Research on the Development and Innovation of Animation Industry in Jilin Province in the Internet Big Data Era

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Abstract —China has entered the era of informatization of big data on the Internet. The Internet has subtly influenced people's study, work and life, and even influenced the process of social development. At present, China is moving from a big Internet user country to a strong Internet technology country. The development of the Internet industry has been scaled up, and its application field is gradually becoming multi-dimensional. Today's animation industry, as a new format for the development of cultural and creative industries, is facing business opportunities and challenges. Traditional communication methods have been unable to meet the development needs of the market, and animation companies have begun to turn to the field of new media networks. Europe, Japan and developed countries such as the animation industry development history tells us that the animation industry development not only is relying on the overall planning of the industrial chain, rational distribution, but also the full use of the Internet in big data, the development of new media technology to build a platform for the development, transformation and upgrading Industrial operation model.

1. INTRODUCTION

According to relevant data research, by the end of 2017, domestic Internet users reached 772 million, accounting for about 55% of the total population of the country. "China Mobile Internet Development Report (2018)" mentioned, 4G network construction in full swing, 5G middle phase of the trial began, 6G network began to develop. At present, China is the world's largest mobile Internet application country. As of the end of 2017, the mobile application market reached 786.5 billion yuan. With the rapid development of China's Internet industry, the field of Internet applications has become broader. Jilin Province in the animation industry in China started relatively early, but the center of gravity deviates from the direction of the development of the animation industry, a large part of the animation business for foreign animation companies to provide service-based animation technology and ignore the creativity of animation. The animation product design lacks originality and IP effect, and the market development also lacks innovation. These reasons make the overall development of the cultural industry including the animation industry lag. Due to its own economic characteristics, the animation industry must inevitably be integrated with the big data of the Internet. The Internet provides a strong customer resource for the animation industry. Compared with the audience generated by traditional media communication channels, the audience is wider and more. The distribution of animation works through the Internet is more convenient, and the positioning of animation works based on big data analysis will be more scientific and objective.
2. THE STATUS QUO OF THE DEVELOPMENT OF THE ANIMATION INDUSTRY IN JILIN PROVINCE IN THE ERA OF INTERNET BIG DATA

With the rapid development of the Internet, the animation industry in Jilin Province has also ushered in new development opportunities, showing a vigorous vitality, but also facing many problems and challenges.

2.1 The production positioning of animation content is getting younger, the originality is insufficient, and the development of animation IP is not enough

According to the relevant data of the "Internet Development Report of Jilin Province" released in November 2016, as of the end of 2015, the number of Internet users in Jilin Province exceeded 13.13 million, and the Internet penetration rate was 19 nationwide. According to the relevant data of the report, the age of Internet users in Jilin Province is younger, mainly concentrated between 19-35 years old, accounting for about 68% of the total. (As shown in Figure 1)

In fact, this part of netizens can also become the main audience of anime creative works Group, but Jilin anime content creation has been targeting a younger age, the existing fixed diffuse low audience age structure, the lack of content creation and innovation, original power is not enough. The Internet era is an era of creativity. The creative content of animation works determines the potential of animation IP development. The Internet platform gives domestic animation works opportunities and poses great challenges to animation companies. The public has learned more original animation works at home and abroad through the Internet platform. The increase in the number of animation works will naturally increase the range of choices for the public. The animation production content of the creative, lens pictures and other standards will be greatly improved. The animation industry in Jilin Province is relatively backward in IP development. Some animation works have appeared in recent years, but there is no good market promotion and follow-up animation development, and it has not formed its own animation IP effect.

2.2 Weak awareness of copyright protection in animation

The awareness of animation intellectual property rights in Jilin Province is relatively weak, and enterprises have encountered many problems in this regard during the development process. Piracy has caused great harm to the normal operation of the production and sales of animation to a large extent. Due to the characteristics of high spread and high replication of the Internet, and the lack of national...
regulations on the Internet, the copyright issue of animation images in the network information era has become a problem.

2.3 Lack of high-end animation talents
In the development of Jilin's animation industry, there is an urgent need for high-end talents, especially the lack of Internet animation marketing and planning talents. Most of the graduates are engaged in basic technical work, and rarely have access to high-end production links. However, in the early stage of investment in animation, animation production technology, content design creativity, animation promotion and distribution, and animation derivative operation development, the foreign animation industry is very systematic and scientifically divided, and it aims to train animation talents at different levels. "Internet+" has made a huge change in the animation industry pattern. How to be more competitive in the Internet age of the animation industry, in addition to the talents in the content creation of the animation itself, but also the senior talents in networked animation operations.

3. THE CORRESPONDING COUNTERMEASURES FOR THE DEVELOPMENT OF JILIN ANIMATION INDUSTRY IN THE ERA OF INTERNET BIG DATA
"Internet + traditional industries" model of development has become the development of innovative new driving force. Although the Internet has put forward new technical requirements for the animation industry during development, "the fusion of Internet big data and animation will be an inevitable development trend.

3.1 Layout of new Internet animation industry cluster development
First of all, making full use of the existing advantages of the animation industry park and cultural and creative industry park in Jilin Province, Jilin should focus on the development of big animation companies, while helping small and medium-sized animation companies to create more development space and opportunities and thus, actively promote cooperation between China and the country, which can achieve the cluster effect of the industry and the ability of the animation creation team to improve the overall competitiveness of the Jilin animation industry. Strengthen the Internet thinking and innovation awareness of the animation industry in Jilin Province, actively expand the Internet animation business field, develop from the source of animation IP, create the IP effect of Jilin Province animation enterprises' own brand, realize the realization of IP, and promote the economic growth of animation industry. Secondly, we will start to develop our own Internet creation and push platform for the animation industry in Jilin Province, to provide more creative opportunities and display space for animation companies, independent studios and comic creators in the province, strengthen the promotion and marketing of works, and attract the province and even the province. The attention and love of more animation lovers across the country has created a good atmosphere for the development of the Internet animation industry in the province, forming the advantage of the grouping of the Jilin animation industry on the Internet, so as to truly realize the online and offline animation industry in Jilin Province Organically combine to improve the animation industry chain. Finally, the rapid development of the domestic animation industry in the south has become a scale, and the development of the animation industry in the north is relatively backward. Taking Jilin Province as an example, the local animation industry and the Internet industry are less integrated, and a new situation of "south diversion to the north" can be deployed to create a new animation industry cluster.

3.2 Layout of mobile Internet animation industry
With the leap in mobile Internet information technology, the intelligentization of mobile terminal devices, coupled with the increase in network speed, there are more and more mobile Internet animation users, so the mobile Internet animation market cannot be ignored. The animation industry in Jilin Province should use local mobile Internet development to establish a resource integration platform to enable animation content providers (animation companies, independent animation studios or creators, etc.) and mobile operation service providers (China Internet, telecommunications, mobile,
etc.) All play their respective roles to improve the position of mobile operators in the industrial value chain, and make animation products into a profitable state. Improve network technology capabilities in the integration of mobile operators and terminal electronics manufacturers with animation. The initial mobile Internet animation in Jilin Province was dominated by the three major operators of China's Internet, telecommunications, and mobile. The three major mobile networks were involved in animation-related services, and added value-added animation services on mobile phone service fees. The development advantages of mobile internet animation are not very obvious due to factors such as traffic and tariffs, but with the increase of mobile Internet speeds, the introduction of preferential policies on traffic tariffs has made mobile Internet surpass fixed networks in many ways. The website on the website allows you to watch your favorite anime works freely and conveniently.

3.3 Remodeling anime content

China's animation market has long been occupied by animation works from developed countries such as Europe, America, Japan, etc. Taking the animated film series "The Dragon Trainer" as an example, in the past ten years, trilogy was released in China. A great success. The animation technology production of the film and the processing of the special effects of the film and television posture really bring a visual feast to the domestic audience, but what really enters the hearts of people is the thinking brought to us by the theme of the film story. The Internet platform gives an extremely free display space for anime works. Anime enthusiasts can directly access a large number of domestic and foreign anime works through the Internet, and can fully take the initiative to choose favorite works, so can Jilin Province original anime works attract more For many anime lovers, the creativity and quality of the content of the work are particularly critical.

1) Use big data analysis, precise positioning of the user

According to the relevant data of the "Internet Development Report of Jilin Province" released in November 2016, as of the end of 2015, male Internet users accounted for 55.9% of the total, and female Internet users accounted for 44.1% of the total, as shown in Figure 2. The proportion of men and women is basically the same, and the number of male netizens is slightly higher. Judging from the composition of the education background of netizens, the main netizens in Jilin Province are still concentrated at the level of college undergraduates, accounting for 52% of the total, followed by the higher proportion of 24% of the total, as shown in Figure 3. It fully shows that the age structure of netizens in Jilin Province is obviously biased towards young people. Using big data to analyze the spiritual needs of netizens of different ages and different cultural levels, big data can help the accurate marketing of animation IP, help the precise positioning of animation creation, and promote the multi-dimensional creation model of animation works. In addition to the traditional animation creation method, the Internet+ animation model has brought the distance between creators and users closer. While pushing animation works, the video website will also collect the records played by users through big data, use big data to accurately locate the preferences of animation users, and animation manufacturers will create the contents of animation works based on the results of big data analysis. The choice of anime fans for anime works has changed a lot in the Internet era. From the passive acceptance of traditional media in the past to the active choice of the present, the emergence of the mobile Internet has greatly changed the traditional media (TV, cinema) Due to the limitation of the region and time, the freedom of mobile phone users to watch animation works has become higher. Therefore, animation companies can accurately locate users through big data analysis, which is very important for animation creation.
2) Improve original ability and innovation awareness

Through the analysis of Internet big data, we can understand the preferences of animation users, and can realize the diversification of domestic animation creation. Increase the market research efforts in the early stage of animation creation, so as to avoid the phenomenon of the general younger age of Chinese animation in the past. The network has increased the interaction between anime creators and the general public, allowing more people to understand and participate in the anime creation process and become a member of the anime creation process, thereby promoting the transformation of the traditional supply and demand chain in the anime industry. The animation industry in Jilin Province should pay attention to the combination of local regional culture and animation creation, cultivate the influence of Jilin’s animation IP at home and even internationally, and enhance the creative awareness and original ability of the animation creation team in order to make the enterprise more sustainable and develop a clear understanding. The importance of content supremacy of the animation industry can make the animation industry of Jilin Province have an advantage in the fierce market competition.

3.4 Establish a network resource integration platform and evaluation system

While achieving a new type of animation industry cluster in Jilin Province, the animation industry can establish a network-wide resource integration platform on the one hand, and major animation content
providers, especially large-scale animation enterprises, can engage with small and medium-sized enterprises and free anime lovers share the problems encountered in the anime production process, the experience when working with foreign anime cooperation projects, and the materials required for anime production include (materials, stickers, post-special effects, etc.) resources. The construction of the platform can be achieved. The communication between enterprises and enterprises, the interaction between creators and users, and the cooperation and exchange between animation producers and operators can create a good atmosphere for the development of the animation industry across the entire network in order to truly achieve the beauty of the cluster development of the animation industry. To enhance the competitiveness of Jilin's animation industry in the market as a whole. On the other hand, in order to promote the healthy and sustainable development of the Internet + animation, prevent the appearance of animation works with low quality or even value problems, and vicious competition between operators for commercial benefits. At the same time, an evaluation system is established. The evaluation system includes industry supervision departments, animation producers, animation operators, and the participation of a large number of network users. The system must formulate reasonable evaluation regulations, which can achieve self-supervision. All aspects of industry control and public review are conducted in an orderly manner to ensure that major animation content providers create better animation works, not just to obtain network click-through rates; operators should actively participate in animation production content links and provide animation content. The merchants put forward higher requirements for creation; the vast number of network users can participate in the animation work producers in the evaluation system. Communication and interaction, anime lovers with a foundation in art design can even be directly transformed into anime creators through the online platform. The participation of the public allows the anime producer to understand the public's demand for anime content in a timely manner, which has actively promoted the development of anime creation effect.

### 3.5 Establish the development concept of Internet + whole industry chain

There are shortcomings in the development of Chinese animation derivatives, the main reason is to ignore the brand effect of the development of animation IP. The development of the Internet and the emergence of new media can make up for this regret. During the transition period, many animation companies have begun to implement the entire industry chain operation, participating in the development and operation of all links in the animation industry chain, including broadcasting, games, books, and derivative products. The animation industry should have a cross-border and integrated thinking on the basis of the establishment of a global industrial chain, interact with other areas of the cultural and creative industry, and obtain more new economic growth points. Use Internet+ as a medium and platform to give full play to the cross-border integration of the animation industry, promote interaction with other fields of cultural and creative industries (tourism, sports, etc.), provide multi-faceted support points to extend the industrial chain, and improve new economic growth points.

#### ACKNOWLEDGMENT

This article is a project of the Jilin Provincial Department of Education's project "Research on the Development Strategy of the New Format of Cultural and Creative Industries in Jilin Province in the Internet Big Data Era", project number JJKH20191332SK research results paper.

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