INTERNATIONAL PROTECTION OF NON-ORIGINAL DATABASES; STUDIES ON THE ECONOMIC IMPACT OF THE INTELLECTUAL PROPERTY PROTECTION OF NON-ORIGINAL DATABASES

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ABSTRACT

The Standing Committee of Copyright and Related Rights of the World Intellectual Property Organization (WIPO) has been discussing the possibility of introducing intellectual property protection of non-original databases through new international norms. It has been examining whether databases that do not presently qualify for copyright protection should also be protected. On the other hand, it is pointed out that the need of the scientific, research and educational sectors and the issue of access to information should also be taken into account.

For the use of the Standing Committee in its continued work on this issue, the Secretariat of WIPO commissioned six external consultants to prepare economic studies on the impact of the legal protection of non-original databases.

Keyword: Databases, Intellectual property protection

1 BACKGROUND

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations. It is an inter-governmental organization dedicated to helping to ensure that the rights of creators and owners of intellectual property are protected worldwide and that inventors and authors are recognized and rewarded for their ingenuity.

Member States of WIPO have been discussing the possibility of introducing international protection of non-original databases, which presently do not qualify for copyright protection. Under the national laws on copyright of most countries, databases that constitute an intellectual creation by reason of the selection or arrangement of its contents are protected. This means that copyright protection might not be available for certain databases, depending on the level of originality required under the copyright law of a particular jurisdiction, even if substantial investments have been made to produce them. Databases that contain comprehensive information without selection in a straightforward manner, such as alphabetical or numerical order, may not be protected under copyright in all countries. It has been discussed whether intellectual property protection should extend to such databases, for example, through a *sui generis* right. Another possibility is to use an approach based on protection against misappropriation or unfair competition. On the other hand, it has been pointed out that the need of the scientific, research and educational sectors and the issue of access to information in legal, scientific and other databases should also be taken into account.

In December 1996 a Diplomatic Conference on Certain Copyright and Neighboring Rights Questions was held under the auspices of WIPO to address a number of issues related to advances and developments in technology and marketplace. The Conference had among its documents a Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference (Chairman of the Committees of Experts on a Possible Protocol to the Berne Convention and on a Possible Instrument for the Protection of the Rights of Performers and Producers of Phonograms, 1996). Ultimately the Conference focused on copyright and rights of performers and producers of sound recordings and did not discuss that document. The Diplomatic Conference, did, however, adopt a Recommendation concerning Databases (Chairman of the Committees of Experts on a Possible Protocol to the Berne Convention and on a Possible

Instrument for the Protection of the Rights of Performers and Producers of Phonograms, 1996). , and the work on this issue continued at WIPO.

The protection of databases has been an item on the agenda of the Standing Committee on Copyright and Related Rights of WIPO since its establishment in 1998. The Standing Committee is a forum within WIPO to discuss issues, facilitate coordination and provide guidance, concerning the progressive international development of the law of copyright and related rights.

2 COPYRIGHT PROTECTION OF DATABASES

Copyright protection of original databases is well established and harmonized through international treaties to that effect, such as the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention, 1971), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (WTO, 1995) and the WIPO Copyright Treaty (WCT)(WIPO, 1996).

2.1. International Norms

Article 2(5) of the Berne Convention (1971) provides as follows: "Collections of literary and artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangements of their contents, constitute intellectual creations shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections."

The said provision in Article 2(5) of the Berne Convention limits its scope to original collections of literary and artistic works. This does not mean, however, that there is no basis in the Berne Convention for the protection of original collections of other material, such as mere data. In recent years, a general consensus seems to have emerged that collections of material other than literary and artistic works are indeed subject to copyright protection under the Berne Convention, provided, of course, that they can be considered "works," that is, that they are original.

The TRIPS Agreement (WTO, 1995) was adopted as part of the Marrakech Agreement Establishing the World Trade Organization, which came into force on January 1, 1995. Article 10(2) of the TRIPS Agreement states as follows: "Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself."

More recently, the WIPO Copyright Treaty (WIPO, 1996) was concluded in December 1996, with the aim of updating international copyright norms, and came into force in March 2002. The WCT contains in its Article 5 a provision on copyright protection of databases, which, under the title "Compilations of Data (Databases)" provides as follows: "Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation." The Diplomatic Conference also adopted, by consensus, the following agreed statement: "The scope of protection for compilations of data (databases) under Article 5 of this Treaty, read with Article 2, is consistent with Article 2 of the Berne Convention and on a par with the relevant provisions of the TRIPS Agreement." Article 2 of the WCT, to which the agreed statement refers, states, under the heading "Scope of Copyright Protection," as follows: "Copyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such."

2.2 Regional Legislation

The Decision No. 351 of the Cartagena Agreement containing "Common Provisions on Copyright and Neighboring Rights" was concluded on December 17, 1993, between Bolivia, Colombia, Ecuador, Peru and

Venezuela and it entered into force in 1993. Decision 351 provides that the Member Countries are obliged to protect "anthologies or compilations of assorted works and also databases, which, by the selection and arrangement of their contents, constitute personal creations."

The North American Free Trade Agreement between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America (NAFTA Agreement) was concluded in 1993, and entered into force in 1994. The NAFTA Agreement obliges the parties to protect, *inter alia*, "compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations, shall be protected as such."

The Directive 96/9/EC (1996) of the European Parliament and of the Council of 11 March 1996, on the legal protection of databases (hereinafter referred to as "the Database Directive") is binding for the 15 countries of the European Union, that is, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom, which were obliged to implement its provisions in their national legislation before January 1, 1998. The provisions of the Directive also apply as regards the countries of the European Economic Area which comprise, in addition to the countries of the European Union, Iceland, Liechtenstein and Norway.

Chapter II of the Directive deals with the copyright protection of databases. It provides that "[i]n accordance with this Directive, databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright."

2.3 National Legislation

An examination of the national copyright legislation in the member States of WIPO shows that most copyright laws, indeed almost all, include explicit provisions on copyright protection of collections of literary and artistic works, such as encyclopaedias and anthologies. It also shows that specific provisions regarding copyright protection of collections or compilations of subject matter other than works, such as databases, exist in the laws of a number of countries.

3 PROTECTION OF NON-ORIGINAL DATABASES

3.1 International Norms

There is no international norm on protection of non-original databases.

3.2 Regional Legislation

The Database Directive of the European Communities contains in its Chapter III provisions on *sui generis* protection of databases. Further provisions, relating to both databases subject to copyright protection and databases subject to *sui generis* protection of databases, are contained in Chapters I and IV of the Directive.

The object of protection under the *sui generis* rights is databases for which the maker "shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents."

3.3 National Legislation

All member States of the European Union and the European Economic Area have amended or adopted legislation in order to implement the Database Directive. In addition, as of July 2002 the following candidate countries that are currently negotiating accession to the European Union had legislation on *sui generis* protection of databases: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

Apart from the above countries, the copyright law of Mexico has been identified to contain provisions on protection of non-original databases.

In the United States of America, there have been several attempts in the past to enact legislation to this effect. In 1996, the H. R. 3531 titled "Database Investment and Intellectual Property Antipiracy Act" was introduced, followed by the H. R. 2652 titled "Collections of Information Antipiracy Act" in 1997. The last bills that were introduced in the House of Representatives were the H.R. 354 titled "Collections of Information Anti-Piracy Act" by the same Representative who introduced the House Bill H. R. 2652, reported from the Committee on the Judiciary, and H.R. 1858 titled "Consumer and Investor Access to Information Act of 1999", reported from the Committee on Commerce.

While none of the bills have been passed, they reflect, to different degrees, the two approaches: one based on misappropriation, and one providing *sui generis* protection similar to the EC Directive.

4 ECONOMIC STUDIES COMMISSIONED BY WIPO

Against the above background, and at the request of the Standing Committee for the use in its continued work on this issue, the WIPO Secretariat commissioned external consultants to prepare economic studies on the impact of the protection of non-original databases. The studies were requested to be broad, covering not only economic issues in a narrow sense, but also social, educational and access to information issues. The consultants were furthermore expected to focus in particular on the impacts in developing, least developed and transition economies.

In 2001, the preparation of five separate studies was entrusted to the following experts:

- Mr. Yale M. Braunstein, Professor, School of Information Management and Systems, University of California, Berkeley, United States of America (USA);
- Mr. Sherif El-Kassas, Associate Director, Center for Academic Computing, Cairo, Egypt;
- Mr. Thomas Riis, Associate Professor, Law Department, Copenhagen Business School, Copenhagen, Denmark;
- Mr. Phiroz Vandrevela, Chairman, National Association of Software and Services Companies (NASSCOM), New Delhi, India;
- Mr. Zheng Shengli, Professor, School of Intellectual Property, Peking University, Beijing, China.

The positions of the experts could be summarized as follows. While Mr. Braunstein (USA) argues that protection of database rights provide advantages to countries regardless of their levels of economic development, Messrs. El-Kassas (Egypt), Riis (Denmark) and Zheng (China) raise certain doubts or reservation in this regard, in particular, in relation to the needs of the scientific and educational communities for unrestricted access to data at no cost or at affordable prices. Mr. Vandrevela (India) supports database protection for his country, India.

Mr. Braunstein (2002) states that the TRIPS Agreement has led to a near universal view that national laws and international agreements that protect and respect intellectual property rights (IPRs) provide advantages to countries of all sizes and at widely differing stages of economic development. His study uses the tools of economic analysis to show that these conclusions also hold for the protection of database rights. He indicates that exceptions and limitation for certain groups, such as scientific and educational communities, if any, should be drawn as narrowly as possible. He suggests that there are other ways to address the needs and concerns of those groups. This includes, *inter alia,* recourse to competition law, subsidies or negotiation of reduced-price licensing agreements.

Mr. El-Kassas (2002)concludes that *sui generis* protection of unoriginal databases in the current proposals would have negative effects on developing countries and on the scientific and academic communities worldwide. Moreover, it is asserted that the legitimate concerns of database compilers can either be met within the framework of the existing intellectual property laws and systems and/or by using technical measures for protecting their database systems.

According to the study by Mr. Riis (2002), the social costs and benefits of intellectual property protection from the point of view of developing countries are difficult to quantify, and it cannot be concluded firmly that intellectual property protection of unoriginal databases is detrimental in an economic sense to developing countries and countries in transition. However, it appears that prospective economic benefits of uniform (high)

intellectual property standards are comparatively lower in developing countries than in industrialized countries. Given the uncertainty of the beneficial effects of intellectual property protection of unorignal databases, one should probably not opt for the strongest form of protection, that is, the *sui generis* right. Furthermore, by not choosing a *sui generis* regime, the risk of creating information monopolies is reduced. Arguably, a better balanced result could be obtained by a neighbouring right or by unfair competition law.

Mr. Vandrevela (2002) supports database protection for his country in order to attract more investments in this field, which has vast economic potential for a country like India. In his view, the problem of potential non-access could be resolved by carving out specific exceptions in favor of the academic and research communities. In his view, the argument that government data cannot be commercialized does not hold much ground in the light of the fact that the Indian Government has now started commercializing its data, especially in areas where it is technologically advanced, such as remote sensing. More importantly, with the digital era churning out tons of data today, one should structure the regime in such a way that mere data is not protected; rather only databases that involve the expenditure of substantial investment/resources should be protected. One also needs to clearly define what constitutes a "database."

Mr. Zheng (2002) states in his study that one must strike a balance among the interests of database developers, their competitors and the public, by protecting the developers from competitors' free ride on the one hand, and preventing the creation of any monopolization on data on the other. As a developing country with 1.3 billion people, he says that China must make special efforts to pay more attention to various other social and economic problems that may arise as a result of the legal protection of databases, in addition to the ones that are common to developed countries.

The five studies were submitted to the Standing Committee on Copyright and Related Rights at its seventh session in May 2002 (Braunstein, 2002; El-Kassas, 2002; Riis, 2002; Vandrevala, 2002; Shengli, 2002).

Later in 2002 Mr. Andrés López, Researcher, Centro de Investigaciones para la Transformación (CENIT), Professor of "Development Economics," Faculty of Economic Sciences, University of Buenos Aires, Argentina, was commissioned to prepare an additional study that focuses on Latin America and the Caribbean region. The study was submitted to the Standing Committee at its eighth session in November 2002 (Lopez, 2002).

Mr. López (2002) holds the view that the empirical evidence that they have collected for Latin America and the Caribbean does not seem to support the argument in favor of introducing IPRs for non-original databases, in that they have not observed that the incipient industry existing in the region is being damaged by the absence of *sui generis* legislation; the commercial damage that certainly is done, although its extent is not clear, seems to derive more from the lack of adequate enforcement of the legislation currently in existence. He concludes that it is necessary for the study of this issue to progress further.

5 CONCLUSION

The commissioned studies assisted the Standing Committee to clarify the issues that are involved in protection of databases. While it may not be likely that there would be any major movement at the international level on this matter in the near future, WIPO will continue to follow developments at national and regional levels.

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