Present Situation of Construction of the National Digital Publishing Industrial Bases of China and Research on the Measures

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Abstract. In recent years, the digital publishing industry of China has rapidly developed. The construction of the digital publishing base is the important mode of developing the digital publishing industry advocated by the government. By now, 14 national digital publishing bases have been completed in China and the relevant digital publishing industrial cluster has been basically established. Some measures such as building of the collaborative mechanism to promote cooperation, attaching importance to the scientific and technological innovation and strengthening of the interdisciplinary talent training, etc. are presented to deal with some problems in the development of the bases such as low relevance and cooperative level, lack of scientific and technological innovation and lack of the interdisciplinary talents of the digital publishing industry, etc.

Introduction

The continuous development of network technology and digital media technology has broken the temporal and spatial boundaries of the traditional publishing and limits of media carriers, publishing forms and communication channels and the digital publishing industry tends to have the strong momentum to grow. By 2015, the volume of the digital publishing industry of China has been more than 440 billion yuan and it has become the field of the news publishing industry with the highest growth rate, accounting for 20%. The digital publishing has promoted a lot of new economic modes and the integration of the industrial chain, developed many emerging business formats and brought vigor to the publishing industry.

In order to adapt to people’s demands in the age of network information and promote the development of the digital publishing industry, there have been 14 national digital publishing bases in the whole country by now since Shanghai Zhangjiang National Digital Publishing Base, the first national digital publishing base awarded by the General Administration of Press and Publication of the People’s Republic of China was founded in July, 2008. With the development for more than 8 years, the national digital publishing bases have carried out exploration in some aspects such as introduction of good-quality enterprises, building of the industrial chain, innovation of the operating mode and construction of the platform, etc. and made some achievements and digital publishing bases have greatly developed.

Present Situation of Construction of 14 National Digital Publishing Bases

By now, 14 digital publishing industrial bases have been built in China, that is, Shanghai Zhangjiang, Chongqing New North District, Hangzhou, Central South China, Central China, Tianjin, Guangdong, Xi’an, Jiangsu, Anhui, Straits, Beijing, Qingdao and Jiangxi, covering the majority of the regions of China, with the good momentum of development.

Shanghai Zhangjiang National Digital Publishing Base

Shanghai Zhangjiang National Digital Publishing Base, founded in July, 2008, is the first one of
China. In 2015, it is predicted that the annual output value reaches 34.6 billion yuan, there are accumulatively more than 550 enterprises settling in the base, covering the upper-stream and lower-stream industrial fields of digital publishing, online games, online audiovisual, internet education, cultural equipment, animation, film and TV, etc. Its development objectives are to provide the whole-line service support for copyright transactions, copyright service, original broadcasting, technical support, investment and financing and personnel exchange, etc., gather the industrial resources in China and even in the world via the innovation of the business mode and promotion and addition of capital integration, increase the value added effects of the original development and try to use the irreplaceable industrial soft environment to build the cultural industrial demonstration park. At present, Zhangjiang National Digital Publishing Base ranks first among the bases in the same industry in the output value of the digital publishing industry and its development mode is of great importance for reference to guide the development of the digital publishing bases of China.

**Chongqing New North District National Digital Publishing Base**

Approved in 2009 and founded in the New and High-tech Development Zone, Chongqing New North District in April, 2010, covering an area of about 60000 m², the base is the first national digital publishing base in the west of China. At present, the base gathers more than 130 digital publishing enterprises including zbj.com, etc. and nearly 20000 practitioners. Aiming at the “Cloud City”, the base is devoted to the building of the “1+2+10+N” development mode. Its development objectives are to build the public service and public service database, perfect the digital copyright protection system and achieve 5 major service functions of comprehensive service of digital publishing technological operation and incubation of digital publishing enterprises, etc., but the industrial integration of the base is weak and the interaction of productivity and integration of elements is poor, for example, it is located in the west of China, lacking the geographical advantage, the development scale of the digital publishing industry as a whole is weak and the service environment as a whole should be further improved.

**Hangzhou National Digital Publishing Base**

Approved in April, 2010 and founded in April, 2012, the base includes 1 zone (Shangcheng Zone) and 8 parks (Binjiang, Hangbao, Huashu, People's Bookstore Digital Publishing, China Mobile Cell-phone Publishing, China Telecom Digital Reading, Digital Entertainment Publishing and Binjiang Animation Publising). At present, there are more than 300 digital publishing enterprises in the base and the annual output value of the digital publishing industry of Hangzhou City grows at the rate of more than 15%. In Shangcheng Zone, there are 45 enterprises at present, with the settlement rate of 80%. While developing itself, the base builds the communication and publicity platform and it often attends the cultural expos and international exchange conferences to expand the brand effect of the base. In 2015, the total amount of profit, business income and total amount of assets of Hangzhou National Digital Publishing Base is 2.101 billion yuan, 8.425 billion yuan and 7.523 billion yuan, ranking 4th, 5th and 6th in the whole country, respectively, bringing about the growth rate of more than 15% of the digital publishing industry of Zhejiang Province.

**Central South China National Digital Publishing Base**

Approved in July, 2010 and founded in November, 2011, the base has 8 enterprises including China Satellite Communication Group, etc. now and it has signed the cooperative agreements with some key cultural enterprises such as Hunan Green Apple Data Center, etc. The base builds four major platforms: Digital Publishing Industry Development Platform, Digital Publishing Operation Technology Platform, Digital Publishing Contents Marketing Platform and Digital Publishing Public Service Platform. The base is built into the landmark project of “Digital Hunan” with the characteristics of Hunan and important international influence. By 2020, efforts will have been made to achieve the development objectives of at least 300 enterprises settling in the base and annual sales income of at least 50 billion yuan.
Hubei Central China National Digital Publishing Base

Approved in August, 2010 and founded in Wuhan, Hubei in September, 2011, with the total building area of 328800 m2 and the total investment of 1.36 billion yuan in the infrastructure, the base is the first domestic one building the concept of “industrial ecology”. The base has made great efforts to introduce and cultivate the good-quality projects with the “great development and high returns” of the digital industrial chain. By now, some good-quality enterprises such as Chinese Online and dangdang.com, etc. have settled in the base. In 2015, the base built Luoyang Park in another province, that is, Yanhuang Scientific and Technological Park. The base puts emphasis on the development of 8 industrial types: digital products and service of knowledge contents, digital online education and training, animation industry, game industry, digital video, network value added service, digital publishing terminals and development of derived products.

Tianjin National Digital Publishing Base

Approved in December, 2010 and founded on October 30, 2011, the base has had 40 enterprises by now. Since the domestic largest digital publishing cloud computation center was officially operated online in the base in August, 2011, the cloud computation technology has become one of the most characteristics of the base. The base integrates the industrial chains of online transactions, network publishing, service outsourcing, development and manufacturing, etc. In addition to accommodate some famous enterprises such as Spreadtrum Communications, Inc. and Patriot, etc., the base explores the property right transactions and software service links, continuously extends the digital publishing industrial chain and promotes the rapid development of the economic scale of the base so as to promote the development of the digital publishing industry.

Guangdong National Digital Publishing Base

Approved in February, 2011 and founded in May, 2011, the base settles in Guangzhou Tianhe Software Park. Taking Guangzhou as the core, the base adopts the construction mode of “1 center and multiple parks”, makes use of the current industrial foundation and collaborative mechanism of Guangzhou and carries out the comprehensive utilization of advantageous resources to attract the enterprises and investors, achieve the integration of resources, perfect the industrial chain and build the famous brands. In the base, there are more than 200 enterprises, more than 17000 employees, the total assets of 1.98 billion and annual business income of more than 10 billion now. It has established the digital contents and digital publishing contents system including e-book, digital newspapers and magazines and mobile terminals.

Xi’an National Digital Publishing Base

Approved in May, 2011 and founded in June, 2012, with the total construction area of 70mu and the building area of 0.23 million m2, the base puts emphasis on the development of 6 major business blocks, that is, cell-phone publishing, e-book, traditional publishing digitalization, digital animations and online games, etc. The base integrates the industrial cluster of original contents, technological development, digital processing, copyright operation and terminal service, etc. and builds the service system integrating incubation, personnel training and platform operation, etc. and guides the development of the digital publishing industry of Shaanxi and even the west of China. In addition, the base helps the enterprises of the parks to go out and make use of the exhibitions and conferences as well as domestic and foreign exchange conferences, etc. to strengthen the brand influential power of the base.

Jiangsu National Digital Publishing Base

Approved in June, 2011 and founded in July, 2011, the base is divided into five parks of Nanjing, Suzhou, Zhenjiang, Yangzhou and Wuxi and exercises the development mode of “1 base and multiple parks”. The emphasis is put on the implementation of 8 major projects of traditional digital publishing transformation and historical and cultural digitalization protection, etc. The base builds the four major platforms of digital publishing public service and mobile media personnel training,
etc. In the base, there are more than 100 relevant digital publishing enterprises such as Nanjing Newspaper Industry Media Group, EINK and Retech Group, etc. at present.

Anhui National Digital Publishing Base

Approved in January, 2013 and founded on October 24, 2013, the base exercises the development mode of “1 base and 2 parks (Hefei Park and Wuhu Park)”. The emphasis is put on the development of some emerging business formats such as e-book, original online literature, online maps, database publications, cell-phone publishing, internet publishing, digital education, trans-media compound publishing, publishing according to the demand and digital printing, etc. The base makes efforts to achieve the construction objectives of the multifunctional industrial gathering area of comprehensive service of digital publishing technology operation, incubation of digital publishing enterprises and digital reading public service, etc. within 3-5 years. The base makes efforts to have achieved the total output value of 180 billion yuan of digital publishing by 2020.

Straits National Digital Publishing Base

Approved in April, 2013 and founded on June 16, 2013, the base exercises the development mode of “parks in parks”. Centered on the digital publishing industry of Fuzhou and Xiamen, the base builds the parks in the coastal area of Fuzhou, Xiamen, Zhangzhou, Quanzhou and Putian, etc., extends to Pingtan Comprehensive Pilot Zone, builds 5 industrial parks such as Fuzhou Park, Xiamen Park and Pingtan Comprehensive Pilot Zone, etc. and puts emphasis on the development of 7 major business blocks, that is, digital books, digital newspapers and magazines, Straits database publishing, animations and games, mobile internet publishing, digital publishing and digital copyrights, etc. The base is planned to accommodate more than 300 digital publishing enterprises and 15000 employees and achieve the annual output value of more than 12 billion yuan; by 2020, the base makes efforts to have accommodated more than 500 digital publishing enterprises and 30000 employees and achieved the annual output value of more than 30 billion yuan.

Beijing National Digital Publishing Base

Approved in April, 2013 and officially founded in Yushuzhuang Village, Huaxiang Township, Fengtai in April, 2013, the base has Southwest Logisitcs, the large book logistic center the annual value of 20 billion yuan of book storage fixed prices now. In the base, there are a number of large news publishing and digital publishing enterprises, including the relevant enterprises of contents, publishing, research, channels, e-commerce and technical service, etc. The base presents the integration development mode of “culture + creativity + science and technology + industrialization”. By now, the base has introduced 17 large publishing groups and cultural enterprises, with the registered capital of more than 0.32 billion yuan.

The emphasis is put on the development of some industries of e-book, digital music, digital video, online games and animations and online education, etc. The base gives priorities to support the enterprises settling in the base and meeting the conditions for applying for the internet publishing licenses and builds some resource platforms of digital publishing scientific research, copyright transactions and information sharing, etc. The total output value of the digital publishing industry of Beijing City has been continuously increased and it has reached 20% of the total in the whole country, ranking in the first places in the whole country.

Qingdao National Digital Publishing Base

Founded in March, 2013, the base is mainly based on the large enterprises and mature parks to build 5major parks of digital publishing terminal development and production park and digital publishing contents park, etc. and cultivate the local emerging cultural creativity companies. In addition, the base will guide the electronic manufacturing industry of Qingdao to develop to the digital intelligent type, push the development and production of digital publishing terminals and promote the development of the digital publishing industry of China and transformation and upgrading of the traditional manufacturing industry. It will make efforts to have been built into the comprehensive base of contents creativity and platforms characterized as the terminal development
and market brands by 2020. The digital publishing contents delivery platform will have the rich
contents, advanced technologies and wide coverage.

**Jiangxi National Digital Publishing Base**

Founded in Nanchang New and High-tech Zone on May 23, 2015, the base exercises the
development mode of “1 base and multiple parks”. In 2014, the digital publishing industry of the
base achieves the sales income of 8.2 billion yuan and the base gathers 132 digital publishing
enterprises, including 6 enterprises with the annual sales income of more than 0.3 billion yuan. The
base has established 5 major industrial clusters of digital media, animations and games, digital
contents, cell-phone application and personnel training, etc. In the future 5 years, the base will make
great efforts to develop the digital publishing business formats based on the internet, telecom
network, cabled TV network and communication satellite network and try to achieve the objective
of the annual average growth rate of 30% and build some famous digital publishing brands and a
number of elaborate digital publishing products.

**Dilemma in the Construction of the Digital Publishing Industrial Bases**

**Low relevance and cooperative level**

There is an old saying: “the flames rise high when everybody adds fuel.” The close relevance and
high cooperative level of the enterprises are favorable to the achievement of mutual
supplementation of resources, strengthening of the core links, sharing of resources and technologies,
team collaboration and common progress. However, most of the national digital publishing bases
are still in the primary phase of cluster development at present, the relevance between the
enterprises is low, the complete industrial chain has not been built and some enterprises complete
the whole process from production to processing and to putting into the market by themselves. The
relevance between the enterprise clusters is loose and even they are irrelevant and they only pay
attention to their own development and the current interests and they do not consider the more
benefits brought by the regional combination and collaboration. In the cluster cultivation and
development, they pursue only the quantity of the enterprises settling and neglect the
comprehensive strengths of the enterprises, and they attach importance to the quantity but not the
quality. If it is a project, they will try to introduce it and pay no attention to the advantages and
disadvantages. They are anxious to achieve quick success and get instant benefits so that a lot of
enterprises gather together but achieve no actual effect, they cannot establish the industrial cluster
in a true sense, they are difficult to carry out collective study and innovation and it is difficult to
give play to the advantages of the cluster.

**Lack of scientific and technological innovation**

The independent innovative capacity of the enterprises in the bases is low, the enterprises like
following suit and copying, they just follow the production of the popular contents, they do not
carefully think of the audience’s demands, they conduct only manufacturing but no creation and just
copy and paste the products to occupy the market and they lack the innovative awareness. Science
and technology are No. 1 productive forces. Science and technology can increase more economic
benefits than the labor force.

Another reason for the insufficient independent innovative capacity of the enterprises is that most
of the enterprises in the bases are small and medium-sized enterprises, with the small scale and
weak strength. They are difficult in the routine operation, so they input less in the development.
First, most of the national financial resources are input to the colleges and universities for the
training of publishing personnel and development of the large enterprises and the support for the
small and medium-sized enterprises is insufficient. Second, the credit policy of the banks is
inapplicable to the small and medium-sized enterprises, it is difficult to acquire the loan from the
banks and the funds are quickly circulating. In addition, the credit guaranty mechanism and system
are incomplete, so it is difficult for the small and medium-sized enterprises to carry out financing,
the turnover of capital is difficult and there is lack of the economic foundation for the technological innovation, which is also the reason for dilemma of scientific and technological innovation.

**Lack of digital publishing interdisciplinary personnel**

The digital publishing needs the interdisciplinary personnel knowing the network technology and edition and publishing. The personnel specializing in the network technology know nothing about edition and publishing and the personnel who are competent of edition and publishing have the limited knowledge of use of network technology. In addition, the digital publishing industry needs the creative personnel providing creativity and processing for the publishing industry, the business personnel who know the international trade rules and the administrators who know the publishing operation and management, etc. All these are the problems for the digital publishing bases to resolve. The scale, teachers and staff and setting of courses of the digital publishing specialty opened in the colleges and universities of China are inapplicable to the development of the digital publishing and there exists the blind area in the personnel training, which brings about the imbalanced supply and demand and the fact that the supply cannot meet the demand.

Although viewed from the quantity, Zhangjiang Digital Publishing Base gathers a number of excellent colleges and universities as well as enterprises, there are few new and high-tech personnel proficient in the publishing, let alone the excellent and even advanced personnel. It is a task of top priority to guide the enterprises, colleges and universities as well as scientific research institutes to train and introduce the comprehensive personnel.

**Research on the Measures of the Digital Publishing Industrial Bases**

**Building the collaborative mechanism to promote cooperation**

The country should build the collaborative mechanism to promote the cooperation between the national digital publishing bases and between the enterprises, take the contents development, technical service and product operation, etc. of the digital cultural industry as the main businesses, be oriented by the market demand and take the product operation as the core to establish the industrial chain, establish the deep cooperation between the enterprises in the bases, promote the combination, cooperation and exchange of the strong enterprises in the base and improve the entry threshold and the competitiveness of the enterprises.

In addition, the bases should depend on their own advantages to rationally guide the development of the industrial cluster, put emphasis on the development of the leading enterprises, make the industrial chain become bigger and stronger, develop the digital publishing industrial cluster, strengthen the industrial competitiveness and guide the bases and the enterprises to cooperate with each other in the competition and compete against each other in the cooperation and make great progress hand in hand.

**Attaching importance to the scientific and technological innovation**

Science and technology are No. 1 productive forces. The digital publishing industry is also an emerging scientific and technological industry, so importance should be attached to the scientific and technological innovation and improve the independent innovative capacity of the enterprises, which is favorable to establish the competitive advantages of the enterprises, improve the comprehensive benefits, promote the transformation of the economic growth mode and reform of the industrial structure, reduce the resource and energy consumption, protect the ecological environment and achieve the sustainable development.

First, the country should strengthen the support for the development of the small and medium-sized enterprises and the financial, tax and credit support, create the conditions for the innovation of more and more enterprises and encourage innovation. Second, the enterprises should pay much attention to the importance of scientific and technological innovation, updating, change of generations and upgrading of the products, promote the development and production of the new scientific and technological products, praise and award the innovative technicians and create the
good atmosphere. Third, the scientific and technological personnel of all the excellent colleges and universities as well as scientific research institutes to go to the depth of the enterprises to carry out the innovative and entrepreneurship service, build the information exchange platform, share the up-to-date information at the real time, adapt to the actual demand of the modern publishing, attend the research on the technology and develop the products. The technical backbones should be encouraged to bring the technologies and products to the enterprises for popularization and the scientific and technological entrepreneurship should be encouraged.

**Strengthening the input and training of the interdisciplinary personnel**

It is hard to accelerate the training of the innovative, technological and interdisciplinary personnel who know both the technologies and publishing. Especially the digital publishing industry has the high requirements and demands for the comprehensive capacity of the personnel. The digital publishing is not a simple publishing business format from the traditional publishing to the digital publishing but an omni-directional and comprehensive demand and reform, so the training of the interdisciplinary personnel should be strengthened.

The personnel encouragement mechanism should be built and perfected, the input in the personnel training and equipment introduction should be increased and the relevant rewarding mechanism should be set and the preferential subsidy should be provided. The current educational mode should be reformed, attention should be paid to the practicality, the contents of education should be made to meet the actual demand, the scale, teachers and staff and setting of courses, etc. of the digital publishing specialty opened should adapt to the development of the digital publishing, the interdisciplinary personnel with the digital publishing and network technology, creativity and processing and knowing the international trade rules and publishing operation and management should be trained, attention should be also paid to the combination of theory with practice, the mode of “cooperation between the colleges and universities and the enterprises” should be taken to carry out the practical training and make the personnel trained meet the actual demand of the digital publishing.

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