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THE STATUS OF LEGAL PROTECTION OF DATABASES IN CHINA

Man Tang

Xiangtan University, Hunan, China

ABSTRACT: In the networking age, research into database copyright protection has increased in significance for the information industry. There is no doubt that a database original in content or arrangement is copyright protected, but application of traditional copyright law to databases not original in content or arrangement has been difficult. Because of this, the anti-unfair competition act becomes an important supplement to database copyright protection. However, there is a gap between the existing legal frame and the rapid development of the database industry. In order to protect the rights of database makers more fully, the European Union established the database special protection system. For the healthy development of the Chinese information industry, existing related legislation should be applied. In the near future when conditions are ripe, special laws related to database protection should be considered in China.

Databases, more precisely, should be called collections of information. As defined by the European Parliament and the European Council Directive on the Legal Protection of Databases (hereinafter referred to as "EU Database Directive"), a database is "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means." This definition is probably derived from the 1960s, when a database mainly referred to the hierarchical or network data model current at that time. Since the 1990s, it has been closely linked to the information superhighway. In the Internet era, the database has become an important component of the information industry.

There is a prosperous market for databases because of the advantages of a database, such as the capacity to store large amounts of information, convenience in searching, etc. In addition to this, a database can be easily mass-produced at low cost because of its electronic form. Still, because the producer must invest a lot of manpower, material resources and capital, the market risk is obvious. A report from the World Intellectual Property Organization (WIPO) indicates that at present, there are over 130 countries and regions that protect databases through copyright law, contract law, and anti-unfair competition acts. Laws regulating technological secrets and commercial secrets are also protecting databases. In addition, the EU seeks a higher level protection of database through exclusive rights, because of the special characteristics of databases.

Copyright law and anti-unfair competition law are the most important laws in China for protecting the intellectual property of databases. Looking at our current legal system, there is, so far, no special law for protecting databases, and the concept of a database is not clearly defined in legal nomenclature. Analyzing the advantages and disadvantages of the existing legal protection of databases and learning the legislative experience of the West will be significant to the development of the database industry.

Since the 1990s, legal protection of databases has become a hot topic in the information industry. For example, an article by Michael Seadle¹ looks at how U.S. copyright law deals with facts and what can

¹ Seadle, Michael. "Copyright in the networked world: using facts". *Library Hi Tech* 24, no. 3 (2006): 463-468.

reasonably be considered as a fact of database protection. Lawrence Guthrie² reported on legal protection for databases prepared by the U.S. copyright office, concluding that the database industry relies on incorporating greater creativity into databases, having contracts or licenses, and limiting access via technology to protect its compilations. Yuying Gu³ conducted a comparative study of the status of legal protection for database protection in the U.S. and China.

Why is legal protection for databases needed? Tim Studt⁴ pointed out that without copyright protection, unscrupulous users could copy and widely distribute database information without compensating or crediting the data providers. It is in the best interests of both commercial and academic database users to have database protection to preserve and encourage the continued creation of databases.

1. Copyright protection of databases

Currently, the legal protection of database in China is mainly regulated by copyright law. Databases can be classified into three types: 1) The database consists of the original works, such as Tsinghua Tongfang "China Academic Journal" database and "Superstar Digital Library" full-text database; 2) It consists of factual materials that are not protected by copyright law but that have been originally selected and arranged, such as China's patent database; 3) It consists of factual materials that are not protected by copyright law and unoriginally selected and arranged, such as a database of entire telephone numbers, train schedules database, etc.

Traditional Copyright Law relates to the protection of works. The doctrine of "originality" is important to copyright law. For a database belonging to the first category enumerated above, there is no doubt that it should be protected by copyright law because of the originality of the work. The provisions of Article 2, paragraph 5 of "Berne Convention" are applicable: offer protection to a compilation of literary or artistic works. Existing copyright law in China also protects such compiled works. A database of the second category, the content of which content is factual materials in public domain, is protected as a work of compilation by many countries and regions because of its originality of selection and arrangement. Examples are the copyright law of America and Germany, the Intellectual Property Agreement (TRIPS) and other international treaties. Still, it is unclear whether China's copyright law enacted in 1990 applies to compilation. However, the emendatory Copyright Law in 2001 clearly stipulates in Article 11 "A work which brings together works or fragments of them and data not incorporated into other materials, reflecting its originality by its selection and arrangement of the contents, is a compilation. Its copyright is held by the person who compiled it. However, implementation of the copyright must not infringe on the copyright of the original works." Thus, a clear legal basis can be found for copyright protection of the second type of database.

The problem is that databases of the third category—unoriginal databases—cannot be protected by the copyright law system because the selection and arrangement of their contents is unoriginal. But in

² Guthrie, Lawrence. "Legal protection for database: A summary". *Information Outlook*, v. 1, no. 11 (Nov. 1997): 40.

³ Gu, Yuying. "Comparative study of database protection in the United States and China". Thesis (LL.M.)—University of Washington, 2001.

⁴ Studt, Tim. "Why you need database protection". *R&D* v. 39 n9 (Aug. 1997):20.

the Internet era, unoriginal databases that consist of purely factual information, data, etc. play an increasingly important role. And human society is increasingly dependent on such information, such as financial information, real estate information and travel information. These databases have made it very efficient and low-cost to find and use such information. In the era of information explosion, locating and presenting such information as a database is expensive, but under traditional copyright law, such a database cannot be protected. A huge investment with no prospect of return inevitably frustrates investment enthusiasm. While society gains much from these sorts of databases, without the investment necessary to compile them, network resources will inevitably be exhausted.

The “originality” principle of traditional copyright law is clearly inadequate to protect databases. Hence countries around the world have begun to look for a new model to apply to the copyright protection of databases. For example, in the United States Copyright Law, copyright protection of databases takes investors’ interests as the starting point. And under certain conditions, employers or investors can be regarded as the author. Adoption of the “Intellectual Collection” doctrine (also known as the “sweat of the brow” doctrine) nearly abandons the originality requirement for a database. That is to say, confirming the copyright of the database depends on the maker’s effort and investment. But in the case of *Feist Publication Co. v. Rural Telephone Service*, the judge found that white pages telephone directories, which contain names and addresses arranged in alphabetical order, did not have a copyright. The judgment of this case ruled against “Intellectual Collection” doctrine; the ruling pointed out that the works should be creative at least, and returned to the “originality” principle of databases.

Copyright law protects the “creative expression” of the works, but not the content of them. The value of a database is complete information, convenience, and fast retrieval method. The requirement of complete information restricts compilers and makes it difficult to express their individuality; convenience and speedy retrieval means that classification, arrangement and design must meet commonly-accepted models established by usage. This can be observed in the arrangement of telephone directory databases in Chinese, which can be sorted by surnames, strokes, alphabetical order, and so on. Anyone who tries to use the “original” principal to try to choose a new search method for users will run into trouble.

In the process of producing a database, with the emergence and development of automatic indexing, automatic categorizing, and automatic scheduling technology, fewer and fewer traditional works will be original. As for collection of data, material and financial risk will become increasingly serious. Many databases cannot be characterized as original, but they do possess substantial commercial and market value. The value of a database does not lie primarily in its originality. Blind pursuit of originality would reduce the value of databases, and restrict the development of databases. Content innovation or format innovation—what is protected by traditional copyright law, with its originality principle—is not important or critical to databases; the information that most clearly reflects the commercial value of database (complete contents, convenience and fast retrieval) has been ignored. In database protection, the “originality” principle of traditional copyright law encountered a challenge.

2. The protection of anti-unfair competition act against database

Databases that are “original” can without question be called a “work;” and on this basis databases are

protected by copyright law in more than 130 countries and areas of the world. According to the copyright law of China, because database is not one of the works listed as protected in the copyright law, in judicial practice it is still considered to be an “assembly work,” or a work in which the content is “selected and arranged originally.” Hence it is not protected by copyright law. In other words, copyright protection of databases is only a thin protection. To provide additional protection within the existing legal framework, anti-unfair competition acts have been enacted.

During year 1995-1996, Beijing Sunlight Data Co. signed contracts for information collection related to business transactions and negotiable securities transaction quotations with more than ten domestic commodities and stock exchanges. The Sunlight Co. collected this data and compiled it in its own data analysis format into a comprehensive quotation information flow and then transmitted it through a satellite broadcast system called “the SIC real-time finance system.” In November, 1995, the Sunlight Co. noticed that the Shanghai Bacai Data Information Co. was using and retransmitting the Sunlight Co.’s “SIC real-time finance system” without having purchased the right to use the system. This case was taken to Court. The Court’s judgment was that “SIC real-time finance system” was not a type of work in the copyright law sense, so it did not have copyright protection. In the appeals process, the first trial at the Beijing First Intermediate People’s Court held that, because information resources have become important to modern society, and the producers must invest massive manpower, financial resource and intelligence to develop information products and provide information services; therefore product quality and advance information service would be improved if information resources received reserve legal protection. In the Court’s judgment, it was proper for The Sunlight Co. to reap financial rewards for the “SIC real-time finance” system, for the data analysis format of it was not known to the public. Furthermore, the system was both practical and private and therefore should be protected by anti-unfair competition legislation. The second trial court decision pointed out explicitly that the “SIC real-time finance information” system, as a kind of new electronic information product, should be considered an electronic database. It was paid to collect and arrange information from stock exchanges, so it had the right to receive legal protection. The Bacai Co.’s behavior was dishonest and immoral and interfered with the business interests of Sunlight Co. This constituted unfair competition.

This was the first example of the protection of an electronic database by anti-unfair competition law in China. Although we don’t use case law, the influence of this decision is still profound, and it is continuously analyzed and discussed in theoretical circles. The anti-unfair competition law can be a supplement to protect a database producer’s rights when copyright law cannot provide adequate copyright protection in China.

Anti-unfair competition law refers to the sum of laws that curtail unfair competition. Together with anti-monopoly law, they compose “competition law,” which is considered part of the “economic constitution.” It is also regarded as a vital part of the intellectual property law system by some scholars. Anti-unfair competition legislation may solve problems in the intellectual property rights category that are not legal matters for copyright law, exclusive law, or trademark law. It balances the interests of competitor, public and consumer.

Commercial operation requires fair, reasonable, and orderly competition. It is necessary not only for a market economy, but also for legal justice. Anti-unfair competition law is intended to protect and

promote fair competition and to stop actions tending toward unfair competition. It stipulates that “the operator in the market transaction must follow the principles of freedom from constraint, equality, fairness, and honesty, as well as commercial ethics.” As was mentioned above, many databases without “originality” in their content and arrangement are not in the same category as the “work” itself. Rather, their core value lies in their commercial use. Database copyright protection should protect the producers’ investment in collecting, reorganizing, processing and disseminating, and stop other people from carrying on unfair competition by copying data.

Seen from the perspective of anti-unfair competition law, a database, no matter what type it is and though neither the content nor compiling method has originality, as long as it does not interfere with the copyright that belongs to the original material, because of the effort of the producer to compile the database, falls under the protection of the anti-unfair competition law. If anyone in any way uses the database without payment and permission, or takes the data to produce a similar or identical database, the resulting unfair competition is punishable by law. Therefore we can say that anti-unfair competition law is an addition to the scanty protection by copyright law for the contents of a database.

However, the protection of a database producer’s right by anti-unfair competition law is also deficient in certain respects. The law can only restrict specific operators in competitive relationships, and the one restricted can only be a competitor who competes by inappropriate means, such as copying all or some portion of the data from the database. The possessor of the database producer’s rights can be the operators who run a business. But many of the database producers are in libraries, or information organizations that are not in business, so they cannot reserve rights by this law. Moreover, in anti-unfair competition law, there are regulations for protecting commercial secrets, but no regulations for protecting electronic databases, many of which are not in the contents of commercial secrets. It is for the judge to determine if the case was decided based on credit and honesty, which are the fundamentals of anti-unfair competition law. So anti-unfair competition law is uncertain in range and definition, and is limited to administrative departments and the judiciary for its implementation. Moreover, abuse of anti-unfair competition law to protect electronic databases would interfere with the copyright law system. Therefore, the European Union has established, besides existing law, the database special right protection system.

3. Exclusive right protection of the database

“Originality” is the basic principle of the copyright law, but the “non-original databases” are excluded from its protection. Protection of databases using anti-unfair competition law by the principle of “honesty” is limited. “The bottle is too old to contain new wine”—the distance between the extant legal framework and the rapid development of the database industry is more and more obvious. Must we either (1) abandon the originality principle of copyright law and destroy the present legal framework in order to allow for the development of database industry by enlarging the scope of legal protection or (2) establish a special right-protection system aiming to encompass the characteristics of databases by legal innovations? In the legal and industrial area, controversy over the two approaches has never ceased.

In March 1996, Directive 96/9/EC of the European Parliament and of the Council on the Legal Protection

of Databases established a protection system for databases independent of the copyright system and opened a new way to protect databases. In the WZPO conference in December 1996, a draft intellectual property law related to databases failed to pass because of major differences among members of the European Union. Only a few months earlier, in May 1996, H. R. 3531, the Database Investment and Intellectual Property Antipiracy Act of 1996, had been accepted by the U.S. House of Representatives. The Bill advocated building an exclusive right protection system for databases similar to the EU Database Directives, but with broader scope, a longer period and more protection measures. Because of opposition, the bill did not make it through the legislative process.

There is an essential distinction between the EU Database Directives and traditional copyright protection. The EU directives abandoned the "originality" principle of traditional copyright law, and made "substantial investment" in the database the criteria for protection of the database producer's rights. Article 7, paragraph 1, states that if "there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation," the database maker will be given special rights and gain special protection. Proprietary protection is available to any database producer, so long as he or she could show that "there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents." These investments include time, money, intelligence, resources and so on. Neither originality of the database nor originality of database selection and formatting is required to qualify for protection, simply bringing a large number of non-original databases together is enough. Such exclusive right protection is similar to the "Catalogue Regulation" in northern Europe, in which, as long as it is proved that there is substantial investment in a database, the database producer has the right to control the use of the database.

The "EU Database Directives" break through the limitations of traditional copyright law in protecting the content of works. Chapter 3, Article 7, Paragraph 1, states that "the object of exclusive protection is not the database, but the content of the database." It points out, "although there is not yet a coherent anti-unfair competition law legislation or case law system, other measures should be taken to prevent extraction and/or re-utilization of the contents of that database." Protection by the "EU Database Directives" of the database extends from the formatting to the content of the database.

The exclusive right of the producer of a database refers to the right of extraction and re-utilization of the whole or of a substantial part of the contents of that database, no matter whether the database has copyright or not. Once qualified, database producers will have a right "to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database." The Directive defines "extraction" as "the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form;" and "reutilization" as "any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by online or other forms of transmission."

The emergence of the "EU Database Directive" is of great significance. It offers more protection for the workforce and investment in databases, reduces investment risks to the database industry, and attracts more funds for investment to the EU, particularly investments in the information industry, and enhanced its competitiveness in the international market. It points out clearly that a database is a key tool to the

development of the information market in the EU, and that the rapid increase of information requires members to invest in advanced information management systems.

Exclusive right protection is a good solution to many practical problems in the protection of databases. However, excessive protection of rights would destroy the balance between individual and the public interest and runs against the purpose of modern intellectual property law. So, in 1998 the Directive was modified to provide that the European Commission should submit a report about the implementation of the Directive to the European Parliament, Council of Europe and European Economic and Social Committee every three years, reviewing exclusive right protection of databases in order to determine whether such protection caused a monopoly or interference to free competition, and discuss whether it is necessary to take other remedial measures including the mandatory license of database use.

4. Suggestions to China's interrelated legislation

China should note the establishment of exclusive right protection of database by some developed countries, especially those whose information industry is flourishing. Although such legislation in the United States failed to pass, efforts along these lines continue. China is a developing country, but also a country producing and consuming many information resources. Compared with the developed West, information technology in China is still relatively backward, and the information industry is developing. Conditions are not ripe for setting up an exclusive right protection system for databases because doing so will lead to the monopolization of large numbers of information resources by a few developed countries or foreign companies, and hence restrict the development of China's information industry. Still, the international situation demonstrates that database investors will be afforded more protection of rights. For example, the EU Database Directive protects only databases whose producers are residents of the EU or those produced by companies and firms that have a business presence in the EU. The Directive also extends protection to databases of non-member states, but only if such non-member states offer exclusive protection to database produced by EU member states.

In the 1980s, considering the gap of modern science and technology between China and developed countries, a heated debate rose about whether we should enact patent law. In the decades since then, China's science and technology have progressed rapidly and even in some areas exceed the developed countries, since the implementation of China's patent law in 1985. In legal protection of databases, the current legal system in China is flawed, particularly related to copyright law. The following issues must be addressed: characterizing the information industry and improving relevant legislation; following closely legislation and trends in other countries, especially Western countries; protecting the rights of database producers so as to balance individual interests and public interests; and accelerating the development of the information industry in China.

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