

The development of the digital music industry in China during the first decade of the 21st century with particular regard to industrial convergence

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Abstract

This article concerns the development of China's digital music industry and will specifically focus on the influence of industrial convergence. Part one examines the early development of China's digital music industry. The second part concerns the systems and structures of the digital music industry and the major types of digital music business companies and the third and final section provides some conclusions about China's digital music industry and industrial convergence.

Keywords: Digital music, digital music industry, industrial convergence, online music industry, mobile music industry, digital music market

The phenomenon of convergence, whereby the technologies for providing electronic consumer services in media, entertainment, communications, and commercial activity are inexorably coming together, will have enormous implications for economic, social, political and cultural behaviour in the twenty-first century. (Throsby 2002: 13)

1 Introduction

As industries develop they often encounter moments when different components converge and/or integrate. The stages when these occur vary; convergence for example happened earlier in the telecommunications industry than in the computer technology industry. One result of

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the convergence of a number of aspects of the contemporary media industries was the creation of a new (meta-)sector in the form of the "creative and cultural industries". The music industry is a sub sector of this larger meta-sector, one that is heavily integrated with²the information communication technology industries³, particularly during the first decade of the 21st century (Li 2010, Li & Morrow 2012).

The music industry comprises performance, manufacture of goods, audio recording, media soundtrack and digital distribution areas (amongst others) and readily lent itself to integration. This "integration" not only influenced the live music sector, the recorded music industry and music publishing during the 20th century and before in China but also significantly the digital music industry during the 2000s (Li 2013). In the late 1990s, digital-industry related convergence influenced the music industry's development in China (Zhang & Wang 2009) and this convergence led to the creation of the digital music industry. The music industry integrated intensively and rapidly with the information communication technology (ICT) industry during the late 1990s and the 2000s (Li 2010).

This article concerns the development of the digital music industry and the influence of convergence on this industry in China during the 2000s. It aims to address the questions of how the digital music industry developed in China and how convergence influenced the digital music industry in China.

The article has three sections. The first (chapter 2) discusses the early activities of the digital music industry in China. In section two (chapter 3), the development of the digital music industry and the influ-

² The cultural and creative industries mainly includes the following 9 industry sectors: cultural heritage; (1) printed matter and literature; (2 & 3) music and the performing arts; (4) visual arts; (5&6) audiovisual media (5 cinema and photography; 6 radio and television); (7) social cultural activities; (8) sports and games; (9) environment and nature (UNESCO 1986: 2)

³ The information and communication technology industries are mainly constituted by the following 5 industry sectors: (1) IT services, systems integration and software support; (2) Internet services and telecommunications; (3) software and digital content development; (4) wholesale and retail distribution of software and hardware; and (5) manufacture of ICT products and components (IBSA 2010: 3)

ence of industrial convergence are considered through an examination of the systems and structures of the digital music industry and major types of digital music companies, the digital music market and the key development issues of the industry. The final section (chapter 4) discusses the development of China's digital music industry from the perspective of the convergence of industries.

2 The early development of China's digital music industry

2.1 Theoretical basis

To further examine the development of the digital music industry in China and the influence of industrial convergence on the industry during the 2000s, it is necessary to establish a theoretical basis for this study. This theoretical basis involves three perspectives: firstly definitions of digital music and the digital music industry, secondly the relationship between the recorded music industry and the digital music industry, and thirdly industrial convergence within the music industry.

2.1.1 From digital music to the digital music industry

The terms "digital music" and the "digital music industry" are sometimes used interchangeably within the music industry in China due to their similarities and connections (Li 2006). However, they are quite distinct as the former refers to a form of production, while the latter refers to an industry structure. Their similarities and differences may also be evident from their definitions.

Many Western scholars attempt to define digital music but few discuss the digital music industry from different perspectives such as computer music, music theory and music business. Cullinan & Oppenheimer (2006), Pan (1993), and Pohlman (1996) all define digital music as music manipulated by using digital devices, for which it must be converted into a digital signal, or from sound into numbers, modified, and then recorded using digital recording software such as compact discs or MP3s.

Stephens (2007: 4) defines digital music as digitally constructed and music that is produced using computer software and hardware. Moreover, he identifies specific elements of digital music as follows:

Digital Music: Sound Recording using digital technologies during production; Ringtones; Electronic Music; Computer Music; Digital Sampling; Software usage: MIDI (software), Sequencers, Trackers (cheap); Mixing, filtering, equalization done on computer; Audio digitizing card; digital music publishing companies; Online Radio; Digitized musical instruments, i.e. digital synthesizers; Video Game Music.

Not Digital Music: Sound Recording using digital file formatting alone (only saved in MP3); Electromechanical instruments, i.e. Electric guitar music; MIDI alone; all music on CDs is not necessarily digitally produced; Turntables and other DJ equipment that manually produces sound; FM/AM Radio; Analogue musical instruments, i.e. Synthesizers (Stephen 2007: 6)

Chinese researchers and research institutions, such as Jin (2006), the Enfordesk Think-Tank of Analysis International (ETTAI) (2010), Li (2006), and the New Watson International Information Consultation Company (NWIICC) (2008) also provided definitions of digital music. Jin (2006) simply defines digital music as involving music that can be stored and disseminated in a digital form.

Li (2006) defines digital music as involving a digitized form of music production and consumption. He also points out that digital music can be further separated into two major categories: mobile music and online music; the former is also designated "wireless digital music" while the latter is referred to as "cable music". Moreover, Li (2006: 374) identifies certain types of mobile music such as mobile ringtones, polyphonic ringtones, and listening to music in the IVR business.

Some Western and Chinese researchers such as Rayport and Sviokla (1995), Stephens (2007), the ETTAI (2010) and the NWIICC (2008) define the extent of the digital music business and/or industry including the subsectors of it such as online music business and digital music business. Rayport & Sviokla (1995: 82) contend digital music related business can be considered the major part of the digital music industry that created

value with digital assets that can be re-harvested in an infinite number of transactions.

Stephens (2007: 4) argues the digital music industry blends technological innovation, artistic expression, creativity, and information technology management. He also contends that production within this industry relies heavily upon computer technologies that enable users to develop and alter sounds and to create an immense palette of possible innovation (ibid). Stephens considers digital music within this wider perspective.

The ETTAI (2010) points out the mobile music industry is an essential subsector of the digital music industry in China. It summarizes the mobile music business as one mainly involving polyphonic ring tones, ring back tones, wireless music clubs, wireless music search, software of mobile users etc. It also notes that consumers and/or entertainers obtain mobile music through SMS, MMS, WAP, IVR, WWW (ibid).

The NWIICC (2008) discusses the categories and definitions of the digital music business and/or industry. It also notes the digital music business consists of two major segments: online and mobile. He specifically discusses their definitions and the business models and/or methods and asserts the online music business is processed through Personal computers (PC) as well as the online music business model directly makes profits through selling digital music, or indirectly makes profits through commercial advertisements but not directly through music. The mobile music business is processed through telecommunication facilities (usually mobile) and the mobile music business model directly makes profits through paying fees for music download.

In terms of the above definitions of digital music and the digital music business/industry, the online music and mobile music industry sectors can be respectively defined as follows. The online music business and industry are all those music business and industry activities that transmit music to personal or company computers and other digital storage facilities directly via the Internet. Mobile music mainly involves the digital music business and industry activities that provide digital music via mobile value added services to mobile phone users. It can involve

ring-tones, alarms, notifications (such as prompt text messages), ring-back tones, listening to music through IVR, streamed media (also known as "online broadcasting"), and whole song downloads to mobile businesses and services.

2.1.2 The relationship of the digital music industry and the recorded music industry

It is essential to consider the relationship between the digital music industry and the recorded music industry as a part of the theoretical basis. Firstly, there are certain connections between them. Their connections mainly represent "homology" and "convergence" characteristics. The "homology" specifically refers here to the similar processes of both types of the music industry. This similarity mainly comprises creative activities such as music composition, music performance, and music producing/recording and these activities co-exist in both the recorded music industry and the digital music industry. Due to this "homology" of production processes, the digital music industry and the traditional recorded music industry are highly integrated industry sectors.

Nevertheless there are certain differences between the digital music industry and the recorded music industry. The first difference mainly involves production forms, distribution and transmission channels and media, sales and profit models, and entertainment and consumption modes. Secondly, they each developed a unique economic and cultural form during different periods. The recorded music industry developed during the modern industrialization period from the early 1900s through to the early 2000s and it mainly depended on the mechanical industry technology and economy. This enabled it to promote the mass music market and culture. The digital music industry, however, has only developed during the contemporary information period from the early 2000s to the present-day and it has mainly depended on digital information technology and convergence. This enabled it to promote the niche music culture and market, arguably two different music industry sectors.

Moreover, certain Western researchers such as Bockstedt et al. (2004) and Stephens (2007) point to other slight differences between

these two sectors. Bockstedt et al. (2004: 4) state that from the production perspective: *"For digital music, there is no longer a physical product to manufacture. Instead the product itself is information: the digital music recording. A song is recorded once, but in a digital format it can be replicated and distributed an infinite number of times with low costs for reproduction."*

Such research indicates the digital music industry adopts the digital information means of production and this greatly improves the speed and range of distributing music, even though this industry has had difficulties controlling piracy.

Similarly, Stephens (2007: 7) also indicates the differences between these two industries from the music management model and industrial integration perspective: *"The dominant transnational firms have traditionally developed music in a costly closed system where all portions of production have been owned and operated by the firm. The digital music industry has developed as an alternative to this music management model. Digital music firms are characterized by the ability to reduce costs through horizontally integrated business models that enlist project-based labour, Internet communications technologies, as well as formal and informal social networking."*

Stephens' research indicates the recorded music industry is the traditional music industry mainly focused on the vertical integration while the digital music industry mainly focuses on horizontal integration. This also indicates that the breadth and depth of integration in the digital music industry is relatively higher than in the traditional recorded music industry.

2.1.3 Industrial convergence in the music industry

Industrial convergence is an essential factor that influenced the development of the digital music industry in China since the late 1900s (Li & Morrow 2012, Li 2013). According to Mao & Ning (2007: 25), "industrial convergence" can be defined in the following way: *"The essence of the connotation of industrial convergence is that information technology and its industries impact other industries to generate a new integrated indus-*

try, this new industry contains new industry properties. This phenomenon mainly reflects that the border disappears and integrates a different and new industry. This convergence does not simply add two or more industries, but it is a new division of labour based on integrating original industries."

Mao & Ning (2007), Mao & Zhuang (2007), Li (2010) and Li & Morrow (2012) point out digital convergence played an essential development role in the music industry in China during this century. Although convergence, particularly industrial convergence, also appeared and influenced the development of the music industry during both the ancient and modern periods, the degree of convergence increased during the current period (Li & Morrow 2012, Li 2013).

The generation and development of the music performance industry largely depended on the influence and convergence of other cultural industry sectors such as dance, literature (such as poetry), and drama during ancient times (Li 2012). Similarly, the generation and development of the recorded music industry also relied largely on the influence and convergence of the telecommunication and media technologies and industries on the music industry during the modern period (ibid, Tschmuck 2006). Likewise, the digital music industry has also largely depended on the influence and convergence of the ICT sector (mainly computing and telecommunications) on the music industry mainly during the early 21st century in China.

2.2 The development of the digital music industry

This section concerns the early development of the digital music industry in China that took place during the period from the late 1990s to the 2000s. Due to both the rapid spread, development and convergence of digital technologies relating to computing, telecommunication and music, as well as the Chinese special preference and enthusiasm for new technologies (Zhang 2007), the development of China's digital music industry was almost synchronous with the West (Sun 2006, Chen 2010). The Chinese digital music industry sat centre-stage within the music

industry's value chain and greatly influenced China's music industry during this period.

Online and mobile digital music as the newer music communication and business means of production and activities began in the mid-1980s and the early 1990s in the West (Hayward & Orrock 1995, Bozina et al. 2006). Western digital technology and music business/industry, in particular certain digital music business models (such as P2P), had a great influence on China's digital music industry during the 2000s (Li 2006, Sun 2006, Chen 2010). This influence specifically led to the creation of a digital technology and content based cultural and technological industry – the digital music industry (Li 2013, Li 2010, Li & Morrow 2012).

The computer and communications technology industries began to integrate with the music industry in China from the late 1990s (Li & Morrow 2012) and began to involve China's music industry during this period (ibid, Montgomery 2010). Certain major digital music business firms were established and developed the online music business during this time. The most representative firms mainly included 9sky (9sky.com, 1999), Wanwa (wangwa.com, 2000), A8 Music Group (a8.com, 2000), 163888 (163888.net/www.ifenbei.com/fenbei.me, 2003), Top100 (*ju jing*, top100.cn, 2005), the Alliance of Digital Music Distribution (tai-joy.com, 2005), Baidu MP3, Kuro's P2P. They rolled out the digital music business in China and also greatly influenced the music industry during the early 2000s (Sun 2006, 2007, Li 2006).

The digital music industry emerged during a period from the late 1990s to the early 2000s. The 9Sky and the A8 Music Group are two of the earliest music business firms involved in the online music business (1999) and the mobile music business (2000). More mobile music business appeared during the early 2000s (Yao 2007). It is slightly late to the online music industry in China (Montgomery 2010). The A8 Music Group was one of the first music business companies involved in the mobile music business in 2000. Moreover, music polyphonic ring-tones were also jointly exploited by the China Mobile Group (CMG) and the Taihe Rye Music Firm (TRMF) in 2003 (Wang 2012). The China mobile music web "www.10086.cn" (formally named "www.12530.com") was the

largest online music store in China. This was established in 2009 and notably offered through-payments for mobile ring-tones (Sun 2006), which was a significant step for the mobile music industry. Shanghai Synergy Culture and Entertainment Group (SSCEG) also played an essential role in China's mobile music industry. This firm included two leading record companies involved in the mobile music business, the Shanghai Audio-Visual Press and the Shanghai Audio-Visual Company (Li & Morrow 2012, Sun 2009). According to Sun (2009), SSCEG signed an agreement with China Unicom⁴ and Sina.com⁵ to cooperate in the digital music business in 2009 (Sun 2009).

Although China's digital music has faced problems with intellectual property (Sun 2009, Montgomery 2010) and an unstable development (Li 2006), it still progressed well due to industrial convergence. According to Chen (2010) and Hu (2006), the value of digital music sales (as in online music and mobile music) reached 3.6 billion Yuan and exceeded recorded music sales (e.g. CD) in 2005. 2005, therefore, is referred to as "the first year of digital music" (ibid, Sun 2006). By midway through the first decade of the 21st century the digital music industry had become one of the leading music industry sectors in the entire music industry in China.

3 Systems and structures of the digital music industry and majors types of digital music business companies

3.1 The integrated systems and structures

The digital music industry in China is typical for an integrated system and has a complex structure. The term "integrated" specifically refers to several inter-relating industry sectors such as music, telecommunication and computing. The integrated systems and structures not only shaped China's digital music industry during the 2000s, but also evidence the

⁴ China Unicom is the second largest telecommunication company in the China.

⁵ Sina.com is one of the leading web portals in China.

intensive influence of industrial convergence on the music industry, particularly the recorded music industry.

The "service providers" (SPs) and "content providers" (CPs) played an essential role in the integrated systems and structures of the digital music industry in China (Li 2006). Krueger & Swatman (2003) define "SPs" as the "mediator" between music content providers and music users (ibid.) while the "CPs" are web-based data hosts that gather a variety of information, particular music, and organize them into electronic databases, with revenue coming from subscription fees (Krueger & Swatman 2003: 3). The SPs are generally split into two types: online music and mobile music (Li 2006). They are specifically described by the following figures 1 and 2:

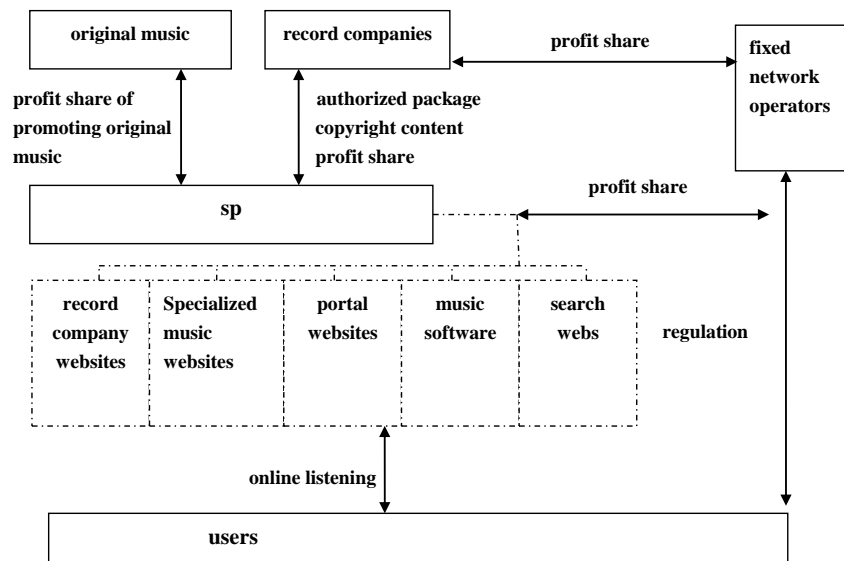


Figure 1: The system and structure of China's online music industry

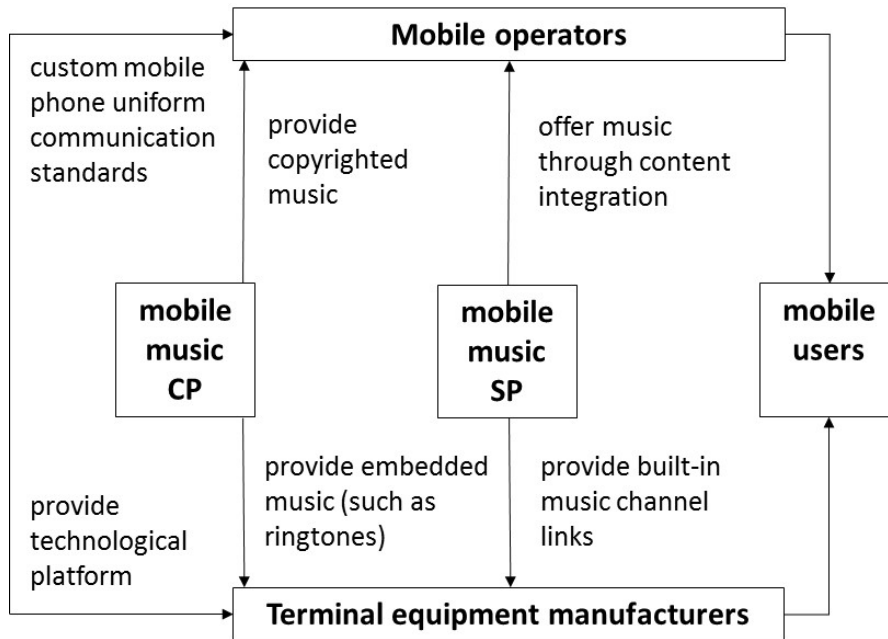


Figure 2: The system and structure of China's mobile music industry

In terms of the above, these two systems and structures indicate that recorded/music business/industry, computing technology business/industry, and telecommunication business/industry integrated into a larger music-industry related convergence system. In this system, the SPs sometime also played the CP role and the CPs played the SP role. The SPs, however, played a more essential role in the digital music industry in China during the 2000s. In order to comprehend this integrated systems and structures of China's digital music industry during this period, it is necessary to further discuss the different types of SPs

3.2 Types of Online Music Business SPs

The online music business SPs during the 2000s in China were also an integrated organization system. Five types of online music business ser-

vice providers (SPs) can be identified within their integrated system: i) record company; ii) professional music web; iii) portal web; iv) music software company; and v) search webs (see table 1).

SPs types	Representative companies
Record company	Taihe Rye (Taile Wang), Shanghai Synergy Cultural and Entertainment (Shanghai Audio Audio-Visual Press and Shanghai Audio Visual Company)
Specialized music web	Wangwa, Jiutian Music Web, A8 Music Supermarket, Aiguoze (patriot) Music Web
Portal web	TOM, Sohu, Sina, and QQ
Music software	Kugou (Kugoo)
Search web	Baidu, Yahoo, Zhongsou, and Sougou

Table 1: The Major Online Music SPs in China

Baidu MP3, Jiutian Music Web and the Kugou/Kugoo are the major SPs, with Baidu MP3 the most visited search portal, Jiutian Music Web the most visited specialized music website and Kugou/Kugoo the most popular music software (the I-research 2005). Kugou was used for free downloading and listening to music, the reach of its application for free downloading music and listening to music was 68.8% and it was ranked no 1 (ibid).

This online music business SPs system not only involves the computing technology industry but also the music and/or recorded industry as well as the telecommunication industry (e.g. mobile) as the basis of an integrated online music business system.

3.3 Types of mobile music business SPs

The mobile music business SPs played an essential role in the mobile music industry in China during the 2000s (Li 2006). The SPs controlled key resources of the digital music industry, such as market access and platforms as well as marketing and promotion resources (Sun 2006). Compared to other beneficiaries such as music radio and record compa-

nies, the SPs were closer to the mobile music users, making it easier for them to adjust their strategies on music content provision (Li 2006).

In terms of different characteristics of mobile music SPs in the mobile music industry, five categories of SP can be identified: i) super-portal web-oriented SPs, ii) comprehensive professional SPs, iii) SPs with own music resources, iv) professional SPs with a focus on music services, v) SPs with regional advantage (see table 2).

Types of SPs	Representative companies
Super portal web oriented SPs	Sina, Tom
Comprehensive professional SPs	Zhang Shang Ling Tong ('Linton'), Kong Zhong Wang ('Air Network')
SPs with own music resources	Rock and Mobile, A8 Music Group
Professional SPs with a focus on music services	Longteng Sunshine, Quan Tian Tong
SPs with regional advantage	Jilin Aike, Yingchun Xunyun

Table 2: Types of Mobile Music SPs

The above mobile music SPs were also intensively involved with the music and/or recorded industry and the computer technology industry and during the 2000s can be considered as an integrated music business organization system.

3.4 Types of digital music business integrated company

Due to industrial convergence and the influence of digital technology on the music industry, in particular the digital music industry, during the 2000s in China, music-business company characteristics became more complicated than in the 20th century. Music business companies during the 2000s not only encompassed traditional industry roles such as composition, performance and recording but also concerned themselves with other integrated business and technical areas like computer technologies, and telecommunication. The following section discusses the

types of digital music companies that were part of the digital music industry and typified music-industry related convergence

In terms of the business background and major music services and/or productions, digital business companies in China during the 2000s can be categorised into the following three types of integration: i) music record company oriented, ii) online business company oriented, and iii) telecoms company oriented.

3.4.1 The music record company oriented

This type of digital music company is mainly based on record companies or cultural and media companies and also links with other music business areas such as online and mobile. Although it concentrates on the traditional industry processes such as music production, publishing, and distribution, it also involves other digital music business processes such as online and mobile music distribution. The major companies and/or business platforms include Taihe Music Net and the Taihe Rye Company, the Cloud Music Chain Marketing System Platform of the Shanghai Synergy Culture and Entertainment Group, the Philharmonic Net of the Rock Mobile Company.

This type of company transformed from the traditional business model to the newer digital music business model to meet the demands of the developing digital music industry during the 2000s (Li & Morrow 2012). This type of digital music business firm found it difficult to develop the digital music business due to music copyright and unfair profit distribution issues (as later explained in the section "Major Issues"). However, they produced a large amount of music content for the digital music industry and as such played an essential role in this industry (ibid, Montgomery 2010).

The digital music business content providers (CPs) differ slightly from the traditional record companies. The CPs involved a wider range of music businesses than the traditional record companies. For instance, the Taihe Rye Company and Shanghai Audio-visual Press as typical CPs not only involved the business processes such as music production, publishing and physical product (such as CD) distribution but also involved

online music distribution and mobile music distribution (Li & Morrow 2012).

The CPs often collaborate intensively with both the online and mobile SPs such as telecommunication operators (TOs) to create the value in the whole digital music industry during the 2000s (ibid). This collaboration can also be regarded as a typical form of industrial convergence. The CPs and SPs, SPs and TOs as well as CPs, SPs, and TOs integrated with each other achieving a form of industrial convergence between the music industry and the information communication technology sector that continues to the present day (Li 2010, Li 2013).

3.4.2 The computing technology company oriented

This type of computer technology-oriented digital music company focuses on Internet technology and business and examples of this kind of company included Sina Net, 1ting Music Net, Gigantic Whale Net, Tencent, Tom Online, Baidu MP3, Wireless Music Stars, A8 Music Group, Aigo Music Net, Air Net and Linktone. All played an essential role in the digital music industry, in particular in the online music industry during the 2000s in China.

These computer technology-oriented companies usually provide digital music business service and production (Li 2006) and can also be thought of both as mobile music SPs and online music SPs. A8 Music Group are regarded as an online music SP while TOM, Tencent, and Air Net are considered mobile music SPs.

3.4.3 The telecommunication technology company oriented

This type of digital music company is focused on telecommunication technology and business during the 2000s and can also be regarded as the Telecommunication Operators (TOs). Firms include China Mobile, China Unicom, China Netcom, China Telecom, China Railcom. China Netcom and China Telecom operate fixed-line telephones business while other telecommunication firms such as the China Mobile and China Unicom mainly operate wireless telecommunication business (Fu 2008). The

latter have played an essential role in the mobile music industry (Li 2013).

This type of music company also operated a mobile music business and made profits through the PHS ("personal hand set system") (Fu 2008). Although China Unicom particularly China Mobile played a leading role in the mobile music industry in China during the last century (Montgomery 2005), other telecommunication technology-oriented firms also played an essential part in the digital music industry, in particular in the mobile music industry, during the 2000s.

4 China's digital music industry and industrial convergence

4.1 The digital music market

The digital music market is an essential part of the development of the digital music industry in China. The mobile music industry progressed sooner and better than the online music industry in China because it handled the music copyright and/or pirate issues better during the 2000s (Montgomery 2005, Sun 2009). The digital music market is therefore much more about the mobile music market than the online music market.

Compared to the mobile music market, the online music market encountered serious copyright problems during the 2000s as free downloads of music became commonplace in the online music market (Chen 2010). The usual business model mainly relied on the online advertisement, which were generally paid for by commercial companies and those selling free-downloaded music.

The market size of China's digital music market soon progressed and increased during the 2000s (Hu 2006, Montgomery 2005), with the total value and market size of the mobile music market much larger than the online music market (Zhang & Wang, 2009). According to Sun (2009), during the late 2000s the mobile music market and sales accounted for more than 90 percent of the total digital music market and sales while online music represented less than 10 percent.

With the increasingly standardized digital music market and the promotion of new technology (such as 3G), the digital music market size rapidly increased in China during the second half of the 2000s (Li 2006). According to I-research (2005), the market size of digital music in China increased from 8 million Yuan (approximately 1.23 million US dollars) in 2003 to 27.8 million Yuans (approximately 4.21 million US dollars) in 2004.

However, I-research (2005) also points to the skewed market development of online music and the mobile music that started in 2004. The size of the online music market that year was much smaller than the mobile music market with more than 90 percent of digital music attributable to mobile music and less than 10 percent to online music.

The China Science Published Research Institute (CSPRI) (2008) also substantiates this skewed development of the online music industry and the mobile music industry during the second half of the 2000s. According to the CSPRI (2008), the value of the mobile/wireless music market was more than 8 billion RMB Yuan (approximately 1.17 billion US dollars) in 2007 while the total value of the online music market in the same year was just 120 million Yuan (approximately 17.6 million US dollars).

IFPI (2008) also refers to the skewed development of the digital music market and industry, stating that China was among the Top 9 digital markets in terms of sales by channel. It pointed out the online market represented 27% but the mobile market 73% of the total. The mobile market is worth around US\$ 7 billion annually with record companies estimated to receive less than five percent of those revenues. The size of the local mobile music market is the second largest in the world after Japan (IFPI 2008: 8).

During the 2000s the mobile music industry developed well even if the online music industry did not. The unfavourable distribution of profits between the mobile music business operators and music owners/music record companies was disadvantageous to the digital music industry. However, in general, the digital music industry played an essential role in the whole music industry during the 2000s. This industry

broadened its reach by integrating with most digital publishing and information communication technology industries.

4.2 Major issues

Although the digital music industry became one of the major music industry sectors and developed well during the 2000s in China, it encountered difficulties. These mainly arose from issues such as copyright and/or serious levels of piracy and the unfair distribution of profits between service providers and content providers. These issues have restricted the development of digital music industry.

IFPI (2008: 8) points out record companies were estimated to have received less than 5 percent of the total mobile music revenues. Although China had enormous potential for growth in mobile music, any serious market growth was hamstrung by the rampant rate of online piracy, estimated at more than 99 percent of the market (IFPI 2008, Montgomery 2010).

The online music industry presented a serious piracy threat (Montgomery 2010, Li 2013) and according to Sun (2009), most online music business companies provided pirated music to attract both visitors through to download music for free and companies to pay for commercial advertisements for their businesses. The online music industry neither protected the copyright of music owners' content nor shared the financial benefit with the owners and this thwarted the growth of the online music industry during the 2000s.

Although the mobile music industry developed well, it was an unhealthy process that affected the entire Chinese music industry. The specific issue that manifested itself was the unfair profit distribution between music service providers and music content providers/owners. Bill Zhang, the Vice President of Shanghai Synergy Cultural and Entertainment Group points out the seriousness of this issue in the following way: *"The total revenue of China's wireless digital music reached 30 billion Yuan (approximately 4.76 billion US dollars) in 2009. Of which 94% of the profit was taken by telecommunication operators (TOs), service providers (SPs) took 4-5%, music content providers (CPs) only took no*

more than 1%. This is a deformed industrial value chain. Moreover, telecommunication operators (TOs) have an absolute word power, the exchange of digital music copyright is opaque, our CPs cannot easily obtain transparent information, let alone sales data information (Chen 2010: 10).

Moreover, Dong (2011) also stresses the "unfairness" of this distribution of income, noting (2011) the mobile business operators earned 27.9 billion Yuan (approximately 4.42 billion US dollars) in 2010, but service providers gained 2.02 billion Yuan (approximately 320 million US dollars, the profit distribution rate of profit was respectively 7.2% (SPs) and 92.8% (mobile) in 2010. This uneven distribution of profits ensured music rights owners have not secured the level of deserved benefits from mobile music industry sales, something that is not conducive to a long-term stable and healthy mobile music industry.

It is worth noting here the online music industry began paying to download music from the Internet from 31 December 2012 (Qin 2012: 16). Baidu, QQ music, Duomi, Kugou and Kuwo as well as Warner, Sony and Universal now offer the paid download music business. This indicates that the era of free downloads of music via the Internet may be over and the online music industry may start to prosper and will enable the music industry particularly the digital music industry to develop.

China's digital music industry needs to fundamentally reform and innovate. More cultural and economic policies are required to promote the culture and information industries to integrate and develop. "The Cultural Industry Promotion Policy" was created and implemented in 2009 to adapt to and meet the demands of the developmental environment of industrial convergence earlier this century. Moreover, it is critical to make and implement strict and effective laws regarding intellectual property and copyright in music to facilitate and protect the healthy development of the Chinese music industry

5 Conclusion

The digital music industry played an essential role in the Chinese music industry during the 2000s and can be regarded as one of the major music industry sectors in the entire music industry. The 21st century can be considered to be the contemporary period of China's music industry due to the emergence of the digital music industry. The ancient and modern periods, however, are respectively referred in this article as the phases from ca. 4,800 years ago to the early 20th century and from the early 20th century to the early 21st century; the music performance industry sector and the recorded music industry sector respectively played essential roles and exerted a lot of influence in these periods.

The nature and characteristics of advanced technologies, high growth rates, and the strong convergence of the digital music industry greatly enhanced the evolution and development of the music industry in China during the 2000s. The digital music industry evolved and developed mainly by integrating and/or collaborating with certain related industries including the cultural and media industry sectors and in particular the information communication technology industries. The digital music industry, on the other hand, also greatly influenced the cultural and creative industries, the information communication industries as well as other music industry sectors in China during the 2000s. These convergences made China's music industry during the 2000s into a complex system and structure.

6 References

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