Research on Dynamics and Hot Spots of Film and Television Animation in the Past Ten Years
Citespace-Based Information Visualization

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Abstract. To further locate the dynamics and development direction of film and television animation creation and theoretical research, this paper, turning to the visualization analysis of CNKI (China National Knowledge Infrastructure) and CiteSpace, the number of documents published in authoritative journals as a whole was unstable, showing a wave-shaped development trend. That real hits of such studies were gathered in film and television animation, animation, animation films, animation works, animation industry, animation creation, etc., judging from 374 papers archived in the Chinese Social Science Citation Index Database and Peking University core periodicals and Theses and Dissertations from 2012 to 2022.

Keywords: film and television animation · citespace · visualization analysis

1 Introduction

Perception of Chinese film and television animation has undergone tremendous changes over the past ten years, as the hit work of "Nezha: Birth of the Demon Child" in 2019 set off a boom in domestic animation films. To comprehend its theory, creation dynamics and status quo in an accurate, clear and comprehensive manner, this paper systematically sorted out and underlined the existing situation and hot spots of Chinese film and television animation in the past ten years by sourcing literature on "film and television animation" included in CNKI and in virtue of visual analysis of CNKI and the information visualization map drawn by citespace.

2 Data Source and Research Method

In the search of key words "film and television animation" in the Chinese Social Science Citation Index Database papers in the CNKI database and the core periodicals of Peking University and Theses and Dissertations, 374 valid ones were found on November 30, 2022 when the time span was narrowed down from 2012 to November 2022, with a total of 1887 citations. Each covered basic information such as title, author, abstract, keywords, institution and source.

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This study, making use of the literature analysis and statistical analysis methods, as well as CNKI visual analysis and citespace, conducted visual analysis on the selected articles spanning from 2012 to November 2022, with 1 year of the time slice. That visually interpreted and compared the big data of Chinese film and television animation literature in terms of the number of publications, publication institutions, and keyword co-occurrence, and drew a knowledge map.

3 Research Overview

Visualization of 178 articles spanning from 2012 to November 2022 gleaned from the CNKI database clearly marked their distribution.

Relatively stable and many were journal articles released between 2012 and 2013, as shown in Fig. 1, which was bound up with the call in "National Animation Industry Development Plan during the Twelfth Five-Year Plan", of developing the "big animation country" into an "animation powerhouse" [1]. Year of 2014 reported sharp decline in the number of documents released, when domestic animation industry was at the corner of transformation, from focusing on quantity to improving quality. In the three years from 2014 to 2017, researches on the topic registered a gradual upward trend, during which many high-quality works emerged. In 2017, digital culture industry started to jostling for the attention of cultural producers as the significance of digital technology on cultural industry was clearly pointed out in the "Guiding Opinions of the Ministry of Culture on Promoting the Innovation and Development of the Digital Cultural Industry" and "Development Plan of the Cultural Industry during the "13th Five-Year Plan" Period of the Ministry of Culture [2]. Amid the "refined production and simplification" of film and television animation from 2017 to 2019, the number of related literature has decreased [3]. Then a surge was recorded between 2019 and 2021 as the box office revenue of "Nezha: Birth of the Demon Child" in 2019 exceeded 10 billion yuan. As of November 2022, the number in 2022 has decreased in comparison with that of 2021 [4, 5].

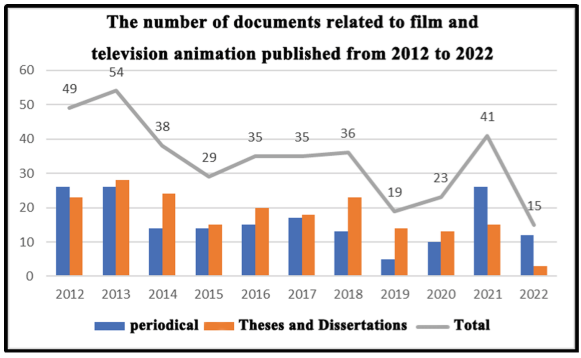

Fig. 1. Published Articles

4 Research Hotspots and Trends

The more keywords appeared and the higher the frequency was, indicating research hotspots in this field. In case the keywords was used as the analysis unit, and the time slice was set to 1 year, a total of 304 nodes and 447 connections were obtained.

Larger diameter in Fig. 2 equaled higher frequency of keywords. From the frequency and emergence of keywords, research hot spots were systematically summed up in Table 1. Frequently appeared words such as "film and television animation, animation, animation films, animation works, animation industry, animation creation, " in Table 1 and Fig. 2 marked research hot spots. With the deepening of the overall value connotation of domestic animation, "cultural elements, animation art" have turned into the focus of research in the past two years.

#Numbers represent keyword clustering. The smaller the clustering number was, the more keywords it contained. The top 10(#0–9) clusters in Fig. 2 referred to "film and television animation, animation, animation film, animation design, animation creation, audio-visual language, comic and animation industry, audience, spread" respectively.

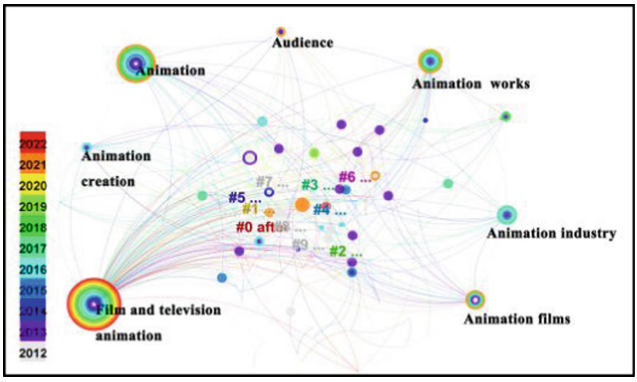

Fig. 2. Keyword Clustering Map

Table 1. High-frequency keywords

No.	Frequency	Keywords	Year of first occurrence
1	136	Film and television animation	2012
2	26	Animation	2012
3	17	Animation film	2012
4	14	Animation works	2013
5	13	Animation industry	2013
6	11	Animation creation	2013
7	7	Comic and Animation industry	2014
8	7	Animation scene	2012

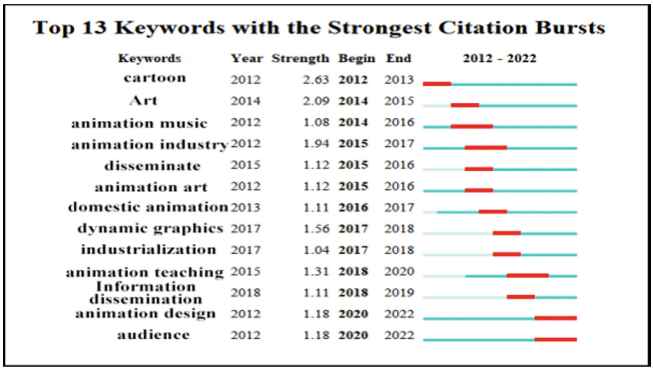

Fig. 3. Map of Bursting Words

Keywords such as film and television animation, animation design, and animation film came first, and were research hot spots before2012, when the research content revolved around film and television animation, animation design, animation film and animation modeling. In 2013, researches on animation works, animation creation and comedy were valued. Keywords such as teaching level and reform related to film and television animation production emerged in 2014, when film and television animation communication caught great attention. After 2020, the research content under the animation film, audio-visual language, comic and animation industry clusters decreased significantly. The clustering of film and television animation, animation, animation design, and animation creation has long been concerned by researchers in the field of film and television animation research in the past ten years.

In citespace, at the threshold of 0.4, the top 13 keywords were "animation, art, animation music, animation industry, communication, animation art, domestic animation, dynamic graphics, industrialization, animation teaching, information communication, animation design, audience".

Figure 3 coupled with this research spanned from 2012 to 2022, the term of animation appeared in or before 2012, and the enthusiasm quit the scene in 2013; The research of art, animation music, animation industry, disseminate and animation art was concentrated in 2014–2016. The excellent performance of 954 million yuan by "Monkey King: Hero is Back" in 2015 stimulated the development of the domestic animation film market. The top-notched production and IP, animation films such as "Big Fish & Chinese Flowering Crabapple", "Nezha: Birth of the Demon Child", and "White Snake" have attracted widespread attention both at home and abroad [6, 7]; from 2016 to 2017, domestic animation became a research hot spot; Dynamic graphics and industrialization became a research hot spot in 2017–2018; amid the development of the animation industry, animation teaching has become a new hot spot for researchers. From 2018 to 2020, information communication is also a research hot spot from 2018 to 2019; animation teaching made a research hot spot; affected by the pandemic, new media, short videos, metaverse and other content came into sight, throwing off the shackles of traditional media. Since 2020, animation design and audience have turned into emerging research hot spots [8].

5 Deficiency and Prospects

The number of documents published in authoritative journals as a whole was unstable, showing a wave-shaped development trend. Meanwhile, universities made the main research institutions. Less were research results of media institutions and animation production institutions, so were cooperative studies; besides, the research fields and themes were relatively narrow. In this regard, research hot spots centered on traditional film and television animation creation, and few were interdisciplinary research and innovation theories; amid the development of new media technology and the birth of metaverse, film and television animation is no longer limited to traditional means of communication, but a relatively mature theoretical system has not yet been formed.

In recent years, film and television animation has tried to explore new media platforms such as VR technology and metaverse, which has also attracted people's attention. For example, "The Dream Collector" in 2017 was online for 27 h and exceeded 1 million views; In 2021, the emergence of the digital virtual human Liu Yexi has attracted unprecedented attention. The theoretical research of film and television animation should pay more attention to the integration and application of emerging technologies and film and television animation on the basis of existing research [9, 10].

6 Conclusions

Collation and visualization research of high-level literature in the field of film and television animation in the past ten years clarified the development course of film and television animation, keyword co-occurrence and clustering. This research intends to provide a certain reference for the study of film and television animation.

References

1. Wang Zheyu. Market Analysis of Domestic Animation Films (2012-2021) [J]. Chinese Film Market, 2022(11): 33-40.
2. Zhang Juan. Research on Development of Domestic Animation Films Powered by Policies [J]. Contemporary Film, 2017(12): 185-188.
3. Tao Keyan, Zhu Ning. On the Accurate Positioning of the Audience of Contemporary Chinese Film and Television Animation [J]. Film Literature, 2022 (16): 97-101
4. Gong Tao. Research on the development of China's animation industry since the reform and opening up [D]. Hunan Normal University,2021.DOI:https://doi.org/10.27137/d.cnki.ghusu.2021.001720.
5. Ji Jun. The macro development of China's animation industry under policy power [J]. Young Reporter,2020(17):96-97.DOI:https://doi.org/10.15997/j.cnki.qnjz.2020.17.055.)
6. Qin Shimei. Analysis of the development of Japanese animation films in the past ten years[J].Media,2020(08):52–56.)
7. Ji Jun. Macro Development of China's Animation Industry driven by the Policy Support [J]. Young Journalists, 2020(17): 96-97. DOI: https://doi.org/10.15997/j.cnki.qnjz.2020.17.055.
8. Zhu Mingjie,LIU Yuge.2021 China animation industry development report [J].Film Theory Research(Chinese and English),2022,4(01):24–40.)
9. Rong Qian. Analysis on the development path of China's animation nationalization [J]. Cultural Industry,2022(24):56–58.)
10. Ma Yingyin Research on Chinese Animation Opera [D]. Nanjing Academy of Arts, 2021.

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