beijing Opera, and the plot of a slow drive has not adapt to the aesthetic of contemporary

young people, but in the 1980 s or the aesthetic direction of the mainstream, to Peking Opera performances and onto the screen in the novel pilgrimage to the west is also The Times require. In response to the call of saving and remembering the traditional culture, the relevant dramas and films became popular. Even in the classic Yang jie TV series, journey to the west, we can see the actors' strong opera skills, including some of the fighting scenes.

Postmodernism deconstruction of Sun Wukong image, in the 1990 s during this period, ideology and culture influence each other countries in the world, and China's film and television play policy gradually open background, the adaptation of "journey to the west" theme of the film and television works in the story and characters appear a lot of disruptive adaptation, even "ray". In addition, there are many works that follow the names of characters and reasons for learning from the west, but the stories and characters are completely different from the original works. The relevant films and TV plays of this period are shown in table 2 below.

*Table 2. List of relevant film and television works of the image of Sun Wukong in the 1990s*

Time	Title of the Work	Type of the Work	Director
1991	Go West to Subdue Demons	Movie	Zhang Che
1994-1995	A Chinese Odyssey Part Two	Movie	Liu Zhenwei
1998-1999	Journey to the West Part Two	TV Play	Liu Shiyu

In the late 1980 s the content industry is an important turning point, before China's "journey to the west" the related works are close to the traditional aesthetic, when shooting, reduction the book as the highest principle to follow the original, but in the 90 s was different, "journey to the west" related to the film and television works show more and more entertainment and commercial breath, a lot of emotional entanglement, shocking plot design and modern lines are disruptive adaptation of the original, one of the features of wulitou "a Chinese Odyssey" opened one of the most, "Stephen chow's portrayal of the king's treasure, the Monkey King, has undergone tremendous changes in character design and personality, which is also a product of the changing values and aesthetics of The Times." Another example is the 1991 film "the demon of peace in the west" by director chang che, in which the Monkey King is bare-chested and wears a mandarin jacket

With two pieces of monkey hair glued to the edge of his cheek, the shape has been compared to shocking. In addition, when fighting with nezha, Sun Wukong also abandoned the golden stick and used the sword.

Journey to the west is a classic work with the theme of gods and demons, which contains huge imagination space. However, if a film or television work wants to realize infinite space imagination through intuitive scene expression, it needs strong technical support. When reading journey to the west, the kaleidoscope of action in it is naturally exciting, but for the creation of films and TV dramas, it is not only the highlight of attracting the audience, but also a huge challenge during filming. Such as Yang jie's version of "journey to the west" by CCTV series, will be taken when use the more advanced technology at the time, the Monkey King in the play up the lens by jumping on the trampoline images to express, and flying means have been used to the gateway, on the surface, floor, computer generated images are used to synthesis. Now, with the continuous development and progress of science and technology, new shooting methods and synthesis technology are also advancing by leaps and bounds. For example, the Chinese version of zhang ji's journey to the west is known as the "magic" version, which adds a large number of elements such as fantasy, martial arts, magic, science fiction, and thriller, etc., and makes extensive use of computer special effects in

post-production, which is also one of its biggest publicity points and selling points. In addition, with the continuous improvement of 3D technology, 3D movies and TV series on the theme of journey to the west are emerging, such as the 3D TV series *wu cheng 'en* and *journey to the west* and the 3D movie *havoc in heaven*. The relevant films and TV plays of this period are shown in table 3 below.

*Table 3. Relevant film and television works of Sun Wukong since 2000*

Time	Title of the Work	Type of the Work Type of the Work	Director
2000	<i>Journey to the West to Continue</i>	TV Play	Yang Jie
2000	<i>A journey to the west</i>	TV Play	Li Yuan
2001	<i>The Sunny Pig</i>	TV Play	Fan Xiaotian
2002	<i>Sun Wukong, the Great Sage Equaling Heaven</i>	TV Play	Feng Boyuan, Huang Weiming
2004	<i>Lucky Star According to Pig Eight Quit</i>	TV Play	Meng Ji, Wang Yong
2005	<i>Jubilant Pig Eight Quit</i>	TV Play	Li Kai, Qin Chao, Cai Fengtian
2007-2011	<i>Wu cheng 'en and Journey toThe West</i>	3DTV Play	Kan Weiping
2005	<i>A Chinese Tall Story</i>	Movie	Liu Zhenwei
2011-2012	<i>A Chinese Odyssey to the West</i>	Movie	Zhou Xingchi, Guo Zijian
2008-2010	<i>Journey to the West (Zhejiang Edition)</i>	TV Play	Cheng Lidong
2009-2011	<i>Journey to the West</i>	TV Play	Zhang Jizhong
2012	<i>The Monkey King</i>	3D Movie	Zheng Baorui
2013	<i>The West Fell Monsters</i>	Movie	/
2014	<i>The Monkey King</i>	Movie	/
2017	<i>Journey to the West: The Demons Strike Back</i>	Movie	/

Throughout this phase of journey to the related work of visual style, with the progress of the technology to create different visual effect is one of the important reasons, constantly remake and content style to a certain extent, the continuation of the postmodern ideas of the 1990 s, the character image of Sun Wukong further reshaping and mining, such as "in addition to the magic of a Chinese Odyssey" is focusing on the Monkey King monkey, beast, to shape it into an unruly, cunning, killing, such as the image is like the Lord god. However, compared with the parody and wulitou style in the 1990s, works in the 21st century began to return to reason, which has something to do with the return of reason in economic development and the trend of rationality in the overall cultural thought of the society. With the improvement of digital technology since the 21st century, "journey to the west" has been favored for its fantasy theme, so many related works have been born, among which the Chinese TV series "journey to the west" by zhang ji is the most prominent. At the beginning of the shooting, the play is based on the magic style and aims to present the spiritual connotation of the theme of journey to the west with high-tech techniques. Although the final work is far from the original theme, it does create a visual feast with the support of technology.

#### 4.2. Aesthetic Entertainment under the Wide Spread of Mass Media

In the 1990s, the communication form of mass media was mainly newspaper, television and radio. However, with the progress and development of science and technology, the communication mode has been changing constantly, and the number of TV, mobile phone users and Internet users in

China has reached the first place in the world. The mass media is spreading faster and faster, spreading more and more widely, and its influence is also increasing. Specific variables are defined as shown in figure 1 and figure 2.

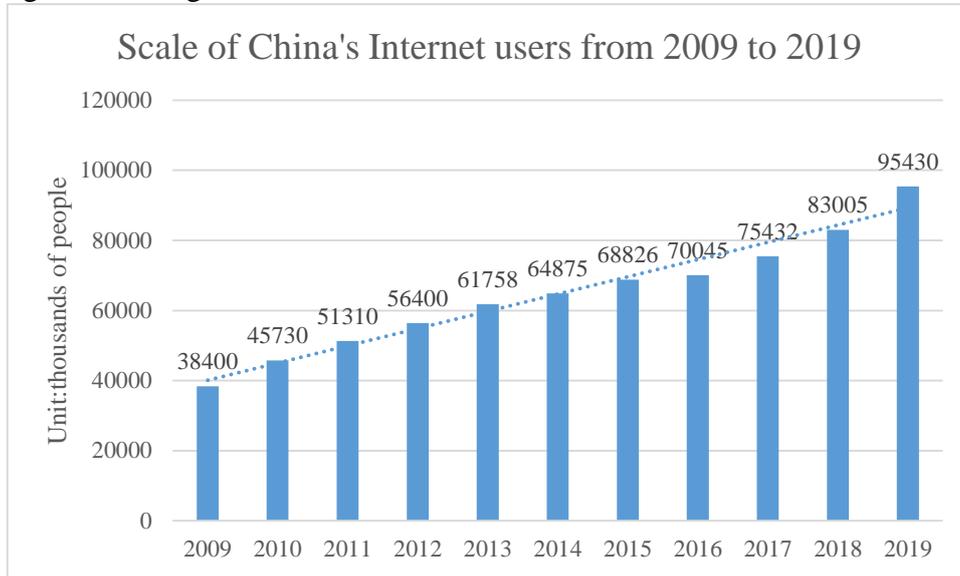


Figure 1. Scale of Chinese netizens from 2009 to 2019

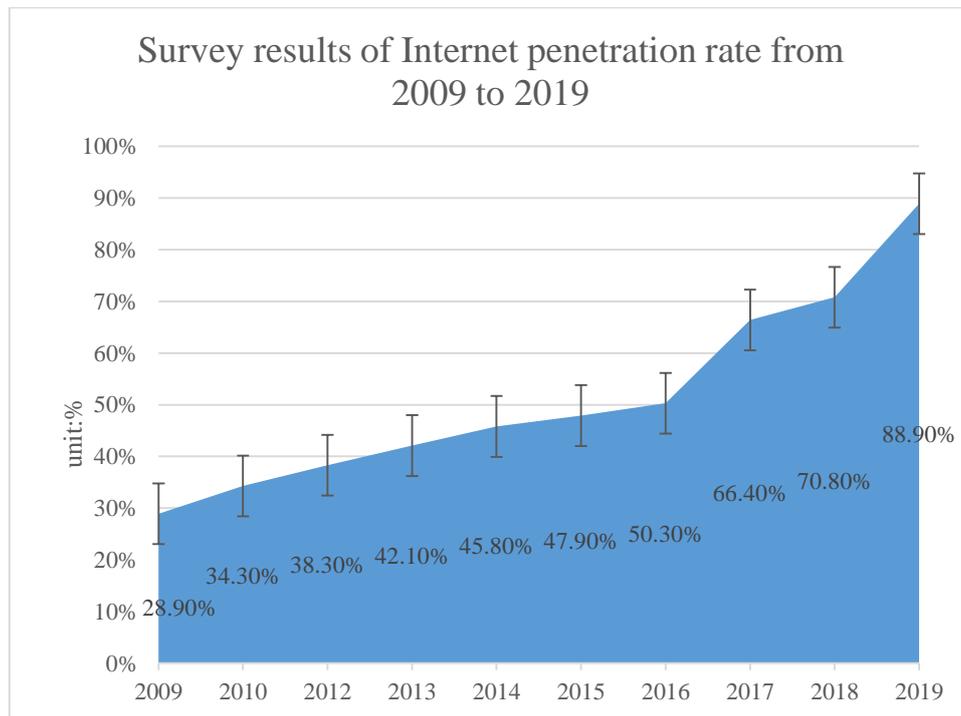


Figure 2. Internet penetration rate from 2009 to 2019

Internet technology can transcend the limitation of time and space to the greatest extent, and bring together information from all over the world, increasingly highlighting the powerful function of transmission, communication and sharing. The mass media dissemination of increasing greatly improved the people's aesthetic information, mass psychology from the pursuit of a single social noble aesthetic switched to a more meaningful entertainment aesthetic personality, the development

for the evolution of the monkey's image as a good matting, digital media art in this direction also continue to explore. The image of the Monkey King in the popular media has also undergone a great change. The Monkey King movie and television image is seeking a way to survive in the mezzanine of mass media.

#### 4.3. Related Heat and Evaluation of Film and Television Industry under Digital Media Art

Taking the Monkey King series of animation films in 2015 as an example, this paper analyzes the development status and situation of film and television industry under the application of digital media art. The hot trend of Monkey King: hero is back is shown in figure 3.

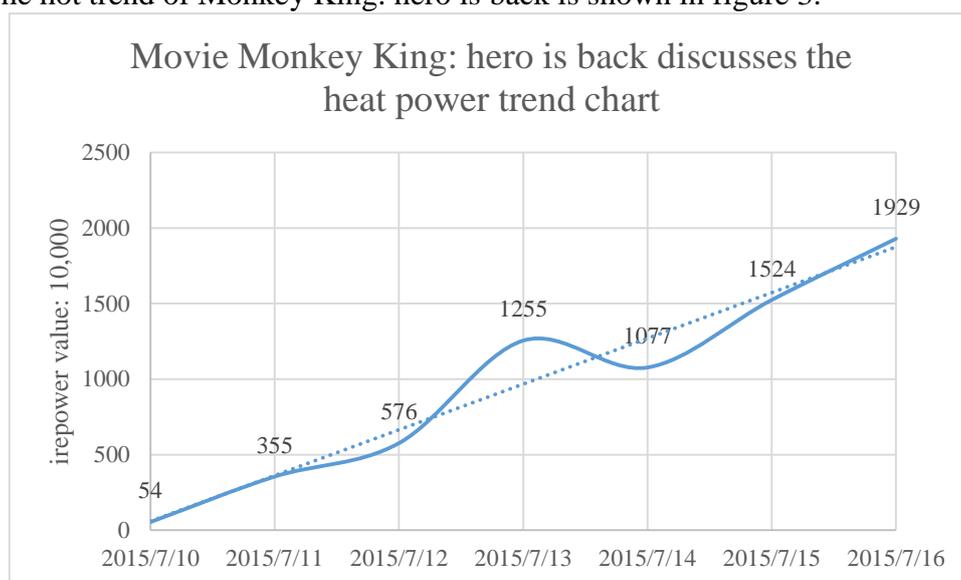


Figure 3. Hot trend chart of the movie Monkey King: hero is back

As the form of animation film, in addition to attract people in terms of plot, in the relevant technical improvement and mature is the key to the success of this film, according to the ai media business public opinion monitoring system, according to data released on July 10, 2015, shortly after repeatedly weibo hot search netizen continuous attention, heat rising steadily, the public opinion as a whole at a high level of heat, showed that Internet users for the return of another relatively strong positive emotions.

Shortly after the release of Monkey King: hero is back, it attracted the attention of media platforms and netizens. According to the data survey and computer system survey conducted by imedia strawberry pie, 34.1% of netizens said they liked the domestic animation film very much and saw the hope of domestic animation in it. 27.5 percent of netizens think that Monkey King is back still has room for improvement and expect domestic animation to become better. "Monkey King: hero is back" has a good theme, according to 15.7 percent of netizens, but the plot is relatively thin and the picture production needs to be strengthened. The details are shown in figure 4.

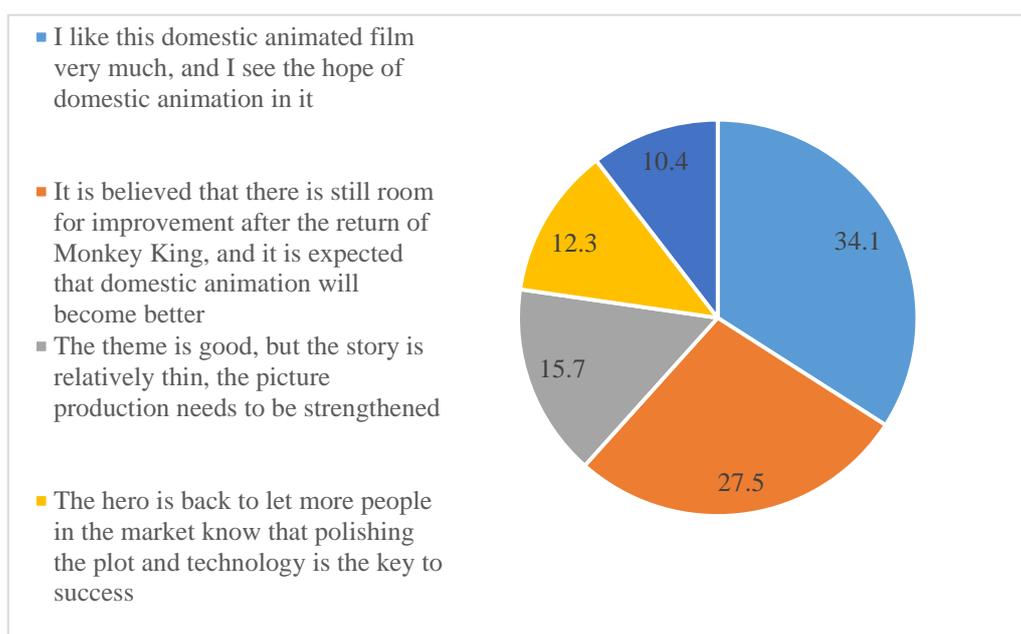


Figure 4. The distribution map of netizens' attitudes towards *Monkey King: hero is back*

## 5. Conclusion

Through the analysis of the inheritance and development of monkey pictographic culture art for nuclear research, it is not hard to see, in the soul of the film and television works, a group of actors acting is important, but people no longer content with plain and dull movie scenes, no matter what type of work, all you need to add a certain amount of digital processing, to make more full and true picture. In the current film and television works, digital media technology has been integrated, and pioneering creation of many unprecedented shooting pictures and clean narrative way, for the future creation of a new world. Each link of film and television creation is closely connected with digital media, and continuously integrates and penetrates. However, digital media art is not only the product of technological development. It is not only able to bring shocking scenes and create some virtual characters in films, but also able to integrate with the theme of works of the film and television creative industry. In the process of shooting and production, the two can be better sublimated while relying on each other and existing, so that the film and television works can bring more unusual feelings to the audience, appreciate the charm of digitalization, and better spread the humanistic care and concept of the film and television works.

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## Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## Conflict of Interest

The author states that this article has no conflict of interest.

## References

- [1] Praet, S.(2018). “Se Lieie La Favola”: Apuleian Play in Basile’s *Lo Cunto De Li Cunti*”, *Int Class Trad*, 25(12),pp.315–332. <https://doi.org/10.1007/s12138-017-0454-6>
- [2] Peukert, C.(2019). “The Next Wave of Digital Technological Change and the Cultural Industries”, *J Cult Econ*, 43(11),pp.189–210. <https://doi.org/10.1007/s10824-018-9336-2>
- [3] Last, C.(2017). “Big Historical Foundations for Deep Future Speculations: Cosmic Evolution, Atechnogenesis, and Technocultural Civilization”, *Found Sci*, 22(9),pp.39–124. <https://doi.org/10.1007/s10699-015-9434-y>
- [4] Jang, Y., Ko, Y.(2017). “Sources of Scientific Creativity: Participant Observation of a Public Research Institute in Korea”, *Open Innov*, 3(1),pp.1. <https://doi.org/10.1186/s40852-017-0052-5>
- [5] Borgerding, L.A.(2017). “High School Biology Evolution Learning Experiences in a Rural Context: A Case of and for Cultural Border Crossing”, *Cult Stud of Sci Educ*, 12(12),pp.53–79. <https://doi.org/10.1007/s11422-016-9758-0>
- [6] Winschiers-Theophilus, H., Zaman, T. & Stanley, C.(2019). “A Classification of Cultural Engagements in Community Technology Design: Introducing a Transcultural Approach”, *AI & Soc*, 34(6),pp.419–435. <https://doi.org/10.1007/s00146-017-0739-y>
- [7] Fan, L., Xiong, B., Zhao, D.(2018). “How is Cultural Influence Manifested in the Formation of Mathematics Textbooks? A Comparative Case Study of Resource Book Series between Shanghai and England”, *ZDM Mathematics Education*, 50(7),pp.787–799. <https://doi.org/10.1007/s11858-018-0976-7>
- [8] Almquist, S.M.(2019). “From the Streets to the Ivory Tower: Kiswahili in African-American Cultural Discourse”, *J Afr Am St*, 23(3),pp.92–110. <https://doi.org/10.1007/s12111-019-09428-8>
- [9] Zhang, J., Liu, J.(2018). “Is Abusive Supervision an Absolute Devil? Literature Review and Research Agenda”, *Asia Pac J Manag*, 35(4),pp.719–744. <https://doi.org/10.1007/s10490-017-9551-y>
- [10] Kožnjak, B.(2017). “Kuhn Meets Maslow: The Psychology Behind Scientific Revolutions”, *J Gen Philos Sci*, 48(7),pp.257–287. <https://doi.org/10.1007/s10838-016-9352-x>
- [11] Yates, M., Hasmath, R.(2017). “When a Joke is More than a Joke: Humor as a Form of Networked Practice in the Chinese Cyber Public Sphere”, *Chin. Sociol*, 4(12),pp.17. <https://doi.org/10.1186/s40711-017-0067-0>
- [12] Hong, Jong Youl; Ko, Hoon; Kim, Jeong Hee, *Cultural Intelligence and ARCS Model for Digital Era, Proceedings Of The 9th International Conference On Web Intelligence, Mining And Semantics (WIMS 2019)*. <https://doi.org/10.1145/3326467.3326495>
- [13] Ko, Hoon; Marreiros, Goreti(2021)Smart media and application, *Concurrency And Computation-Practice & Experience*,33(2),e5491. <https://doi.org/10.1002/cpe.5491>
- [14] Chen, Y. T., Chen, C. H., Wu, S., & Lo, C. C. (2019) “A Two-Step Approach for Classifying Music Genre on the Strength of AHP Weighted Musical Features”, *Mathematics*, 7(1), pp. 19. Article ID 19, January 2019. <https://doi.org/10.3390/math7010019>
- [15] Tavera Romero, C.A.; Ortiz, J.H.; Khalaf, O.I.; R ós Prado, A. *Business Intelligence: Business Evolution after Industry 4.0. Sustainability* 2021, 13, 10026. <https://doi.org/10.3390/su131810026>