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# Legal Protection of Sui Generis Databases

Chana Rungrojtanakul
*Golden Gate University School of Law*

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**Golden Gate University**

**School of Law**

**International Legal Studies**

For

Udom and Sumalee Rungrojtanakul

for your unconditional love and support

and

Prathepsinkhaburajran (Charun Thitadhammo)

for your guidance and light to my spiritual path

## Preface

It is undeniable that databases are an essential building block of the Information Society. Today, every business in developed countries operates fully based upon clientele databases, economic statistics, and industries profiles; and innovation and invention rely heavily on collections of facts, data and information that scientists discovered in research and development or exchanged among them. Legislatures have envisaged a need and significance of the free flow of access to information, thereby prescribing copyright protection only to creative selection and arrangement of the contents of databases, not the factual contents contained within. However, the advent of technology avails unconventional methods of copying, altering, and recompiling to manipulate the contents of databases. Anyone can make use of technology, gather information, recompile them, and take this opportunity to enter into market, being possessed by original players and creating unfair competition. Original database makers, therefore, are suffering from losses in investment and crying for a legal solution, giving rise to possible intellectual property right of *sui generis* databases or a right of "its own kind."

Throughout history, it is clear that copyright extends only to the creative or expressive contents, not the underlying facts, data, or information. Although there were battles between publishers or authors, copyright law meant to reward creative genius rather than contribution of finance or pure labor. Over centuries, its rationale remained unchanged, promoting a proper balance of author's incentive to complement creativity cycle and the public's free and open access to information to keep the market place of ideas intact. For the protection of collections and compilations, Article 2(5) of the Berne Convention makes clear that it extends only to the creative elements of the selection and

arrangement of the contents. However, it is insufficient for database industries who have contributed capitals and entrepreneurial efforts in the making of databases.

The threat of the free flow of access to information has been driven by the legislative battle and politics between two powerful economic parties, the United States and Member States of the European Union. To maximize profit, lobbyists from database industries have urged their governments to recognize a property right in the compiled facts and information resulted from entrepreneurial effort alone. This endeavor has reached not only national level, but also international. Such concept of protection, thus, opposes the principle of the free flow of access to information that copyright law has promoted. The scientists and those, who are in the educational field, express concern that such regime impedes the free flow of access to facts, data, and information by increasing a cost to access them. Developing and least developed countries worry about negative impacts of *sui generis* protection on their socio-economic infrastructure, particularly human resources development, not only because of an increasing cost to access, but a fear of loosing their traditional knowledge, such as collections of undeveloped medical plants and compilations of unimproved medical treatments. A justifiable intellectual property right in *sui generis* databases, if any, must be considered and based upon the concept to achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedom for all in the global society to benefit from the progress of science and the use of arts and literatures.

This dissertation is intended to reexamine the concept of protection of *sui generis* databases. Chapter I identifies legal issues relating to the protection of *sui generis*

databases between countries, especially, between the United States and the European Union. Chapter II surveys the provisions of the WIPO Draft Database Treaty that has been heavily influenced by these two parties. Chapter III is based upon a question of economic justification for *sui generis* databases explores important economic mechanisms and competition law that have been used to promote the competitiveness of the database industries. Chapter IV reexamines the notion of public interest in relation to the principle of the free flow of access to information and addresses on a possible violation of human rights of *sui generis* right. Last, Chapter V concludes considerable concepts of *sui generis* right, addressing the notion of "state responsibility" to both its citizens and other countries, and suggesting that advanced technological means provides a self-help solution for the *sui generis* databases.

**Acknowledgements**

I am indebted to a number of people whose intellect and compassion, above all, guided my learning process. First and foremost I wish to thank Dr. Sompong Sucharitkul who believed in my abilities and accepted me into this program. I also benefited from his wisdom and from the relevance of his course material. Everything I learned from him in the classroom continues to be valuable and have practical application outside of academia.

I am deeply grateful to Dr. Christian Nwachukwu Okeke for his encouragement, and, especially to Professor Marc Greenberg for his generosity and expertise in the area of intellectual property laws. By using the queen of pop culture, Madonna, as an example to explain the concept of intellectual property laws in relation to internationalism, Professor Greenberg made it easy for students to learn and understand complex ideas in a way that no one else could. His unique originality and creativity must be acknowledged and remembered.

I would also like to thank all my family and friends for their love, compassion, understanding, support, tolerance, and forgiveness, and, most of all, for giving me room to grow. While I am humbly aware that I have little to offer in return, as a Buddhist, I gratefully pray for the Buddhist triple gems to bless them all forever.

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# Chapter I

# Identification of Legal Issues Relating to Databases

## I. Introduction

There is an impending legislative battle that could impact significantly the market for information and all sectors dependent upon that information, from commercial database compilers to academic researchers. At stake is nothing less than the human right "to education,"[1] and the societal interest in "the benefits of scientific progress and its applications"[2] through the public free flow of access to information. Until recent times, legislatures and courts around the world have embraced the concept that free access to information should be secured as robustly as possible. They have granted legal protection to compilations, but primarily only to the creative selection and arrangement of the contents, not to the facts or data contained within the compilation.

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[1] Universal Declaration of Human Rights [hereinafter UDHR], G.C. RES. 217 (III 1948), adopted by the U.N. General Assembly on December 10, 1948, art. 26(1).

[2] *Id.* art. 27(1) International Covenant on Economic, Social and Cultural Rights [hereinafter ICESCR], adopted 16 December 1966, 933 U.N.T.S. 3 (entered into force 3 January 1976), G.A. Res. 2200 (XXI), 21 U.N. GAOR Supp. (No.16), p. 49, U.N. Doc. A'6316 (1966), art. 15(1)(b).

The rise of the Information Age has added great complexity to issues of legal protection, especially with the proliferation of digital networks. The Internet, for instance, has enabled even the most moderately sophisticated users of digital networks to compile and publish databases that they themselves may have created from other compilations. Creators of databases – the lifeblood of many businesses – are fearful that their work can be used easily for profit without their permission and even to their economic or moral detriment.

Legal rights for creators of databases can either come from copyright or from a *sui generis* right, a right of "its own kind." Database creators in Europe concluded that copyright protection was inadequate because it extended only to *creative data* (photographic works, musical contents, literary, and so forth) and to copying, viewing, obtaining, and using information in their databases, but did not protect the *factual contents* (statistics, raw scientific data, and the like) of the database. They therefore urged their national governments to secure and safeguard their investment in database industries by granting them a new right in factual and data contents – so-called *sui generis* rights – over and above the existing copyright protection afforded to creative selection and arrangement of information. *Sui generis* protection is not an authentic intellectual property right. Rather, it is a unique, economic criteria used to protect the compiler's substantial investments in the databases.

However, this scheme of protecting *sui generis* databases, such as collections of information regarding the human genome, international economic statistics, traditional medicine, and weather information, threatens to erode the public benefits derived from the free flow of access to information. Science is a prime example of a discipline or field

of knowledge that flourishes only with open access to compilations of data. Scientific and technological endeavors almost always require extracting a substantial part or whole content of databases, which is severely limited under a regime of *sui generis* protection. As the International Council for Science and the Committee on Data for Science and Technology pointed out in their 2002 Principles for Dissemination of Scientific Data:

> "Scientists are both users and producers of databases. However, scientific databases are seldom static; in the course of their research, scientists frequently draw on several existing databases to create a new database tailored to specific research objectives. The synthesis of data from different sources to provide new insights and advance our understanding of nature is an essential part of the scientific process. The history of science is rich with examples of data collections that played a crucial part in a scientific revolution which in turn had a major impact on society. It may truly be said that data are the lifeblood of science."[3]

"Owners" of a database who have *sui generis* protection are given the power to force users (such as scientists and software developers) to enter into restrictive, costly, and potentially prohibitive, contractual arrangements. In the long run, this could have a chilling effect on scientific and technological development, and a likewise detrimental effect on other fields that are reliant on immense amounts of free flowing data.

The ongoing debate concerning database protection is part of the larger historical confrontation between two conflicting philosophies of legal rights for compilations.[4] On the one hand are proponents of the idea that compilations should be protected *per se*,

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[3] http://www.codata.org/codata/data_access/principles.html.

[4] Jonathan Band and Jonathan S. Gowdy, *Sui Generis Database Protection: Has Its Time Come?,* D-Lib Magazine, June 199, *at* http://www.dlib.org/dlib/june97/06band.html (last visited March 7, 2005).

without considering creativity or original authorship, as a means of rewarding and creating incentives for the intense work and investment required to compile data. This is commonly referred to as the "sweat of the brow" or "industrious collection" doctrine. According to this doctrine, protection extends to the otherwise unprotected facts contained in the compilation. If this doctrine prevails worldwide, it may well come to pass that a Swiss company, for example, will be able to invest the time and money to collect data regarding traditional medicines used in China for thousands of years, and then block Chinese researchers from freely sharing the very data that their culture created and utilized for millennia. Such a system could have a profound impact on the future distribution of not only information, but also of knowledge wealth in the world.

On the other hand, there is the philosophy that the databases without any original or creative content should not be protected. Legal protection under this philosophy would be limited only to the original selection, coordination, or arrangement of facts in the databases, but not the facts themselves. In the aforementioned example, the Swiss company would claim legal protection to how the traditional medicine data is searched and presented, but the data itself would remain in the public domain.

Though the Supreme Court of the United States ruled against the protection of *sui generis* databases (discussed below),[5] there remains a powerful movement within the United States to grant a property right to the factual data contained in the databases.[6] Proponents include the American Intellectual Property Law Association, the Information Industry Association, the American Association of Publishers, and many commercial

[5] Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340, 111 S. Ct. 1282 (1991).
[6] Final Report of the National Commission on New Technological Uses of Copyrighted Works, Library of Congress, (July 31, 1978). Report on Legal Protection for Databases, U.S. Copyright Office, ISBN 0-16-049211-4 (August 1997) [hereinafter Copyright Office Report] at 63-70.

database providers and publishers.[7] *Sui generis* legislation was first introduced in the United States in 1996, but so far it has failed to pass.[8] Opponents have successfully argued that *sui generis* protection will add needless costs to research activities, would restrict access even to publicly funded data, would cause software systems that are reliant upon open sources of information to cease to work, and would hinder software interoperability.[9] The National Research Council (part of the National Academies), for instance, strongly cautions that the *sui generis* protection could retard scientific research, and further argues that current trade-secret controls and licensing restrictions already afford sufficient protection.[10] The American Association of Law Libraries opposes the *sui generis* protection, in part, because it "would violate the public good by removing from the public domain government information whose contents have not been substantially changed or modified," and would "provide protection well beyond what has traditionally

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[7] Copyright Office Report, *supra* note 6, at 65. "In general, many members of the library and scientific communities, as well as some educational groups, telephone companies and Internet-related businesses, expressed opposition, while a majority of database producers, including producers of a variety of scientific and scholarly databases, and the owner of a major on-line retrieval service advocated legislation. It must be stressed, however, that positions were not uniform within all of these communities. Some commercial database producers, including one of the largest in the global marketplace, oppose legislation at this time; many scientific researchers, particularly those working for industry, favor it. The reasons for the differences among those who appear to be similarly situated were not always clear. In some case, it may simply be that they hold differing perception of the law or the potential dangers posed."

[8] H.R. 3531, 104th Cong., 2d Sess. (1996).

[9] Copyright Office Report, *supra* note 6, at 69. "Copyright law embodies an appropriate balance between incentives for creation and the free flow of information, by granting rights but leaving ideas and facts in the public domain and providing leeway for public interest activities through the doctrine of fair use and other exceptions. This balance furthers Constitutional policies and should not lightly be disturbed. New rights should not be provided, especially if they give equivalent or greater protection than copyright, without the justification of creativity; facts should be left free for all to use."

[10] A Quest of Balance: Private Rights and the Public Interest in Scientific and Technical Databases, National Research Council (1999) at 3. "Numerous legal, technical, and market-based approaches already exist to protect proprietary rights in databases. Existing legal measures include (1) copyright law, recently updated and strengthened for the online digital environment; (2) licensing, a subset of contract law, which is increasingly the method of choice for online vendors of proprietary databases and other information products; (3) trade secret law, used in conjunction with contract law and various new technologies protections; and (4) unfair competition law in state common law, which is of limited value of database protection at this time but is viewed as a potential model for a new federal database protection statute."

been contemplated by Congress or the courts, giving to non-copyrightable works protection greater than that given to creative works that are copyrightable."[11]

One of the chief threats to the public free flow of access to information is a proposed intellectual property treaty being considered by the World Intellectual Property Organization ("WIPO"). The draft treaty is entitled "*Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases*"[12] ("WIPO Draft Database Treaty"), which aims to extend legal rights to intellectual property right for *sui generis* databases. The WIPO Draft Database Treaty backs the database industries' economic interests even though the proposal contradicts the WIPO's stated objective "to promote economic, cultural and technological advancement."[13] Put simply, the Draft Database Treaty would undermine the public free flow of access to information and all the societal benefits that principle generates.

The objective of this introductory chapter is to identify the legal issues relating to the protection of *sui generis* databases between countries. Section II gives a historical account of copyright law in relation to the protection of "collection works" and the development of databases. Section III proposes a consistent legal definition of "database." Section IV contains an analysis of existing protection of *sui generis* databases in national legal systems, particularly in the United States and Member States of the

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[11] Resolution on the Sui Generis Protection of Databases, Approved by the Executive Board of the Association of American Law Libraries (November 1996), *at* http://www.aallnet.org/about/resolution_sui_generis.asp (last visited March 8, 2005).

[12] *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/6 (December 1996) [hereinafter WIPO Draft Database Treaty].

[13] Convention Establishing the World Intellectual Property Organization, July 14, 1967 (amended September 28, 1979) [hereinafter WIPO Convention] art. 3(i). MICHAEL P. RYAN, KNOWLEDGE DIPLOMACY: GLOBAL COMPETITION AND THE POLITICS OF INTELLECTUAL PROPERTY (1998), at 127-139. "Largely through the diplomacy of the director general, WIPO joined the UN system in 1974. The postcolonial enlargement of the United Nations in the 1960s and 1970s, in the judgment of the director general, offered the best institutional setting to become a universal organization with the global of promoting 'the protection of intellectual property throughout the world.'"

European Union, and the proposed supranational protections of the WIPO. Section V examines the economic and social implications of the measures designed to protect the *sui generis* databases. Section VI offers a possible means of balancing the two public goods: the public good of promoting data sources by rewarding *sui generis* database creation and the public good of allowing the free flow of information.

## II. History of the Legal Protection of Databases

The history of copyright is instructive concerning its legal principles, but it does not speak adequately to the protection of "collections and compilations." Collection refers to "a work such as a periodical issue, an anthology or encyclopedia, in which a number of contributions constituting separate and independent works in themselves, are assembled into a collective whole."[14] Compilation means a literary production composed of the works or selected extracts of others and arranged in methodical manner.[15] In copyright law, a compilation is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.[16] The term compilation includes collective works.

Though the scholars of Ancient Greece and the Roman Empire were concerned about being recognized as the authors of their works (the "right of paternity"), they did

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[14] HENRY CAMPBELL BLACK, M.A., BLACK'S LAW DICTIONARY, DEFINITIONS OF TERMS AND PHRASES OF AMERICAN AND ENGLISH JURISPRUDENCE, ANCIENT AND MODERN (Abridged Sixth ed.) (1991) [hereinafter Black's Law Dictionary].

[15] *Id.* "'Compilation' is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."

[16] 17 U.S.C.A. § 101.

not have under the law any economic rights to control their work.[17] In any event, books were primarily copied by hand, mostly by monks, and the vast majority of the public was illiterate and could not afford books in the first place. So there was no economy of scale that necessitated copyright protection. It was not until the invention of printing in Western Europe in the late fifteenth century that a form of copyright protection was devised.[18]

The technology of the printing press allowed multiple copies of books to be printed easily and cheaply. That in turn gave rise to piracy. Printers could readily steal and distribute the works of others for their own benefit. To combat this problem, many jurisdictions in Europe began to adopt certain legal measures to deal with the distribution of printed materials, and the local economy that printing industries enhanced.[19] One of the more interesting early legal protections was the decree passed in 1545 by the Council of Ten in Venice prohibiting publication of an author's work without proof of his permission. In Germany in 1511, author Albrecht Dürer used a remarkable copyright warning:

> "Hold! You crafty ones, strangers to work, and pilferers of other men's brains. Think not rashly to lay your thievish hands upon my works. Beware! Know you not that I have a grant from the most glorious

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[17] Copyright and Culture, Christopher D. Hunter (May 2000), *at* http://www.asc.upenn.edu/usr/chunter/copyright_and_culture.html#neo.

[18] J.A.L. STERLING, WORLD COPYRIGHT LAW 7 (1998). "All this changed with the introduction of printing into Western Europe, after Guttenberg perfected the use of molded metal type around 1450. Literary texts and their accompanying illustrations could now be reproduced rapidly in large number of copies for sale or other methods of distribution to the public."

[19] *Id.* at 7. "Within a few years after the introduction of printing, European States begun to adopt legal measures to deal with both consequences. The simplest way to control the distribution of printed materials, and protect local printing industries against piracy and foreign import, was to introduce control of the printing presses, so that the state authority would know what was being printed and by whom."

> Emperor Maximillian, that not one throughout the imperial dominion shall be allowed to print or sell fictitious imitations of these engravings? Listen! And bear in mind that if you do so, through spite or through covetousness, not only will your goods be confiscated, but your bodies also placed in mortal danger."[20]

In 1528, Dürer's widow obtained an exclusive right to publish his works, and in 1532 she obtained an injunction against an unauthorized copy of his engraving.

At this stage, however, legal rights were granted either to publishers or authors, but not to both at the same time,[21] and the laws were highly inconsistent. An ability to print numerous copies of books easily and cheaply did not only raise the issue of piracy, it also increased the circulation of material thought to be dangerous to the political order. As a result, the Monarch of a country exercised his or her royal prerogative to regulate book printing and trade, keeping out unwanted thought or controversial ideas such as Lutheranism or Catholicism.

The next big leap forward came in 1710 in the form of the Statute of Anne, "An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies."[22] This landmark legislation, commonly thought

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[20] "Copyright Law and Practice," William Patry, Chapter 1; available at http://digital-law-online.info/patry/patry2.html (last visited March 7, 2005).

[21] *Id.* at 8. "The first printing privileges were apparently the Decree issued by the State Councilors of Venice in the fifteenth century. The first Venetian privilege in this area was granted to a printer (Johannes of Speyer, by Decree of September 18, 1469), conferring an exclusive right to carry on the art of printing. The second of these privileges was granted to an author (Marc Anthony Sabellico, by Decree of December 1486), conferring the exclusive right of authorizing printing of one of the author's named works. The 1486 Decree is thus the first recorded instance of the formal grant of an author's right to an author."

[22] *Id.* at 9. "The initiative of the printing trade and the publications of distinguished authors and philosophers (Defoe, Locke and others) provided the climate for the passing in 1710 of the Act 8 Anne, c. 19 generally referred to as the first Copyright Act."

to be the first copyright act, firmly established two concepts: that the author was the owner of the copyright and that the protection granted to the author's published work was for a limited period of time.[23] The author controlled distribution of his works and the publisher could only acquire such right by the author's assignment. The statute prevented a monopoly by the booksellers and carved out a "public domain" for literature by limiting the terms of the copyright and stating that the copyright owner no longer had control over its use once the work was purchased.

By the beginning of the nineteenth century, it was widely realized that the works produced in one country could be profitably used in another and that some method of achieving cross-border protection was needed.[24] National governments started to provide foreign authors the same protection afforded to local authors contingent upon a foreign country's grant of reciprocal protection.[25] A number of bilateral and multilateral treaties were concluded with different terms rendering complex legal issues and unfair treatments

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[23] *Id.* at 10. "The Act is remarkable in a number of respects. First and foremost, the law gave to the author (not to the publisher, as the printing trade had probably expected) "the sole right and liberty" of printing his books: publishers could only acquire the right by assignment...The principal provisions of the 1710 Act may be summarized as follows:

(1) Authors were given the sole right of printing their books for the term provided by the statute (section 1).

(2) Printers, booksellers and other persons who had for publishing purposes purchased or acquired the manuscripts ("copies") of books were given the sole right of printing such manuscripts for the term provided by the statute (section 1).

(3) The term provided by the statute was (a) 21 years from April 10, 1710, for books printed before that date, and (b) 14 years of protection for the author if the author was still living at the end of the initial period of 14 years (section 11).

(4) Books printed or imported without the consent of the owner of the statutory right were liable to forfeiture and offenders were liable to a fine (section 1).

(5) Remedies under the Act were conditional on registration of the title of the book in the Register of the Stationers' Company (section 2).

(6) Just and reasonable prices for books could be fixed where the prices charged were to high and unreasonable (section 3)."

[24] *Id.* at 13. "At the national level, the question soon arose as to whether foreign authors could claim rights under the local statute. To deal with the problem, states adopted the practice of making bilateral treaties with other countries: these were in general based on the principle that each country would grant the same protection to citizens of the other country as it granted to its own citizens."

[25] *Id.*

between countries.[26] In order to navigate this tangle of complex and disparate laws, nations concluded a general multilateral copyright treaty, the Berne Convention of 1886.[27]

Article 2(5) of the Berne Convention provided copyright on authors' literary and artistic collections "which by reason of the selection and arrangement of their contents constitutes an intellectual creation."[28] The definition of "collections of literary and artistic works" was very broad, capturing nearly every conceivable creation in material form,[29] including encyclopedias, anthologies, dictionaries, collections of articles, stamps or coins, biographical directories, catalogues, databases of any kind, newspapers and periodicals.[30]

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[26] *Id.* "By the end of the nineteenth century, there were many bilateral treaties in force. The treaties contained different terms, so that, for example, the assessment of the legal situation of a work by a national of one country, first published in another country, and copied in a third country could be extremely complex."

[27] *Id.* at 13-14. "By the middle of the nineteenth century, it was realized that some form of international co-operation was necessary so the common rules could be established for the protection of authors and their works. There was an international Congress in Brussels in 1858, but the international meetings held in Paris in 1878 provided the impetus which led to the adoption of the first international Convention in the field some eight years late. The Paris meetings of 1878 saw the founding of *L' Association Littéraire et Artistique Internationale*, the International Literary and Artistic Association (ALAI), under the Presidency of Victor Hugo. ALAI promoted conferences and studies which led to the preparation of a draft Convention, considered in its various stages at Diplomatic Conferences in Berne, Switzerland in 1884, and 1885. Finally, the new Convention was adopted in Berne in 1886." Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886 (Paris Act of July 1971) [hereinafter Berne Convention].

[28] Berne Convention art. 2(5).

[29] *Id.* art. 2(1) "The expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science."

[30] *Id.* art. 2(5) "Collections of literary or artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangement 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." PAUL GOLDSTEIN, INTERNATIONAL COPYRIGHT PRINCIPLE, LAWS AND PRACTICES 163 (2001). "The generalized standard of originality applies to all classes of literary and artistic works, from high art to lowly directories, catalogues and instruction manuals. Because, however, factual works like catalogues draw so heavily on unprotectible data, and because functional works like instruction manuals must, if they are to have any value, precisely track relevant scientific principles or technological requirements, courts in both civil law and common law countries scrutinize these classes of subject matter with particular care."

The Convention specifically excluded "facts" and "contents of facts" such as news of the day or miscellaneous facts having the character of mere items of press information. Copyright protected only an author's creative expressions but not the factual contents or information contained within the work,[31] in order to permit the public free flow of access to factual and data contents. In fact, the Convention specifically intends to provide incentive to authors and complement creativity cycle to upcoming authors on one hand and to promote the public free flow access to information on the other hand.

The protection granted by the Convention to authors was also broad with respect to nationality, the principle of national treatment. Authors were covered by the treaty if they were nationals of a Union country (whether the work was published or not),[32] if they were habitual residents of a Union country, or if their work was first or simultaneously published in a Union country.[33] According to the Convention, each Union country had to accord to the nationals of other Union countries treatment no less favorable than that it accords to its own nationals.

The Berne Convention was subject to a number of revisions from time to time to accommodate the technological changes that affected exploitation and dissemination of authors' literary and artistic works.[34] The intention of the Convention, however, remained unchanged: maintaining a proper balance between the public free flow of access to information and the author's incentive to create new artistic and literary expressions.

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[31] Berne Convention art. 2(8).
[32] *Id.* art. 5.
[33] *Id.* art. 3(1)-(2).
[34] Berne Convention for the Protection of Literary and Artistic Works of September 9, 1886, completed at Paris on May 4, 1896, revised at Berlin on November 13, 1908, completed at Berne on March 20, 1914, revised at Rome n June 2, 1928, at Brussels on June 26, 1948, at Stockholm on July 14, 1967, and at Paris on July 24, 1971, and amended on September 28, 1979.

It was under this system of protection that databases developed. One clear example of the development of database industries is the Reuters news agency. Paul Julius Reuter, a German-born immigrant, established a news agency company in the City of London that transmitted stock market quotations between London and Paris via the new Calais-Dover cable in October 1851.[35] Reuters soon became widely known, and eventually extended its service to the whole British press as well as to other European countries.[36] It also expanded the content services to include general and economic news from all around the world.

Newly developed technology enhanced Reuters' ability to become the world's leading news agency. Given new advanced methods of dissemination and reproduction of contents, the business expanded.[37] Such technologies as overland telegraph and undersea cable facilities, the column printer, radio, teleprinter and computer devices contributed to this expansion.[38] Through the advent of computer technology, Reuters gained the most efficient techniques to process, gather and collect data, and to arrange its own databases, making its databases easy to access and commercially valuable. Thus, technology has its own cost. Not only did Reuters substantially invest its skills, labor, and capital in the creation process of databases, but also in the computer technology infrastructure that facilitated the creating of these databases. Accordingly, such investment deserves to be rewarded and protected.

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[35] http://www.about.reuters.com/home.
[36] http://www.about.reuters.com/aboutus/history. "Reuters became known as a transnational corporation, it was floated as a public company in 1984 on the London Stock Exchange and on NASDAQ in the US with a market capitalization of some £700 million."
[37] http://www.about.reuters.com/aboutus/history/innovation.asp.
[38] http://www.about.reuters.com/aboutus/history/technology.asp.

Databases have become an essential tool for business investment. Reuters supplies information services and databases such as stock market indexes and country profiles for transnational corporations interested in overseas business opportunities and investments in other countries. This international giant advances with technology and is the world's biggest information service provider. Local information firms in most developing countries cannot compete with Reuters' technology and database assets. Yet they have to rely on Reuters' sources of information and databases. Clearly, in a number of developing countries such as Thailand and Singapore, Reuters is the main source of information services, and, as such, holds a dominant position in these countries.[39]

Many examples show how many different businesses, in every industry, rely heavily on the use of databases. Fidelity National Financial, Inc. offers online property databases such as property tax data, map images, recorded land records and other information to customers and entities within the company that need this information.[40] Telemarketing companies use customer, business or even medical directories to sell their products and services via telephone or the Internet.[41] Most importantly, the scientific and educational sectors use databases to exchange and communicate information regarding recent innovations and discoveries. Exelixis, a Research & Development firm, exchanges research databases with other laboratories via the Internet.[42] These databases are often of research performed on model organisms, revealing profound insights into the mechanics

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[39] http://www.about.reuters.com/aboutus/worldwide.asp
[40] http://www.fnf.com.
[41] *See e.g.* http://www.opc-marketing.com, http://www.telemarketingquote.com, http://www.buyerzone.com, http://www.mailinglists.usadata.com, http://www.eurorscg4d.com, and http://www.medfone.com.
[42] http://www.exelixis.com/index.asp?secPage=cor.

of human cellular function; it is through such exchanges that the progress of science advanced.

The Berne Convention contains no definition of "databases." Article 2(5) of the Berne Convention merely suggests the term "collection," granting an author of this kind of work copyright protection if the selection and arrangement of their contents constitute intellectual creation.[43] Further, Article 2(5) furnishes examples of collection works such as encyclopedias and anthologies, but gives no definition of the term "collection."[44] The vagueness of "collection" or "collective work" appears also in Black's Law Dictionary, as cited earlier, referring merely to "a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole."[45]

The nature of collections must contain original contents and creative expression in the selection and arrangement of data. Article 2(5) of the Berne Convention requires only a creative element attached to the selection and arrangement of the contents of collections which is "thin."[46] Neither factual nor data contents nor protected materials forming part of, or contained in the works within the collection are included in the scope of protection.

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[43] Berne Convention art. 2(5).

[44] *Id.* art. 2(1) "The expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain..."

[45] Black's Law Dictionary.

[46] Berne Convention art. 2(5). Richard L. Stone and John D. Pernick, *Protecting Databases: Copyright? We Don't Need No Stinkin' Copyright*, THE COMPUTER LAWYER, Vol. 16, No. 2, February, 1999, at 17. "Because the protection is "thin,"...the more comprehensive and useful the selection and arrangement of the data, the less likely it will be protected by copyright. For instance, a comprehensive database that contains the entire universe of relevant data may be novel and commercially useful, but not copyrightable because "selection" requires the exercise of creativity or judgment in culling facts from the relevant universe. Similarly, arrangements of data that flow inexorably from basic organizing principles such as alphabetizing, cross-referencing, geographic areas, or chronological order, lack sufficient originality." *Existing National and Regional Legislation Concerning Intellectual Property in Databases*, WIPO Doc. DB/IM/2 (1997). "Article 2(5) of the Berne Convention limits its scope to original collections of literary and artistic works."

It is important to note that any labor, skills, or capital contributed in the making process will not be counted, nor will they satisfy the need for protection.

Successive legal instruments, namely the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS")[47] and the WIPO Copyright Treaty ("WCT"),[48] which incorporate the Berne Convention in their own terms, provide no definition of "databases." Article 10(2) of the TRIPS Agreement and Article 5 of the WCT provide copyright protection on compilations of data or other materials which "by reason of the selection and arrangement" of their contents constitute an intellectual creation.[49] Furthermore, both instruments make clear that "the protection does not extend to the data or material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation."[50] They also do not define "compilation." Both instruments merely repeat the language of Article 2(5) of the Berne Convention and add wording declaring that such protection will extend to compilations "in any form." Such explicit reference is useful insofar as it applies to compilations not only to paper versions of databases, but also to electronic databases.[51]

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[47] Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, April 15, 1994 [hereinafter TRIPS].

[48] WIPO Copyright Treaty, December 20, 1996 [hereinafter WCT].

[49] *Compare* TRIPS art. 10(2) *with* WCT art. 5. *Basic Proposal for the Substantive Provisions of the Treaty on Certain Questions Concerning the Protection of Literary and Artistic Works to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/4 (1996). (According to the Explanatory Notes, no differences were seen between the words "collection" and "compilation".)

[50] *Compare* TRIPS art. 10(2) *with* WCT art. 5.

[51] Thomas C. Vinji, *New International Copyright Rules: The WIPO Copyright Treaty*, *in* One INTELLECTUAL PROPERTY IN THE GLOBAL MARKETPLACE; ELECTRONIC COMMERCE, VALUATION, AND PROTECTION, 17.3-17.4 (Melvin Simensky, Lanning Bryer and Neil J. Wilkof ed., 1999). "However, Article 2(5) of the Berne Convention explicitly refers only to "collections of literary and artistic works such as encyclopedias and anthologies," so the WCT's explicit reference to "compilations of data or other material" is useful, insofar as many databases consist of original selections and arrangements of material other than literary and artistic works. In addition, it is helpful that Article 5 of the WCT appears to apply not only to the paper versions of databases, but also, insofar as it applies to compilations "in any form," to electronic databases."

The intent of these agreements should be noted. Article 7 of the TRIPS Agreement states:

> "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations."[52]

Article 8.2 states:

> "Appropriate measures, provided they are consistent with the provisions of the Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology."[53]

In the same extent, the WCT recognizes:

> "the need to maintain a balance between the rights to authors and the larger public interest, particularly education, research and access to information, as reflects in the Berne Convention."[54]

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[52] TRIPS art. 7
[53] *Id.* art. 8(2).
[54] WCT Preamble.

## III. Definition of Databases

The importance of the debate about the protection of *sui generis* databases is amplified by the murky definition of what constitutes a database. The legal definition of "database" is often absent, vague, or inconsistent. First, the term "database" can be defined as a general collection of facts, raw data or information.[55] This definition of databases is considered in connection with their own collective nature. They are sets of collected information, possibly including facts or raw data, which are normally available within public and/or protected materials. For instance, a database may contain personal information such as name, address or email address, telephone number, age, and gender; factual information such as statistics or records; creative expressions such as sounds and images; or protected information such as recipes, scientific formulas or medical processes.[56] Copyright law clearly extends to the selection and arrangement of this information if there is any creativity in such selection and arrangement.

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[55] NATIONAL SCIENCE REPORT, *What Are Facts (Data) and What Is Information?*, No. 12, 20 March 1947 at 47. (Stating there's no trouble with the history of the word *data* or *datum*; it meant and still means *something given*, that is, *fact* or *facts*...*Information* is basically the act or process of informing, that is, of giving something *form* or identifiable and comprehensible *shape*...Thus the word *inform* meant basically to endow with some quality, originally shape, that makes something identifiable and comprehensible in the mind...With this history of word in mind, one can easily find so difficult-that is, distinguishing between data or facts and what is called information. The former has no 'shape' and is relevant to a particular viewpoint. It must be given relevance, arrangement, coherence, usefulness within a definite framework of meaning, intent, or interest. Then data or facts become information, they *do* inform the mind, or going back to the basic concept of *cast light upon* a subject.)

[56] NATIONAL RESEARCH COUNCIL, A QUESTION OF BALANCE: PRIVATE RIGHTS AND THE PUBLIC INTEREST IN SCIENTIFIC AND TECHNICAL DATABASES, NATIONAL ACADEMY PRESS (1999) at 15-16. "Data are facts, numbers, letters, and symbols that describe an object, idea, condition, situation, or other factors...Data in a database may be characterized as predominantly *word oriented* (e.g., as in a text, bibliography. directory, dictionary), *numeric* (e.g. properties, statistics, experimental values), *image* (e.g., fixed or moving video, such as a film of microbes under magnification or time-lapse photography of a flower opening), or *sound* (e.g., a sound recording of a tornado or a fire)...A database is a collection of related data and information—generally numeric, word oriented, sound, and/or image—organized to permit search and retrieval or processing and reorganizing."

Second, the term "database" can refer to the technical definition of databases used in relation to "computer programs."[57] Thus, for the protection of computer databases or computer programs, Article 10(1) of the TRIPS Agreement and Article 4 of the WCT explicitly include this kind of work as "literary works" within the meaning of Article 2 of the Berne Convention.[58] Like paper versions of databases, their electronic counterparts should contain direct human creative contribution attached to the selection and arrangement separating them from computer program databases.[59]

Last, some databases are defined as "sole source databases." These types of specific databases usually contain facts, data or information used for scientific research such as measurements of solar flares during a specific period of time that are perceived through only one telescope; temperature and air content measurements made inside a cave by the initial spelunkers who discovered it and opened it to the surface; and historic climatologic measurements for a specific location.[60] The sole source databases also include collections of medicinal plants and traditional knowledge originated from social,

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[57] RAMKRISHNA S. TARE, DATA PROCESSING IN THE UNIX ENVIRONMENT (1989). "The electronic database is a collection of facts (data), but is subject to frequent updates and human's interaction. For instance, the SQL standard is an application program that operates on just one database at a time and defined to be the aggregate of all data defined by all schemas in a certain environment which can be perceived by the user as a collection of named tables. So, it is a large collection of data or information organized for rapid search and retrieval by a computer by means of method of selecting or arranging, not human." C.J. DATE, A GUIDE TO THE SQL STANDARD (2d ed. 1989). "The data in the database is perceived by the user as a collection of named tables, no two of which have the same name."

[58] *Compare* TRIPS art. 10(1) *with* WCT art. 4.

[59] Mary Maureen Brown, Robert M. Bryan and John M. Conley, *Database Protection in a Digital World*, 6 RICH. J. L. & TECH. 2 (1999). "There must be intellectual creation by a human author for copyright protection to exist, raising questions about the extent to which a database can be protected under copyright law if the selection and arrangement of data is accomplished by a computer program with minimal human contribution...However, the requirement of arrangement would presumably exclude protection for a database that is no more than an unorganized compilation of data that can be searched and retrieved by a search engine."

[60] PATENT AND TRADEMARK OFFICE REPORT ON RECOMMENDATIONS FROM THE APRIL 1998 CONFERENCE ON DATABASE PROTECTION AND ACCESS ISSUES, U.S. PATENT AND TRADEMARK OFFICE, DEPARTMENT OF COMMERCE (July 1998), *at* http://www.uspto.gov/web/offices/dcom/olia/dbconf/dbase498.htm.

cultural, environmental and technological activities of certain communities or countries.[61] The Berne Convention and its successors do not provide legal protection for such factual or data collections, thereby maintaining the benefits of free access to information for scientific and educational institutes.

The common characteristics of databases are their collective nature. They must be verified, collected, selected, and arranged in one format; and must be organized to permit search and retrieval. The format used in the selection and arrangement is usually limited by alphabetical or numerical order. In addition, the making of databases demands substantial contribution such as labor, skill or finance, referred to as "entrepreneurial effort," making the databases commercially useful and economically valuable. Consequently, the investment in the making process needs to be recovered by the creator.

The economic significance of databases gives rise to the argument for a new scheme to protect *sui generis* databases. Advanced by technology, people around the world can view and make use of databases in various forms - both in "hard copies" such as printed materials, sound records, and films, and in "electronic formats" such as broadcasting and electronic transmission. All kinds of businesses operate upon clientele databases and telemarketing strategies to direct potential customers. According to statistical records in developed countries such as the E.U. and the U.S., the worldwide database industries present revenues in the billions of U.S. dollars and continue to be a fast-growing sector of the economy.[62] The database producers, who are usually both

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[61] *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, WIPO/GRTKF/I/4/8 (September 30, 2002).

[62] Communication from the Commission Green Paper on Copyright and the Challenge of Technology; Copyright Issues Requiring Immediate Action, COM (88) 172 final, at 207 [hereinafter Green Paper]. "Figures collected by the International Publishers Association and quoted in a recent Memorandum of UNESCO/WIPO would seem to indicate that the market for databases is evolving as follows: the number of databases in existence for use by the public has grown from 400 in 1980 to 2,901 in 1986. The

consumers and creators of databases, gain an interest in the *sui generis* protection to ensure their return on investment. The European Union has been successful in this endeavor by granting a property right to factual or data collections or technically called *sui generis* databases. However, the E.U. Commission did not attempt to define the term *sui generis* databases. The E.U. Commission merely required substantial investment in the making process rather than the author's creative expression as required by the traditional copyright law. Therefore, the meaning of databases is parallel to the meaning of copyrightable collections or compilations.

Legislatures should consider two main factors when defining databases. First is the collective nature of databases that have been verified, collected, selected, and arranged in one format and accessible. Second is the economic and/or social value of databases. In this sense, it should distinguish, on the one hand, the commercial databases that contain economic value for the database makers, from, on the other hand, the databases that have social value to scientists, researchers, and those who are in educational fields.

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worldwide turnover of electronic publishing in 1985 amounted to 5 billion US dollars. Of this, the United States were responsible for more than 4/5 of the total turnover but the value of the total market produced by Germany, France and the United Kingdom represented 350 million dollars. Obstacles to the free flow of information between Member States must be removed of the Community is to develop a competitive role in the information services market." STEPHEN E. SIWEK, COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2000 REPORT, PREPARED FOR THE INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE (2000). (Stating the U.S. exported database products generating revenuit e of $677.9 billions or approximately 7.33% of national GDP in 1999.)

## IV. Analysis of the *Sui Generis* Databases

Nations adhering to the Berne Convention must ratify the convention affording an author copyright protection to his or her collections of literary or artistic works. The Berne Convention requires its member countries to provide minimum copyright protection on collections.[63] This minimum requirement does not preclude any divergent protection on factual collections in national legal systems. Some member countries, such as the Nordic countries, provide neighboring rights for factual collections or catalogues.[64] Other member countries, particularly common law countries, attach greater weight to labor contribution to the factual collections than the creativity in the selection and arrangement.[65]

Without sufficient protection for factual or data collections, the European Union and its Member States who are original members of the Berne Convention have considered a separate devising system to protect their *sui generis* databases. The European Union enacted the Directive on the Legal Protection of Databases ("Database

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[63] ANTHONY D'AMATO AND DORIS ESTELLE LONG, INTERNATIONAL PROPERTY ANTHOLOGY (1996) at 228-229. "Signatory nations must grant protection at a level equal to or above the minimum standards espoused by the Convention. Unless otherwise provided in a given article, national discretion to rely on its own domestic law is not permitted. Convention provisions maintain Primacy, Coverage, Activation of Coverage, Exclusive Rights, and Term of Protection over national legislation." PAUL GOLDSTEIN, INTERNATIONAL COPYRIGHT PRINCIPLE, LAWS AND PRACTICES (2001). "Article 2 establishes a floor, not a ceiling, to protectible subject matter, and leaves member countries free to add other categories."

[64] Sherif El-Kassas, *Study on the Protection of Unoriginal Databases*, WIPO Doc. SCCR/7/3 (April 4, 2002), at 6. "The survey identified *sui generis* legal protection for databases which do not meet the criterion of originality in the following countries: Denmark, Finland, Iceland, Norway and Sweden." Jörg Reinbothe, *The Legal Protection of Non-Creative Databases,* WIPO Doc. EC/CONF/99/SPK/22-A (September, 1999), at 3. "Apart from the compilation copyright in the UK and in Ireland, which provided "sweat of the brow" databases with true copyright protection, a similar neighboring right existed in the five Nordic States for several decades in form of the so-called "catalogue rule"." Michael J. Bastian, *Protection of "Noncreative" Database: Harmonization of United States, Foreign and International Law*, 22 B.C. INT'L & COMP. L. REV. 425 (1999). "The Nordic nations—Denmark, Finland, Iceland, Norway and Sweden—have instituted a system of "neighboring rights" to protect investments of capital and labor in noncreative databases from free-riders."

[65] 17 U.S.C.A. § 101. The United Kingdom Copyright Designs and Patents Act, 1988, art. 3(1) (Eng.). Copyright Act, (1963) art. 2(1) (Ir.).

Directive")[66] in 1996, introducing a *sui generis* right for databases as the result of substantial investment in obtaining, verification, or presentation of the contents[67] which parallels the creative collections under the Berne regime. Such a system has been criticized as creating a monopoly for the database industries, thereby impeding the free flow of information to the public sectors. One such criticism is that this *sui generis* right will, in the long run, impede the advance of science, which relies so heavily on databases.[68] Whether the criticisms are true or not, the European database industries do need a quantifiable return on their investment and must be able to compete with its major trading partner, the United States. To prevent economic loss and to strengthen the competitiveness of European database industries in the world market, E.U. delegates proactively submitted to the WIPO their own version of a possible draft database treaty in

[66] Council Directive 96/9/EC on the Legal Protection of Databases, 1996 O.J. L 77/20 [hereinafter Database Directive].
[67] *Id.* art. 7(1).
[68] Debra B. Rosler, *The European Union's Proposed Directive for the Legal Protection of Databases: A New Treat to the Free Flow of Information*, 10 HIGH TECH. L.J. 105, 148 (1995). "The database rights would result in a "limitation on the free flow of ideas,"...the Directive could allow a limited group of database creators to control the dissemination of information." J.H. Reichman and Paul F. Uhlir, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793, 813 (1999). "We believe that the long-term implications of the proposed regime are potentially very damaging for science and technology. All science operates on databases. The near-complete digitalization of data collection, manipulation, and dissemination over the past thirty years has ushered in what many regard as the transparency revolution. Every aspect of the natural world, from the nano-scale, all human activities, and indeed every life form, can now be observed and captured as electronic databases." Mark Schneider, *VII. Foreign and International Law: b) International law and Treaties: The European Union Database Directive*, 13 BERKELEY TECH. L.J. 551, 561 (1998). "The Directive may create serious problems for the makers of U.S. databases and CD-ROM products because of the different levels of protection for Member-State and non-Member-State works." *Memorandum prepared by the International Bureau, Agenda 5: Protection of Databases, Information Received from the Intergovernmental and Non-governmental Organizations*, WIPO Doc. SCCR/1/INF/3 (June 30, 1998) at 8. International Council for Science (ICSU) asserted: "Such data sharing is possible only when the data are affordable within tight research budgets. If data are formally made available for scientific access, but the prices charged for such access are prohibitively high, the negative impact on science is the same as if access had been legally denied. This is especially the case for scientists in developing countries...Under these circumstances, the potential harm to the scientific enterprise is enormous. Basic science needs abundant, unrestricted flows of both raw and evaluated data at price it can accommodate within the present severely restricted research budgets."

1996.[69] The U.S. (which possesses a larger share of the world database assets) was alarmed, and responded by preparing its own version of a draft database treaty for submission to the WIPO in the same year.[70] The U.S. version of the draft database treaty also appears to introduce a *sui generis* right for databases that represent a substantial investment in the collection, assembly, verification, organization, or representation of the database contents.[71]

Taken as a convenient point of departure, the WIPO (being an administrative body of the Berne Convention), adopted a resolution of a draft database treaty.[72] Heavily influenced by the competitive proposals of the E.U. and the U.S., it appears that the WIPO Draft Database Treaty contains several provisions in favor of database industries constituting a *sui generis* right in factual or raw databases that prove a substantial investment in the collection, assembly, verification, organization, or presentation of the contents.[73] Moreover, such provisions are in contrast to, and challenge the traditional copyright law on the promotion of the public free flow of access to information. To identify possible legal issues of *sui generis* databases in accordance with the Berne Convention, it is instructive to survey the current situation of database protection in the national legal systems of the United States and Member States of the European Union.

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[69] *The Sui Generis Right Provided for in the Proposal for a Directive on the Legal Protection of* Databases, WIPO Doc. BCP/CE/V/5 (September, 1995). *The European Community and its Member States Proposal for the International Harmonization of the Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/V/13 (February 1996) [hereinafter E.U. Proposal].

[70] *The U.S. Proposal for Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/VII/2-INR/CE/VI/2 (May 1996) [hereinafter U.S. Proposal]. Pamela Samuelson, *Digital Agenda of the World Intellectual Property Organization: Principal Paper: The U.S. Digital Agenda at WIPO*, 37 VA. J. INT'L L. 369 (1997). "A late-added component of the U.S. digital agenda at WIPO was acceptance of the U.S proposal for an international treaty to protect investments in database development by granting database makers exclusive rights to authorize or prevent extractions and uses of database contents."

[71] U.S. Proposal art. 1(1.3).

[72] WIPO Draft Database Treaty.

[73] *Id.* art. 1(1).

### A. Database Protection in the U.S.

The U.S. Congress has long recognized copyright in compilations of facts and data. Section 102 of the U.S. Copyright Act of 1976 requires compilations be "original works of authorship" fixed in any medium of expression in order to qualify for copyright protection.[74] Section 101 defines a "compilation" as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."[75] The compilations under the U.S. copyright statute are collective works such as periodicals, anthologies or encyclopedia, in which a number of contributions constitute separate and independent works within each collection. The protection only extends to the material contribution by the author of such work distinct from the preexisting materials employed in the work, and does not imply or embrace any exclusive right in the preexisting materials.[76]

Interestingly, prior to 1991, the U.S. courts mainly applied the "sweat of the brow" doctrine to afford copyright protection on factual compilations, or "industrial collections." A number of cases showed that the U.S. courts considered labor, skill, and expenses contributed in the making process in addition to author's creativity. These include *Hutchison Telephone Company* v. *Fronteer Directory Company of Minnesota, Inc.* (1985)[77] (Concerning copyrightable telephone directories); *Regents of University of Minnesota* v. *Applied Innovations, Inc.* (1989)[78] (Concerning copyrightable data of a

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[74] 17 U.S.C.A. § 102.
[75] *Id.*. § 101.
[76] *Id.* § 103(b).
[77] Hutchison Tel. Co. v. Fronteer Directory Company of Minnesota, Inc., 770 F.2d. 128, 131 (8th Cir. 1985).
[78] Regents of Univ. of Minn. v. Applied Innovations, Inc., 876 F. 2d 626 (8th Cir. 1989).

psychological test only as compilations); *Dow Jones & Co., Inc.* v. *Board of Trade of the City of Chicago* (1982)[79] (Concerning copyrightable lists of component stocks) and in *List Publishing Co.* v. *Keller* (1887)[80] (Concerning copyrightable society directories).

In conformity with the U.S. ratification of the Berne Convention in 1989,[81] the U.S. courts began to realize and recognize the author's creativity in his works rather than just his sweat. The "sweat of the brow" doctrine was coming to an end. Two years after ratification, the U.S. courts reversed their earlier decisions, rejecting the "sweat of the brow" doctrine that had long dominated, and began to apply rules to establish copyright protection of factual compilations. The labor contributions in the collection and gathering of facts or data were no longer applicable to copyright protection in factual compilations in the U.S.

In the landmark case, *Feist Publications, Inc.* v. *Rural Telephone Service Co., Inc.* (1991),[82] the Supreme Court required proof of an author's creative expression attaching to the selection and arrangement of the contents of factual compilations. The subject-matter in the case was facts or raw data, names and addresses of subscribers appearing in telephone directories. The U.S. Supreme Court established two propositions: (a) facts are not copyrightable and (b) compilations of facts are.[83]

Rural, the respondent, brought a copyright infringement claim before the court on the proposition that Feist, the petitioner, in compiling its own directory, could not use the information contained in Rural's white pages directory.[84] Rural was a certified public

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[79] Dow Jones & Co., Inc. v. Board of Trade of the City of Chicago, 546 F. Supp. 113,115 (S.D.N.Y. 1982).
[80] List Publishing Co. v. Keller, 30 F. 772 (S.D.N.Y. 1887).
[81] http://www.wipo.int/treaties/en/Remarks.jsp?cnty_id=1045C, entered into force March 1, 1989.
[82] 499 U.S. 340, *supra* note 5.
[83] *Id.* at 345.
[84] *Id.* at 344-345.

utility with a state concession to provide telephone services to several communities including a typical telephone directory, consisting of white pages and yellow pages.[85] It obtained data for the directory from subscribers who must provide their names and addresses as they signed up for telephone services.[86] Feist was a publishing company that specializes in area-wide telephone directories, covering a much larger geographic range than such directories as Rural's.[87] Feist contacted Rural to obtain information covering 11 different telephone service areas in Kansas, and was refused the right to license its white pages listings.[88] Feist, therefore, extracted the listings it needed from Rural's directory without Rural's consent.[89] In appearance, Feist's several listings were identical to the listings in Rural's white pages.[90] Even though the District Court found Rural's refusal was motivated by an unlawful purpose "to extend its monopoly in telephone service to a monopoly pages advertising,"[91] it granted summary judgment in favor of Rural in its copyright infringement claim, holding that telephone directories are copyrightable.[92] The Court of Appeals for the Tenth Circuit affirmed.[93]

The Supreme Court reversed a grant of summary judgment in favor of Feist. The Supreme Court held that the selection, coordination, and arrangement of the respondent's white pages did not satisfy the minimum constitutional standards for copyright protection.[94] The Supreme Court found that Rural's white pages, which contained only

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[85] *Id.* at 342.
[86] *Id.*
[87] *Id.* at 343.
[88] *Id.* at 343-344.
[89] *Id.*
[90] *Id.*
[91] *Id.* at 368.
[92] Rural Tel. Service Co. v. Feist Publications Inc., 663 F. Supp. 214, 218 (1987).
[93] Rural Tel. Service Co. v. Feist Publications Inc., 916 F. 2d 718 (1990).
[94] 499 U.S. 340, *supra* note 5, at 351-361.

factual information, i.e., phone numbers, addresses, and names listed in alphabetical order, lacked the requisite originality as follows:

> "The key to resolving the tension lies in understanding why facts are not copyrightable. The *sine qua non* of copyright is originality. To qualify for copyright protection, a work must be original to the author. Original, as the term is used in copyright, means only that the work was independently created by author (as opposed to copied from the other works), and that it possesses at least some minimal degree of creativity. To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice...Originality does not signify novelty; a work may be original even though it closely resembles other works so long as the similarity is fortuitous, not the result of copying."[95]

There was no valid copyright of facts because no author may copyright the facts he narrates.

The factual compilations, on the other hand, may possess the requisite originality.[96] If the author chose which facts to include, in what order to place them, and how to arrange the collected data so that readers may use them effectively, these choices as to selection and arrangement might be sufficiently original, so long as they are made independently by the compiler and entail a minimal degree of creativity.[97] The Supreme Court further suggested that the degree of creativity in compilations is "thin" in regard to the limited nature of the selection and arrangement, such as the mere sequence of Arabic numbers and alphabets.[98] Because they were merely alphabetical and numerical, Rural's

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[95] *Id.* at 346.
[96] *Id.* at 371.
[97] *Id.*
[98] *Id.* at 349.

selection and arrangement of its listings did not satisfy the minimum requirements for the U.S. copyright protection because they lacked "the modicum of creativity necessary to transform mere selection and arrangement into copyrightable expression."[99]

In regard to the doctrine of the sweat of the brow, the Supreme Court clearly rejected, holding that Rural's labor used in the gathering or collecting of facts or data did not require a creative contribution:

> "The 'sweat of the brow' doctrine had numerous flaws, the most glaring being that it extended copyright protection in a compilation beyond selection and arrangement — the compiler's original contributions — to the facts themselves. Under the doctrine, the only defense to infringement was independent creation. A subsequent compiler was 'not entitled to take one word of information previously published,' but rather had to 'independently work out the matter for himself, so far as to arrive at the same result from the same common sources of information. 'Sweat of the brow' courts thereby eschewed the most fundamental axiom of copyright law — that no one may copyright facts or ideas."[100]

Therefore, the "sweat of the brow" doctrine no longer applied to the factual compilations in order to merit copyright protection.

In addition, the Supreme Court stated the rationale of the copyright statute: a proper balance between authors and the public. Referring to Article I, Section 8, Clause 8 of the U.S. Constitution, or the "Intellectual Property Clause," the Supreme Court reasoned that the U.S. copyright law meant "to promote the progress of science and

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[99] *Id.*
[100] *Id.* at 374.

useful arts" by condition that the duration of protection should be limited.[101] This Clause mandates originality as a prerequisite for copyright protection. The constitutional requirement necessitates independent creation plus a modicum of creativity.[102] Since facts do not owe their origin to an act of authorship, they are not original and, thus, are not copyrightable.[103] Copyright law meant to promote the progress of science and useful arts by maintaining a proper balance between the author's incentive as to complete creativity cycle and the public access to useful facts and information.

Thus, the Supreme Court in Feist set a firm standard for original compilations. First, the compilations must be assembled from pre-existing materials, facts, or data whether or not protected.[104] Second, the compilations must result from the process of selection, coordination, or arrangement of those materials.[105] Finally, the creation, by virtue of the particular selection, coordination, or arrangement, must be an "original" work of authorship.[106] To make his or her compilation work subject to protection, he or she must prove that there is some creative expression used in the selection and arrangement of the contents sufficient to justify copyright protection in such works.

The *Feist* decision impacted the U.S. database industries by no longer affording copyright protection for any of their industrial collections or assets.[107] The subsequent compilers are free to obtain, use, and compile the same facts and data, and enter into the market competing against the original compilers. To date, legislation in Congress aimed at overturning Feist and instituting *sui generis* protections for databases have failed.

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[101] U.S. Constitution art. I, sect. 8, cl. 8.
[102] 499 U.S. 340, *supra* note 5, at 344-351.
[103] *Id.*
[104] *Id.* at 357.
[105] *Id.*
[106] *Id.*
[107] ProCD, Inc. v. Matthew Zeidenberg, 908 F. Supp. 640 (1996).

## B. Database Protection in the European Union

To protect the European database industries, the European Parliament extended legal protection to the *sui generis* databases. In particular, in the field of intellectual property relating to technology, the European Community needed to adopt unified legal measures to strengthen the economic and political cohesion of *sui generis* protection in the region.[108] Technological advances had revealed a continuing tension in the region between the free movement of goods and services among Member States and the regime of existing intellectual property protection in the national legal systems. The European Court of Justice moved with deliberate speed to establish the principle that, where goods are lawfully placed on the market in a Member State, copyright cannot be relied upon to restrict the free circulation of those goods elsewhere in the Community.[109]

According to a survey of technology copyright, the "*Green Paper on Copyright and the Challenge of Technology-copyright Issues Requiring Immediate Action*" ("Green Paper") 1988,[110] the European Commission noted the need to re-examine the existing

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[108] The Treaty of European Union or Maastricht Treaty, Dec. 10, 1991[hereinafter TEU] art. B. "The Union shall set itself the following objectives:

-to promote economic and social progress which is balanced and sustainable, in particular through the creation of an area without internal frontiers, through the strengthening of economic and social cohesion and through the establishment of economic and monetary union, ultimately including a single currency in accordance with the provisions of this Treaty;

-to assert its identity on the international scene, in particular through the implementation of a common foreign and security policy including the eventual framing of a common defence policy, which might in time lead to a common defence;

-to strengthen the protection of the rights and interests of the nationals of its Member States through the introduction of a citizenship of the Union;

-to develop close cooperation on justice and home affairs;

-to maintain in full the '*acquis communautaire*' and build on it with a view to considering, through the procedure referred to in Article N(2), to what extent the policies and forms of cooperation introduced by this Treaty may need to be revised with the aim of ensuring the effectiveness of the mechanism and the institutions of the Community."

[109] Green Paper, para. 1.1.2, at 1.

[110] *Id.* Copyright and Information: Limits to the Protection of Literary and Pseudo-literary Works in the Member States of the European Communities (DG IV) (1992) [hereinafter DG IV Report]. ADOLF DIETZ, COPYRIGHT LAW IN THE EUROPEAN COMMUNITY: A COMPARATIVE INVESTIGATION OF NATIONAL COPYRIGHT REGULATION WITH SPECIAL REFERENCES TO THE PROVISIONS OF THE TREATY ESTABLISHING

protection relating to *sui generis* databases in several ways. First, regarding the distinct legal traditions among member countries, the European Commission noted that the various forms of legal protection of *sui generis* databases that existed in the national legal systems may restrict the free circulation of information goods and services in the Community as a single internal market.[111] Member States of the E.U. had agreed to provide copyright protection to creative collections in conformity with Article 2(5) of the Berne Convention as a minimum requirement, but not necessarily to the *sui generis* databases. The allowance of the Berne Convention's minimum principle was based upon distinct legal traditions or economic significance of the subject matters of member countries. For instance, the United Kingdom and the Republic of Ireland provided copyright protection on factual or data collections based on the labor and skill which contributed to the works.[112] The Nordic countries, in contrast, extended neighboring rights to catalogues and like works.[113] The divergence of protection had to be eliminated because it was seen as substantially disruptive to the functioning of the market; it obstructed or distorted cross-frontier trade in goods and services, and distorted competition.[114]

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THE EUROPEAN ECONOMIC COMMUNITY (1978). "The concept of collective work appears to be superfluous alongside the concept of compilation, although it is separately regulated in, for example, French Copyright Law (Article 9, Para 3 and Article 13). The reason for the French regulation lies in the fact that in the case of so-called collective works (as the case of compilations). There are several participating authors; that is, on the other hand, the authors of the individual contributions who are associated with the collective work or compilation, and on the other hand the author of the collective work or the collection itself, who as we have said acquires a separate copyright without prejudice to copyright works included if a protectable effort is present in the selection or arrangement...Finally, the Belgian, British and Irish Copyright Laws in no way cover the question of the relation of the various participating copyrights in compilations (collective works), leaving it to the judgment of the courts."

[111] Green Paper, at 3.

[112] DG IV Report.

[113] *Id.*

[114] Green Paper para. 1.3.1, at 3.

Second, the E.U. Commission was concerned with the impact of computer technology on the *sui generis* protection of databases.[115] The advent of computer technology afforded new, efficient techniques to create or construct the database contents, but also brought a number of new legal issues to copyright law. For instance, the Commission could not determine whether the acts of copying and retrieving would constitute an infringement inasmuch as a computer would process temporary copying and storing before it could present an outcome.[116] Or in reference to fair use exemptions, the Commission could not determine whether the incorporation of the work *in extenso* would constitute a reproduction and presuppose the consent of the author or his successor in title unless the reproduction falls within a recognized exception to the restricted acts under the copyright laws of Member States.[117] Given the fact that a computerized information system normally aims at giving extensive access to the information stored, the normal exemptions from restricted acts in the laws of Member States for certain uses, such as private use, or fair use, are of little practical relevance to the storage of copyright works in information systems.[118] Consequently, bibliographical information relating to published works and authors thereof, indexes, references, and similar information can be compiled freely since the use of such information in no way implies that works are reproduced in full or in part.[119]

Last, the E.U. Commission was well aware of the impending economic losses incurred by the European database industries engaged in global trading.[120] Based upon

[115] *Id.* paras. 6.3, at 208-216.
[116] *Id.* paras. 6.3.5-6.3.9, at 208-211.
[117] *Id.* para. 6.3.5, at 209.
[118] *Id.*
[119] *Id.* para. 6.3.6, at 209.
[120] *Id.* para. 6.2, at 207-208.

statistical information in 1988, the E.U. recognized that the database industry was its fastest growing sector.[121] At the Community level, the volume of public use had grown from 400 in 1980 to 2,901 in 1986.[122] The worldwide revenue of electronic publishing in 1985 amounted to $5 billion.[123] The U.S. was responsible for more than four of five of the total revenue, but Germany, France and the United Kingdom altogether were only responsible for an amount of 350 million dollars. The E.U. Commission advised that any legal problems in relation to the transborder data flow must be removed if the Community was to develop a competitive role in the information services market.[124]

To form a standard regime of protection for *sui generis* databases, the E.U. Commission enacted the Directive on the Legal Protection of Databases in 1996.[125] Clearly stated in the recitals, the E.U. Commission recognized the importance of investment of financial resources and the expending of time, effort, and energy involved in the making of databases.[126] Distinguishing the copyright protection in the selection and arrangement from the *sui generis* protection,[127] the Database Directive grants the database makers a second tier protection on the factual contents. In other word, the Database Directive constitutes double property rights in the selection and arrangement, as well as the non-creative contents of databases.

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[121] *Id.* para. 6.2.1, at 207.
[122] *Id.*
[123] *Id.*
[124] *Id.*
[125] Database Directive, *supra* note 66.
[126] *Id.* recital (38) "Whereas the increasing use of digital recording technology exposes the database maker to the risk that the contents of his database may be copied and rearranged electronically, without his authorization, to produce a database of identical content which, however, does not infringe any copyright in the arrangement of his database;" and recital (39) "Whereas, in addition to aiming to protect the copyright in the original selection or arrangement of the contents of a database, this Directive seeks to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment made in obtaining and collection the contents by protecting the whole or substantial parts of a database against certain acts by a user or competitor."
[127] *Id.* arts. 3 and 7(1).

### 1. The Flaws of the E.U. Database Directive

The European regime of *sui generis* database protection creates a number of potential socio-economic and legal issues. Undoubtedly, provisions in the Database Directive give rise to a property right in factual or data contents. Some legal scholars argue that such a regime will lead naturally to a monopoly for the European database industries and detrimentally impact established social, economic and legal policies.[128] They even warn that the broad definition of databases and the duration of protection, as stipulated in Articles 1 and 10 respectively, would block the public free flow of access to information in several ways.[129] First, the definition of databases is overly broad. Article 1(2) of the Database Directive defines "database" as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic means."[130] This broad definition embraces a wide range of databases such as "literary, artistic or other collections of works or collection of other material such as texts, sound, images, numbers, facts, and data", and covers collections of independent works, data or other materials that are systematically or methodically arranged and can be individually accessed.[131] Although it is apparent that the definition does not refer to a recording or an audiovisual and cinematographic work, nor does it apply to computer programs used in the making or operation of databases accessible by electronic means,[132] the definition does not suggest that the referring databases must be

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[128] Debra B. Rosler, J.H. Reichman and Paul F. Uhlir, and Mark Schneider, *supra* note 68.
[129] Database Directive, *supra* note 66, arts. 1(2) and 7(1) *and* recital 38.
[130] *Id.* art. 1(2) *and* recital 17.
[131] *Id.* recital 20 "...protection under the Directive may also apply to the materials necessary for the operation or consultation of certain databases, such as thesaurus and indexation systems.", recital 21 "...the condition that the contents of the database are arranged systematically or methodically does not necessitate that it is physically stored in an organized manner.", *and* recital 22 "...the term "electronic database" within the meaning of the Directive also may include devices such as CD-ROM and CD-i."
[132] *Id.* art. 1(3).

"commercialized." It merely specifies in Article 7 that for the *sui generis* databases to be protected, the makers must show that there has been qualitatively and/or quantitatively a substantial investment in the making of databases.[133]

Second, the E.U. Database Directive could create an unlimited duration of protection. Compared to the traditional copyright duration (the author's life plus fifty years), Article 10 of the E.U. Database Directive provides a shorter duration of fifteen years running from January 1 of the year following the date of completion[134] or from the first year making it available to the public thereby ending legal protection.[135] In effect, however, the Directive may generate a virtually limitless duration of protection. Article 10(3) of the E.U. Directive stipulates that it could endure infinitely longer if there is a proof of "any substantial change, evaluated qualitatively or quantitatively, to the contents of a database, including any substantial change resulting from the accumulation of successive additions, deletions or alterations,"[136] which would result in the database being considered to be a substantial new investment, evaluated qualitatively or quantitatively. Such repeating duration of protection would create a lengthy and almost unlimited duration leading to a monopoly in the European database industries.

[133] *Id.* art. 7(1) *and* recital 40. "...to ensure protection of any investment in obtaining, verifying or presenting the contents of a database for the limited duration of the right; whereas such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy."
[134] *Id.* art. 10(1) *and* recital 53. "...the burden of proof regarding the date of completion of the making of a database lies with the maker of the database."
[135] *Id.* art. 10(2).
[136] *Id.* art. 10(3) and recital 54. "...the burden of proof that the criteria exist for concluding that a substantial modification of the contents of a database is to be regarded as a substantial new investment lies with the maker of the database resulting from such investment."

## 2. Implementation of the E.U. Database Directive in the National Legal Systems of the E.U. Member States

The E.U. Database Directive has taken effect in the national legal systems of its Member States. Member States of the European Union, notably Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and United Kingdom (without counting the ten new Members), were required to transpose the provisions of the Directive into their national legislation before January 1, 1998.[137] To date, there is clear evidence that national courts in Member States have consistently applied the *sui generis* protection to factual or information databases.

English courts have extended legal protection to *sui generis* databases, such as online statistical data or information regarding horseracing. In *British Horseracing Board Ltd. and others* v. *William Hill Organization Ltd.* case (2001),[138] the Chancery Court recognized that the online compiled statistical data regarding horseracing should be protected in accordance with the E.U. Database Directive, Article 7(1). The claimant, the British Horseracing Board Limited (BHB), which owns an exclusive right in publishing horseracing statistics and data, filed an infringement claim before the Court on the grounds that the defendant, William Hill Organization Ltd. (William Hill), had illegally used unlicensed on-line horseracing statistics and data obtained from an authorized information service provider, Satellite Information Services Limited (SIS), for William Hill's own commercial purpose.[139]

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[137] *Id.* art. 16(1).
[138] British Horseracing Board Ltd. v. William Hill Organization Ltd., 151 NJC 271 (Ch. 2001).
[139] *Id.* paras. 3-20.

BHB proved that its databases ("BHB Database") had required substantial and continuing investment. The BHB Database needed substantial investment as a result of the necessity of verifying, gathering, and constantly updating it with the latest information.[140] Its maintenance and development, accordingly, entailed extensive work, including the collection of raw data, the design of the database, the selection and verification of data for inclusion in the database, and the insertion and arrangement of selected data in the database.[141] This process cost approximately £4 million per annum (and accounted for about 25% of BHB's total expenditure) and involved approximately 80 employees and extensive computer software and hardware.[142]

Information service providers such as SIS made the BHB Database available in an electronic form. The data contained an accurate, up-to-the-minute list of races, declared runners and jockeys, distance and name of races, race times, and number of runners in each race together with other information.[143] SIS was allowed to use data from BHB Database for certain purposes, including for onward transmission to, and use by, its own subscribers including bookmakers.[144] William Hill, who was one of the leading providers of off-track bookmaking services in the United Kingdom for both British and international customers, relied on horseracing information supported by the SIS which came, directly or indirectly, from the BHB Database.[145] In other words, BHB licensed such information only to SIS, not to William Hill.

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[140] *Id.* paras. 6-11.
[141] *Id.*
[142] *Id.* para. 10.
[143] *Id.* para. 7.
[144] *Id.* para. 11.
[145] *Id.* para. 13.

The Court found that William Hill's activities constituted breaches of BHB's database right. The Court held that: first, each day of use by William Hill of data taken from SIS and other sources was an extraction or re-utilization of a substantial part of the contents of its databases contrary to Article 7(1) of the E.U. Database Directive;[146] and second, even if the individual extracts were not substantial, nevertheless the totality of William Hill's actions amounted to repeated and systematic extraction or re-utilization of substantial parts of the contents of the database contrary to Article 7(5) of the E.U. Database Directive.[147] The Court recognized that there must be substantial investment in obtaining, verifying, or presenting database contents in order to justify protection. As BHB had satisfactorily proved its substantial investment in obtaining, verification, and representation of databases, the Court delivered a summary judgment in favor of BHB.[148] This case provides clear evidence that British courts have fully adopted the Database Directive by extending higher protection for the factual database contents, apart from copyright law.

### C. Impact of Berne's National Treatment Principle on Databases

The legal issue of *sui generis* databases appears to be problematic between countries. Inasmuch as the nature of copyright and other kinds of intellectual property is territorial, the authors of artistic and literary works need to rely on the universal rules under the Berne Convention to extend the legal protection to the subject matter outside

[146] *Id.* paras. 31-60.
[147] *Id.* paras. 61-76.
[148] *Id.* paras. 78.

the borders of their home country.[149] Governments of Member Countries are obligated to comply with the Berne principles, providing both foreign and their national authors with equal protection as clearly prescribed in Article 5, as follows:

> "Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention."[150]

Country-by-country treatment of database protection is troublesome.[151] Under the Berne regime, a country that is a party to the Convention must afford foreign authors the same standard of protection offered to their own nationals. However, countries have disparate levels of protection, which results in unequal treatment under the laws. [152] In the E.U., for example, the level of protection is comparatively high. In the United States, the level of protection is restrictive and comparatively low. When an author from the U.S. has his work utilized in the E.U., he benefits from the higher level of protection. When an author from the E.U., however, has his work utilized in the U.S., he receives less protection and places his work at a higher level of risk.

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[149] ANTHONY D'AMATO AND DORIS ESTELLE LONG, *supra* note 63, at 199. "The "territorial" view of intellectual property, which maintained that an owner's rights ended at the border, necessarily gave rise to multinational efforts to establish international protection norms, culminating in the Berne and Paris Conventions in the latter part of Nineteenth Century. Because of the accepted territorial nature of intellectual property rights, both Conventions relied largely upon a "national treatment" standard to assure uniform protection."

[150] Berne Convention art. 5.

[151] ANTHONY D'AMATO AND DORIS ESTELLE LONG, *supra* note 63, at 52-60 (The "Economics" of Databases Protection: A Case Study) and at 201-203 (c. The Continuing Viability of National Treatment).

[152] *Id. at* 205-206. "NT creates a disparate level of protection in different countries. It does not ensure substantive equivalence. Thus, according to NT principles, a country with a high level of protection must grant this higher protection even to foreigners of countries with a lower level of protection. However, when citizens from the country with a higher level of protection visit the country with a lower level of protection, they must settle for the lower protection of the country."

### D. Effect of the European *Sui Generis* System

Unlike the abovementioned scenario, the regime protection of *sui generis* databases creates unfair treatment. According to Article 11(3) of the Database Directive, the E.U. Commission has adopted the principle of reciprocity treatment for cross-border trading in databases as follows:

> "Agreements extending the right provided for in Article 7 to databases made in third countries and falling outside the provisions of paragraphs 1 and 2 shall be concluded by the Council acting on a proposal from the Commission."[153]

The E.U. Commission clearly requires that, for any third country's *sui generis* databases to be protected in the Community, there must be a special agreement between that country and the E. U. Comparable to the reciprocity treatment in regard to the rental rights in videos and sound recordings under Article 13 of the Berne Convention,[154] Article 11(3) of the E. U. Database Directive imposes reciprocal treatment, requiring that the contracting countries must prove the same higher standard of protection of *sui generis* databases. If the governments of contracting countries proved or upgraded the same higher standard of protection, the E.U. Commission would afford the foreign compilers from the contracting countries the same benefit as their own citizens.

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[153] Database Directive, *supra* note 66, art. 11(3).

[154] *Id.* art. 13. "Each country of the Union may impose for itself reservations and conditions on the exclusive rights granted to the author of a musical work and to the author of any words, the recording of which together with the musical work has already been authorized by the latter, to authorize the sound recording of that musical work, together with such words, if any; but all such reservations and conditions shall apply only in the countries which have imposed them and shall not, in any circumstances, be prejudicial to the rights of these authors to obtain equitable remuneration which, in the absence of agreements, shall be fixed by competent authority."

The effect of Article 11(3) of the E.U. Database Directive reflects in the decision of the *William Hill* case of the British court, which confirms the vulnerability of the U.S. database industry. The British court in that case recognized the property right in the factual contents by implementing the E.U. Databases Directive if the database maker satisfactorily presents substantial investment of labor, expertise, and finance in the collection, gathering, selection, and arrangement of databases.[155] In contrast, in order to enable American copyright legislation to obtain the universal standard under the Berne regime, the U.S. Supreme Court in the *Feist* case has set a new standard of protection for factual or data compilations.[156] The reversed concept is that the factual contents of databases are not copyrightable and the copyright protection, if any, will attach only to the creative selection and arrangement of databases.[157] By alleging the requirement of reciprocal treatment prescribed under Article 11(3) of the Database Directive, the European database makers will have an advantage over the U.S. database makers once the foreign works are exhibited and exploited in the Community.[158] The U.S. database makers who possess most of the databases in the world market are being made vulnerable to the European database makers who are free to take, in whole or part, U.S. databases without violation, and worse, without any remuneration. The unfair treatment will pressure the fearful U.S. database makers to lobby their governments to engage in negotiation or adopt new domestic legislation that the European Commission would

[155] 151 NJC 271 *supra* note 137.
[156] 499 U.S. 340, *supra* note 6.
[157] *Id.* at 344-364.
[158] U.S. PATENT AND TRADEMARK OFFICE, DEPARTMENT OF COMMERCE, *supra* note 60, at 8. "There was much discussion at the April conference of the effect of the EU Directive's "reciprocity" provision on American database producers. Unlike in a "national treatment" scheme, US companies do not automatically enjoy the protections afforded by the Directive's *sui generis* protection scheme..."the existing disparity between US and EU database protection gives European database producers a distinct advantage" and that "it may argue that this reciprocity requirement enables European database producers to grow by exploiting US databases as long as the US fails to provide an equivalent level of protection for European databases.""

consider to be compatible with the E.U. Database Directive.[159] For the U.S. *sui generis* databases to be protected in the European Community, the U.S. government must show its willingness to protect *sui generis* databases. The U.S. government, however, has not made any special agreement with the E.U. Instead, the U.S. government reserves its position, submitting its own version of a possible draft of database treaty at the WIPO.[160]

In addition, Article 11(3) of the E.U. Database Directive is a protective clause and it creates unfair treatment to others. The E.U. Commission invoked the need to establish uniform protection in the Community on copyright-technology-related matters, including databases, for the purpose of economic and social integration. The E.U. Database Directive is a regional mandate implemented among Member States of the European Union. Any country, particularly developing countries, wishing to contract with the Community, needs to upgrade their legal system, which may be parallel to their existing legal tradition and the socio-economic situation. For example, the databases of medical plants that have been collected and passed on from generation to generation in India, Thailand and other tropical countries will be forever lost to their originators once they enter the Community. The European database makers benefit from the E.U. Database Directive, having a legitimate access to unprotected databases, and the European pharmaceutical companies will benefit from patents of developed drugs that have already been discovered but have never been developed as such in developing countries.

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[159] Mark Schneider, *supra* note 68, at 562. "The reciprocal requirement of the Database Directive has created pressure on the Untied States to adopt *sui generis* protection." *Contrast* Doug Isenberg, *The Database Debate; Will States Regulate Where the Feds Have Fears to Tread?,* e-Business: Policy Watch, April 15 (2001). "Database protection laws may not be necessary, worthwhile, or constitutional. Rather, with the wealth of information created and disseminated online, U.S. companies should use existing laws to their advantage and ensure that their business models depend on more than the mere distribution of data, whether that data consists of stock prices, addresses, or lottery picks."

[160] Thomas C. Vinji, *supra* note 51 at 17.4. "The rest of the world would be wise to await the result of the European Union's experiment with *sui generis* protection for databases contents before proceeding toward the adoption of any international treaty (or for that matter, national law) in this area."

Last, there is clear evidence that the E.U. policy tends to create political tension between countries outside the Community. Besides the forceful objectives set forth under the TEU, Member States of the E.U. must implement the policy of "supranationalism" to achieve its federal goal.[161] The Court of First Instance of the E.U. in Luxemburg declared: "Berne provisions no longer apply to determine cases between E.U. member countries if they conflict with the E.U. law on point."[162] Although the European nations had formed the Berne Union in 1886 and played important roles in various revisions of the Berne Convention, it appears that the E.U. member countries no longer need to rely on the principles set forth in the Berne Convention to stabilize legal conditions in European and global markets.

### E. Effect of European *Sui Generis* System in International Law

The new form of intellectual property right challenges the conceptual balance of protection that establishes adequate incentive to encourage the creativity and that generates the public free flow of access to information. The European creation of *sui generis* protection has attracted attention from all in the global community by means of privatizing the public assets of knowledge and access to information. The Berne Convention and other international intellectual instruments strive to maintain a proper balance between the private rights to their ingenuity and the public right to enjoy the

[161] DAMIAN CHALMERS, EUROPEAN UNION LAW VOLUME I: LAW AND EU GOVERNMENT (1998). "In the initial draft of the TEU it was stated that the 'Treaty marks a new stage in the process leading gradually to a Union with a federal goal'. Such a statement implied the eventually bringing of macroeconomic, defence, foreign policy under a single central authority and was vigorously opposed by the United Kingdom."

[162] STUART A. SCHEINGOLD, THE RULE OF LAW IN EUROPEAN INTEGRATION (1977). "The judicial structure of "supranationalism" which is the basic fundamental federal system of the European Communities construct the task of European polity, constitutional judiciary, and normative and political role of the courts."

benefits of scientific progress and its applications, complimenting the means and norms prescribed within the scope of the Universal Declaration of Human Rights[163] and the International Covenant on Economic, Social and Cultural Rights.[164] The *sui generis* protection, therefore, raises a primary issue of whether such a system is in violation or in furtherance of international human rights.

The contrasting idea of *sui generis* protection was calculated in accordance with the economic scale of the database industries rather than the approach of intellectual property that takes an implicit balance between the rights of inventors and creators and the interests of the wider society. The *sui generis* protection of databases has proven to fulfill the economic expectations of the database industries particularly in developed countries, and the courts in a number of Member States of the European Union have already shown their ability to address issues arising in this matter (such as the interpretation of "substantial investment, substantial part of the content or substantial new investment").[165] But there is no indication that the *sui generis* protection does not interfere with research or with the exchange of information. Giving the private sector a means of control over the dissemination of contents will definitely block the free flow of access to information to scientific research and educational communities.[166]

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[163] UDHR art. 27(1).
[164] ICESCR art. 15(1)(b).
[165] *The Legal Protection of Databases* (submitted by the European Community and its Member States), WIPO Doc. SCCR/8/8 (November 4. 2002) at 3. "First, the *sui generis* protection of databases has proven to fulfill the economic expectations. Since the entry into force of the Database Directive, the European CD-ROM and online markets have grown at enormous rates...Secondly, the application in practice of the *sui generis* right has demonstrated that the protection is operational in the markets, that the Courts have already shown their ability to address issues arising under the Directive."
[166] http://64.233.161.104/search?q=cache:C8pBMUhwGksJ:www.spatial.maine.edu/~onsrud/Courses/SIE525/SlidesDtbs.pdf+database+protection+in+europe&hl=en&client=firefox-a. "In a study involving a quantitative comparison of 1164 database providers in Canada, the US, the UK, Germany, and France from 1993-2001, and extended interviews with academic scholars, officials, practicing lawyers, and business executives, with first hand knowledge of the EU Database Directive, it was concluded that the Directive

Consequently, the private control over the free flow of access to information will incur a cost to access to education in developing countries where their national legal systems are far behind those in the developed countries. Inasmuch as Article 11(3) of the Database Directive imposes on the contracting countries an equivalent level of protection, the developing countries that could not upgrade to the level of protection compatible with the E.U. regime would be disadvantaged and vulnerable to possible unfair treatment. Such a system will directly impact on the development of human resources and, consequently, on the development of global infrastructure.

## V. The Draft Database Treaty at the Forum of the WIPO

The WIPO Committees of Experts have been considering the Draft Treaty on Intellectual Property in Respect to Databases ("WIPO Draft Database Treaty").[167] With political pressures from the two powerful economic parties, the E.U. and the U.S., the WIPO Director-General adopted the draft database treaty introducing the *sui generis* right for the protection of databases that have been created with a substantial investment such as capital, labor, or effort in the collection, assembly, verification, organization, or presentation of their contents.[168] The objectives have been set forth as follows:

> "Desiring to enhance and stimulate the production, distribution and international trade in databases,

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resulted in excessive protection for certain types of databases (i.e. telephone directories) and in new barriers to data aggregation. Probable secondary side effects included new opportunities for dominant firms to harass competitors with threats of litigation, increased transactional gridlock, and inadvertent impediments and disincentives for non-commercial database providers."

[167] WIPO Draft Database Treaty.

[168] *Id.* art. 1(1).

> Recognizing that databases are a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural and technological advancement,
>
> Recognizing that the making of databases requires the investment of considerable human, technical and financial resources but that such databases can be copied or accessed at a fraction of the cost needed to design them independently,
>
> Desiring to establish a new form of protection for databases by granting rights adequate to enable the makers of databases to recover the investment they have made in their databases and by providing international protection in a manner as effective and uniform as possible."[169]

The *sui generis* protection for existing databases laden with substantial investment in their cumulative contents is to be recognized as a new "intellectual property right." The objectives of the WIPO Draft Database Treaty are targeted to promote economic significance of databases in respect to the production, distribution, and international trade in databases. The reasons for the protection of *sui generis* databases are clearly articulated as a means to ensure a return on investment of the database industries, which was made necessary by the advancement of computer technology. Furthermore, the WIPO Committees of Experts questioned the adequacy of existing protection as stated in the Memorandum: "the copyright protection is inadequate and inefficient to safeguard the unfair competition of database industries in the global scene."[170]

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[169] *Id.* Preamble Clause.

[170] *Id.* Memorandum. "The global information infrastructure is truly international, and the international commerce in the new millennium heavily relies on advanced computer technology in conducting business. The contents of databases become a commodity, a company's asset, and a resource for research and

There is a possible blurring of lines by extending copyright protection to industrial property. Copyright is a government-granted right, and governments are acting on behalf of the public interest to reward authors and artists who have contributed to society through their extraordinary expression, creativity, and genius.[171] Article 2(5) of the Berne Convention has extended copyright protection only to the creative selection and arrangement by means of promoting the public free flow of access to information. Though the production and maintenance of databases have their own costs, it is doubtful if the invisible economic hand is not present to foster an incentive to encourage the production and development of the database industries, so that subsequent database makers would have to generate the same database from scratch. In addition, most businesses are "database consumers" relying heavily on the free flow of information to advance their business, but also operating in connection with technological means that makes every business both consumer and creator of databases.[172] That is to suggest that the technological measures, along with the existing protection available under contract and unfair competition laws, are sufficient to maintain appropriate incentive to the production and dissemination of the database industries.[173] As a result, it raises a concern of whether the protection of *sui generis* databases as a possible international intellectual property norm is desirable.

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development; and consequently these contents respect no national boundaries. While the protection under the Berne Convention and its successive international instruments is concerned with protecting rights and creating incentives associated with them, the competition law seeks to protect the process of competition from restraints on trade."

[171] Andrés López, *The Impact of Protection of Non-original Databases on the Countries of Latin America and the Caribbean,* WIPO Doc. SCCR/8/6 (October 15, 2002).

[172] Thomas C. Vinji, *supra* note 51, at 17.4.

[173] *Id.*

## VI. Conclusion

People around the world have a right to free access to information. Legislatures understand this concept of free access to information, giving copyright protection only for the creative selection and arrangement of the contents, but not for the facts or data contained therein. Businesses expand; the scientific and educational communities continue to grow; and the authors complete the creativity cycle by having a free access to well-composed information. Thus, the database makers are aware that the use of computer technology in this Information Age would create problems of free-riding and unfair competition for them. They urge their national governments to secure and safeguard investment in the database industries by granting them a property right in factual and data contents, adding to the creative selection and arrangement already protected by the copyright law.

No one can deny that databases are an essential building block of the Information Society. The database makers in developed countries are making every effort to lobby their governments to engage in drafting database legislation. The Parliament of the European Union has successfully enacted its Database Directive and established the *sui generis* system to secure investment in the European database industries. It appears that the provisions set forth under the Database Directive create the *sui generis* right, but fail either to provide a clear definition of databases or to specify what types of databases, for instance, commercial and non-commercial, should be embraced in its umbrella of protection. The European Database Directive creates fear in the scientific and educational communities. In addition, Article 11(3) of the Database Directive, requiring a special agreement to be concluded between the E.U. and trading partners by way of reciprocal

treatment, creates fear of unfair treatment to all and particularly the European major trading partners, the United States. The European database compilers can take the whole or substantial parts of U.S. databases without a fair compensation as long as the U.S. courts recognize only creative contribution attached to compilations. Most developing countries whose copyright systems are far behind will confront the same situation regarding the U.S., and their national knowledge wealth, such as collections of herbal medications that have been collected for generations, will be forever lost to the European market. The *sui generis* protection will widen the gap between "Have" and "Have-Not" countries.

The WIPO Committees of Experts are considering this form of protection as a new intellectual property right. If enacted, the *sui generis* protection would represent privatization of community or societal knowledge: wealth that traditional copyright law has long been envisaged to exist unhindered in the free flow of facts, data, or information. According to the WIPO Draft Database Treaty, their objectives clearly recognize that "the information is an important tool to allow a vital development of a global socio-economic infrastructure."[174] Granting the property right in respect of facts or data contents would definitely lead the database industries to a monopoly, and consequently impair the ability of the public sector, as well as developing countries, to acquire free access to facts, data, and information. This is to suggest that the existing protection of competition law along with technical measures should be sufficient to enhance the production and creation of databases.

[174] Thomas Riis, *Economic Impact of the Protection of Unoriginal Databases in Developing Countries and Countries in Transition,* WIPO Doc. SCCR/7/3 (2002).

Copyright law is now at a critical stage of its development. Rapid changes in technology, economic significance, and social need for the free flow of access to information are all important factors that interact with and magnify each other and that challenge the existing protection based on the Berne Convention. How the right course of action will be determined and navigated will depend upon the consideration and conclusion of the WIPO Committees of Experts as to the role the WIPO will play in the establishment of international intellectual property norms arising from the ever-increasing electronic use of facts, data or information. The Committees of Experts are expected to achieve all this while maintaining a proper balance of appropriate remuneration for investment in the database industries, and assuring vital access of information to all sectors of society.

# Chapter II

# Draft Treaty of *Sui Generis* Databases

## I. Introduction

The investment of resources has become a justifiable criterion in the area of international intellectual property rights. As previously stated, the Director-General of the WIPO proposed a resolution adopted in 1996 that produced a draft treaty entitled *"Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases"* ("WIPO Draft Database Treaty").[1] It sets forth a *sui generis* right modeled on competing proposals submitted by two powerful economic parties, Member States of the European Union[2] and the United States of America.[3] Its intention is to enable the makers of databases to recover the investment[4] they claim in the making process,

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[1] *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/6 (December 1996) [hereinafter WIPO Draft Database Treaty].

[2] *The Sui Generis Right Provided for in the Proposal for a Directive on the Legal Protection of* Databases, WIPO Doc. BCP/CE/V/5 (September, 1995). *The European Community and its Member States Proposal for the International Harmonization of the Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/V/13 (February 1996) [hereinafter E.U. Proposal].

[3] *The U.S. Proposal for Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/VII/2-INR/CE/VI/2 (May 1996) [hereinafter U.S. Proposal].

[4] WIPO Draft Database Treaty Preamble Clause.

collection, assembly, verification, organization, or presentation of the contents of databases.[5] However, representatives of developing countries, such as African and Asian Pacific countries,[6] express concern about the possible impact of *sui generis* right on the free flow of access to information in the fields of education, science, and research. Inasmuch as the databases are recognized as a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural, and technological advancement around the globe, a primary question is raised whether such a regime is at all desirable.

This Chapter surveys the provisions of the WIPO Draft Database Treaty. Section II introduces the history of the WIPO and provides an understanding of the administrative role of major conventions in regard to intellectual property rights. Section III analyzes the provisions of the WIPO Draft Database Treaty as a result of competing proposals of the E.U. and the U.S., and addresses questions concerning definitions, appropriate exceptions and limitations, and appropriate duration of protection for *sui generis* databases. Last, Section IV concludes with the concept of the nature of *sui generis* databases and suggests a need for specific protection of *sui generis* databases.

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[5] *Id.* art. 1(1).

[6] *Statement Adopted at the Regional Roundtable for Countries of Asia and the Pacific on the Protection of Databases and on the Protection of the Rights of Broadcasting Organizations*, WIPO Doc. SCCR/3/6 (August 30, 1999). "With regard to the protection of databases, it was the consensus that the need for additional protection whether at the national, regional or international level had not been established at this point. A variety of concerns were raised including those relating to scientific and educational fields and as to whether protection should extend to data in the public domain."

## II. History of the WIPO and Its Roles

Caused by the territorial nature, an effort to extend limited intellectual property rights across borders gave rise to the formation of an international administrative and monitoring body, the World Intellectual Property Organization (WIPO). The WIPO was established in 1967 by a group of developed countries to administer significant intellectual property instruments such as the Paris Convention for the Protection of Industrial Property of 1883 ("Paris Convention") and the Berne Convention for the Protection of Literary and Artistic Works of 1886 ("Berne Convention"),[7] The Paris and Berne Conventions were established to reconcile unfair treatment that resulted from numerous bilateral and multilateral agreements between countries, particularly European countries in the late nineteenth century. It took several decades to recognize the need for a neutral body to administer these conventions.

The long history of the WIPO has been influenced by juridical, economic, and political turbulence. Since intellectual property protection had been treated differently among member countries, the initial function of the WIPO was to set standards of protection. After the Second World War, the organization expanded to include some developing countries who were prepared to join the system and implement universal

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[7] Convention Establishing the World Intellectual Property Organization, July 14, 1967 (amended September 28, 1979) [hereinafter WIPO Convention] art. 3(ii). MICHAEL P. RYAN, KNOWLEDGE DIPLOMACY: GLOBAL COMPETITION AND THE POLITICS OF INTELLECTUAL PROPERTY 126 (1998). "WIPO is among the most venerable of international governmental organization, dating its origins to the secretariats established to administer the Paris Convention for the Protection of Industrial Property in 1883 and the Berne Convention for the Protection of Literary and Artistic Work in 1886, which were united by the Swiss Federation into a single secretariat in 1893. In 1962 the U.S. representative to the Paris Union and Berne Union (as the membership are formally known to this day), Arpad Bogsch, took the lead in drafting a proposal for a reformed organization, becoming its deputy director general the next year in order to turn the proposals into treaty text. He organized the 1967 diplomatic conference that resulted in fifty-one mostly industrialized country governments promulgating the Convention Establishing the World Intellectual Property Organization and ascended to the position of director general in 1973. The WIPO story of institution-building leadership by one person matched in the history of international governmental organizations only at GATT and the International Labor Organization."

protections of intellectual properties.[8] The organization had been perceived as a rich man's club of industrialized countries, especially, when it came to a matter of international negotiations in regard to trade.[9] Inasmuch as the industrialized countries had formed the original organization, at an early stage of its development, they had exerted pressure at the forum. As a result of joining the UN system in 1974,[10] the WIPO successfully adapted to necessary changes. In the opinion of the Director General, the WIPO offered the best institutional setting to become a universal organization with the goal of promoting "the protection of intellectual property throughout the world."[11] The organization developed more effective administrative mechanisms and procedures that disadvantaged developed countries.[12] One clear example was the voting system. The organization used a one-country-one-vote system.[13] With that change, developing countries which held the majority became a winner at the negotiations. Because of this shift, many developed countries perceived the organization as ineffective and opted out to use alternative forums such as the GATT[14] through the Agreement on Trade-Related

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[8] *Id.* "In the past WIPO has, however, successfully adapted to change imposed upon it by its member states. The 1974 agreement to join the UN system turned the organization from a rich man's club of industrialized countries into a potentially universal membership, international governmental organization of developing countries that needed considerable educational services."

[9] *Id.*

[10] Convention Establishing the World Intellectual Property Organization, signed July 14, 1967, amended September 28, 1979 *at* http://www.wipo.int/treaties/en/convention/trtdocs_wo029.html.

[11] MICHAEL P. RYAN, *supra* note 7, at 127. WIPO Convention art. 4.

[12] *Id.*

[13] *Id.* WIPO Convention art. 8(5).

> "(a) Each State whether a member of one or both of the Executive Committees referred to in paragraph (1)(a), shall have one vote in the Coordination Committee.
> (b) One–half of the members of the Coordination Committee shall constitute a quorum.
> (c) A delegate may represent, and vote in the name of, one State only."

[14] Agreement Establishing the World Trade Organization, 1994. MICHAEL P. RYAN, *supra* note 7, at 132. "It is no surprise then that beginning in the early 1980s, globally ambitious, U.S.-based intellectual property-intensive industries and associations, along with the government representatives, turned away from WIPO with its domination by less developed countries and toward the GATT multilateral trade negotiations as the main way to establish American standards of intellectual property protection. It may well be that the patent issue (especially the pirating of pharmaceuticals), debated furiously between the United States and many developing country governments, could not have been settled anywhere but in the

Aspects of Intellectual Property Rights ("TRIPS")[15] that guaranteed their preferable results in international negotiations.

There are three major factors that affect the administrative roles of the WIPO. The first factor was due to the advent of modern technologies. In regard to the copyright-technology related issue, the new technologies such as sound recording, films and broadcasting,[16] afforded new forms of reproduction and dissemination of author's literary and artistic works in the new mediums and platforms. There were efforts to interpret such acts from all sources. Lawyers and legal scholars provided advice and comments, while legislatures responded to this challenge by enacting, amending, or repealing rules and regulations to accommodate these changes. National governments promoted their need to extend legal protection in these issues by participating in the forum. A number of proposals were submitted for consideration to the WIPO to update international intellectual property protection and improve services in accordance with the needs of member countries.

The second factor involved the politics between "Have" and "Have-Not" countries.[17] Business firms in developed countries were dissatisfied with the level of

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GATT negotiations. The final TRIPS agreement, however, refers to and amends WIPO-administrated treaties on patents, copyrights, trademarks, semiconductor masks, industrial designs, and trade secrets.

[15] Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, April 15, 1994 [hereinafter TRIPS]. MICHAEL P. RYAN, *supra* note 7, at 132. "The agreement establishing the World Trade Organization, the GATT's successor, requiring member states to accept all WTO agreements, which means most developing countries will be party to the TRIPS agreement. This brings a new urgency to WIPO development cooperation. Because the countries must be in compliance with the provisions of the treaty within no more than decade, the organization must offer more training programs and more one-or-one consulting mission, greatly straining its human resources." Agreement between the World Intellectual Property Organization and the World Trade Organization, Dec. 22, 1995.

[16] Berne Convention for the Protection of Literary and Artistic Works, Sep. 9, 1886 (Paris Act of July 1971) [hereinafter Berne Convention] arts. 9 (The right to authorize reproduction of literary and artistic works in "any manner or form") & 11bis (The right to control broadcasting and cable transmissions).

[17] DORIS ESTELLE LONG AND ANTHONY D'AMATO, INTERNATIONAL INTELLECTUAL PROPERTY 134 (2000). "Part of the reluctant to use GATT as a forum for addressing the desirability of new or additional international standards for intellectual property protection derived from the perception of many of these

protection offered by the existing international intellectual property instruments. For instance, the principle of national treatment ensures sufficient protection in developing countries, but dissatisfies remuneration, an important issue in developed countries.[18] In addition, the WIPO forum which was dominated by a majority of developing countries had developed loose rules and lacked a mechanism to settle disputes.[19] It appeared that the WIPO, which had no enforcement mechanism, had no ability to enforce any violations of intellectual property treaties.[20] When there was an issue between member countries, developed countries had to comply with the proceeding by submitting a petition to the International Court of Justice, which was time consuming. This incapability to deal with disputes became a weakness of the organization. Developed countries began to withdraw from the WIPO forum and engaged in more effective forums where an efficient enforcement and dispute settlement mechanisms are provided.

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countries that GATT was primarily a forum for the "have" nations. Thus, many developing countries were concerned that their needs would not be given sufficient consideration in the GATT arena. Furthermore, to the extent that international norms might be required, these countries believed that the Berne Convention, with its emphasis on national treatment, had already dealt with the issue and that any changes which might be required should be dealt with only by WIPO, which had responsibility overseeing the Convention."

[18] *Id.* at 135. "By contrast, the developed countries, including the United States, were strongly dissatisfied with efforts to resolve existing copyright issues under WIPO auspices. While developing countries saw WIPO as a generally hospitable forum for their concerns, many developed countries considered it to be indifferent to their needs at best and hostile at worst, in view of renewed efforts by some developing countries to use WIPO to lessen the level of protection established under the Berne Convention. The developed countries perceived GATT as providing a forum where an international consensus could be reached regarding the scope of protection for works not covered by the Berne Convention—including software and computer databases—outside the potentially politicized open meetings required by WIPO. Finally, developed countries sought to rectify a perceived lack of adequate enforcement mechanisms under the Berne Convention. Although Article 33 of the Berne Convention provides that disputes can be brought before the International Court of Justice, at the time of Uruguay Round negotiations not one dispute had been referred to that court in over forty-five years. Because WIPO had no other enforcement procedures for assuring that a member's law compiled with Berne's agree-upon minimums, the developed countries sought to establish an enforcement mechanism under the GATT which would force full compliance by all member countries."

[19] *Id.*

[20] *Id.*

The last factor was the shift toward a normative "universal organization." When the WIPO joined the Untied Nations system in 1974,[21] it changed from a somewhat exclusive organization to a more universal organization. Instead of being used as a forum for trade negotiations in matters relating to intellectual property rights, the WIPO had focused on its primary goal "to promote the protection of intellectual property throughout the world."[22] The Convention Establishing the World Intellectual Property Organization sets its major functions as follows: (1) to help member countries create multilateral norms; (2) to help developing countries write and administer national laws; and (3) to serve the member countries through administration of the treaties.[23] It rendered the organization a strong administrative body of conventions.

The organization continues to serve its members through the administration of international instruments in regard to intellectual property rights.[24] This function also

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[21] MICHAEL P. RYAN, *supra* note 7, at 125-139.

[22] WIPO Convention art. 3(i). "to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization."

[23] *Id.* art. 4. "In order to attain the objectives described in Article 3, the Organization, through its appropriate organs, and subject to the competence of each of the Unions:

(i) shall promote the development of measures designed to facilitate the efficient protection of intellectual property throughout the world and to harmonize national legislation in this field;

(ii) shall perform the administrative tasks of the Paris Union, the Special Unions established in relation with that Union, and the Berne Union;

(iii) may agree to assume, or participate in, the administration of any other international agreement designed to promote the protection of intellectual property;

(iv) shall encourage the conclusion of international agreements designed to promote the protection of intellectual property;

(v) shall offer its cooperation to States requesting legal–technical assistance in the field of intellectual property;

(vi) shall assemble and disseminate information concerning the protection of intellectual property, carry out and promote studies in this field, and publish the results of such studies;

(vii) shall maintain services facilitating the international protection of intellectual property and, where appropriate, provide for registration in this field and the publication of the data concerning the registrations;

(viii) shall take all other appropriate action."

[24] DORIS ESTELLE LONG AND ANTHONY D'AMATO, *supra* note 17, at 135. "The strong international links between economy, science, technology and culture do not exclude other organization or agreements in their activities to be concerned with the problems of implementing intellectual property rights. However, for

includes drafting and enacting of possible treaties. For the legal issue of *sui generis* databases, instead of adopting either the European Union or the United States version, the WIPO Director-General produced and adopted its own version of a draft database treaty at the end of 1996, calling on all member countries, intergovernmental organizations and non-governmental organizations to survey the possibility and need of *sui generis* protection.[25] The majority's views emphasized the importance of free exchange and open access to information "of the larger public interest, such as science, education and national security."[26] Others criticized the scope and duration of protection and said that if such a system were established, "it should reflect a proper balance between the rights and interests of right owners and the larger public interest, including the science, research and education sectors."[27]

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legal certainty and comprehensiveness, the competence of WIPO and its direct participation should be maintained since the solution of these problems belongs to the scope of its duties."

[25] *Information Meeting on Intellectual Property of Databases*: *Report*, WIPO Doc. DB/IM/6 (September 19, 1997).

[26] *Id.* at 2. "Several delegations expressed the view that they were not convinced of the need for this kind of protection; many of them, however, said that they would not deny the possible need for some kind of protection for valuable databases. A number of delegations stressed that also the applicability of existing forms of protection should be explored. The importance of free and open access to information was emphasized by delegations, especially in the domain of high public interests, such as science, education and national security. The importance of free exchange of scientific data, and especially meteorological data, was also underlined. Many delegations emphasized that if a system of specific protection of databases were established, it should reflect a proper balance between the rights and interests of right owners and the larger public interest, including the science, research and education sectors, and without forgetting the role of libraries." *Information Meeting on Intellectual Property in Databases: Observations: Submitted by the World Meteorological Organization (WMO)* at 6, WIPO Doc. DB/IM/4 (September 4, 1997). "The international exchange of meteorological and other environmental data should be unfettered. This should be addressed in any databases protection mechanism at an international level where it, as well as other global environmental issues, rightly belongs."

[27] WIPO Doc. DB/IM/6, *supra* note 25.

## III. An Analysis of the WIPO Draft Database Treaty

### A. The Development of WIPO Draft Database Treaty

The initiative approach of the delegate of Member States of the European Union gave rise to the concept of *sui generis* protection.[28] Since 1988, the European Union had discussed the question whether there should be a new intellectual property regime of protection of *sui generis* databases.[29] The E.U. Commissions recognized the increasing economic significance of databases, particularly the electronic databases that were vulnerable to exploitation in every technical environment.[30] Thus, there was no legal certainty that databases would be protected with the same logic afforded to other intellectual property rights. To resolve the issue, the Parliament of the European Union enacted *Directive on the Legal Protection of Databases* ("Database Directive")[31] in 1996, thereby providing sufficient legal certainty for the benefit of European database industries and for healthy development of internal market.

To strengthen the internal economic and social development of the Community, the E.U. took further step to expand the *sui generis* protection outside the Community. After a failure of its first approach in 1995, the delegation of Member States of the European Union submitted "*The European Community and its Member States Proposal for the International Harmonization of the Sui Generis Protection of Databases*" ("E.U.

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[28] WIPO BCP/CE/V/5, *supra* note 2.

[29] Communication from the Commission Green Paper on Copyright and the Challenge of Technology Copyright Issues Requiring Immediate Action, COM(88)172 final [hereinafter Green Paper]. Copyright and Information Limits to the Protection of Literary and Pseudo-literary Works in the Member States of the European Communities: A Report Prepared for the Commission of the European Communities (DG IV) (1992).

[30] Green Paper at 205-216.

[31] Directive 96/9/EC of the European Parliament and of the Council 11 March 1996 on the Legal Protection of Databases, O.J. L 77/20 [hereinafter Database Directive]. Commission Proposal for a Council Directive on the Legal Protection of Databases, EUR. PARL. Doc. (COM(92)24 final—SYN 393) (1992).

Proposal")[32] or its own Database Directive as a draft database treaty in the first quarter of the following year. This submission placed economic-political pressure on the United States. The U. S. representative, consequently, submitted a proposal entitled "*The U.S. Proposal for Sui Generis Protection of Databases*" ("U.S. Proposal")[33] as a possible draft database treaty. Though it was assumed to be a pro-competition version, the U.S. Proposal, however, contained similar details introducing the protection of *sui generis* databases and providing an incentive for innovation and investment in information goods and services. Instead, the WIPO Director-General adopted the resolution of the WIPO Draft Database Treaty at the Diplomatic Conference at the end of 1996.[34] The provisions contained in the draft accomplished two important goals by introducing the *sui generis* right: it enabled the database makers to recover their investment in the making of databases, and it allowed *sui generis* right to be recognized as a new form of intellectual property rights.

[32] E.U. Proposal, *supra* note 2.
[33] U.S. Proposal, *supra* note 3. Pamela Samuelson, *The Digital Agenda of the World Intellectual Property Organization: Principal Paper: The U.S. Digital Agenda at WIPO*, 37 VA. J. INT'L L. 369, 419 (1997). "Because of substantial U.S. industry objections to some parts of the European approach to database protection, including its reciprocity provision, the U.S. delegation decided to submit a counterproposal so that the United States could have some influence on the text of whatever database treaty might emerge from Chairman Leides' word processor."
[34] WIPO Draft Database Treaty, *supra* note 1.

## B. Objective of the WIPO Draft Database Treaty

Unwittingly or otherwise, the WIPO Draft Database Treaty contains an unclear message. As stated in the Preamble Clause, the Chairman of the Committees of Experts desires "to enhance and stimulate the production, distribution and international trade in databases."[35] In the following paragraphs, it recognizes that "the databases are a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural and technological advancement."[36] At the same time, it recognizes an impact of technology on the database industries, stating that "the making of databases requires the investment of considerable human, technical and financial resources but that such databases can be copied or accessed at a fraction of the cost needed to design them independently."[37] It formulates a regime to enable the database makers to recover their investment. In so doing, it raises a primary question: If the databases were truly to be recognized as a vital element in the development of a global information infrastructure and as an essential tool for promoting economic, cultural and technological advancement, would the *sui generis* protection violate the principle of copyright law: the free flow of access to facts and information? The *sui generis* right, by protecting the database makers from loss of investment, allows the makers to be compensated by charging everyone who wishes to be informed by or have access to facts and information that are already available in the public domain.

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[35] *Id.* Preamble Clause.
[36] *Id.*
[37] *Id.*

## C. Analysis of Substantive Provisions of WIPO Draft Database Treaty

### 1. Definition and Scope of *Sui Generis* Databases

The WIPO Draft Database Treaty defines the term "database" in a broad sense. Article 2(i) defines the term "database" as "a collection of independent works, data or other materials arranged in a systematic or methodical way and capable of being individually accessed by electronic or other means."[38] Such a definition may embrace all categories of databases, with the exception of computer databases, musical compilations, and other copyrightable collections that Article 1 distinguishes from its scope.[39] It is interesting to note that the definition of "database" described in Article 2(i) does not refer to the commercial nature of databases, nor the significant economics valuable to the database makers, a drive or incentive to induce them to invest in the making of databases.

In comparison with the competing E.U. and U.S. Proposals, the WIPO Draft Database Treaty appears to use a similar approach. Article 1(2) of the E.U. Proposal defines "database" as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessed by electronic or other means",[40] whereas Article 2.1 of the U.S. Proposal defines "database" as "a collection, assembly, or compilation of works, data, information or other materials arranged in a systematical way."[41] Like the WIPO Draft Database Treaty, both proposals

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[38] *Id.* art. 2(i)
[39] *Id.* art. 1(3)-(4).
[40] E.U. Proposal art. 1(2). GUY TRITTON, INTELLECTUAL PROPERTY IN EUROPE 356 (2d ed. 2002). "The Database Directive potentially covers a very wide field of subject-matter. This is because the Directive's definition of what amounts to a "database" goes much further than what is meant by that word in common place. When people speak of a "database", they generally mean a collection of data held in the electronic memory of a computer—for example, the names and e-mail addresses of the customers of a business. But the Database Directive is not confined to electronic databases. It potentially bites where there is any collection of "works, data, or materials", provided certain stipulated requirements are made out."
[41] U.S. Proposal art. 2.1. *Compare* DATABASE INVESTMENT AND INTELLECTUAL PROPERTY ANTIPIRACY ACT, H.R. 3531, 104th Cong. (1996). PETER JASZI, SOME PUBLIC INTEREST CONSIDERATIONS RELATING TO

exclude computer databases, musical compilations and copyrightable collections from the scope of "database." This also means the term "database," as defined by both proposals broadly embraces all commercial and noncommercial databases.

The scope of "database" can be analyzed as follows:

(i) Substantial Investment

The nature of *sui generis* databases is unique. No creativity in the selection and arrangement of data is needed in the making process. The substantial contribution of capital, labor, or skill is the only requirement and is a sufficient cause to earn *sui generis* protection. Article 1(1) of the WIPO Draft Database Treaty requires contracting parties to "protect any database that represents a substantial investment in the collection, assembly, verification, organization or presentation of the contents of the database."[42] The term "substantial investment" is defined in Article 2(iv) as "any qualitatively or quantitatively significant investment of human, financial, technical or other resources in the collection, assembly, verification, organization or presentation of the database contents."[43] For their databases to be protected, the database makers must satisfactorily prove that their contribution, whether of labor, skill, or capital, is quantitatively or qualitatively

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H.R. 3531, SUMMARY AND ANALYSIS OF H.R. 3531 3 (1996), *at* http://arl.cni.org/info/frn/copy/peter.html. "Protection would be available under H.R. 3531 for any "database" (broadly defined) which was "the result of a qualitatively or quantitatively substantial investment of human technical, financial or other resources in the collection, assembly, verification, organization or representation of the database contents." This would include most (if not all) directories, anthologies, CD-ROM and on-line databases, reference works, and much more."

[42] WIPO Draft Database Treaty art. 1(1).

[43] *Id.* art. 2(iv) and Notes on Article 2, 2.08. "The activities listed in Article 1(1) that may comprise the investment are the collection, assembly, verification, organization or presentation of the contents of the database. In practice, these are the steps in the production of a database that are most likely to involve substantial investments. A substantial investment in any one of the listed activities will fulfill the requirements for protection. It is recognized that "collection" and "assembly" are often interlinked, and "organization" and "presentation" of the contents may take place simultaneously. Any subsequent verification or re-verification is considered to be "verification' in the sense of Article 1(1)."

substantial and is in conjunction with the production of the database.[44] The methods in the production of the contents of databases are categorized as collection, assembly, verification, organization, or presentation. Hence, such contribution they have invested is similar to the doctrine of "sweat of the brow."

The E.U. and the U.S. Proposals are similar to the WIPO Draft Database Treaty in regard to the scope of substantial investment. Both proposals demand the database makers to identify the "substantial investment" in their databases.[45] Article 7 of the E.U. Proposal stipulates that a maker of a database "shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents."[46] In the same extent, Article 1.1.3 of the U.S. Proposal simply requires that the databases present "a substantial investment in the collection, assembly, verification, organization, or representation of the database contents."[47]

The E.U. Proposal differs from the WIPO Draft Database Treaty and the U.S. Proposal by its unique two-tier protection. It separates the copyrightable databases from the *sui generis* databases. Article 3.1 of the E.U. Proposal stipulates that "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."[48] The E.U. Proposal provides two-tiers of protection, one is the copyright protection for the creative selection

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[44] *Protection of Databases Addendum to Document SCCR/1/INF/3: Information Received From the International Publishers Copyright Council (IPCC)*, at 5, WIPO Doc. SCCR/1/INF/3 Add. (July 8, 1998). "It will be neither possible nor helpful to attempt, at international level, to pin down in statutory language the meaning of qualifying language such as "'substantial" in relation to investment, or "insubstantial" in relation to extraction. In the long term judicial interpretation is a safer procedure. Thus, in the UK, the Copyright Acts contain no definitions of either originality or substantiality, but cases decided over time have given considerable security of meaning to interested parties. Admittedly "over time" can mean a considerable number of years or even decades, but the procedure is, on balance, preferable to what may be very damaging over-restrictive language in a digital world we are only just entering."

[45] *Compare* WIPO Draft Database Treaty art. 1.1 *with* U.S. Proposal art. 1.3 and E.U. Proposal art. 7(1).

[46] E.U. Proposal art. 7.

[47] U.S. Proposal art. 1.1.3.

[48] E.U. Proposal art. 3.1.

and arrangement and the other is the *sui generis* protection for the factual or detail contents.[49] As stipulated in Article 3.2 of the E.U. Proposal: "The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves."[50]

Distinct from the E.U. Proposal, the U.S. Proposal does define the term "substantial investment." In fact, using language very similar to that used in the WIPO Draft Database Treaty, Article 2.2.4 of the U.S. Proposal defines "substantial investment" as "any qualitatively or quantitatively significant investment of human, financial, technical or other resources in the making of a database."[51] The E.U. Proposal, in contrast, merely states that the "substantial investment" must be "qualitatively or quantitatively sufficient."[52] To assure that the referral subject matter treated is economically qualified and sufficient for the protection, all three draft versions make clear that the substantial contribution must attach directly to the production of the databases.

(ii) Form or Medium

The WIPO Committees of Experts recognize that the databases are exhibited and embodied in any "form or medium."[53] Article 1(2) of the WIPO Draft Database Treaty states: "the protection extends to a database regardless of the form or medium in which

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[49] GUY TRITTON, *supra* note 40, at 356. "In relation to this vast array of potential subject-matter, the Directive provides a two-tier system of protection. First, there is the possibility of ordinary copyright protection for that aspect of the database that is the result of personal intellectual creativity in the selection and arrangement of content. In addition, or alternatively, there may be a *sui generis* "database right" protecting the content (irrespectively of whether there has been creativity in its arrangement), provided that there has been substantial investment in obtaining, verifying or presenting the material."

[50] E.U. Proposal art. 3.2.

[51] U.S. Proposal art. 2(iv).

[52] E.U. Proposal art. 7.1.

[53] WIPO Draft Database Treaty art. 1(2).

the database is embodied, and regardless of whether or not the database is made available to the public."[54] The development of technology automatically implies multiple variations of mediums or platforms in which the contents of databases might be embedded. They can be softcopies such as CD-ROMs or DVDs, or hardcopies, such as printed copies of statistical reports or periodical records. The databases should be usable and communicable. The contents of databases must be individually accessed and retrievable by electronic or other means. Thus, since the wording of Article 1(2) fails to identify or make mention of undeveloped technologies, it is doubtful whether this article was intended to cover any future forms or mediums yet to be developed. Article 1(2) also states that this protection will apply to all databases whether or not they are made available to the public. Such language implies both commercial and noncommercial databases. The latter tends to involve laboratory research and governmental and education databases that are available in the public domain and should remain there.

Similar to the WIPO Draft Database Treaty, the E.U. and the U.S. Proposals extend protection to the databases embodied in any "form or medium." Article 1.1 of the E.U. Proposal concerns "the legal protection of databases in any form."[55] Article 1.2 of the E.U. Proposal confirms its predecessor provision that the databases are "individually accessible by electronic or other means."[56] In the same manner, Article 1.1.1 of the U.S.

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[54] *Id.* Notes on Article 1, at 1.13. "Paragraph (2) makes clear that protection shall be granted to databases irrespective of the form or medium in which they are embodied. Protection extends to databases on both electronic and non-electronic form. Moreover, this wording embraces all forms or media now know or later developed. Paragraph (2) also makes clear that protection shall be granted to databases regardless of whether they are made available to the public. This means that databases that are made generally available to the public, commercial or otherwise, as well as databases that remain within the exclusive possession and control of their developers enjoy protection on the same footing."

[55] E.U. Proposal art. 1.1.

[56] *Id.* art. 1.2.

Proposal extends to databases "in any form"[57] regardless of whether such databases are commercially available or otherwise made available to the public.

### (iii) Exclusion of Existing Protection

The protection of *sui generis* databases does not diminish or obviate previously existing protection. Article 1(3) of the WIPO Draft Database Treaty prescribes: "the protection granted under this Treaty shall be provided irrespective of any protection provided for a database or its contents by copyright or by other rights granted by Contracting Parties in their national legislation."[58] The *sui generis* databases may be compiled using creativity in the selection and arrangement of contents protected by copyright law, information regarding trade secrets, patentable formulas, and data protected by other laws. The protection of *sui generis* databases only intends to cover facts, statistical data, and unprotected information. It should be understood that the protection will not replace, disrupt, or demolish any previously existing forms of protection.

Similar to the WIPO Draft Database Treaty, the E.U. Proposal does not cover, interrupt, or reduce existing protections. Not only does the E.U. Proposal explicitly distinguish between the protection of *sui generis* databases and the copyright protection for compilations,[59] but also asserts an inexhaustible list that guarantees a continuation of existing protection. Article 13 of the E.U. Proposal states: This Directive shall be without prejudice to provisions concerning in particular copyright, rights related to copyright or any other rights or obligations subsisting in the data, works or other materials

[57] U.S. Proposal art. 1.3.
[58] WIPO Draft Database Treaty art. 1(3).
[59] *Compare* E.U. Proposal Chapter 2 *with* 3.

incorporated into a database, patent rights, trade marks, design rights, the protection of national treasures, laws on restrictive practices and unfair competition, trade secrets, security, confidentiality, data protection and privacy, access to public documents, and the law of contract.[60]

On the other hand, the U.S. Proposal disregards the existing protection in the same manner as the tenor of the WIPO Draft Database Treaty. Article 1.3 of the U.S. Proposal declares: "regardless of whether the database or any of its contents are intellectual creations or are protected under the other domestic legislation."[61] Article 7.1 of the U.S. Proposal affirms this declaration, mentioning that its protection is "without prejudice to provisions concerning copyright, rights related to copyright or any other rights or obligations in the database or its contents, including laws in respect to patent, trademark, design rights, antitrust or competition, trade secrets, data protection and privacy, access to public documents, and the law of contract."[62]

### (iv) Computer Program Databases

The protection of *sui generis* databases does not apply to computer program databases. Article 1(4) of the WIPO Draft Database Treaty states that this protection "does not extend to any computer program used in manufacture, operation or maintenance of a database."[63] The computer program is a set of programming instructions that may cause a computer to perform certain functions or achieve certain

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[60] *Id.* art. 13 and recital 19. "...the compilation of several recordings of musical performances on a CD does not come within the scope of this Directive..."
[61] U.S. Proposal art. 1.3.
[62] *Id.* art. 7.1.
[63] WIPO Draft Database Treaty art. 1(4).

results and there is no human contribution in retrieving such computer databases. Thus, some computer databases may be qualified for this protection if they are collections of data or other materials that are not part of the set of instructions that form the operational core of the computer program.

The E.U. and the U.S. Proposals also exclude computer program databases. Article 1(3) of the E.U. Proposal prescribes that the *sui generis* protection "does not extend to the computer programs used in the making or operating of databases accessible by electronic means,"[64] while Article 1.4 of the U.S. Proposal proscribes that the *sui generis* protection "does not extend to any computer programs including without limitation any computer programs used in the manufacture, operation or maintenance of a database."[65]

The definition and scope of *sui generis* databases should be carefully examined. Since national legislatures have an interest in protecting database industries from economic loss, there is a need to stress the economic significance of databases and their commercial value to their makers. The scientific, governmental and educational databases must be identified and excluded from *sui generis* protection, thus allowing free exchange with and access to this category of databases. The Preamble Clause of the WIPO Draft Database Treaty recognizes that databases are a vital element essential to the global information infrastructure and an important tool for promoting economic, cultural and technological advancement. Therefore, the language used to describe and discuss *sui generis* protection must clearly identify the type of databases that are covered.

[64] E.U. Proposal art. 1(3).
[65] U.S. Proposal art. 1(4).

## 2. Database Makers and Exclusive Owner Rights

### (i) Database Makers

Unlike copyright legislation that attaches only to author's originality, Article 4(1) of the WIPO Draft Database Treaty grants *sui generis* rights to database makers who substantially contributed their labor, skill and capital in obtaining, verifying, or presenting database contents.[66] Article 2(iii) defines a database maker as "the natural person or legal person with control and responsibility for the undertaking of a substantial investment in making a database."[67] The database maker can be an individual or legal entity who undertakes business of compiling facts, data and information with substantial investment of capitals, labor and skills. Several makers can jointly enjoy the same bundle of owner rights. Such rights are transferable,[68] for instance, through licensing agreement. Accordingly, a lawful user needs authorization or consent of every rightholder before performing an act of extraction or utilization of a substantial part of that database.

Likewise, the E.U. and the U.S. Proposals also refer to the database maker as the rightholder. Article 2.2.3 of the U.S. Proposal defines the database maker as "the natural or legal person or persons making a substantial investment in the collection, assembly, verification, organization, or presentation of the contents of the database"[69] and Article 4 of the U.S. Proposal asserts that "the maker of a database can be both one maker and joint makers."[70] The E.U. Proposal, by contrast, does not include a definition of "database maker." Article 7(1) of the E.U. Proposal merely states: "the maker of a database who shows that there has been qualitatively and/or quantitatively a substantial investment in

[66] WIPO Draft Database Treaty art. 4(1).
[67] *Id.* art. 2(iii).
[68] *Id.* art. 4(2).
[69] U.S. Proposal art. 2.2.3.
[70] *Id.* art. 4.

either the obtaining, verification or presentation of the contents" has 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."[71]

(ii) Exclusive Rights

Within the scope of Article 3 of the WIPO Draft Database Treaty, the database maker obtains exclusive rights to authorize or prohibit the relevant acts of extraction and utilization.

*(1) Extraction*: Article 2(ii) of the WIPO Draft Database Treaty defines "extraction" as an act of "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."[72] The term "extraction" is a synonym for "copying" or "reproduction," the terms used in the copyright law. Within the scope of this provision, the database makers have the exclusive rights to authorize or prohibit any person to copy or reproduce all or substantial part of the contents. The permanent or temporarily transfer of the contents can be done in the same or different medium by any means or in any form. However, such acts of extraction will render any change or devaluation the original material. The database still remains on that original medium.

*(2) Utilization*: Article 2(vi) of the WIPO Draft Database Treaty defines "utilization" as "the making available to the public of all or a substantial part of the contents of databases by any means, including by the distribution of copies, by renting, or by online or other forms of transmission, including making the same available to the

[71] E.U. Proposal art. 7(1).
[72] WIPO Database Draft Treaty art. 2(ii).

public at a place and at a time individually chosen by each member of the public."[73] The meaning of "utilization" is broad. It covers any act of utilization by way of both tangible and intangible dissemination, diffusion and distribution of physical copies and all forms of transmission by wire or wireless means. The database makers have the exclusive rights to authorize or prohibit any act of making new databases composed of all or substantial part of the contents of existing databases available to the public.

*(3) Substantial Part*: Article 2(v) of the WIPO Draft Database Treaty defines the term "substantial part" as "any portion of the database content including an accumulation of small portions that is of qualitative or quantitative significance to the value of the database."[74] Taking substantial part of database contents must be "qualitatively or quantitatively significant to the value of the contents" to constitute an act of infringement. Since "any portion" or "an accumulation of small portions," as quoted above, hardly provides precise standards against which to measure what is "substantial," one must rely on qualitative or quantitative significance to determine if infringement has taken place, thus recognizing the importance of economic value of databases to their makers.

The E.U. and the U.S. Proposals extend exclusive rights similar to the WIPO Draft Database Treaty. Article 3 of the U.S. Proposal states: "the maker of a database eligible for protection under this Instrument shall have the right to do, authorize or prohibit acts of extraction, use or reuse of all or a substantial part of the contents of the databases."[75] Article 7(1) of the E.U. Proposal grants the database makers exclusive rights "to prevent extraction and/or re-utilization of the whole or of a substantial part,

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[73] *Id.* art. 2(vi).
[74] *Id.* art. 2(v).
[75] U.S. Proposal art. 3.

evaluated qualitatively and/or quantitatively, of their *sui generis* databases."[76] Notably, the E.U. Proposal clearly distinguishes the database makers' exclusive rights from those of the copyright authors.[77]

Both the E.U. and U.S. Proposals define the term "extraction" in a manner closely to the definition contained in the WIPO Draft Database Treaty. Article 7(2)(a) of the E.U. Proposal, employing the exact language used by the WIPO as cited above, 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."[78] Article 2.2 of the U.S. Proposal extends the temporal parameters with a mention of future development with its definition as "the permanent or temporary transfer to the same or anther medium, by any means now known or later developed, of all or a substantial part of the database contents.[79]

Both competing proposals also define the term "utilization" in the same manner as the WIPO Draft Database Treaty. With prefix, Article 7(2)(b) of the E.U. Proposal defines "re-utilization" as an act "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 on-line or other forms of transmission."[80] Using "use" and "reuse" rather than "re-utilization," Article 2.6 of the U.S. Proposal defines these terms as "the making available, by means now known or later developed, including by the distribution of copies, by renting, or by

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[76] E.U. Proposal art. 7(1) and recital (42). "Whereas the special right to prevent unauthorized extraction and/or re-utilization relates to acts by the user which go beyond his legitimate rights and thereby harm the investment; whereas the right to prohibit extraction and/or re-utilization of all or a substantial part of the contents relates not only to the manufacture of a parasitical competing product but also to any user who, through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment."
[77] *Id. compare* art. 7 *with* art. 5.
[78] *Id.* art. 7(2)(a).
[79] U.S. Proposal art. 2.2.
[80] E.U. Proposal art. 7(2)(b).

online or other forms of transmission of all or substantial part of the contents of a database, or making available all or a substantial part of the database to members of the public at a place and at a time chosen by each member of the public, whether or not for direct or indirect commercial advantage or financial gain."[81]

However, both the E.U. and the U.S. Proposals do not attempt to define "substantial part."[82] While the E.U. Proposal assesses a degree of "substantiality" by reference to qualitative as well as quantitative factors, the U.S. Proposal merely provides for a right to prevent extraction, use, or reuse of substantial parts of the contents of a database. Both versions also allow the acts of extraction or re-utilization (use or reuse) of insubstantial parts on condition that the act must not be in conflict with the database makers' normal exploitation of the databases or adversely affects the actual or potential market for the databases.[83]

Article 3 of the WIPO Draft Database Treaty affords the database makers the exclusive rights to control the access to facts and information.[84] Such exclusive rights are granted to them to authorize or prohibit any person from extraction and utilization of all or substantial parts of databases. Nevertheless, extracting insubstantial parts of databases may violate the owner's exclusive rights. If a taking of insubstantial parts proves to be repeated and systematic and in conflict with a normal exploitation of that database or

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[81] U.S. Proposal art. 2.6.

[82] PETER JASZI,, *supra* note 41, at 4. "The bill does not define "substantial part," but its language points to an essentially circular understanding of this crucial term: If there would be measurable consumer demand for the data, then it would be unlawful to "extract, use, or reuse" it." GUY TRITTON, *supra* note 41, at 362. "The database right also has an express "substantiality" requirement in relation to infringement. As mentioned above, this is missing from the provisions concerning copyright protection for databases. Under the database right, such substantiality is assessed by reference to qualitative as well as quantitative factors. Therefore, the importance of what is taken or re-utilised can offset the fact that it may represent a relatively small part of the maker's database."

[83] *Compare* E.U. Proposal art. 7(5) *with* U.S. Proposal art 5(a).

[84] WIPO Draft Database Treaty art. 3.

degrading the value of that database, such act will constitute an infringement. In addition to downloading, browsing, searching or uploading of contents, anyone who merely searches for information would violate the owner's exclusive rights. This is because the computer device must temporarily copy and recompile the contents of databases in order to process search outcome.

### 3. Exceptions

There are some exceptions or limitations to the owner's exclusive rights. Article 5(1) of the WIPO Draft Database Treaty provides: "Contracting Parties may regulate in their national legislation exceptions or limitations of rights in certain special cases that do not conflict with the normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder."[85] The exceptions of *sui generis* databases are obscure. The provision allows Contracting Parties to regulate the exceptions to the *sui generis* databases in accordance with their legal traditions, on condition that such exceptions may not interfere with normal exploitation or interests of the owner of the database. No clear exceptions for teaching purposes or laboratory experiments are provided or required.

The exceptions of *sui generis* databases may not be appropriate. Article 9(2) of the Berne Convention designs the fair use exceptions, also known as the 3-step test, in three major circumstances. Parties to the Berne Convention must permit the use of works: (1) for a purpose of quoting and teaching; (2) on condition that such use is not in conflict with normal exploitation of author's works; and (3) that use does not unreasonably impair or prejudice the legitimate and/or economic interests of the

[85] *Id.* art. 5(1).

authors.[86] Inasmuch as the *sui generis* right is parallel to the copyright law, in that one is granted for factual or data contents and the other is granted for creative selection and arrangement of the contents, it raises the concern of whether it is appropriate to apply similar exceptions to both.

The WIPO Draft Database Treaty explicitly mentions exceptions or limitations of governmental databases. Article 5(2) stipulates: "it shall be a matter for the national legislation of Contracting Parties to determine the protection that shall be granted to databases made by governmental entities or their agents or employees."[87] However, the definition of governmental databases is not given.

Both the E.U. and U.S. Proposals articulate the exceptions of *sui generis* databases in the same manner. Apart from the copyright fair use exceptions, Article 9 of the E.U. Proposal prescribes that, without an authorization of the database maker, a user may: (1) extract for private purposes of the contents of a non-electronic database; (2) extract for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved; and (3) extract and/or re-utilize for the purposes of public security or an administrative or judicial procedure.[88] In addition, Article 7(5) of the E.U. Database Directive indicates: "The repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted."[89] It is obvious that the E.U.

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[86] Berne Convention art. 9(2).
[87] WIPO Draft Database Treaty art. 5(2).
[88] E.U. Proposal art. 9.
[89] *Id.* art 7(5).

Proposal embraces both uses of substantial and insubstantial parts of databases. In turn, Article 5.1 of the U.S. Proposal simply states: "a lawful user of a database made commercially available or otherwise made available to the public may extract, use or reuse insubstantial parts of its contents for any purpose whatsoever."[90] Article 5.2 of the U.S. Proposal also refers to a use of insubstantial parts as follows: "The repeated or systematic extraction, use or reuse of insubstantial parts of the contents of a database in a manner that cumulatively conflicts with the normal exploitation of the database or adversely affects the actual or potential market for the database shall not be permitted."[91] In the same language found in Article 5(1) of the WIPO Draft Database Treaty, Article 5.3 of the U.S. Proposal stipulates: "Contracting Parties may, in their domestic legislation, provide for exceptions to or limitations on the rights provided in this Instrument so long as such limitations or exceptions do not unreasonably conflict with a normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder."[92] In addition, Article 5(2) of the WIPO Draft Database Treaty is similar to Article 5.4 of the U.S. Proposal as it states: "It shall be a matter for legislation in the Contracting Parties to determine the protection to be granted to databases made by a government entity or its agents or employees."[93]

[90] U.S. Proposal art. 5(1).
[91] *Id.* art. 5.2.
[92] *Compare* WIPO Draft Database Treaty art. 5(1) *with* U.S. Proposal art. 5.3.
[93] *Compare* WIPO Draft Database Treaty art. 5(2) *with* U.S. Proposal art. 5.4.

### 4. Duration

Two alternative durations of protection of *sui geneirs* databases appear in the WIPO Draft Database Treaty. Alternative A follows the U.S. Proposal, which limits the duration of protection of *sui generis* databases to 25 years from the first of January in the year following the date of completion[94] or the date when the database was first made available to the public.[95] Alternative B follows the E.U. Proposal limiting duration to 15 years from the first of January in the year following the date of completion[96] or the date when the database was first made available to the public.[97] The adoption of both periods of duration provides clear evidence that the WIPO Draft Database Treaty has been heavily influenced by the two competing proposals of the E.U. and the U.S. The duration of protection should be determined primarily based on the nature of the subject matter and its economic significance to the database makers.[98] Databases hold economic value for their owners, whose substantial investments in their production require a return, usually economic or monetary. However, different databases have different economic life-spans depending on types, demands of the market, and the marketability of the products. Dynamic databases are subject to constant updating, changing, and improving, thus, their duration of protection could be justifiably shorter. In the case of static databases, such as encyclopedic, historic, and cartographic databases, the longer duration of protection is appropriate.

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[94] WIPO Draft Database Treaty art. 8(1) Alternative A.
[95] *Id.* art. 8(2) Alternative A.
[96] *Id.* art. 8(1) Alternative B.
[97] *Id.* art. 8(2) Alternative B.
[98] *Id.* Notes on Article 8, at 8.02. "The determination of the proper duration of any form of intellectual property is bound to depend on many factors, including the nature of the subject matter, the prevailing economic and technical circumstances, and the interests of rightholders, users and society at large."

A substantial improvement of databases may create unlimited or perpetual duration of protection. Article 8(3) of the WIPO Draft Database Treaty reads: "Any substantial change to the database, evaluated qualitatively or quantitatively, including any substantial change resulting from the accumulation of successive additions, deletions, verifications, modifications in organization or presentation, or other alterations, which constitute a new substantial change shall qualify the database resulting from such investment for its own term of protection."[99] If the database makers could established that there had been a substantial change in the contents as mentioned above, their databases would qualify for their own terms of protection. However, it is questionable whether slight but substantial improvement would result in unlimited duration of protection.

While alternative durations of protection are proposed in the WIPO Draft Database Treaty, the E.U. and the U.S. Proposals advocate an unlimited duration of protection. Similar to the WIPO Draft Database Treaty, Article 10(3) of the E.U. Proposal and Article 6.3 of the U.S. Proposal stipulate that any substantial change, evaluated qualitatively or quantitatively, to the contents, including any substantial change resulting from the accumulation of successive additions, deletions or alterations, which would result in a substantial new investment, would qualify the database resulting from that investment for its own term of protection.[100]

The unlimited duration of protection available under Article 8(3) of the WIPO Draft Database Treaty may produce unfair competition. The *sui generis* system is created to extend the property right to factual or data contents by means of giving an incentive to

[99] *Id.* art. 8(3).
[100] *Compare* E.U. Proposal art. 10(3) *with* U.S. Proposal art. 6.3.

the database industries. The unlimited duration of protection would lead to a monopoly if the database makers continue updating the substantial part of databases.[101]

### 5. Beneficiaries

The makers of databases are eligible for protection. Article 6(1) of the WIPO Draft Database Treaty specifies: "Each Contracting Party shall protect according to the terms of this Treaty makers of databases who are nationals of a Contracting Party."[102] Article 6(2) extends the protection beyond nationals: "The provisions of paragraph (1) shall also apply to companies, firms and other legal entities formed in accordance with the laws of a Contracting Party or having their registered office, central administration or principal place of business within a Contracting Party; however, where such a company, firm or other legal entity has only its registered office in the territory of a Contracting Party, its operations must be genuinely linked on an on-going basis with the economy of a Contracting Party."[103] The database makers, within the meaning of this provision, can be either natural or legal persons. The legal person must, as the national laws of Contracting Parties may apply, be registered companies, firms or other entities that have a premise in the Contracting Parties.

The E.U. Proposal uses the exact wording of the WIPO Draft Database Treaty. Article 11(1) of the E.U. Proposal describes: "The right provided for in Article 7 shall apply to database whose makers or rightholders are nationals of a Member State or who

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[101] PETER JASZI, *supra* note 41, at 2. "The effect term of protection of databases would be potentially perpetual, at least for dynamic compilations in electronic form."
[102] WIPO Draft Database Treaty art. 6(1).
[103] *Id.* art. 6(2).

have their habitual residence in the territory of the Community."[104] Further, Article 11(2) describes: "Paragraph 1 shall also apply to companies and firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community; however, where such a company or firm has only its registered office in the territory of the Community, its operations must be genuinely linked on an ongoing basis with the economy of a Member State."[105] On the other hand, the U.S. Proposal simply describes: "Databases whose makers are at the time of the making of the database either nationals of or habitual residents of a Contracting Party shall be protected under this Instrument."[106]

### 6. National Treatment

The WIPO Draft Database Treaty applies the principle of national treatment. Article 7 of the WIPO Draft Database Treaty requires that "the maker of a database enjoys the same protection of *sui generis* databases in Contracting Parties other than the Contracting Party of which he is a national"[107] In regard to Article 5 of the Berne Convention,[108] member countries of the Convention must comply with the provision of national treatment affording equal treatment to national and foreign authors alike. The WIPO Draft Database Treaty reflects the Berne principle of national treatment to govern and extend protection beyond the territories of its Contracting Parties.

The WIPO Draft Database Treaty demands conditions treated in connection with the Berne's principle of national treatment. Article 7(2) of the WIPO Draft Database

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[104] E.U. Proposal art. 11(1).
[105] *Id.* art. 11(2).
[106] U.S. Proposal art. 11.1.
[107] WIPO Draft Database Treat art. 7(1).
[108] *Compare* Berne Convention art. 5 *with* WIPO Draft Database Treaty art. 7.

Treaty states: "Protection of a database in the Contracting Party of which the maker of the database is a national shall be governed by national legislation."[109] Article 7(3) states: "The enjoyment and the exercise of rights under this Treaty shall be independent of the existence of protection in the Contracting Party of which the maker of a database is a national. Apart from the provisions of this Treaty, the extent of protection, as well as the means and extent of redress, shall be governed exclusively by the laws of the Contracting Party where protection is claimed."[110] And Article 7(4) states: "Makers of databases who are not nationals of a Contracting Party but who have their habitual residence in a Contracting Party shall, for the purposes of this Treaty, be assimilated to nationals of that Contracting Party."[111] Both national and foreign database makers will enjoy the same exclusive rights and protection in any Contracting Party's jurisdiction. Nonetheless, the foreign database makers may be satisfied with compensation in other Contracting Party where an infringement is claimed. The principle of national treatment guarantees equal protection but not redress. The courts in the other Contracting Parties consider compensation or reward in accordance with their different legal traditions, economics, and social conditions in their countries.

The E.U. Proposal differs from the WIPO Draft Database Treaty. Article 11(3) of the E.U. Proposal imposes: "Agreements extending the right provided for in Article 7 to databases made in third countries and falling outside the provisions of paragraphs 1 and 2 shall be concluded by the Council acting on a proposal from the Commission."[112] The E.U. Commission requires a reciprocal treatment from the third-party countries whose

[109] WIPO Draft Database Treaty art. 7(2)
[110] *Id.* art. 7(3)
[111] *Id.* art. 7(4).
[112] E.U. Proposal art. 11(3).

databases are being exhibited or exploited in the Union. The reciprocal treatment must be made as a special agreement between the E.U. and the third countries, binding the third countries to assure equivalence of the protection of *sui generis* databases.

The U.S. Proposal, on the other hand, applies the Berne principle of national treatment directly to the protection of *sui generis* databases. On the same footing as the WIPO Draft Database Treaty, Article 11.2 of the U.S. Proposal specifies: "Rightholders shall enjoy, in respect of databases that qualify for protection under this Instrument. In Contracting Parties other than the country of the nationality or the habitual residence of the maker, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Instrument."[113]

There are other similarities between the WIPO Draft Database Treaty and the U.S. Proposal. Article 11.3 of the U.S. Proposal specifies: "Protection in the country of the nationality or habitual residence of the maker shall be governed by domestic law."[114] Last, Article 11.4 specifies: "The enjoyment and the exercise of the rights hereunder shall not be subject to any formality; such enjoyment and exercise shall be independent of the existence of protection in the country of the database maker's nationality or habitual residence. Apart from the provisions of this Instrument, the extent of protection, as well as the means and extent of redress shall be governed exclusively by the laws of the Contracting Party where protection is claimed."[115] Both the WIPO Draft Database Treaty and the U.S. Proposal ensure equal protection to foreign and national database makers. However, the principle of national treatment does not necessarily ensure the same standard of compensation or reward.

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[113] U.S. Proposal art. 11.2.
[114] *Id.* art. 11.3.
[115] *Id.* art. 11.4.

The principle of national treatment differs from reciprocal treatment. The E.U. Commission demands reciprocal treatment from any third parties that wish to extend the protection of *sui generis* databases in the Member States of the E.U. These Member Sates are countries with advanced legal systems. Imposing high standard of protection is proper for them. In most of developing countries, legal systems are less advanced. If they wished to contract with the E.U., they would be treated unfairly. Not only do they need to upgrade their legal system to meet with the high standard of protection, but they also need to provide the same standard of compensation and reward as the developed countries. Applying the principle of national treatment imitating the U.S. Proposal is, therefore, appropriate.

### 7. Application in Time

The Contracting Parties must implement the treaty at the date of the entry into force of the treaty. Article 11(1) of the WIPO Draft Database Treaty enforces: "Contracting Parties shall also grant protection pursuant to this Treaty in respect of databases that met the requirements of Article 1(1) at the date of the entry into force of this Treaty for each Contracting Party."[116] Different Contracting Parties may enact the law for the protection of *sui generis* databases that represent substantial investments at different times. The protection will not interrupt, alter, or embrace any existing protection before the time of entry into force of this treaty. Article 11(2) stipulates: "The protection provided for in paragraph (1) shall be without prejudice to any acts concluded or rights acquired before the entry into force of this Treaty in each Contracting Party."[117] With one

[116] WIPO Draft Database Treaty art. 11(1).
[117] *Id.* art. 11(2).

allowance, Article 11(3) states: "A Contracting Party may provide for conditions under which copies of databases which were lawfully made before the date of the entry into force of this Treaty for that Contracting Party may be distributed to the public, provided that such provisions do not allow distribution for a period longer than two years from that date."[118]

The U.S. Proposal enforces conditions similar to those found in the WIPO Draft Database Treaty. Article 9.1 of the U.S. Proposal imposes: "Databases eligible for protection under this Instrument that are in existence at the time this Instrument comes in force in respect of Contracting Parties shall be protected. The duration of such protection shall be determined under Article 6."[119] Article 9.2 guarantees the existing protection as stated here: "The rights under this Instrument shall not prejudice any acts of exploitation performed prior to its effective date. It shall be a matter of domestic legislation to provide for protection of any rights of third parties acquired before the effective date of this Instrument."[120]

However, the E.U. Proposal distinguishes the *sui generis* databases from copyrightable collections. Article 14(1) of the E.U. Proposal regards the protection of copyrightable databases, as stipulates, "Protection pursuant to this Directive as regards copyright shall also be available in respect of databases created prior to the date referred to Article 16 (1) which on that date fulfill the requirements laid down in this Directive as regards copyright protection of databases."[121] Article 14(2) further declares: "Notwithstanding paragraph 1, where a database protected under copyright arrangements

[118] *Id.* art. 11(3).
[119] U.S. Proposal art. 9.1.
[120] *Id.* art. 9.2.
[121] E.U. Proposal art 14(1).

in a Member State on the date of publication of this Directive does not fulfill the eligibility criteria for copyright protection laid down in Article 3 (1), this Directive shall not result in any curtailing in that Member State of the remaining term of protection afforded under those arrangements."[122] To the same extent, the WIPO Draft Database Treaty prescribes in Article 14(3) for the *sui generis* databases: "Protection pursuant to the provisions of this Directive as regards the right provided for in Article 7 shall also be available in respect of databases the making of which was completed not more than fifteen years prior to the date referred to in Article 16 (1) and which on that date fulfill the requirements laid down in Article 7."[123] Article 14(4) assures continuation of the existing protection: "The protection provided for in paragraphs 1 and 3 shall be without prejudice to any acts concluded and rights acquired before the date referred to in those paragraphs."[124]

### 8. Technological Measures

The WIPO Draft Database Treaty imposes legal measures to prevent local database industries. Article 10 of the WIPO Draft Database Treaty consists: "Contracting Parties must prohibit unlawful importation, manufacture or distribution of protection-defeating devices, or the offer or performance of any service having the same effect, by any person knowing or having reasonable grounds to know that the device or service will be used for, or in the course of, the exercise of rights."[125] This article safeguards the local database industries against harm due to any unlawful use of technological devices such as

[122] *Id.* art. 14(2).
[123] *Id.* art. 14(3).
[124] *Id.* art. 14(4).
[125] WIPO Draft Database Treaty art. 10(1).

technological circumvention.[126] Article 14 of the TRIPS Agreement adopts the principle of *mutatis mutandis*, a requirement for member countries to authorize or prohibit any unlawful act that can be different in national legal system from one country to another.[127] This raises a concern whether Article 10(2) of the WIPO Draft Database Treaty would apply the same principle of *mutatis mutandis* to determine appropriate and effective measures among Contracting Parties. In addition, Article 10(3) of the WIPO Draft Database Treaty defines the term "protection-defeating device" as "any device, product or component incorporated into a device or product, the primary purpose or primary effect of which is to circumvent any process, treatment, mechanism or system that prevents or inhibits any of the acts covered by this proposed treaty."[128] It is understandable that the protection-defeating devices must be for a primary use but neither effectively circumvents nor specifically designed or adapted to circumvent.

The U.S. Proposal contains technological measures consistent with the WIPO Draft Database Treaty, while the E.U. Proposal fails to address with this issue. In language very similar to that used in the WIPO Draft Database Treaty, Article 8 of the U.S. Proposal reads: "Contracting Parties shall make it unlawful to import, manufacture or distribute any device, product, or component incorporated into a device or product, or offer or perform any service, the primary purpose or effect of which is to avoid, by pass, remove, deactivate, or otherwise circumvent, without authority, any process, treatment, mechanism or system which prevents or inhibits the unauthorized exercise of any of the rights." [129]

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[126] *Id.* art. 10(2).
[127] TRIPS art. 14.
[128] WIPO Draft Database Treaty art. 10(3).
[129] U.S. Proposal art. 8.

### 9. Enforcement

The enforcement clause of the WIPO Draft Database Treaty is not finalized. There are two alternatives set out in Article 13. Alternative A simply refers to a full detail of enforcement provisions attached in the Annex of the treaty.[130] Alternative B, on the other hand, refers to the enforcement procedures specified in Part III, Articles 41 to 61 of the TRIPS Agreement.[131] To assure availability of enforcement procedure in the national legal systems, Contracting Parties are required to undertake an effective action against any act of infringement and to provide remedies by means of *mutatis mutandis*.

The E.U. Proposal mentions very little details regarding enforcement and remedy. Article 12 of the E.U. Proposal only cites: "Member States shall provide appropriate remedies in respect of infringement of the rights provided for in this Directive."[132] The U.S. Proposal, on the other hand, does not address the issues of enforcement and remedies.

In summary, the WIPO Draft Database Treaty appears to be an amalgam of the E.U. and the U.S. Proposals. Each draft database treaty introduces the *sui generis* right, an unprecedented right "of its own kind" distinct from and additional to copyright, and gives exclusive owner right to the database makers who invest substantial contribution of capital, labor, or skill in gathering, coordination, selection, and arrangement of contents.[133] Such a right is a second layer of copyrightable collections by means of creating a strong new form of *sui generis* intellectual property protection over factual or data contents of databases. Its goal appears to be to promote the economic well-being of

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[130] WIPO Draft Database Treaty art. 13 Alternative A.
[131] *Id.* art. 13 Alternative B.
[132] E.U. Proposal art. 12.
[133] *Compare* WIPO Draft Database Treaty art. 1(1) *with* E.U. Proposal art. 7(1) and U.S. Proposal 1.1.3.

the database industries and make them parallel to an author's economic copyright. The definition of "*sui generis*" right is broadly defined and subject to fewer exceptions in favor of the database makers than provided by traditional copyright law. Other clear influences of the competing proposals are the duration of protection and the choice of international principles. Article 8 of the WIPO Draft Database Treaty contains alternatives durations of protection of 15 and 25 years, reflecting the E.U. and the U.S. Proposals respectively.[134] Article 11 of the WIPO Draft Database Treaty enforces all member countries to adopt the principle of national treatment. This provision favors the U.S. Proposal more than the E.U. Proposal, which, in contrast, sets forth the concept of reciprocal treatment.[135] The new form of *sui generis* intellectual property protection has not been designed to promote the progress of science, or to support the useful arts to complete creativity cycles, or to promote the free flow of access to information for all in the global community.[136]

The potential effect of a *sui generis* database system should be noted. General criticisms center on the free flow of access to information that *sui generis* protection would inhibit with restrictions designed for the purpose of limiting and controlling the flow of information. Dissenting points of views hold that the *sui generis* system would impact adversely on crucial elements of freedom of speech as protected under the First Amendment doctrine of the U.S. Constitution.[137] With serious lobbying from proponents

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[134] *Compare.* WIPO Draft Database Treaty art. 8 *with* E.U. Proposal art. 10 and U.S. Proposal 6.
[135] *Compare* WIPO Draft Database Treaty art. 11 *with* E.U. Proposal art. 11.3 and U.S. Proposal 11.
[136] Marci A. Hamilton, *Database Protection and the Circuitous Route Around the United States*, INTERNATIONAL INTELLECTUAL PROPERTY AND THE COMMON LAW WORLD 31 (2000). "While database legislation is, in general, viewpoint neutral, it is aimed at a particular type of content—facts and information. It is legislation that builds fences around building blocks necessary to create a market place of expression and ideas. It impacts on crucial elements of the market place of speech, including research, commentary, news reporting and creative works."
[137] *Id.* at 31.

of both sides of the issue, the U.S. Congress has not currently accepted the idea that there is a compelling need for database protection.[138] Aside from the fact that the E.U. now has protection that does not provide for national treatment, there is a number of evidence proving that such legislation is crucial to the U.S. database industries and its socio-economy. With the less advanced legal systems, developing and least developed countries advocating for the need to maintain a free flow of access to information, it is hoped that technological transfer will help national infrastructure, develop human resources, and heal their fragile economies.

The most serious concern, however, relates to human rights under the auspices of the Universal Declaration of Human Rights ("UDHR")[139] adopted by the United Nations and its successor, the International Covenant on Economic, Social and Cultural Rights ("ICESCR").[140] Reaffirming fundamental human rights and freedom, of which the ultimate purpose is to bring peace and security and the understanding of differences among races, cultures, ways of life, and attitudes prescribed under the Charter of the United Nations, the UDHR promotes "the right to education"[141] for all peoples. The subsequent provision and the position of ICESCR, which primarily concern intellectual property laws, declare the right "to enjoy the benefits of scientific progress and its

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[138] A number of draft legislations regarding the protection of *sui generis* databases have been proposed in Congress since 1996 as follows: Database Investment and Intellectual Property Antipiracy Act, H.R. 3531, 104th Cong. (1996). Former Rep. Carlos J. Moorhead of California introduced this bill on May 23, 1996. Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1998). Collections of Information Antipiracy Act. H.R. 354, 106th Cong. (1999). Representative Howard Coble introduced this bill. Consumer and Investor Access to Information Act, H.R. 1858, 106th Cong. (1999). Representative Bliley introduced this bill. Database and Collections of Information Misappropriation Act, H.R. 3261, 108th Cong. (introduced Oct 8, 2003).

[139] Universal Declaration of Human Rights, adopted December 10, 1948, G.A. Res 217A, U.N. GAOR, 3rd Sess., Pt. I, Resolutions, at 71, U.N. Doc. A/810 (1948) [hereinafter UDHR].

[140] International Covenant on Economic, Social and Cultural Rights, concluded December 16, 1966, entered into force January 3, 1976, 993 U.N.T.S. 3, 1966 U.N.J.Y.B. 170; 1977 U.K.T.S. 6, Cmmd. 6702 [hereinafter ICESCR].

[141] UDHR art. 26.1.

applications,"[142] and the right of an individual "to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author."[143] The proper balance of the interests between individual authors and the public sector is clearly recognized, and the flow and contents of facts, data, and information are acknowledged as a benefit for all in the global society. By granting the *sui generis* right to factual contents and recognizing the principle of reciprocity, the European database industries would possess the world's majority of database assets, incurring a cost to access such facts and information and opposing the human rights and freedoms of all in the global society.

## IV. Conclusion

The *sui generis* system seems to fulfill the economic expectations of the database industries, but does not seem to benefit the larger global economy. It appears that the WIPO Draft Database Treaty was built on the provisions prescribed under the competing proposals submitted by the Member States of the European Union and the United States, by which they proposed to recognize a property right in the contents of facts, data, and information contained in the databases.[144] The European Union and its Member States have claimed: "Since the entry into force of the Database Directive, the European CD-ROM market and on-line markets have grown by leaps and bounds. A large number of new database products have been made available in Europe, many of which have been

[142] *Id.* art. 27(1). ICESCR art. 15(1)(b).
[143] *Id.* art. 27(2). ICESCR art. 15(1)(c).
[144] WIPO Draft Database Treaty Preamble Clause.

produced by small and medium-sized enterprises."[145] The Database Directive is a piece of legislation for regional benefits; the European Union has failed to set forth a convincing argument that the protection of *sui generis* databases is an apt tool to foster economic and social infrastructure in developing countries and the global economy as a whole. Instead, the privatization of the contents of facts and data results in an increasing cost to public sectors such as science, research, and education to gain access to the same facts and data that once were available to them without cost. The free and open access to information is important. Copyright law already addresses the free flow of access to information as central to society's public information policies affecting what we can read, view, hear, use, or learn. The WIPO Draft Database Treaty recognizes that an instrument concerned primarily with the economic rights of database makers would not make sense to adopt as an international instrument to promote rights and freedoms and economic and social progress for all citizens of the global society.

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[145] *Contrast The Legal Protection of Non-Creative Databases*, WIPO Doc. WIPO/EC/CONF/99/SPK/22-A (September 1999), at 4. "First Court cases in several EC Member States have shown that the *sui generis* regime works without difficulties or undesirable side effects in areas such as telephone directories, compilations of legal texts, or electronic dictionaries. Since the entry into force of the Database Directive, the European CD-ROM market and on-line markets have grown at enormous rates. A large number of new database products have been made available in Europe, many of which have been produced by small and medium-sized enterprises." *The Legal Protection of Databases*, WIPO Doc. SCCR/8/8 (November 4, 2002), at 3. "Firstly, the *sui generis* protection of databases had proven to fulfill the economic expectations. Since the entry into force of the Database Directive, the European CD-ROM market and on-line markets have grown at enormous rates. A large number of new database products have been made available in Europe, many of which have been produced by small and medium-sized enterprises. Many of these databases are only made available in the European Community, as *sui generis* protection provides database makers with a safe legal environment for the marketing of their products; they are reluctant to market them without this legal security. Secondly, the application of practice of the *sui generis* right has demonstrated that the protection is operational in the markets, that the Courts have already shown their ability to address issues arising under the Directive (such as the interpretation of "substantial investment," "substantial part of the contents," or "substantial new investment"), and that the protection does not interfere with research or with the exchange of information."

# Chapter III

# Economic Justification for *Sui Generis* Databases

## I. Introduction

The economic justification for *sui generis* databases needs to be reexamined. Unrestricted import and export of goods and services between nations is part of an ideal international trade policy that is subject to the fundamental economic theories of "Demand-Supply" and "Maximization" (comparative advantage). Against the prevailing wisdom that free-flowing commerce would threaten domestic producers, 18th century political economist and philosopher Adam Smith believed that, based upon comparative advantage theory, nations should export what they can produce most efficiently and inexpensively and import "what it will cost them more to make than to buy."[1] In

[1] ADAM SMITH, THE WEALTH OF NATIONS, BOOK IV, SECTION II, 12 (1776). "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage." Steven Suranovic, *The Theory of Comparative Advantage – Overview*, *at* http://internationalecon.com/v1.0/ch40/40c000.html (last visited September 20, 2005). "The theory of comparative advantage is perhaps the most important concept in international trade theory. It is also one of the most commonly misunderstood principles. There is a popular story told amongst economists that once when an economics skeptic asked Paul Samuelson (a Nobel laureate in economics) to provide a meaningful and non-trivial result from the economics discipline, Samuelson quickly responded with, "comparative advantage." The sources of the misunderstandings are easy to identify. First, the principle of comparative advantage is clearly counter-intuitive. Many results

opposition to the concept of free trade, protectionism continues to be promoted in the interest of defending domestic industries from foreign competition.

The European invention of the *sui generis* system promotes unfair competition. Under the European Database Directive's regime, the economic interest of the European database makers has been satisfied as the protection of factual and data contents is granted to them.[2] Not only the duration of protection that creates an unlimited term of protection, but also the requirement of reciprocal treatment combine to create a monopoly for the European database industries,[3] promoting the interest of defending its local industries from foreign competition. Such a protectionist regime produces a number of negative effects, among which are restricting "free competition" and turning one particular region's free trade into another country's economic exploitation; this is especially true in developing countries with fragile economies and limited resources. The system of the free flow of trade, which is championed by Adam Smith's theory of the "invisible hand," the self-interested actions of both consumers and producers to promote an optimal economic and social outcome, should be maintained.[4] Regulating the *sui*

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from the formal model are contrary to simple logic. Secondly, the theory is easy to confuse with another notion about advantageous trade, known in trade theory as the theory of absolute advantage. The logic behind absolute advantage is quite intuitive. This confusion between these two concepts leads many people to think that they understand comparative advantage when in fact, what they understand, is absolute advantage. Finally, the theory of comparative advantage is all too often presented only in its mathematical form. Using numerical examples or diagrammatic representations are extremely useful in demonstrating the basic results and the deeper implications of the theory. However, it is also easy to see the results mathematically, without ever understanding the basic intuition of the theory."

[2] *The Legal Protection of Databases* (submitted by the European Community and its Member States), WIPO Doc. SCCR/8/8 (November 4. 2002), at 3. "The *sui generis* protection of databases has proven to fulfill the economic expectations. Since the entry into force of the Database Directive, the European CD-ROM and online markets have grown at enormous rates. A large number of new database products have been made available in Europe, many of which have been produced by small and medium-sized enterprises."

[3] Directive 96/9/EC of the European Parliament and of the Council 11 March 1996 on the Legal Protection of Databases, O.J. L 77/20 [hereinafter Database Directive] arts. 10(3) and 11(3).

[4] CHRIS ROHMANN, A WORLD OF IDEAS; A DICTIONARY OF IMPORTANT THEORIES, CONCEPTS, BELIEFS AND THINKERS 247 (1999). "In a free market, prices, quantities, and production methods are governed by the forces of Supply and Demand. When the price of a good is stable because the supply of it matches the

*generis* right is an irresponsible action of the European Union, an attempt to steal knowledge wealth from other countries.

This Chapter explores important economic mechanisms and competition law that have been used to promote the competitiveness of the database industries. Section II explains fundamental economic theories that lead to an understanding of the concept of an efficient and perfect competition within the database industries. Section III analyzes judicial decisions of the two economic parties, the European Union and the United States of America, that apply competition law to create a fair reproduction and dissemination of factual contents and to prevent unfair competition derived from an attempt to dominate the free flow of contents in the market. Section IV examines a concept of extraterritorial jurisdiction that the courts in the E.U. and the U.S. have utilized to assert extraterritorial jurisdiction over activities that are constituted outside their borders. Section V addresses the concept of economic invisible hands and the competition laws that are sufficient to promote market efficiency and a competitive advantage for the worldwide database industry.

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demand for it, the market for that good is said to be in *equilibrium*. The invisible hand is not infallible, however; unemployment, inflation, and the adverse unintended consequences of economic activity (know to economists as "negative externalities") are examples of *market failure*. In these situations, government often steps in, creating subsidies, regulations, public-sector industries, taxes, and other mechanisms to correct or avoid the malfunction. Government intervention in free market economies also typically includes antitrust laws, tax incentives to encourage certain kinds of investment, and interest-rate manipulation."

## II. Relation of Fundamental Economic Mechanism, Competition, and the Protection of *Sui Generis* Databases

Whatever its choice of economic systems and national policies, a government adopts basic economic principles to promote the competitiveness of its markets, and uses legal measures to support market activities.[5] Generally, there are two fundamental economic theories that the government takes in consideration. One is "Demand-Supply," which explains the concept of price motivation between producers and consumers in the market and the other is "Profit Maximization," which explains the competition between players based on the concept of price motivation.

### A. Demand-Supply

Together, Demand and Supply motivate market activities. The theory of Demand-Supply is based on the relationship between suppliers and consumers in the market. "Supply" (*ceteris paribus*) is an ability and willingness to sell specific quantities of goods at alternative prices in a given time period.[6] "Demand" (*ceteris paribus*), in contrast, is an ability and willingness to buy specific quantities of goods at alternative prices in a given time period.[7] Both Demand and Supply magnify each other, rendering market behavior. If there is high demand by consumers for a specific product in the market, the increase in demand will cause the price of the product to be increased as well. Once the demand is greater than the supply, prices will rise and that price motivation may tempt

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[5] MILTON FRIEDMAN, CAPITALISM AND FREEDOM 2 (1962). "Government is necessary to preserve freedom,...Its major function must be to protect our freedom both from the enemies outside our gates and from our fellow citizens: to preserve law and order, to enforce private contracts, to foster competitive markets."

[6] BRAD R. SCHILLER, THE ECONOMY TODAY (8th ed. 2000).

[7] *Id.*

new suppliers to produce that specific product and move into a market already dominated by a few suppliers. In contrast, if suppliers over-produce a specific product, the supply becomes greater than the demand. Then prices will drop and become more competitive and consumers will benefit from the competition between the suppliers offering that product.

### B. Profit Maximization and Maximizing Behavior

Profit Maximization explains the natural market behavior that leads to competition. In a perfect market environment, the Profit Maximization is the most profitable rate of output which is indicated by the intersection of marginal revenue and marginal cost or where marginal revenue equals marginal cost.[8] This means a firm maximizes profit when it could sell a single item of a specific product and gain the profit at the cost of producing it. Consequently, the maximized profit, which becomes profit incentive, stimulates competition in the market. Any firm would want to enter into a market that has already been dominated by the original player. The economists describe this kind of behavior as a "Maximizing Behavior."[9]

Maximizing Behavior applies to all market participants. Consumers come with a limited amount of income to spend.[10] They wish to buy the most desirable goods and services that their limited budgets will permit. However, they cannot afford everything they want, so they must make choices about how to spend their scarce dollars. Their goal is to maximize the utility (satisfaction) they get from their available incomes. Businesses

[8] *Id.* at 462.
[9] *Id.*
[10] *Id.*

come to the marketplace with a quest to maximize profits.[11] They try to use resources efficiently and lower the cost of production, or even to have legal protection reduced or increased in order to maximize the profit. The public sector also has a maximizing goal called "welfare maximization."[12] Government has to use available resources to serve and maximize the public needs. Thus, the resources available for this purpose are finite. Hence local, state, and federal governments must use scare resources carefully, striving to maximize the general welfare of society.

### C. An Application of Economic Theories to *Sui Generis* Databases

The above-mentioned economic theories can be directly applied to market activities of the database industries. In a perfect market environment, the theories of Demand-Supply and Maximizing Behavior act together to explain market behavior in relation to price mechanism. If the prices of database goods and services are not too high, the demand of consumers will increase. The increasing demand, consequently, motivates the database compilers or makers to produce more products or services to supply the market. Price mechanism will motivate subsequent compilers to enter into the market that already has been captured by the original players. This is because the subsequent database makers foresee how they can maximize the profit at the cost of producing one additional unit. Some database makers even enter further into their "market opportunity" by developing better and cheaper databases to supply the market. In this sense, the competition flourishes. Vice versa, if the prices increase, the demand of consumers will drop. The consumers will opt out for a product offering with an alternative price.

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[11] *Id.*
[12] *Id.*

Every relationship in the market is determined by the price mechanism. The databases, ranging from hard products (CD-ROM or compilations) to soft products (online database services), will be consumed if the costs are not too high for the consumer to afford. At this point, the market price of databases will not rise above or equal the marginal price. This is because no firm may charge more than another; any attempt by a single firm to raise a price would result in a loss of sales as buyers opt for a lower priced product. On the other hand, if the market price drops below a producer's marginal cost, the producer will not gain enough revenue from the sale of a unit to cover his expenses in producing an item. Consequently, he will ultimately be forced to drop out of the competition in the market.

Any subsequent database maker will be tempted to enter into the market that is already dominated by the original databases makers if there is an equal market opportunity. They may use different business strategies to attract consumers, including product improvement and development. However, competition would flourish only if the underlying data is free to the subsequent compilers so they are not forced to start from scratch by doing a survey and rediscovering the same data. Legal measures, if any, should be provided to subsidize competition, but not to eliminate the subsequent compliers from the market or to allow the original database makers to dictate supply and price.

According to D'Amato and Long, the copyright protection constitutes a temporary monopoly over reproduction and dissemination of expressive contents.[13] They

[13] ANTHONY D'AMATO & DORIS ESTELLE LONG, INTERNATIONAL INTELLECTUAL PROPERTY ANTHOLOGY; UNDERLYING THEORIES 54 (1996). "In a desire to reward the author, and hence encourage production of new works, copyright essentially grants the author a monopoly over the reproduction and dissemination of his creative expression for a limited period of time. Thus, copyright is also a tax to society, because the

explained that an author of creative works generally obtains exclusive rights which would create a temporary monopoly by way of a lengthy duration of protection, the author's life plus fifty years.[14] Through a licensing scheme, the consumers pay more than they should for licensing products.[15] The subsequent compilers will be reluctant to incur the costs by starting from scratch and entering a market or absorbing monopolistic prices of copyrighted items.[16] Although they did not mention any applicable economic theory in connection with the factual contents, they appear to support the idea that copyright law maintains a proper balance, providing an incentive to the authors and promoting the public free flow of access to information, by stating: "The limit is important because the purpose of copyright is not solely to reward authors, but rather to induce production at the minimum possible cost to society. The law, by limiting the ownership of data, thus, favors its free movement and therefore contributes to the general progress of society."[17] They emphasized that a government's granting of protection of any kind should neither limit the public access to information nor avail any private entity an absolute monopoly window in information goods and services.

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author may set price he chooses for the work, though the work faces potential substitution if the price is too high and buyers opt instead for other, similar works." BRAD R. SCHILLER, *supra* note 6, at 496. "A "monopoly" situation is when a firm produces the entire market supplies of a particular good and service...Although monopolies simplify the geometry, they complicate the arithmetic of profit maximization. In theory, this special adaptation of the profit-maximizing rule does not work for a monopolist. The demand curve facing a monopolist is downward-sloping. Because of this, marginal revenue is not equal to price for a monopolist. On the contrary, marginal revenue is always less than price in a monopoly, which makes it just a bit more difficult to find the profit-maximizing rate of output."

[14] ANTHONY D'AMATO & DORIS ESTELLE LONG, *supra* note 13, at 54. "In order to protect the copyright holder while mitigating the burden of his monopoly on his competitors and customers, the protection is limited to creative expression for a specific period of time."

[15] *Id.* "Competition is prohibited from copying expressions without the author's consent. To produce new works, competitors must pay to license, or they must start from scratch."

[16] *Id.*

[17] *Id.* Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1014 (1997). "Copyright protection does not extend to the ideas, facts, or functional elements of a work, but only to the author's original expression of those ideas or elements. Thus, a copyright owner in a database of facts cannot prevent a user from copying the facts themselves from the database. Only the creative effort (if any) that has gone into the selection or organization of material is entitled to protection."

In contrast, the European Union's creation, the *sui generis* protection of its own kind, constitutes a monopoly by means of its perpetual duration of protection. In reference to the Database Directive, it specifies two-tiered protection, one attached to the creative selection and arrangement of the contents of databases and the other to the factual or data contents.[18] The *sui generis* system provides the database makers an ownership right to prevent the unauthorized extraction and/or reutilization of both creative and factual contents of databases for commercial purposes and unlimited duration of protection if the database makers show that there is substantial change in the databases.[19] This is convincing evidence that the regime of *sui generis* databases is unjustifiable.

### D. Justifiable Economic Concept of Competition

Competition, in an economic context, can be referred to as the actions of two or more rivals in pursuit of the same objective.[20] In the context of markets, the specific objective is either selling goods to buyers or alternatively buying goods from sellers.[21] In a system of perfect competition, there would be a number of sellers, a number of buyers, and perfect market information available to all.[22] The sellers, competing among

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[18] Database Directive arts. 3 and 7.
[19] *Id.* art. 10(3).
[20] AREEDA KAPLOW, ANTITRUST ANALYSIS: PROBLEMS, TEXT, AND CASES 5 (5th ed. 1997).
[21] *Id.*
[22] *Id.* at 6. "A market economy will be perfectly competitive if the following conditions hold:
(1) Sellers and buyers are so numerous that no one's action can have a perception impact on the market price, and there is no collusion among buyers and sellers.
(2) Consumers register their subjective preferences among various goods and services through market transactions at fully known market prices.
(3) All relevant prices are known to each producer, who also knows of all input combinations technically capable of producing any specify combination of outputs and who makes input-output decisions solely to maximize profits.
(4) Every producer has equal access to all input markets and there are no artificial barriers to the production of any product."

themselves for business, would be induced to make and provide what their customers want. To do so they would aspire to be inventive and progressive and to minimize costs. The pressures of competition would keep prices near costs.

However, the process of competition may result in one firm dominating the market. Competition between firms may produce a "winner" which dominates the market, or a "national" monopoly may exist on the market.[23] A firm with sustained monopoly power would have an incentive to act inefficiently, which could involve letting costs rise; to use their power to exploit consumers; and to strike down competitors to preserve its monopoly in the market. Such activities constitute an economic inefficiency in the market and restrain competition. In these situations, it may be necessary for a governmental body to take certain measures to restrain the dominating firms' behavior.

Competition law, therefore, exists to protect the process of competition in a free market economy.[24] Competition law is legal measures that the government adopts in accordance with the form of economic organization which brings the greatest benefits to society.[25] To foster diversity and pluralism, competition law seeks to promote effective and undistorted competition in the market. The basis of free competition between firms is believed to deliver efficiency, low prices, and innovation. Competition and competition law that serves the market economy tend to keep markets free and open, thereby

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[23] CHRIS ROHMANN, *supra* note 4, at 71. "The economic theory of competition spans a continuum, from *perfect competition*, in which many sellers offer the same product under the same circumstances, to *monopoly*, in which a product is available from only one source, which therefore has no competition. Both of these model circumstances are rare; more common are *atomistic* and *monopolistic* competition and *oligopoly*."

[24] ELEANOR M. FOX, CASES AND MATERIALS ON THE COMPETITION LAW OF THE EUROPEAN UNION 801 (2002). "Many analysts assume that a system of free enterprise with competition law exists only to obtain a more efficient allocation of resources or only to prevent price rises to consumers and that competition law has exactly and only this goal. Of course, as we have seen, that is not the case. Competition law usually has other goals as well. In the European Union, these goals include market integration, openness, control of dominance, fairness, and competitiveness (the growth of efficient, dynamic and responsive firms for the sake of the European economic strength in world markets)."

[25] ALISON JONES AND BRENDA SUFRIN, EC COMPETITION LAW: TEXT, CASES, AND MATERIALS 3 (2001).

providing opportunities for entrepreneurs and their small- and medium-sized enterprises.[26]

In perfect competition, the welfare of consumers should be maximized. Under this perfect competitive environment, the consumers determine the amount of economic resources available, which maximizes the efficiency of the market. The cost of the production of goods and services will be as low as possible because the undertakings need to remain competitive. The prices remain low as a function of the mechanics of supply and demand.

## III. Applicability of Competition Law to Promote Economic Efficiency of *Sui Generis* Databases

Inasmuch as perfect competition is an ideal set forth by a theory, reality is often different. The reality is that monopolies do occur. Whereas the WIPO Draft Database Treaty, like other intellectual property law, tends to create a monopoly window for the database makers, giving them an ability to control prices and production, competition law tends to promote the market efficiency and competition in the databases industries. There is existing evidence of how the courts in the E.U. and the U.S. apply competition law to support competition in the database industries.

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[26] Andrés Guadamuz Gonzáles, *The Impact of Globalization on Competition Law*, 6-7 (Enero del 2002), *at* http://www.democraciadigital.org/etc/arts/0201global.html. "It would appear that the rationale behind competition law is very complex. It exists to protect the consumer, it also protects smaller enterprises from preying practices of powerful undertakings, it protects the economy, and it is also beneficial for the "common good" of society. Whatever reason, it can be argued that the goal of competition policy is to find a balance with a market which no undertaking is allowed to become too dominant."

### A. A Position of E.U. Competition Law

Member States of the European Union utilized competition law to enhance economic efficiency and social development in its internal market. Every year the Competition Directorate publishes a report[27] that reexamines the objectives of Community competition policy to be in compliance with Articles 81(ex 85) and 82(ex 86) of the Treaty Establishing the European Community of 1957 (E.C. Treaty).[28] In short, Article 81(1) declares that agreements that distort competition are incompatible with the common market;[29] Article 81(2) declares such agreements void;[30] and Article 81(3) allows exemption for such agreements or practices that are economically progressive and

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[27] ELEANOR M. FOX, *supra* note 24, 784-787. Referring to the XXXth Report on Competition Policy (2000), paragraph 1 states: "Competition Policy is one of the pillars of the European Commission's action in the economic field. This action is founded on the principle, enshrined in the Treaty, of "an open market economy with free competition." It acknowledges the fundamental role of the market and of competition in guaranteeing consumer welfare, in encouraging the optimum allocation of resources and in granting economic agents the appropriate incentives to pursue productive efficiency, quality, and innovation." Treaty Establishing European Community, adopted 1957 [hereinafter E.C. Treaty] arts. 81(ex 85) and 82(ex 86);" the XXIXth Report on Competition Policy (1999), paragraph 2 states: "The First objective of competition policy is the maintenance of competitive markets. Competition policy serves as an instrument to encourage industrial efficiency, the optimal allocation of resources, technical progress and the flexibility to adjust to a changing environment;" and the XXVIth Report on Competition Policy (1996), paragraph 2 states: 'Competition policy is both a Commission policy in its own right and an integral part of a large number of European Union policies and with them seeks to achieve the Community objectives set out in Article 2 of the Treaty, including the promotion of harmonization and balanced development of economic activities, sustainable and non-inflationary growth which respects the environment, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion."

[28] TREATY ESTABLISHING THE EUROPEAN COMMUNITY, Nov. 10, 1997, O.J. (C 340) 3 (1997) [hereinafter EC Treaty].

[29] *Id.* art. 81(1) (ex article 85(1). "The Following shall be prohibited as incompatible with the common market: all agreements between undertakings, decisions, by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distribution of competition within the common market, and in particular those which:

(a) direct or indirect fix purchase or selling prices or any other trading conditions;
(b) limit or control production, markets, technical development, or investment;
(c) share markets or sources of supply;
(d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
(e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

[30] *Id.* art. 81(2). "Any agreements or decisions prohibited pursuant to this Article shall be automatically void."

benefit consumers.[31] Article 82 prohibits abuse of a dominant position.[32] In addition, the European Parliament and its Commission are bound to promote balance and sustain economic and social progress in the Community in other areas as well: merger control,[33] liberalization and state intervention,[34] and state aid.[35]

In *Radio Telefis Eireann* v. *Commission (1995) (Magill)*,[36] the European Court of Justice ("ECJ") held that a refusal to license copyright in factual contents infringed Article 82 of the E.C. Treaty. The ECJ upheld the Commission's decision in *Magill TV Guide* v. *Independent Television Publications Ltd.* (ITP), *British Broadcasting Cooperation* (BBC) *and Radio Telefis Eireann Authority* (RTE) (1988).[37] The Commission of the European Communities ("Commission") held that the policies and practices of ITP, BBC and RTE, respectively, in relation to their individual advance

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[31] *Id.* art. 81(3). "The provisions of paragraph 1 may, however, be declared inapplicable in the case of :
—any agreement or category of agreements between undertakings;
—any decision or category of decision by associations of undertakings;
—any concerted practice or category of concerted practices;
which contributes to improving the production or distribution of goods or promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:
(a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
(b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question."

[32] *Id.* art. 82 (ex article 86). "Any abuse one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market in so far as it may affect trade between Member States. Such abuse, in particular, consist in:
(a) direct or indirect imposing unfair purchase or selling prices or other unfair trading conditions;
(b) limiting production, markets or technical development to the prejudice of consumers;
(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

[33] Application of Council Regulation 4064/89 on the Control of Concentrations between Undertakings.

[34] EC Treaty arts. 37 and 90.

[35] *Id.* arts. 90, 92-94.

[36] Court of Justice C-241-241/91 P, RTE & ITP v. EC Commission [1995] ECR I-743, [1995] 6 CMLR 718.

[37] Commission Decision 89/205/EEC, relating to a proceeding under Article 86 of the EEC Treaty (IV/31.851- Magill TV Guide/ITP, BBC and RTE), 1988 O.J. (L 78) 21.3.89, 43; [1989] 4 CMLR 755.

weekly program listings, constituted infringements of Article 82.[38] Each broadcasting organization published weekly listings of its programs in Ireland and North Ireland, gave newspapers its schedule free on a daily basis (according to strictly enforced licensing conditions),[39] and claimed copyright protection over its program listings. Therefore, RTE had statutory monopoly over television broadcasting in Ireland,[40] whereas BBC and ITP had a statutory duopoly in the U.K. (including Northern Ireland).[41] At that time, no composite TV guide existed. An Irish publisher, Magill, started to publish a comprehensive weekly TV guide giving details of all programs available to viewers in Ireland and Northern Ireland. It sought licenses from RTE, BBC and ITP but the licenses were denied.[42] Magill complained to the Commission that the television companies, by refusing to give out reliable advance listings information and protecting their listing by enforcing their copyright, were infringing Article 82.

In the finding, the relevant product market[43] was identified in view of the potential demand for weekly TV guides. The products to be taken into account were the advance weekly listings of ITP and BBC regional program services and those of RTE and

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[38] *Id.* art. 1.
[39] *Id.* para. 15.
[40] *Id.* para. 2.
[41] *Id.* paras. 3-4.
[42] *Id.* para. 5.
[43] Commission Notice on the Definition of the Relevant Market, 1997 O.J. C 372/5 II. "A relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use...The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighboring areas because the conditions of competition are appreciably different in those areas...The relevant market within which to assess a given competition issue is therefore established by the combination of the product and geographic markets. The Commission interprets the definitions at paragraph 7 and 8 (which reflects the jurisprudence of the Court of justice and the Court of First Instance as well as its own decisional practice) according to the orientations defined in this Notice."

also the TV guides in which these listings were published.[44] For a publisher wishing to produce a weekly TV guide for the geographic area, these listings constituted the essential raw materials for any such guide.[45] The individual listings were not interchangeable with one another but instead were complementary to one another, as they concerned different programs.[46] Accordingly, the consumers experienced this difficulty and demanded that this information be contained in a single periodical, that is, a comprehensive guide.[47]

On the other hand, the relevant geographic market was determined by the common characteristic of where the weekly listings could be received and where TV guides containing these listings were distributed.[48] The RTE program service was received in most, if not all, of Ireland and Northern Ireland.[49] The BBC and ITP program services, or at least regional versions of these services, were also received in this area.[50] Any comprehensive weekly TV guide, therefore, would contain at least the weekly listings for these regional services. Consequently, the relevant geographic market was most of Ireland and Northern Ireland, which constituted a substantial part of the common market for the purpose of Article 82.

The Commission provided an analysis of existence of dominant position. First, the existence of a dominant position was found in accordance with the nature of subject matter in this case.[51] The broadcasting organizations' listings were entitled to national copyright protection of the United Kingdom and Republic of Ireland, which was contrary

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[44] 1988 O.J. (L 78) 21.3.89, 43, *supra* note 37, para. 20.
[45] *Id.*
[46] *Id.*
[47] *Id.*
[48] *Id.* para. 21.
[49] *Id.*
[50] *Id.*
[51] *Id.* paras. 8-9.

to the concept of copyright protection elsewhere in the Community.[52] This case appeared to be a battle between intellectual property rights and competition law. Insofar as the dominant position is concerned, it is to be remembered at the outset that mere ownership of an intellectual property right cannot confer a monopoly position.[53] Since the broadcasting organizations legitimately obtained copyright protection on their listings, they had a monopoly over their reproduction and distribution.[54] Any third parties who wished to produce reliable listings for publication in their own TV guide must obtain licenses from the broadcasting organizations, resulting in the ability of the license-holding organizations to control competition from third parties in the markets.[55] The broadcasting organizations, thus, were in a position to prevent effective competition in the market of weekly television magazines and, therefore, occupied a dominant position.

Second, the existence of abuse of Article 82 was found in relation to the broadcasting organizations' actual policies and practices.[56] ITP, BBC, and RTE had policies to supply publishers with their advance weekly listings but to limit, by means of the terms of licenses granted, the reproduction of these listings to one or, at most, two days' listings at a time. Another option was to refuse to license altogether.[57] The Commission took a view that these policies and practices were unduly restrictive to the competition by preventing the appearance of a new product for which there was a potential consumer demand.[58] Instead, their conduct reserved to themselves the secondary market of weekly TV guides by excluding competition in that market because they

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[52] *Id.*
[53] *Id.*
[54] *Id.* para. 23.
[55] *Id.*
[56] *Id.*
[57] *Id.*
[58] *Id.*

denied access to the basic information that was the raw material indispensable for the compilation of such guides.[59] In addition, the Commission asserted that such abuse also had effect on trade between Member States because a comprehensive TV guide containing the advance weekly listings of ITP, BBC and RTE would clearly be marketed in both Ireland and Northern Ireland, which would include cross-border trade in such guides.[60] In conclusion, the Commission considered that the practices and policies of broadcasting organizations were prohibited under Article 82 because, in fact, they used copyright as an instrument of abuse, and in a manner that fell outside the scope of the specific subject-matter of that intellectual property right, and by acting in a dominant position to prevent the introduction of a new product, the weekly TV guide, to the market.[61] The Commission's decision was also upheld by the Court of First Instance.[62]

Only RTE and ITP appealed to the ECJ.[63] The ECJ confirmed the finding of abuse but its judgment was strikingly narrow.[64] It concentrated on the specific scenario in issue and eschewed extended discussion about the nature of intellectual property rights and their relationship to the rules of competition.[65] The ECJ stated:

> "[T]he appellants—who were, by force of circumstances, the only sources of the basic information on programme scheduling which is the indispensable raw material for compiling a weekly television guide—gave viewers wising to obtain information on the choice of programmes for the week ahead "no choice" but to buy the weekly guides for each

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[59] *Id.*
[60] *Id.* para. 24.
[61] *Id.* art. 1
[62] Court of First Instance T-69/70/89, 76/89, RTE, ITP, BBC v. EC Commission [1991] ECR II-485, [1991] 4 CMLR 586.
[63] C-241/91P and C-242/91P, [1995] ECR I-743, *supra* note 36.
[64] *Id.* paras. 46-58.
[65] *Id.* para. 46.

> station and draw from each of them the information they needed to make comparisons."[66]

In conclusion, the ECJ held that the refusal to supply information that was the raw material necessary for the weekly TV listings constituted an abuse under Article 82(b) of the E.C. Treaty by means of preventing the appearance of a new product that the appellants did not offer but for which there was a potential consumer demand.[67]

The Commission had been concerned that dominant undertakings should not hinder competition from producing products and services. The decision in the *Magill* case had proved that a refusal to license intellectual property rights under Article 82 of the E.C. Treaty would affect the competition of the database industry. In pursuant to the Database Directive, recital 47 mentioned:

> "Whereas, in the interests of competition between suppliers of information products and services, protection by the *sui generis* right must not be afforded in such a way as to facilitate abuses of a dominant position, in particular as regards the creation and distribution of new products and services which have an intellectual, documentary, technical, economic or commercial added value; whereas, therefore, the provisions of this Directive are without prejudice to the application of Community or national competition rules."[68]

It raises an important question of how far the *sui generis* right under the Database Directive regime could promote free competition. Inasmuch as it constitutes a property right in the factual contents, the concept of protection directly opposes the copyright rationale of the public free flow of access to information. Moreover, it violates

[66] *Id.* para. 53.
[67] *Id.* para. 54.
[68] Database Directive recital 47.

international treaties to which Member States are signatories, especially the Berne Convention and the European Convention on Human Rights and Fundamental Freedoms.[69] The action of institutions applying and enforcing the Community law must respect the general principles of law, in particular, the principles of proportionality, legitimate expectations, and fundamental rights.[70] To this point, it is important that when administering Community law, the Commission must ensure that such law is in compliance with the principles of human rights, rules of natural justice, and "international comity" (living peacefully with other nations in mutual respect and accommodating their interests, the rules of politeness, convenience and goodwill observed by States in their mutual intercourse without being legally bound by them).[71]

### B. The Position of U.S. Antitrust Law

The first country in which antirust law took a firm legislative foothold was the United States. Since 1890, the U.S. courts applied the Sherman Act to prohibit the existence of monopolies, conspiracies between companies, and lowering prices to eliminate smaller competitors.[72] Insofar as it concerned healthy U.S. economy, the Sherman Act was very effective in creating a system of punishment by providing private individuals a way to recover "treble damages" for beaches of the antitrust law.[73] In

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[69] ALISON JONES AND BRENDA SUFRIN, *supra* note 25, at 66-67. "The ECJ has developed and introduced a body of unwritten law, the general principle of law, as part of Community law. These are rules, based on national laws of Member States and international treaties, especially the European Convention of Human Rights and Fundamental Freedoms, in accordance with which Community law is interpreted. The principles are important when determining the boundaries of proper and lawful action of the Community and national institutions (when the latter are acting within the sphere of Community law)."

[70] *Id.*

[71] *Id.*

[72] 15 U.S.C. §§ 1-7.

[73] *Id.* AREEDA KAPLOW, *supra* note 20, at 106-107. "Although antitrust laws are of general application, covering all industries and virtually all economic activity, several "exemptions" have arisen over the years.

pursuant to the compilations of facts and information, it appeared that the U.S. courts had applied the doctrine of "misappropriation" to promote competition of the database industry in addition to the doctrine of "sweat of the brow."

In *International News Service* v. *Associated Press* case (*INS* v. *AP*) (1918),[74] the U.S. Supreme Court applied the doctrine of misappropriation to compilations of facts or data in news. According to the underlying fact, during the First World War, the INS and AP were competitors engaging in the same business conduct, news services.[75] Both gathered and published news about wars from abroad secured from foreign governments.[76] However, AP was barred from sources in some countries and began to pirate its competitor's news from INS's bulletin boards.[77] INS filed the suit, alleging that AP had misappropriated its news and sought for an injunction against its rival agency. The District Court granted the summary judgment in favor of AP and withheld the injunction.[78] In appeal, the Appeal Court reversed the decision, issued the injunction, and restrained AP from taking or gainfully using any of INS's news by means of the commercial value attached to the news.[79] The Supreme Court affirmed reasoning that INS still had commercial interest in the news it gathered.

Pursuant to the doctrine of misappropriation, Justice Pitney delivered the leading opinion directed to the owner's commercial or economic interest in the commercial data

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We use the quoted term loosely to cover quite different limitations on the reach of the antitrust laws. There are literal exemptions by which statutes expressly allow certain conduct—for example, by agriculture cooperatives or by labor unions—that would otherwise violate the antitrust laws...In addition, the courts have assumed that Congress meant to respect principles of federalism by leaving "state action" outside the antitrust regime. Finally, the federal antitrust laws apply only where interstate and foreign commerce are involved, although applying U.S. law to foreign activity creates special difficulty."

[74] International News Service v. Associated Press, 248 U.S. 215, 63 L. Ed. 211, 39 S. Ct. 68 (1918).

[75] *Id.* at 217.

[76] *Id.*

[77] *Id.*

[78] *Id.*

[79] *Id.* at 218.

or information. The Court pointed out that gathered information about events of public interest was not "susceptible of ownership or dominion in the absolute sense."[80] The gatherers had no right against the public at large and should not make any use of information because news was "common property."[81] Nevertheless, the gathers could obtain a right to restrain use of such news if there was a commercial rival between the complainant and the defendant. In this sense, the news must be regarded as "quasi-property"[82] that had all attributes necessary to determine a misappropriation. INS, then, could prohibit its competitors from using it "until its commercial value as news has passed away."[83] The Court found that AP's conduct was an endeavor to reap where it had not sown and amounted to an unauthorized interference to INS's legitimate business at the point where its profit was to be reaped.[84] AP should be prohibited from taking news from the INS bulletin board. Otherwise, no news service could stay in business.

The Court laid down elements central to INS's claim as follows: (1) the plaintiff generated or collected information at some cost or expense,[85] (2) the value of information was highly time-sensitive,[86] (3) defendant's use of information constituted free-riding on the plaintiff's costly efforts to generate or collect it,[87] (4) the defendant's use of information was in direct competition with a product or service offered by the plaintiff,[88] and (5) the ability of other parties to free-ride on the efforts of the plaintiff would so reduce the incentive to produce the product or service that its existence or quality would

[80] *Id.* at 236.
[81] *Id.* at 235.
[82] *Id.* at 236.
[83] *Id.* at 240.
[84] *Id.*
[85] *Id.*
[86] *Id.* at 231.
[87] *Id.* at 239-240.
[88] *Id.* at 240.

be substantially threatened.[89] INS's conduct would render AP's publication profitless or so little profitable as in effect to cut off the service by rendering the cost prohibitive in comparison with the return.

Further, the Court reasoned that the INS case was about the protection of property rights in time-sensitive information so that the information could be made available to the public by profit-seeking entrepreneurs. If services like AP were not assured of property rights in the news they pay to collect, they would cease to collect it. The ability of competitors to appropriate their product at only nominal cost and thereby to disseminate a competing product at a lower price would destroy the incentive to collect news in the first place.

It appeared that the Court recognized a property right in such facts and information. However, the Court did not mention that the gathered news was copyrightable, it only referred to the gathered facts and information as "quasi property." Though the news was realized as "common property" belonging to the public, the Court applied the doctrine of misappropriation, reasoning that the gatherer still had a commercial interest in the contents and prevented INS from getting a free ride. The Court's decision responded to economic significance and interest of the gatherer in gathered facts and information.

In the recent development, the U.S. court appears to be more sophisticated and provides more satisfactory analysis of the doctrine of misappropriation in relation to the databases. In *National Basketball Association* v. *Motorola, Inc.* (*NBA* v. *Motorola*)

[89] *Id.* at 241.

(1997),[90] the Second Circuit Court held that Motorola did not free-ride on NBA's product since it expended its own resources to collect purely factual information. Motorola manufactured and marketed SportsTrax paging device while Sports Team Analysis and Tracking Systems ("STATS") supplied the game information that was transmitted to the pagers such as the teams that were playing, score changes, and the time remaining in the quarter.[91] NBA filed in the Southern District of New York on the grounds of misappropriation and sought an injunction to bar the sale of a handheld pager that displayed updated scores and statistical information of National Basketball Association games.[92] The District Court found that Motorola and STATS were liable for misappropriation.[93] The Second Circuit Court reversed the decision.

In its finding, the Second Circuit Court outlined elements of the doctrine of misappropriation as follows: (1) the subject matter must result from plaintiff's own contribution, expenses, and labor in generating or collecting information; (2) the information was time sensitive, (3) the defendant's use of the information must constitute free-riding status; (4) the defendant's use of the information was in competition with a product or service offered by the plaintiff or likely to be offered by the plaintiff, and (5) the ability of other parties to free ride on the efforts of the plaintiff would so reduce the incentive to produce the product or service that the existence or equality of the product would be substantially threatened.[94] The Second Circuit Court found that Motorola had not engage in unlawful misappropriation because the information transmitted to

[90] National Basketball Association v. Motorola, Inc., 105 F. 3d 841 (2nd Cir. 1997).
[91] *Id.* at 844.
[92] *Id.*
[93] *Id.*
[94] *Id.* at 845.

SportsTrax was not precisely contemporaneous, but was, in fact, time sensitive.[95] Besides, the NBA failed to show any competitive effect from SportsTrax on the following grounds: first, the product was generating the information by playing the games; second, the product was transmitting live, full descriptions of those games; and third, the product was collecting and retransmitting strictly factual information about the games.[96] The Court also found that the NBA's primary product—producing basketball games with live attendance and licensing copyrighted broadcasts of those games—was not infringed upon nor did it involve a free-ride, inasmuch as Motorola markets SportsTrax as being designed for those times when a person could not be at the arena, watch the game on TV or listen to it on the radio. [97] In addition, the Court asserted that transmitting contents of live events such as baseball games were not copyrightable and, therefore, survived the Copyright Act's preemptive effect.[98] U.S. Congress only extends copyright to author's creative expressions, not facts or information.

Evidently, the U.S. courts extend antitrust law to constitute a property right in the factual contents and to promote market efficiency in the database industry. The decisions in both cases indicate an intention to recognize economic significance of the databases and resolve the problem of free-riding. However, the decision in the *NBA* case is based on the fact that there are different relevant markets. Under the *NBA* scenario, the market would be competitive since the underlie information remains free for all to access. On the other hand, the Court in the *INS* case utilizes antitrust law to prevent free-riding of the gathered facts and to secure the investment of the gatherer. Under the *INS* scenario, only

[95] *Id.* at 853.
[96] *Id.* at 854.
[97] *Id.*
[98] *Id.* at 846.

a handful of database compilers would remain in the market as they would obtain exclusive owner rights over the factual contents of databases. The subsequent compilers would not have an incentive to start collecting the same data from scratch and enter into a market already dominated by the original players. Consumers would have limited alternatives of product selections. The market would not be freely competitive as the authority's grant would create a temporarily monopoly status to the database industries. Last, both cases refer to compiled facts that copyright law does not afford protection unless there is minimal creativity in the selection and arrangement of the contents. The *INS* case refers to this type of work as a quasi property based on labor justification corresponding to the doctrine of sweat of the brow, whereas the *NBA* case mentions that compiled facts are not copyrightable corresponding to the true copyright regime that the U.S. ratified in the Berne Convention.

The European approach, on the other hand, seems to be more effective than the U.S. approach. The Court's decision in the *Magill* case represents an idea to promote the public free flow of access to information, flourishing market competition inasmuch as the European courts consider a refusal to license as an abuse of dominant position. It seems that the European courts eliminate temporary monopoly that copyright law allows through a licensing scheme, but fail to state that the factual contents are not copyrightable. Unlike the U.S. courts that suggest that the economic significance of the contents to the gatherers is of prime importance, the European courts merely suggest that a refusal to license would impede the free movement of goods and services in the Community.

There are a number of other differences between E.U. and U.S. competition laws that need to be addressed. First, the characteristic of the U.S. antitrust law is national, while the E.U. competition law is regional. Second, the *Magill* case presents a governmental authority to examine an existence of abuse of dominant position, but the U.S. court decisions present infringed parties who brought the claim before the courts on a ground of free-riding.[99] Last, the U.S. courts need not be concerned with distinct copyright law, whereas the European courts must consider the effect of the distinct copyright laws of the Member States and are challenged to solve problems in the national system in a way that would promote economic and social development in the Community as a whole.[100] One similarity they share, however, is that both the U.S. courts and the European courts efficiently utilize competition law to promote competition in the database industries and maximize the public need of free access to information.

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[99] Martha Neil, *Old Continent, New Deal*, ABA J. (September, 2004) at 50, 54. "A 'philosophical gulf' exists between American and European Union antitrust regulators. The U.S. Department of Justice and the Federal Trade Commission routinely focus on potential harm to consumers. EU regulators, on the other hand, are concerned primarily about adverse effects will have on competitors."

[100] ALISON JONES AND BRENDA SUFRIN, *supra* note 25, at 558. "Common law notion of copyright emphasize the right of author to prevent others exploiting his work for commercial gain whereas the civil law emphasizes the right of the creator of a work to be recognized as such and to be normally entitled to protect its integrity. U.K. copyright law, for instance, covers performers' rights and similar rights but in most E.U. countries there is a distinction drawn between "author's right" and "neighboring rights" (those accorded to sound recordings, broadcastings, and performers). Under the U.K. law works created by the "sweat of the brow", such as compilations of information, are accorded copyright protection, whereas civil law systems require a greater degree of creativity."

## IV. Extraterritoriality Aspect of *Sui Generis* Protection

Within the context of competition law, the issue of extraterritoriality has become increasingly important as what is called the "globalization"[101] of the world economy advances. As competition takes place on a global dimension, it becomes more and more difficult to isolate the effects of transactions. For an authority to be able to assert substantive jurisdiction in antitrust matters,[102] the jurisdiction must be one of two types afforded by international law. On the one hand, there is what is variously called prescriptive, legislative, or subject-matter jurisdiction, which is the right of States to make their laws applicable to persons, territory, or situation.[103] On the other hand, there is enforcement jurisdiction, which is the capability to take executive action to enforce compliance with those laws.[104] Thus, competition law primarily concerns how a state

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[101] CHARLES W. HILL, INTERNATIONAL BUSINESS: COMPETING IN THE GLOBAL MARKETPLACE 5-14 (2nd ed. 1997). "The general understanding of the meaning of globalization is that it is a process in which the world is moving from a system of national economies into a trade regime where barriers of different types are disappearing to create one global marketplace. It is believed that this process of globalization is being driven by the fall of trade and investment barriers, the rapid technological advance in transportation and telecommunications, and the increase in direct investment of companies into third markets." CHRIS ROHMANN, *supra* note 4, at 199. "Although the contemporary political and policy know as *globalism* shares a supranational, nonisolationist outlook with other conceptions of internationalism, it differs from most of them in its emphasis on international power and influence rather than cooperation. The term refers primarily to the U.S. policy of global engagement aimed at expanding its political influence and economic markets, but it was also applied to the Soviet Union's efforts to extend its own sphere of influence during the Cold War. "Globalism" is also applied to the view that some problems, such as ozone depletion and global warming, cannot be effectively dealt with on a local or regional scale but must be attacked globally."

[102] ALISON JONES AND BRENDA SUFRIN, *supra* note 25, at 1049. "On general principles, substantive jurisdiction in anti-trust matters should only be taken on the basis of either (a) the territorial principle, or (b) the nationality principle...The territorial principle justifies proceedings against foreigners and foreign companies only in respect of conduct which consists in whole or in part of some activity by them in the territory of the State claiming jurisdiction....The nationality principle justifies proceedings against nationals of the State claiming jurisdiction in respect of their activities abroad only provided that this does not involve interference with the legitimate affairs of other States or cause such nationals to act in a manner which is contrary to the laws of the State in which the activities in question are conducted."

[103] *Id.* at 1039.

[104] *Id.*

would presume its rights to take jurisdiction in respect to conduct that has affected its own territory.[105]

By taking into account the whole panorama of competition law in respect to international law, the E.U. has, by far, the most developed regime of international protection for competition and it sets an example that should be followed.[106] On the other hand, though the United States is the first country in which competition law set a firm legislative foothold in the national legal system, as Judge Wood commented, the strong U.S. antitrust law appears to put U.S. firms at a disadvantage in the competitive battle with their foreign rivals.[107] Thus, both systems share some common characteristics in regard to the extraterritorial jurisdiction. The U.S. and the European courts adopt the principle of the effect doctrine to assert extraterritorial jurisdiction by conditions that (1) there are agreement(s) or concerted practice(s) that create a *direct and immediate* restriction of competition; (2) the effect of the conduct must be *reasonably foreseeable*; and (3) that the effect produced on the territory must be *substantial.*[108] Though they lack sufficient evidence of the court's decision in relation to the databases subject-matter, the existing court decisions that present an extension of extraterritorial jurisdiction should be

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[105] *Id.*

[106] A. Paul Victor, Diane Wood, Tom Campbell, Timothy J. Muris, and Thomas M. Jorde, *Commentary: Antitrust and International Competitiveness in the 1990s*, 58 ANTITRUST L.J. 591 (1989) at 4. "The competition rules of the European Economic Community, set forth in Articles 95 and 86 of the treaty of Rome and implemented by the European Commission, are comprehensive and strong."

[107] *Id.* at 2-3. "The message seems inescapable: the United States, or more particularly U.S. firms, have not been winning the competitive battle with their Pacific Rim, European, or other foreign rivals...Both existence of strong (at least on paper) antitrust law and specific aspects of those laws have often been said to put U.S. firms at a disadvantage."

[108] AREEDA KAPLOW, *supra* note 20, at 145. "Congress responded in 1982 with the Export Trading Company Act, which leaves little doubt that the concern of the antitrust laws is with U.S. consumers and exporters, not foreign consumers or producers. The Act contains a new §7 making the Sherman Act inapplicable to "conduct involving...commerce (other than import trade...) with foreign nations—unless such conduct has a direct, substantial, and reasonably foreseeable effect" on (1) domestic or import trade or (2) "on export...commerce...of a person...in the United States."

sufficient to prove an efficiency of the effect doctrine applicable to the *sui generis* databases in the global dimension.

### A. Extraterritoriality in an Aspect of E.U. Competition Law

Restrictions on competition and abusive conduct which effect trade between Member States may originate outside the Community. Foreign firms established outside the Community may, for example, fix prices in the Community or divide the common market between them. To presume rights to assert extraterritorial jurisdiction, the ECJ must examine whether such behavior is anti-competitive and has an effect that impedes the free movement of goods and services in the Community. Examples of how the ECJ applies the principle of effect doctrine to assert extraterritorial jurisdiction are demonstrated below.

In *Imperial Chemical Industries Ltd.* ("ICI") v. *Commission (Dyestuffs)* (1972),[109] the ECJ upheld the Commission's decision that behavior constituted a converted practice that was prohibited by Article 81(1) of the E.C. Treaty, holding that the Commission did have jurisdiction over the British company.[110] The Commission brought proceedings alleging that enterprises in six Member States and ICI, a company incorporated and having its headquarters in the U.K., which was not at that time a member of the Community, had infringed Article 81(1) by means of engaging in fixing prices of dyestuffs and the dye markets.[111] The ECJ reasoned that: first, such behavior had direct and substantial effects in the Community markets as stated:

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[109] Court of Justice, C-48, 49, 51-57/69, Imperial Chemical Industries Ltd. v. Commission [1972] ECR 619.
[110] *Id.*
[111] *Id.*

> "Although parallel behavior may not by itself be identified with a concerted practice, it may however amount to strong evidence of such a practice if it leads to conditions of competition which do not correspond to the normal conditions of the market, having regard to the nature of the products, the size and number of the undertakings, and the volume of the said market."[112]

Second, such behavior had reasonably foreseeable effects in the Community market as stated:

> "Although every producer is free to change his prices, taking into account in so doing the present or foreseeable conduct of his competitors, nevertheless it is contrary to the rules of competition contained in the Treaty for a producer to cooperate with his competitors, in any way whatsoever, in order to determine a coordinated course of action in relation to a price increase and to ensure its success by prior elimination of all uncertainty as to each other's conduct regarding the essential elements of that action, such as the amount, subject-matter, date and place of the increases."[113]

Further, the U.K. government adopted the approach that the ECJ had no jurisdiction and that the Commission could not exercise jurisdiction against a foreigner who or a foreign company which had committed no act within the Community. The ECJ held that although the subsidiaries within the Community had separate legal personalities, it could not outweigh the unity of their conduct on the market for the purposes of

[112] *Id.* para. 66.
[113] *Id.* para.118.

applying the rules of competition.[114] The reality was that the ICI undertaking which had brought the concerted practice into legal question took place within the common market.[115] The issue of lacking jurisdiction raised by the applicants, therefore, was declared to be unfounded.[116] The subsidiaries were merely carrying out the parent's order, so that they appeared as "mere extensions of ICI in the Common Market."[117]

In *A Ahlström Osakeyhtiö* v. *Commission* (*Woodpulp*) (1993),[118] the ECJ addressed the existence of the effect doctrine in relation to the principles of international law. The Commission investigated alleged price-fixing in the wood pulp industry. It found that a cartel existed, and held that forty-one producers and two trade associations (*Finncell* and *KEA*) had engaged in concerted practices contrary to Article 81(1). All producers and trade associations had their registered offices outside the Community, but most, if not all, of the producers had branches, subsidiaries, agencies or other establishments within the Community. The Commission adopted the effect doctrine and extended the territorial scope of Article 81 to undertakings whose registered offices were situated outside the Community because the agreements to fix prices had affected trade between Member States and restricted competition in the Common Market.[119]

Many of the addressees appealed on two grounds that: (1) the Commission had no jurisdiction to apply its competition law to the addressees, and (2) they had not participated in concerted practices. The ECJ asserted that although the main sources of supply of wood pulp were outside the Community, in Canada, the United States, Sweden,

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[114] *Id.* para. 140.
[115] *Id.* para. 141.
[116] *Id.* para. 142.
[117] *Id.*
[118] Court of Justice, C-89, 104, 114, 116-117, 125-129/85, A Ahlström Osakeyhtiö v. Commission [1993] ECR I-1307.
[119] *Id.*

and Finland, the producers established in those countries sold directly to purchasers established in the Community and engaged in practices for the purpose of winning orders from those countries; this constituted competition within the Common Market.[120] It followed that the producers acted in concert on the prices to be charged to their customers in the Community and created effect by selling at prices which were actually coordinated, there were taking part in concentration which had the object and effect of restricting competition within the common market within the meaning of Article 81(1).[121] Therefore, the Commission had not infringed Article 81 by applying the competition rules to the individual undertakings.

In addition, the applicants submitted that the Commission's decision was incompatible with public international law on the grounds that the use of the competition rules in this case was based exclusively on the economic repercussion within the common market. The ECJ noted that an infringement of Article 81 consisted of conduct made up of two elements, the formation of the agreement, decision, and concerted practices; and the "implementation."[122] It found the producers implemented their pricing agreement within the common market. The Community's jurisdiction to apply its competition rules to such conduct was covered by the territoriality principle as universally recognized in public international law.[123]

Further, the applicants argued on issues of the infringement of the principles of non-interference and international comity. The ECJ asserted that there was no need to enquire into the existence of such a rule in international law since it was sufficient to

[120] *Id.* para. 12.
[121] *Id.* para. 13.
[122] *Id.* para. 16.
[123] *Id.* para. 18.

observe that the conditions for its application were, in any event, not satisfied.[124] The U.S. antitrust law did not require export cartels to be entered into, but merely tolerated them.[125] In addition, the United States authorities had not raised any objection regarding any conflict of jurisdiction when consulted by the Commission pursuant to the OECD Council Recommendation of 25 October 1979 concerning Co-operation between Member Countries on Restrictive Business Practices affecting International Trade.[126] Accordingly, the ECJ rejected the argument relating to the disregard of international comity raised by the applicants.[127]

It appears that the ECJ avoided mentioning the effect doctrine. Instead, the ECJ used the term "implementation" which meant to cover "direct sales" to Community purchasers and does not depend on the sellers establishing some form of marketing organization within the Community.[128] The extraterritorial jurisdiction is taken simply because of sales into the Community giving an impression that the "implementation" is similar to the effect doctrine.

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[124] *Id.* para. 20.
[125] *Id.*
[126] *Id.* para. 21.
[127] *Id.* para. 23.
[128] ALISON JONES AND BRENDA SUFRIN, *supra* note 25, at 1055. "Significantly, this judgment avoided talking about 'effects'. Given the terms in which the Commission decision, the arguments before the Court, and the Advocate General's opinion had been concluded, this avoidance of specific reference to the effects doctrine must have been deliberated. Instead, the Court talked about 'implementation'."

## B. Extraterritoriality in an Aspect of U.S. Antirust Law

The U.S. courts confirmed that there is some extraterritorial jurisdiction under the Sherman Act. In *United States v. Aluminum Co. of America*, (*Alcoa*) (1945),[129] the Court laid down the principle of the effect doctrine to determine agreements concluded outside the U.S. This case concerned a Canadian corporation which violated Section 1 of the Sherman Act in its agreement with European aluminum producers to stay out of the United States market. Judge Learned Hand stated that a "state may impose liabilities, even upon persons not within its allegiance, for conduct outside its borders that has consequences within its borders which the state reprehends"[130] at least where those effects were intended. The Second Circuit Court held that the Sherman Act applied to a Canadian company which had participated in a cartel intended to affect U.S. importation inasmuch as there was *direct, substantial, and reasonably foreseeable* effect on the U.S. commerce.[131] However, there is no clear narration of how far the extraterritorial jurisdiction under the Sherman Act could extend to international commerce.[132] The effect test in this case was incomplete because it failed to consider the other nation's interests.

In *Timberland Lumber Co. v. Bank of America* (1976),[133] the Ninth Circuit Court of Appeals recognized the effect doctrine by imposing additional consideration of balancing interests in regard to the notion of "international comity."[134] This case concerned an action by a U.S. company alleging that the defendants in Honduras had conspired to exclude it from the Honduran lumber market, from where it planned to

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[129] United States v. Aluminum Co. of America, 148 F. 2d 416 (2d Cir. 1945).
[130] *Id.* at 443.
[131] *Id.*.
[132] AREEDA KAPLOW, *supra* note 20, at 146. "The Sherman Act is presumably not intended to run the commercial world, yet to say that only significant effects on United States foreign commerce are covered does not identify the threshold of significance."
[133] Timberland Lumber Co. v. Bank of America, 549 F 2d 597 (9th Cir. 1976).
[134] *Id.* at 615.

export to the U.S. The Court laid down a tripartite analysis: first, the federal courts may legitimately exercise subject-matter jurisdiction under those statutes; second, a greater showing of burden or restraint may be necessary to demonstrate that the effect was sufficiently large to present cognizable injury to the plaintiffs and therefore a civil violation of the antitrust law; and third, there was the additional question, which was unique to the international setting, of whether the interest of and links to the United States, including the magnitude of the effect on American commerce, were sufficiently strong, *vis-à-vis* those of other nations, to justify an assertion on extraterritorial authority[135] as stated:

> "The elements to be weighed include the degree of conflict with foreign law or policy, the nationality or allegiance of the parties and the locations or principal places of business or corporations, the extent to which enforcement by either state can be expected to achieve compliance, the relative significance of effects on the United States as compared with those elsewhere, the extent to which there is explicit purpose to harm or affect American commerce, the foreseeability of such effect, and the relative importance to the violations charged of conduct within the United States as compared with conduct abroad."[136]

It appears that the Court did not deny jurisdiction but merely suggested that it should not be exercised where the interests of the U.S. in asserting jurisdiction were outweighed by the interests of international comity. The Court concluded that subject matter jurisdiction was established upon a showing of some actual or intended effect. Additional effects might be necessary to establish the violation. Even then, the Court

[135] *Id.* at 613.
[136] *Id.* at 615.

insisted, it may refrain from asserting "extraterritorial authority" unless the magnitude of effects in United States commerce was sufficiently strong in light of: (1) the several parties' nationality, allegiance, or principle locations; (2) the relative importance of domestic and foreign conduct in the alleged violation; (3) the relative effects on the several countries involved; (4) the clarity of foreseeability of a purpose to affect or harm U.S. commerce; (5) foreign law or policy and degree of conflict with our policy or law; and (6) compliance problems.[137]

In comparison, both the U.S. courts and the E.U. courts share some common characteristics. Both the U.S. and E.U. courts demonstrated their interests to assert extraterritorial jurisdiction because there is an economic effect to commerce within borders. Second, the principle used in consideration was that such activity must constitute *direct, substantial, and reasonably foreseeable* effect on their commerce. Thus, it can be observed that the both the U.S. and the E.U. courts have addressed the notion of "international comity" by means of living peacefully with other nations in mutual respect and accommodating their interests, the rules of politeness, convenience, and goodwill. In reference to the applicability of the effect doctrine to the *sui generis* databases, although there was no evidence of the courts' decision in this matter, both the E.U. and the U.S. courts satisfactorily demonstrated that the effect doctrine could provide a sufficient mechanism for the courts to assert extraterritorial jurisdiction. Other countries or regions, despite sometimes touching upon intellectual property right questions in their competition policy legislation, have limited experience in this area. There are a number of bilateral and multilateral co-operative bodies that have undertaken the creation of international

[137] Timberland Lumber Co. v. Bank of America, 749 F 2d 1378 (9th Cir. 1984), cert. denied, 472 U.S. 1032 (1985).

competition law, such as the Organization for Economic Co-operation and Development ("OECD") and the United Nations Conference on Trade and Development ("UNCTAD"). These bodies aim at strengthening the effectiveness and efficiency of the member countries' enforcement of their competition laws against such cartels as discussed above.[138]

## IV. Conclusion

The economic mechanisms and competition law already in place prove to be sufficient to promote competition of the database industries. However, the WIPO Draft Database Treaty tends to constitute a monopoly in the database industries.[139] In contrast, the courts in the U.S. and the E.U. have tended to apply competition law to promote

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[138] ALISON JONES AND BRENDA SUFRIN, *supra* note 25, at 1067-1073. Andrés Guadamuz Gonzáles, *supra* note 24, at 12. "The Organization for Economic Co-operation and Development (OECD), which is made up by the 25 most developed nations, has issued several recommendations on the issue of competition policy. Many other international organizations have issued recommendations on the issue of trade, globalization and competition, such as the United Nations Conference on Restrictive Business Practices, and the United Nations Conference on Trade and development (UNCTAD)." *Competition Policy and the Exercise of Intellectual Property Rights*, U.N. Economic and Social Council, Forth United Nations Conference to Review All Aspects of the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices, Reported by the UNCTAD Secretariat, Item 6 (b) of the provisional agenda, at 19, U.N. Doc. TD/RBP/CONF.5/6 (2000). "The competition policy rules applied to IPRs in developed countries or regions nowadays are broadly similar, despite some variation in the scope of exemptions granted in this area. These rules are based upon the premise that competition policy and the IPRs system are complementary, because IPRs promote innovation and its dissemination and commercialization, which enhances dynamic efficiency and welfare, outweighing any static allocative efficiency losses adversely affecting prices and quantities of products...There is therefore a need for effects to promote mutual understanding and confidence-building in this area. In this respect, it has been suggested that the deliberations of the WTO Working Group on this subject provide and analytical basis for further work on fostering common approaches to competition enforcement policies in this area among WTO member countries and that, taking into account these deliberations as well as related economic literature and national enforcement policies, future work in this are might cover the following issues: comparative approaches to the treatment of licensing arrangements; the role of IP in networks industries; the emergence of new strategies for the exercise of market power through the acquisition of IPRs and the use of patent infringement suits to deter the entry of competitors; the concept of "innovation markets"; and the implications of the territorial divisibility of IPRs and the case for applying the doctrine of exhausting of IPRs in international trade."

[139] *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/6 (December 1996) [hereinafter WIPO Draft Database Treaty].

competition in the database industries rather than to support monopoly. To assert extraterritorial jurisdiction, the courts have applied the effect doctrine to an activity that created *direct, substantial, and reasonably foreseeable* effect to the free movement of goods and services in the territories and addressed the importance of the consideration of international comity and other principles of international law. Further, it appears that the governmental bodies of the U.S. and the E.U. understand the economic mechanisms of Demand-Supply and Maximizing Behavior and utilize competition law to support them. The public benefits are maximized inasmuch as there is a free flow of access to factual contents and information and competition flourishes.

An important question remains regarding the implementation of systems. Could economic mechanisms and systems similar to those in developed countries work in developing and least developed countries? In order to sustain national economic and social infrastructure, in particular human resource development, developing countries need a free flow of access to information. De Soto explains that the increasingly integrated global economic system has produced important efficiency gains, but the new system's market dynamic is still not fully understood. Citizen in developing countries cannot understand how to convert their property into capital, and lawyers and legislatures are busy studying the legal-economic system in developed countries instead of trying to more deeply understand their fundamental national interests.[140] His statement reveals that no matter how far the global economic system has been integrated and the foreign advanced technology has been transferred and available to them, the citizens in developing countries could never apply the same logic of legal and economic standards,

[140] HERNANDO DE SOTO, THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE 153-206 (2000).

such as how to convert their intellectual assets into a balance sheet.[141] Amidst the privatization boom, together with the need to maximize profit, that are having a growing impact on the concept of new mechanisms for controlling the use and dissemination of undeveloped compilations and collections of information in the Third World countries, their knowledge wealth has flowed freely from generation to generation. In addition, Goldstein comments that, in regard to an enforcement of intellectual property rights, taking U.S. standards as the basis for analysis tends to highlight a large number of enforcement inadequacies that exist in developing countries.[142] Problems often mentioned include: the slowness of the enforcement process; discrimination against foreigners; biased court decisions; inadequate civil and criminal remedies; and corruption.[143] The enforcement component of a "mature" intellectual property rights system is not always easily emulated in developing countries. If databases were recognized as "a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural and technological advancement,"[144] the concept of the public free flow of access to information should be realized for the purpose of human resource development and the vital global economy.

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[141] *Id.*

[142] PAUL GOLDSTEIN, INTERNATIONAL INTELLECTUAL PROPERTY LAW; CASES AND MATERIALS 67 (2001). "Developing countries have significantly changed attitudes toward foreign investments and technology transfer in the 1980s. The foreign debt crisis, decreasing private capital flows to developing countries, negative experiences with the regulatory approach, outward-oriented development strategies, and the ongoing "technological revolution" are some of the possible explanations for the more liberal posture adopted by many developing countries on intellectual property. Yet for a developing country the economic implications of the trade-off between static and dynamic aspects of the production and allocation of knowledge remain open to debate.)

[143] *Id.*

[144] WIPO Draft Database Treaty, Preamble Clause.

# Chapter IV

# The Public Interest and *Sui Generis* Databases

## I. Introduction

The WIPO Draft Database Treaty considered at the forum of the World Intellectual Property Organization does not serve the public interest because it introduces imbalance into the concept of the free flow of access to information. Its objective is to create a new form of intellectual property in *sui generis* databases by means of granting intellectual property protection to the database makers in recognition of the investment they have made in compiling those databases.[1] Such a regime, if enacted as a treaty, would greatly harm major public institutions such as science and education by subjecting them to new and increasing costs and restrictions to access compiled facts and information that previously held public domain status and, thus, were freely available.

[1] *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/6 (December 1996) [hereinafter WIPO Draft Database Treaty], Preamble.

The public interest is a priority of highest order, and policy makers are elected or appointed to protect it. The concept of public interest derives from the concept of a "social contract"[2] between people and their government. It is the people's will that empowers a "state" to protect its people from tyranny and to oppose any abuse of power against them. Government is charged to uphold the tenets of the social contract and to be responsible for its people by legislating and enforcing laws that guarantee the social welfare of its citizens (education, health care, and retirement programs), their security (economic safety net), and their freedom (free speech and free association). Therefore, extending ownership rights and privileges to database makers of compiled facts and information would undermine the concept of the social contract that obligates every government to the will and protection of its people.

Ultimately, the *sui generis* system violates human rights. In a declaration of its major purposes, Article 1 of the Charter of the United Nations includes the following:

> 1. To maintain international peace and security...;
> 2. To develop friendly relations among nations...;
> 3. To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedom for all...[3]

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[2] CHRIS ROHMANN, A WORLD OF IDEAS; A DICTIONARY OF IMPORTANT THEORIES, CONCEPTS, BELIEFS AND THINKERS 365 (1999). "The theory of government holding that society is created by the common will of individuals, who see greater advantage in association than in isolation, and that legitimate political authority therefore rests on the consent of the governed. The concept goes back at least to medieval scholastics such as William of Ockham, who argued that the state's power derives from the people's will, but it rests primarily on ideas developed in Thomas Hobbes's *Leviathan* (1651), John Locke's *Two Treaties on Government* (1690), and Jean Jacques Rousseau's *Social Contract* (1762)."

[3] Charter of the United Nations, concluded June 26, 1945, entered into force October 24, 1945, 1 U.N.T.S. XVI, 1976 Y.B.U.N. 1043; 1945 Can. T.S. 7; 1945 S.A.T.S. 6; 1946 U.K.T.S. 67, Comd. 7015 B.F.S.P. 805; U.S.T.S. 993, 59 Stat. 1031 [hereinafter U.N. Charter] art. 1.

Internationalism is derived from and based on class consciousness and common humanity. Without basic protections, the global community, particularly developing countries who depend upon the free flow of access to facts and information for their national infrastructure, would be more vulnerable to threats and inequality, and thus in jeopardy of compromising the freedom of its citizens.[4]

This chapter investigates the idea of public interest based upon the concept of the free flow of access to information. Section II examines exception and limitation clauses of copyright law that have been adequately set to promote the public policy of access to facts and information. Section III investigates the violation of human rights, the right "to education,"[5] and the right "to enjoy the benefits of scientific progress and its applications"[6] as they concern *sui generis* protection. Section V addresses the issue of global public policy and the potential of adoption of a treaty for the protection of *sui generis* databases.

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[4] CHRIS ROHMANN, *supra* note 2, at 199. "The second major formulation of internationalism, also known as *cosmopolitanism*, derives form the attitudes embodied by enlightenment thinkers such as Voltaire and particularly from the writings of Immanual Kant, especially *Toward Perpetual Peace* (1975). Kant proposed the possibility of a global community based on the humanity, freedom, and equality of its members. In the essay "Ideas for a Universal History with a Cosmopolitan Purpose," he said that the most important and difficulty task for humankind is the attainment of a universally just civil society based on equality and respect, in which all people would be treated as ends in themselves rather than means to others' ends."

[5] Universal Declaration of Human Rights, adopted December 10, 1948, G.A. Res 217A, U.N. GAOR, 3rd Sess., Pt. I, Resolutions, at 71, U.N. Doc. A/810 (1948) [hereinafter UDHR] art. 26(1). International Covenant on Economic, Social and Cultural Rights, concluded December 16, 1966, entered into force January 3, 1976, 993 U.N.T.S. 3, 1966 U.N.J.Y.B. 170; 1977 U.K.T.S. 6, Comd. 6702 [hereinafter ICESCR] art. 13(1).

[6] UDHR art. 27(1). ICESCR art. 15(1)(b).

## II. Copyright Fair Use in regard to *Sui Generis* Databases

### A. The Concept of Proper Balance in International Copyright Instruments

The legal framework for the protection of *sui geneirs* databases, which gives the private sector property rights in the contents of facts, data, and information, opposes established public policy in major public sector arenas, as discussed earlier. From the time of its establishment in 1886, the Berne Convention for the Protection of Literary and Artistic Work ("Berne Convention") has recognized that "limits to absolute protection are rightly set by the public interest."[7] The proper balance between the interest of authors and public sectors is set in the Berne's provisions regarding limitations and exceptions and duration of protection. Thus, member states are granted latitude to limit the rights of authors in certain circumstances by which limitations and exceptions of authors' works may be adopted under national laws. Article 10 of the Berne Convention states:

> "(1) It shall be permissible to make quotations from a work which has already been lawfully made available to the public, provided that their making is compatible with fair practice, and their extent does not exceed that justified by the purpose, including quotations from newspaper articles and periodicals in the form of press summaries.
>
> (2) It shall be a matter for legislation in the countries of the Union, and for special agreements existing or to be concluded between them, to permit the utilisation, to the extent justified by the purpose, of literary or artistic works by way of illustration in publications, broadcasts or sound

[7] Sam Ricketson, *WIPO Study on Limitations and Exceptions of Copyright and Related Rights in the Digital Environment*, WIPO Doc. SCCR/9/7 (April 5, 2003), at 3.

or visual recordings for teaching, provided such utilisation is compatible with fair practice.

(3) Where use is made of works in accordance with the proceeding paragraphs of this Article, mention shall be made of the source, and of the name of the author if it appear thereon."[8]

The position of the Berne Convention is clear on the subject of protected works and public interest when it declares that absolute copyright protection should not exist in a protected work because of the importance of the need for ready availability of such works from the point of view of the general public. The Berne Convention provides for fair use exceptions if such quotations are made for purposes such as criticisms, comment, news reporting, teaching, scholarship, or research. In reference to the fair use exceptions to broadcasting and current events, Article 10bis permits the reproduction by the press, through print or by wire, of articles published in newspapers or periodicals as long as the purpose is to make such works available to the public.[9]

In determining whether the use made of a work in any particular case is fair use, Article 9(2) of the Berne Convention specifies factors to be considered, called the "three-step" test to an author's work. The conditions are set forth as follows: First, the criteria permit exceptions only in certain special cases; second, the exceptions may never conflict with normal exploitation of the works; and third, the exceptions may not unreasonably impair or prejudice the legitimate interests, including economic interests of the author.[10]

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[8] Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886 (Paris Act of July 1971) [hereinafter Berne Convention] art. 10.

[9] *Id.* art. 10bis(1) and (2).

[10] *Id.* art. 9(2). Rogers v. Koons, 960 F. 2d 301 (2d Cir.), *cert. denied*, 113 S. Ct. 365 (1992). The Second Circuit Court rejected a fair use parody defense by the artist Jeff Koons, holding that he intentionally created a sculpture called "string of puppies" based on a copyrighted photograph entitled "Puppies" made by a professional photographer. The court found that Koons's purpose in using the copyrighted photograph was commercial; he had made four sculptures, three of which has been sold for a total of $367,000. The

In addition, due to the nature of facts of some work such as court decisions,[11] political speeches,[12] lectures and addresses,[13] the Berne Convention permits a high degree of flexibility to fair use exceptions, enabling member countries to give effect to their differing views of public interests—at one extreme, they are free to leave such contents entirely in the public domain; at the other, they may accord them complete protection as literary or artistic works; or they may grant qualified protection, subject to generous rights of use on the part of the public.[14]

However, the Berne fair use exceptions do not apply to the collections and compilations of facts and information insofar as they are not assimilated into creative collections under Article 2(5) of the Berne Convention. Article 2(5) appears only to require protection of collections of literary and artistic works "which, by reason of the selection and arrangement of their contents, constitute intellectual creations."[15] It does not refer to collections and compilations of data or other material which are not literary or artistic works. The collections and compilations of these kinds of works, therefore, fall outside the scope of Article 2(5). The Berne Convention intends to leave the underlying facts available to the public, taking into account the serious need of the scientific research and educational communities to the free flow of access to information and of developing countries that need this available access for purposes of national infrastructure. Article 2(8) of the Berne Convention also confirms the free flow of underlying facts as stated:

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artist's claim of parody escaped the court; it found that his motive was a bad-faith desire to make money based on another's copyrighted work and that none of the other factors relevant to fair use weighed in favor of Koons.

[11] Berne Convention art. 2(4).

[12] *Id.* art. 2bis(1).

[13] *Id.* art. 2bis(2).

[14] *See generally* WIPO Doc. SCCR/9/7, *supra* note 7.

[15] *Id.* art. 2(5).

"The protection of this Convention shall not apply to news of the day or to miscellaneous facts having the character of mere items of press information."[16]

Successive legal instruments, namely the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS")[17] and the WIPO Copyright Treaty ("WCT"),[18] promote public policy in correspondence with the Berne Convention. Analogous exceptions are to be found in Article 13 of the TRIPS Agreement and Article 10 of the WCT, adopting and extending the template of the three-step test or conditions in Article 9(2) of the Berne Convention.[19] Similar scope of copyrightable compilations are to be found in Article 11(2) of the TRIPS Agreement and Article 5 of the WCT, being precise and similar to Article 2(5) of the Berne Convention, requiring that compilations of data and material that constitute intellectual creations are to be protected as such.[20] Though these two later treaties contain a list of objectives, some complementary and some competing, the essence of public interest is treated much the same as in the Berne Convention. While the TRIPS Agreement merely recognizes that "the underlying public policy objectives of national systems for the protection of intellectual property, including the developmental and technological objectives,"[21] the WCT makes clear that it recognizes "the need to maintain a balance between the rights of authors and the larger public interests, particularly education, research and access to information, as reflected in

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[16] *Id.* art. 2(8).
[17] Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, April 15, 1994 [hereinafter TRIPS].
[18] WIPO Copyright Treaty, December 20, 1996 [hereinafter WCT].
[19] *Compare* TRIPS art. 13 "Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder." and WCT art. 10 "Contracting Parties may, in their national legislation, provide for limitations and exceptions to the rights granted to authors of literary and artistic works under this Treaty in certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author." *with* Berne Convention art. 9(2).
[20] *Compare* TRIPS art. 10(2) and WCT art. 5 *with* Berne Convention art. 2(5).
[21] TRIPS Preamble.

the Berne Convention."[22] Both instruments safeguard public interest by providing creative material for the scientific enterprise and for the public consumption through fair use exceptions, but also keep the free flow of access to facts and information intact.

The WIPO Draft Database Treaty, on the other hand, maintains its policy for the database makers to privatize and control the dissemination and reproduction of such facts, data, and information. Similar to Article 9(2) of the Berne Convention, Article 5(1) of the WIPO Draft Database Treaty specifies fair-use exceptions as states: "Contracting Parties may, in their national legislation, provide exceptions to or limitations of the rights in this Treaty in certain special cases that do not conflict with the normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder."[23] It is true that Article 5(1) gives Contracting Parties that have different views of public interests freedom to provide fair use exceptions to the databases. But it is not clear if such fair use exceptions would ensure or fulfill the interests of scientific research and education sectors as they operate on the full and open exchange of data and information. There is a need for bulk definitions such as "substantiality" and "lawful user" to guarantee them the access to data on a non-discriminatory basis at the cost of reproduction and distribution. Because facts are not copyrightable, promoting an intellectual property right to the factual contents would be against the public needs of the free flow of access to information and would lead to the question of whether the *sui generis* right is justifiable.

[22] WCT Preamble.
[23] WIPO Draft Database Treaty art. 5(1).

### B. The Concept of Proper Balance at the National Level

The U.S. copyright law provides an excellent example of how a government should realize the significance of public free access to information. The Intellectual Property Clause of the U.S. Constitution vested the public right to information since 1787: "To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Rights to their respective Writings and Discoveries."[24] Its function is to promote an environment where authors have incentive to create by providing copyright protection through which they can protect their creative expressions, and where, on the other hand, the public interest of providing creative material for the scientific sectors and for public consumption is safeguarded.

U.S. copyright law which arises from Article 1, Section 8 of the U.S. Constitution, empowers the Congress to enact a number of copyright laws that are currently gathered in Title 17 of the United States Code.[25] Title 17 contains provisions reflecting flexibility so that the knowledge protected by copyright could also serve as the basis of new knowledge. Section 107 prescribes certain fair use exceptions serving as a "safe harbor" position in regard to photocopy reproduction of published materials as follows:

> "Notwithstanding the provisions of section 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a

[24] U.S. Constitution art. I, sect. 8, cl. 8.
[25] 17 U.S.C.A.

work in any particular case is a fair use the factors to be considered shall include—

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted works;

(3) the amount and substantiality of the portion used in relation in the copyrighted worked as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work."[26]

Section 107 is open ended and controversial. In determining whether a particular use of an author's works is fair in accordance with Section 107, the U.S. courts provide a case-by-case assessment based on the general facts of fair use exceptions, which is a mixture of law and fact.[27] For instance, in *Time, Inc.* v. *Bush Quale'92 General*

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[26] 17 U.S.C.A. § 107.

[27] New Era Publications International, ApS. v. Carol Publishing Group, 904 F.2d 152 , 158 (1990). "The scope of fair use is greater with respect to factual than non-factual works. While there is no bright-line test for distinguishing between these two categories, we have referred to the former as works that are "essentially factual in nature," or "primarily informational rather than creative." We have some hesitation in trying to characterize Hubbard's diverse body of writings as solely "factual" or "non-factual," but on balance, we believe that the quoted works-which deal with Hubbard's life, his views on religion, human relations, the Church, etc.-are more properly viewed as factual or informational." Wainwright Securities, Inc. v. Wall Street Transcript Corporation, 558 F.2d 91, 95 (2d Cir. 1997), *cert. denied*, 434 U.S. 1014 (1987). "The doctrine of "fair use" in copyright law creates privileges in others to use the copyrighted material in a reasonable manner without the copyright owner's consent, notwithstanding the legal monopoly granted to the owner. The fair use doctrine offers means of balancing the exclusive rights of copyright holder with the copyright public's interest in dissemination of information affecting universal concern such as art, science and industry." DORIS ESTELLE LONG AND ANTHONY D'AMATO, INTERNATIONAL INTELLECTUAL PROPERTY (2000) at 43-44. "Several categories of material are generally not eligible for statute copyright protection. These include, among others:

- Works that have not been fixed in a tangible form of expression. For example; choreographic works which have not been noted or recorded or improvisational speeches or performances that have not been written or recorded.
- Titles, trademark, names, short phrases, and slogans; familiar symbols or designs; mere variations of typographic ornamentation, lettering, or coloring; mere listings of ingredients or contents.
- Ideas, procedures, methods, systems, processes, concepts, principles, discoveries, or devices, as distinguished from a description, explanation or illustration.

*Committee, Inc.* (1992),[28] Time Magazine sued the Bush Reelection Campaign for copyright infringement by using an image of then Governor Bill Clinton on a copyrighted cover of the magazine in a television advertisement in the last weeks of the 1992 presidential campaign. The Bush advertisement consisted solely of the Time cover with an announcer's voice. Time contended that this was not a fair use of its copyright cover, and that the cover had been subtly modified as well.[29] The correct legal answer to this dispute, however, will never be known, inasmuch as the case was settled when, after being sued, the Bush Reelection Campaign said it would stop running the ad.

In *Harper & Row, Publishers, Inc.* v. *Nation Enterprises* (1985),[30] the U.S. Supreme Court held that it was not a fair use for The Nation Magazine to publish extensive quotations from unpublished memoirs of President Ford without permission. In 1977, former President Ford contracted with petitioners to publish his as-yet-unwritten memoirs. The agreement gave petitioners the exclusive first serial right to license prepublication excerpts. Two years later, as the memoir was nearing completion, petitioners, as the copyright holders, negotiated a prepublication licensing agreement with Time Magazine under which Time agreed to pay $ 25,000 ($ 12,500 in advance and the balance at publication) in exchange for the right to excerpt 7,500 words from Mr. Ford's account of his pardon of former President Nixon. Shortly before the Time article's scheduled release, an unauthorized source provided The Nation Magazine with the unpublished Ford manuscript, *A Time to Heal: The Autobiography of Gerald R. Ford.*

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- Works consisting entirely of information that is common property and containing no original authorship. For example, standard calendars, height and weight charts, tape measures and rules, and lists or tables taken from public documents or other common sources."

[28] Time, Inc. v. Bush Quale'92 General Committee, Inc. et al., Civ Action No. 92-2299 (D.D.C).

[29] *Id.* Complaint §§6-17.

[30] Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 105 S.Ct. 2218, 85 L.Ed.2d. 588 (1985).

Working directly from this manuscript, an editor of *The Nation* produced a 2,250-word article, a short piece entitled *The Ford Memoirs -- Behind the Nixon Pardon*, at least 300 to 400 words of which consisted of verbatim quotes of copyrighted expression taken from the manuscript. Time had agreed to purchase the exclusive right to print prepublication excerpts from the copyright holders, Harper & Row. As a result of The Nation's article, Time canceled its agreement. Petitioners brought a successful copyright action against The Nation at the District Court.[31] On appeal, the Second Circuit Court reversed the lower court's finding of infringement, holding that The Nation's act was sanctioned as a fair use of the copyrighted material.[32] The Supreme Court reversed and remanded.[33]

The Supreme Court agreed with the Court of Appeals regarding the relevance of the public interest in copyright law: its intention is to increase and not to impede the harvest of knowledge.[34] The Court believed the Second Circuit erred and gave insufficient deference to the scheme established by the copyright law for fostering the original works that provide the seed and substance of this harvest. The rights conferred by copyright are designed to assure those who contribute to the store of knowledge a fair return for their labors. The Court referred to Article I, Section 8 of the Constitution, the Congress has the power to "Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Rights to their respective Writing and Discoveries."[35] This limited grant was a means by which an important public purpose may be achieved. It was intended to motivate the creativity of authors and

[31] Harper & Row, Publishers, Inc. v. Nation Enterprises, 557 F. Supp. 1067 (1983).
[32] Harper & Row, Publishers, Inc. v. Nation Enterprises, 723 F.2d 195 (1983).
[33] 471 U.S. 539.
[34] *Id.* at 546.
[35] *Id.*

inventors by the provision of a special reward, and to allow public access to the products of their genius after the limited period of exclusive control has expired.

However, the Court recognized that, according to Section 102, no author may copyright facts or ideas.[36] Creation of a nonfiction work, even compilation of pure facts, entailed originality. The copyright holders of *A Time to Heal* complied with the relevant statutory notice and registration procedures.[37] Thus, there was no dispute that the unpublished manuscript of such a story, as a whole was protected by Section 106 from unauthorized reproduction.[38] Nor did respondents dispute that verbatim copying of excerpts of the manuscript's original form of expression would constitute infringement unless excused as a fair use.[39] Especially in the realm of factual narrative, copyright law was currently unsettled regarding the ways in which uncopyrightable elements combine with the author's original contributions to form protected expression.[40] The Court held that, in using generous verbatim excerpts of Mr. Ford's unpublished manuscript to lend authenticity of its account of the forthcoming memoirs, The Nation effectively arrogated to itself the right of first publication, an important marketable subsidy right, and such use was not a fair use within the meaning of copyright law.[41] Section 107 must be reviewed in light of the principles of rule of reason, no generally applicable definition is possible, and each case raising the question must be decided on its own facts.[42] Judge Brennan asserted that fair use analysis must fall "to the temptation to find copyright violation based on a minimal use of literary form in order to provide compensation for the

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[36] 105 S.Ct. 2218, at 2242.
[37] *Id.* at 548.
[38] *Id.*
[39] *Id.*
[40] *Id.*
[41] *Id.* at 549.
[42] *Id.* at 561.

appropriation of information from a work of history."[43] The Court did recognize the lower courts' failures to distinguish between information and literary from that permeated every aspect of the courts' fair use analysis. In addition, the commercial nature of The Nation's use was a separate factor that tended to weigh against a finding of fair use.[44]

In addition, the subsequent decision narrates how far copyright fair use exceptions would extend to a use of factual contents created by a scientist and educator. In *American Geophysical Union* v. *Texaco Inc.* (1994),[45] the Second Circuit Court confirmed the District Court decision but questioned the conventional ideas of fair use in scientific research. The publishers of scientific journals claimed that Texaco's 400-500 researchers infringed on their copyright by copying articles from their journals.[46] The Court chose a representative scientist from Texaco and analyzed his process of copying the journals.[47] The scientist, Dr. Donald H. Chickering, II, had eight copies of articles from the journal *Catalysis* for use in his research.[48] The use of the protected articles was consistent with

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[43] *Id.* at 626.

[44] *Id.* at 562. "Many uses Section 107 lists as paradigmatic examples of fair use, including criticism, comment, and news reporting, are generally conducted for profit in this country, a fact of which Congress was obviously aware when it enacted Section 107. To negate any argument favoring fair use based on news reporting or criticism because that reporting or criticism was published for profit is to ender meaningless the congressional imprimatur placed on such uses."

[45] American Geophysical Union v. Texaco Inc., 60 F.3d 913 (2d. Cir. 1994). Dov S. Greenbaum, *Commentary: The Database Debate: In Support of an Inequitable Solution*, 13 ALB. L.J. SCI. & TECH. 431, 459 (2003). "The Second Circuit's holding in this case "casts legitimate doubt on whether a court would find similar copying of academic expression by professors and researchers on university campuses a fair use."" Maureen Ryan, *Fair Use and Academic Expression: Rhetoric, Reality, and Restriction on Academic Freedom*, 8 CORNELL J.L. & PUB. POL'Y 541, 565 (1999). "The Texaco court's analysis, in refusing to find Texaco's copying of academic expression a fair use, casts legitimate doubt on whether a court would find similar copying of academic expression by professors and researchers on university campuses a fair use. Although the Second Circuit attempted in its amended opinion to reassure the academic community through lip service purportedly distinguishing what the court characterized as systematic copying by Texaco scientists from a situation where a "professor or an independent scientist engaged in copying and creating files for independent research," the court's analysis in Texaco actually leaves little room for distinguishing copying of academic scholarship and research in a university context."

[46] *Id.* at 914-915.

[47] *Id.* at 915.

[48] *Id.*

the norms of the research community.[49] Nevertheless, the Court, in "rigidly" applying the four statutory tests for finding fair use, held in favor of the publishers even though the papers in question were largely factual and as such only worthy of thin protection under copyright.[50] The Court let the for-profit nature of Texaco's activity weigh against Texaco without differentiating between a direct commercial use and the more indirect relation to commercial activity. Texaco was not gaining direct or immediate commercial advantage from the photocopying at issue in this case, and profits, revenues, and overall commercial performance were not tied to its making copies of eight *Catalysis* articles for Chickering. Rather, Texaco's photocopying research might have led to the development of new products and technology that could have improved Texaco's commercial performance. Texaco did not sell or profit from the copying. Texaco's photocopying was more appropriately labeled as "intermediate" use. The commercial/nonprofit dichotomy concerned the unfairness that arises when a secondary user makes unauthorized use of copyrighted material to capture significant revenues as a direct consequence of copying the work. The Court found the copying merely facilitated Chickering's research that might have led to the production of commercially valuable products which, based on the for-profit nature of the enterprise, Texaco's reaped at least some indirect economic advantage from its photocopying.[51] The Second Circuit's holding casts copying of scientific articles that are factual as not fair use, based on the indirect economic advantage hidden under the for-profit nature of the enterprise.

The U.S. courts have demonstrated sufficient analysis of fair use exceptions in accordance with the public need of free flow of access to facts and information. In

[49] *Id.*
[50] *Id.* at 919-927. 17 U.S.C.A. § 107.
[51] *Id.* at 922.

*Harper & Row*, the U.S. Supreme Court emphasized that, although the compiled facts may constitute originality, the reproduction of an unpublished manuscript is not fair use.[52] The Court focused the commercial nature of The Nation's use.[53] Likewise, the Court in *Texaco* case established that taking or copying scientific articles which contained factual contents does not constitute an infringement based on the indirect purpose and the profit nature of the enterprise.[54] However, in determining whether the taking amount of factual contents would be "substantial," the Court in *Harper & Row* provides an examination of the use in relation to the prepublication.[55] The Court refers to the Copyright Act which directs that the amount and substantiality of the portion used in relation to the copyrighted work as a whole be examined,[56] either quantitatively or qualitatively. The Nation quoted only approximately 300 words from a manuscript of more than 200,000 words, and the quotes were drawn from isolated passages in disparate sections of the work. The Court excerpted:

> "The judgment that this taking was quantitatively "infinitesimal," does not dispose of the inquiry, however. An evaluation of substantiality in qualitative terms is also required...The Court places some emphasis on the fact that the quotations from the Ford work constituted a substantial portion of *The Nation's* article. Superficially, the Court would thus appear to be evaluating *The Nation's* quotation of 300 words in relation

[52] 471 U.S. 539, at 548.
[53] *Id.* at 562.
[54] 60 F.3d 913, at 922.
[55] 471 U.S. 539, at 602.
[56] 17 U.S.C.A. § 107(3). "the amount and substantiality of the portion used in relation to the copyrighted work as a whole."

to the amount and substantiality of expression used in relation to the second author's work as a whole." [57]

The U.S. public policy is clear about the free flow of access to facts and information in regard to the copyright protection of compilation works. Section 101 of the U.S. Copyright Act recognizes compilation as a work formed by collection of preexisting material or data, which may or may not be separately copyrightable, in such a way that it meets the criteria for a work of authorship.[58] The U.S. Supreme Court in *Feist Publications, Inc.* v. *Rural Telephone Service Co., Inc.* (1991)[59] addressed the limits of copyright in a compilation, holding that the names, towns, and telephone numbers in a telephone book were not copyrightable because they were not selected, coordinated, or arranged in an original way. The Court reiterated the basic principle that facts themselves cannot be copyrighted, but that a particular compilation of facts, if selected, coordinated, or arranged in a sufficiently original way, can be copyrighted.[60] The Court also responded to the U.S. public policy prescribed under the Constitution, "promoting the progress of science and useful arts" on one hand, and the Berne Convention, "the free flow of access to facts and information, on the other hand.

[57] 471 U.S. 539, at 599-603.
[58] 17 U.S.C.A. § 101. "A "compilation" is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term "compilation" includes collective works."
[59] Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340, 111 S. Ct. 1282 (1991).
[60] *Id.* at 346.

### C. Emphasis on Governmental Responsibility to the Public Interest

U.S. legal history reveals the emphasis of the free flow of access to information and its benefits. To liberate the country through scientific innovation and discoveries, the U.S. government believes in a notion of "free utilization" as President Jefferson, the American founding father stated:

> "If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. 'He' who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density at any point, and like the air in which we breath, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, like nature, be a subject of property."[61]

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[61] *Thomas Jefferson, letter to Isaac Mcpherson,* August 13, 1813, reprinted in Writings of Thomas Jefferson, 1790-1862, vol. 6 (H.A. Washington ed., 1854) 180-181. An excerpt of Jefferson's statement of "free utilization." http://www.objectivistcenter.org/articles/dmayer_forgetten-essentials-thomas-jefferson-philosophy.asp. "The conservative attempt to co-opt Jefferson has generally been much truer to his political thought. For example, in 1938, Samuel Pettengill, a conservative Democratic congressman who was appalled by Roosevelt's New Deal, wrote a book called *Jefferson the Forgotten Man,* which showed how far Roosevelt Democrats had departed from the party's Jeffersonian roots. The "forgotten" Jefferson in

By rejecting the economic justification of intellectual property, Jefferson's theory of intellectual property right assured a primary objective of widespread distribution of ideas, facts, and information.[62] Under his philosophy of free utilization, everyone should be free to use and receive information, and such ideas, facts, and information should not be subject to privatization: "As ideas are norms and/or natural phenomenon perceivable in one's mind, they cannot be captured in one's hand, but only be comprehensible to the one who thought of it."[63] Jefferson's concept of free utilization has been reflected in the U.S. Constitution as a means to maximize dissemination and distribution of ideas to and increase knowledge wealth in American society. For instance, Jefferson's concept of free utilization is reflected in Article I, Section 8, Clause 8 of the Intellectual Property Clause of the U.S. Constitution, "To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respectful Writings and Discoveries," [64] and, to date, Section 107 of the U.S. Copyright

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Pettengill's book was indeed the Thomas Jefferson of the Declaration of Independence and the Virginia Statute for Religious Freedom, the Jefferson who profoundly believed in individual liberty and limited government. Most important, Pettengill's Jefferson took seriously the constraints that the Constitution placed on the powers of the federal government. Pettengill closed his book by quoting one of Jefferson's most famous strictures about constitutional interpretation: 'To take a single step beyond the boundaries thus specifically drawn around the powers of Congress, is to take possession of a boundless field of power, no longer susceptible of any definition.' 'A boundless field of power,' Pettengill observed, was precisely what the socialist, communist, and fascist governments of Europe had in 1938. Unfortunately, Pettengill's valiant effort to restore the true political Jefferson—and the principles of the American Revolution—failed, and the modern welfare state was established."

[62] TOM G. PALMER, *INTELLECTUAL PROPERTY: A NON-POSNERIAN LAW AND ECONOMICS APPROACH*, INTELLECTUAL PROPERTY, MORAL, LEGAL, AND INTERNATIONAL DILEMMAS (1997). (Stating Jefferson's theory of intellectual property right provided the primary objective to assure the widespread distribution of thought, not profit.)

[63] LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 132 (1999). "Technically, Jefferson is confusing two different concepts. One is the possibility of excluding others from using or getting access to an idea. This is the question whether ideas are "excludable"; Jefferson suggests that they are not. The other concept is whether my using an idea lessens your use of the same idea. This is the question of whether ideas are "rivalrous"; again, Jefferson suggests that they are not. Jefferson believes that nature has made ideas both nonexcludable and nonrivalrous, and that there is little that man can do to change this facts."

[64] U.S. Constitution art. I, sect. 8, cl. 8. *V Writings of Thomas Jefferson* (Ford ed., 1895), 47. "His view ripened, however, and in another letter to Madison (Aug. 1789) after the drafting of the Bill of Rights, Jefferson stated that he would have been pleased by an express provision in this form:

Act of 1976, the fair use exceptions.[65] For over a century, the U.S. has benefited from these laws as it became the most powerful economic country as a result of innovations and discoveries and U.S. citizens benefit from sustainable education and social welfare.[66]

Due to the underlying public policy of copyright law, the U.S. policy makers promote a proper balance between the interests of authors and creators to enjoy the fruits of their creative labor and the public sectors to exploit that knowledge.[67] Balancing the public interests and private rights is a complex issue, for which the U.S. government is responsible. The concept of the U.S. public policy in copyright (and in other kinds of intellectual property) holds:

(1) One should take care not to kill the goose that lays golden egg.

Copyright laws are designed to provide stimulus to authors and

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'Art. 9 Monopolies may be allowed to persons for their own production in literary, & their own inventions in the arts, for a limited of a term not exceeding__years, but for no longer term & no other purpose.'

And he wrote:

'Certainly an inventor ought to be allowed a right to the benefit of his invention for some certain time. Nobody wishes more than I do that ingenuity should receive a liberal encouragement.'"

[65] 17 U.S.C.A. § 107-108.

[66] TOM G. PALMER , *supra* note 62. "For example an appreciable value though the law does not recognize them. Imperfect rights of the nature of copyright might exist outside the law by usage and courtesy. Such rights did in fact exist in the United States to a certain extent before the Copyright Act of 1891, as regards English books made over to American publishers; and they had a certain value to the American publishers, and consequently to the British author, although they were wholly unprotected by law, and (as events showed) precarious in fact. The goodwill of a business, again, would still have a commercial value if it were less efficiently protected by law than it is; and it would probably by no means lose the whole of its value even if it were not protected at all. The law began to protect it when it became notoriously valuable and not before."

[67] *Id.* "The rationale was a demand to promote technology infrastructure which played a central role in decision-making process in that period of time. Later, IPRs conception was developed to compromise the interests between the creator's benefits from his long hard work and the public needs in exploitation of that knowledge. Thus, it is notable that the method sorted to allow the creator enjoyment of this benefit for a certain period of time." Lawrence Lessig, *supra* note 63, at 134. "Economists have long understood that granting property rights over information is dangerous (to say the least). This is not because of leftist leanings among economists. It is because economists are pragmatists, and their objective in granting any property right is simply to facilitate production. But there is no way to know, in principle, whether increasing or decreasing the rights granted under intellectual property law will lead to an increase in the production of intellectual property. The reasons are complex, but the point is not: increasing intellectual property's protection is not guaranteed to "promote the progress of science and useful arts"—indeed, often doing so will stifle it."

publishers, a stimulus that will be destroyed or at least sharply reduced if niggardly or unduly restrictive policies are followed.[68]

(2) Maximum dissemination and communication are not only implicit in the copyright system; they also serve a high public purpose such as equality of education and social welfare.[69]

(3) Copyright law should normally concentrate upon the enforcement and promotion of copyright policy and not, absent unusual circumstance, be used to enforce other laws or policies.[70]

(4) Since public policy considerations do underline the system, the public purposes served by the usage of the copyrighted materials (e.g. furtherance of education), are proper matters for consideration in formulating copyright law and policy.[71]

The U.S. public policy of copyright law is to promote an environment where authors have an incentive to innovate and discover, and the public consumption of existing materials is safeguarded. Not only does the U.S. government assure the underlying principle of copyright legislation to serve the public interests to exploit protected information in a fair sense, but also the freedom to information, the rights of everyone "to enjoy the arts, and to participate in the benefits that result from intellectual progress, especially scientific discoveries."[72] The U.S. democracy thrives and its

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[68] John C. Stedman, *Copyright Developments in the United States*, Reports from the United States of America on Topics of Major Concern as Established for the IX Congress of the International Academy of Comparative Law, 1974 at 320.

[69] *Id.*

[70] *Id.*

[71] *Id.*

[72] American Declaration of the Rights and Duties of Man, adopted May 2, 1948, O.A.S. Res XXX, O.A.S. Off. Rec. OEA/Ser. L/V/I.4 Rev. (1965) art. XIII "Every person has the right to an education, which should be based on the principles of liberty, morality and human solidarity;" and art. XIII "Every person has the right to take part in the cultural life of the community, to enjoy the arts, and to participate in the benefits from intellectual progress, especially scientific discoveries. He likewise has the right to the protection of his

economic and social welfare is maximized, fostering wide diversity in the creation, dissemination, and use of information. In other words, to gain the greatest economic and social benefits, such information should be made available to the public in the most efficient, timely, and equitable ways possible.

## III. A Human Right Violation Found in *Sui Generis* Protection

The databases are recognized as an essential element for promoting economic, cultural, and technological advancement.[73] The *sui generis* right is granted for the database makers' exclusive rights over every part of the databases they compiled, including even the underlying information, which they may not have generated. Creating a new intellectual property right over information contained in databases robs from the public domain by establishing monopoly control over information that previously had been freely available, and producing a negative impact on scientific and educational communities. Such a regime is in contrast to human rights in respect to "equality of educational opportunity" [74] and a proper balance of the right "to enjoy benefits of scientific progress and its application"[75] and "to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author."[76]

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moral and material interests as regards his invention or any literary, scientific or artistic works of which he is the author."American Convention on Human Rights, concluded November 22, 1969, entered into force, July 18, 1978, 114 U.N.T.S. 123; O.A.S.T.S. No. 36, O.A.S. Off. Rec. O.E.A./Ser. L/V/II.23 doc. 21 rev. 6 (1979) art. 26.

[73] WIPO Draft Database Treaty Preamble Clause.

[74] UDHR art. 26.

[75] *Id.* art. 27(1). ICESCR art. 15(1)(b).

[76] UDHR art. 27(2). ICESCR art. 15(1)(c).

### A. Recognition of the Public Free Flow of Access to Information in Human Rights Instruments

Inasmuch as granting property rights to information contained in databases increases a cost to access to such facts and information that once are free and in the public domain, the *sui generis* right constitutes a violation of human rights. The Universal Declaration of Human Rights ("UDHR") adopted by the United Nations recognizes the inherent dignity and the equal and inalienable rights of all members of the human family. The right to education and the right to enjoy the benefits of scientific progress and literary and artistic production are generally prescribed to ensure the public free flow of access to information by which the national governments of member countries pledge themselves to achieve, in co-operation with the United Nations, the promotion of universal respect for and observance of human rights and fundamental freedoms. Article 26 of the Universal Declaration of Human Rights states: "Everyone has the right to education."[77]

Article 27 affirms a proper balance between the interests of authors and the public sectors in the free flow of access to information as follows:

> "(1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.
>
> (2) Every one has the right to the protection of the moral and material interests resulting from any scientific, literary and artistic production of which he is the author."[78]

[77] *Id.* art. 26.
[78] *Id.* art. 27.

The emphasis of the right to education and the right to enjoy the benefits of scientific, cultural, and social progress under the UDHR is made in the subsequent instrument, the International Covenant on Economic, Social and Cultural Rights ("ICESCR").[79] In assuring the public free flow of access to information, ICESCR is the major international human rights instrument guaranteeing "the right to education" declared under the Constitution of the United Nations Educational, Scientific and Cultural Organization ("UNESCO").[80] Likewise, it is the major instrument in regard to intellectual property rights, addressing the issue of the proper balance of interests between the authors and inventors and the public sectors.[81] The ICESCR, along with the UDHR, constitutes the universal bill of human rights and sets the minimal standard of decent social and governmental practice. Article 13(1) of the ICESCR binds its member countries to provide measures to formulate national policy with the purpose to promote equality of opportunity and treatment in dissemination of education as follows:

> "The States Parties to the present Covenant recognizes the right of everyone to education. They agree that education shall be directed to the full development of the human personality and the sense of its dignity, and shall strengthen the respect for human rights and fundamental freedoms. They further agree that education shall enable all persons to participate effectively in a free society, promote understandings,

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[79] ICESCR

[80] Constitution of the United Nations Educational, Scientific and Cultural Organization, adopted November 16, 1945, *at* http://unesdoc.unesco.org/images/0012/001255/125590e.pdf#constitution. (The Preamble to the Constitution of UNESCO declares that 'since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed'. As defined by the Constitution, the purpose of the Organization is: "to contribute to peace and security by promoting collaboration among nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.)

[81] *Compare* UDHR art. 27 *with* ICESCR art. 15(1)(a) and (b).

> tolerance and friendship among all nations and all racial, ethnic or religious groups, and further the activities of the United Nations for the maintenance of peace."[82]

Education is a primary concept recognized as an essential tool to development of economic and social progress that will bring better standards of life to all in the global society.[83] It is questionable whether any country today could develop a modern infrastructure of social and economic systems and participate in the global community without skillful and educated people. Montesquieu states: "No matter what the form of government, education should instill in the citizen the mode of behavior supportive of the principle without which that government would collapse."[84] Thomas Hobbes, from his pessimistic point of view, sees "state" as anarchic and perilous and as the result of a "social contract" in which individuals agree to give up their freedom in exchange for security.[85] John Lock, on the contrary, declares that "the state is subject to the will of people, whose can amend or overthrow it at will."[86] No matter where the perception of "state" falls on this continuum, it is the charge of national governments to promote the material well-being of society as a whole, and not just one particular sector. Government is obligated and responsible for the rights, security, and freedom of its people; these

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[82] ICESCR art. 13(1).

[83] LAWRENCE LESSIG, *supra* note 63, at 126. "Education was not, however, the most significant indirect regulation. More interesting for our purpose was the government's financial and legal support for the development of copyright management schemes—software that would make it easier to control access to and use of copyrighted material."

[84] MONTESQUIEU, THE SPIRIT OF LAWS 126 (1977).

[85] CHRIS ROHMANN, *supra* note 2, at 365. "Hobbes viewed the human condition as a "war of everyone against everyone" and life in the state of nature as "solitary, poor, nasty, brutish and short." He saw the social contract, therefore, as inspired by fear, and a sovereign with absolute, irrevocable power as the best guarantee against regression into the state of nature.

[86] *Id.* "Locke believe that people join in the social contract not simply out of fear but in accordance with reason, and not only for personal protection but for mutual benefit. Hence, any tyranny that arises can and should be opposed; a society should be able to revoke and rewrite its social contract to remedy an abuse of power."

include social safety net, health care, support of arts, and access to good education. In addition, the government must maintain its position in international affairs by living together in peace and respect with other nations as good neighbors; government is also responsible to promote understanding, tolerance, and friendship without distinction to race, sex, language, or religion.[87] Promoting education is a way to promote the understanding of differences between cultures, religions, beliefs, ways of life, and cultural attitudes of all in the global society and, ultimately, bring peace and security to the world.

In turn, Article 15(1) of the ICESCR imposes upon States Parties, which are the countries that have ratified or acceded to this instrument, to recognize the right of everyone as follows: "(a) To take part in cultural life; (b) To enjoy the benefits of scientific progress and its applications; (c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author."[88]

This provision takes a human rights approach to intellectual property that is often an implicit balance between the rights of inventors and creators and the interests of the wider society within intellectual property paradigms far more explicit and exacting. To achieve these goals, the ICESCR mandates that State Parties undertake a series of steps.

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[87] UDHR Preamble. "Whereas the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social progress and better standards of life in larger freedom." and art. 2. "Everyone is entitle to all the rights and freedom set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status." Louis Henkin, Gerald L. Neuman, Diane F. Orentlicher and David W. Leebron, Human Rights 1180 (1999). "The right to receive an education, as a right to receive instructional services at public expense, may be characterized as a social right. Education policy raises a variety of complex issues, however, and aspects of educational policy addressing the content of education, the provision of private educational services, and choice among available educational options may also be viewed as implicating civil, economic, and cultural rights."

[88] ICESCR. art. 15(1).

These include "those necessary for the conservation, the development and the diffusion of science and culture."[89] More specially, State Parties "undertake to respect the freedom indispensable for scientific research and creative activity,"[90] implying the proper balance of interests between the authors and inventors and the public need of the free flow of access to information. Further, State Parties make the commitment to "recognize the benefits to be derived from the encouragement and development of international contacts and cooperation in the scientific and cultural fields."[91]

To be consistent with the norms in the international human rights instruments, a human rights approach differs in a number of regards from the standards set by intellectual property law. It requires that the type and level of protection afforded under any intellectual property regime directly facilitate and promote scientific progress and its applications and do so in a manner that will broadly benefit members of society on an individual, as well as collective, level. On the other hand, because a human right is a universal entitlement, its implementation is measured particularly by the degree to which it benefits those who hitherto have been the most disadvantaged and vulnerable. A right to the benefits of science and technology assumes that both individuals and communities will have easy access. However, governmental policies are usually absent from weighing the consideration of the right to the benefits of science and technology against the right of protection from their possible harmful effects on both individual and collective levels that a human rights approach entails. A significant or meaningful human rights approach

[89] *Id.* art. 15(2).
[90] *Id.* art. 15(3).
[91] *Id.* art. 15(4).

would require the considerations of governmental policy in mandating intellectual property legislation to go well beyond a simple economic calculus.[92]

### B. The Effect of *Sui Generis* Protection in connection with Human Rights

The important goal of advancing the public sector through intellectual property is not directly served by *sui generis* protection. *Sui generis* protection confers a far broader and stronger monopoly on the database makers than is needed to shield them from the threat of technological misappropriation. The protection of *sui generis* databases violates the justification to grants of intellectual property rights in terms of the advancement of scientific, economic and social progress, and contributory incentives to artists and inventors. This is because the likely effect would be that such a system would jeopardize basic scientific research and educational development by imposing costs on use of public goods and information.

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[92] Audrey R. Chapman, *A Human Rights Perspective on Intellectual Property, Scientific Progress, and Access to the Benefits of Science*, *at* http://www.wipo.int/tk/en/hr/paneldiscussion/papers/pdf/chapman.pdf - 222.1KB - audrey: 1, chapman: 7. "Although more than 130 countries have become State Parties to the ICESCR and therefore are legally obligated to comply with these standards, too often, policy makers and legislators do not factor human rights considerations into decision-making on intellectual property regimes, and instead rely on economic consideration. In part this situation reflects intellectual fragmentation of spheres of knowledge and interest. Intellectual property lawyers tend to have little involvement with human rights law, and few human rights specialists deal with science and technology or intellectual property issues." Rosemary J. Coombe, *Symposium: Sovereignty and the Globalization of Intellectual Property Intellectual Property, Human Rights & Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity*, 6 IND. J. GLOBAL LEG. STUD. 59 (1998). "What would it mean to recognize intellectual property rights as international human rights? This is a speculative question because although there is a case to be made that intellectual property rights (IPRs) *are already* human rights, they are rarely approached in this fashion, either by governments or by the holders of such rights. By situating intellectual property in the human rights framework, we may consider some of the challenges that full recognition of intellectual property as a human right would pose. Conflicts over the meaning and location of culture create fundamental ambiguities with respect to the scope of intellectual property protections. An examination of recent controversies over the use of IPRs to protect indigenous knowledge and as a means to implement provisions of the Convention on Biological Diversity will illustrate the point and demonstrate the limitations of traditional understandings of sovereignty. The recognition of IPRs as human rights entails a renewed concern for social justice issues in an era of so-called global harmonization of intellectual property protections that further challenges our considerations of sovereignty."

The protection of *sui generis* databases is problematic from a human rights perspective because of its insensitivity to human welfare and the public interest. The calculation of social benefits is not a factor in determining *sui generis* right. Unlike copyright or patent law, which values novelty, originality, non-obviousness, and usefulness, the protection of *sui generis* databases rests on the outlay of large financial investment. "Most intellectual property laws have been formulated under the myth that they do not protect investment as such. Rather, these laws are supposed to implement the goal of encouraging or rewarding some socially important form of creative contribution of achievement."[93] To the extent that the makers of *sui generis* databases would have rights under Article 15(1)(c) of ICESCR, it is clear that the claim would not be as strong as the claims of creators under the traditional copyright or patent regimes. The new database regimes would break with this long-established paradigm by shifting the focus of intellectual property law from non-economic considerations, like the promotion of science and creativity, to the economic consideration of protecting investment.

The protection of *sui generis* databases changes the established balance between the interests of the authors and inventors and the public sectors in four important aspects. First, it shifts the major emphasis from providing incentives and rewards to promote innovation in scientific research and publication to protecting investment.[94] Second, it eliminates the idea/expression distinction, which is the concept that facts are not

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[93] J.H. Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 Vand. L. Rev. 51, 55 (1997). "These initiatives aim to rescue database producers from the threat of market-destructive appropriations by free-riding competitors who contributed nothing to the costs of collecting or distributing the relevant data. Unlike the classical intellectual property models, which seek "to promote the Progress of Science and the useful Arts," the database laws do not condition protection on a showing of some creative or technical achievement. Rather, these laws would protect anyone who makes a substantial investment in the development of a database against unauthorized extractions, uses, and reuses of the whole or substantial parts of its contents."

[94] *Id.*

protectable, only the characteristic or expression of those facts can be protected.[95] Third, the concept of fair use exceptions for educational and scientific purposes will be severely limited.[96] Last, the protection offered by copyright law is traditionally finite but the protection of *sui generis* databases is open-ended.[97]

The problem is exacerbated by the limited exceptions for fair use. Under copyright law, the fair use doctrine provides limitations on the creator's rights for certain purposes. The exception generally provides for limited copying to promote criticism, reporting, teaching, and research.[98] On the other hand, the exceptions under the protection of *sui generis* databases are insufficient to allow for scientific research and educational purposes. For instance, the exceptions that allow for copying "insubstantial" portions are not useful to scientists who conduct research using entire databases.[99] The end result could be that less information is available to scientists, as well as a general chilling effect on the sharing and use of data. Committee for a Study on Promoting Access to Scientific and Technical Data for the Public Interest, under the auspices of the National Research Council, explained: "in fields like Global Climate change, where many different types of global data are relevant and where a scientist might not know the legacy of a lot of the data, avoiding a breach of the proposed legislation could be very difficult."[100] The end

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[95] *Id.* at 89. "The absence of any equivalent to the idea-expression doctrine under the new *sui generis* regime means that investors, in effect, obtain proprietary rights in data as such, a type of ownership that the copyright paradigm expressly precludes. Proponents of the *sui generis* right downplay this finding by insisting that third parties always remain free to generate their own databases. But this opportunity exists only for data that are legally available from public sources and whose cost of independent regeneration is not prohibitively high in relation to the gains expected from the exercise. As for proprietary data not legally available for second comers to exploit, there is no opportunity to avoid the originator's exclusive rights to prevent extraction or re-use of existing data."

[96] *Compare* Berne Convention arts. 9-10 *with* WIPO Draft Database Treaty art. 5.

[97] *Compare* Berne Convention art. 7 *with* WIPO Draft Database Treaty art. 8.

[98] Berne Convention 10.

[99] WIPO Draft Database Treaty, Note on Article 5.

[100] NATIONAL RESEARCH COUNCIL, A QUESTION OF BALANCE: PRIVATE RIGHTS AND THE PUBLIC INTEREST IN SCIENTIFIC AND TECHNICAL DATABASES, NATIONAL ACADEMY PRESS (1999) at 20-23. Table 1.1

result is that scientists would have less access to data than under the *sui generis* regime because of the limited scope of fair use.

Another important aspect of the protection of *sui generis* databases is the unlimited duration of protection that is provided. Article 8(3) of the WIPO Draft Database Treaty stipulates:

> "Any substantial change to the database, evaluated qualitatively or quantitatively, including any substantial change resulting from the accumulation of successive additions, deletions, verifications, modifications in organization or presentation, or other alterations, which constitute a new substantial investment, shall qualify the database resulting from such investment for its own term of protection."[101]

Under the meaning of Article 8(3), with each substantial update the databases gain renewed protection. Even if only the new portions of the databases were protectable, it would be difficult to tell what is protected and what is not within a database that is continuously updated.

The effect of this increased protection could be less availability of data to scientists, and therefore a decrease in everyone's ability to benefit from the advances

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Examples of Different Types of S&T Database Activity Discussed in the January 1999 Workshop. *Memorandum prepared by the International Bureau, Agenda 5: Protection of Databases, Information Received from the Intergovernmental and Non-governmental Organizations*, WIPO Doc. SCCR/1/INF/3 (June 30, 1998). International Council for Science (ICSU) asserted: "Such data sharing is possible only when the data are affordable within tight budgets. If data are formally made available for scientific access, but the prices charged for such access are prohibitively high, the negative impact on science is the same as if access had been legally denied. This is especially the case for scientists in developing countries." *Information Meeting on Intellectual Property in Databases: Observations: Submitted by the World Meteorological Organization (WMO)*, WIPO Doc. DB/IM/4 (September 4, 1997). "We believe that the principle of the full and open exchange of data and information vital to the protection of life and property, safeguarding the environment and addressing global issues should be a recognized principle and contained in any international database protection mechanism. In particular, the free and unrestricted exchange of meteorological and related data should be assured, especially those relating to natural disaster mitigation activities such as severe weather warnings."

[101] WIPO Draft Database Treaty art. 8(3).

science can make. The culture among scientists, long based on sharing data and information, could change as scientists "feel the need to protect their data, either out of a sense of unfairness or simply to have something to trade."[102] Projects that depend on the sharing of data worldwide, such as the Human Genome Project, could "grind to halt."[103] Scientists may not be able to pay for data, even when the price is determined by a competitive market. For instance, when data for the Landsat satellite was privatized in the United States, the price of a single image went from $400 to $4,400. Scientists could not afford the data, and research efforts to monitor terrestrial ecosystems through satellite imaging were terminated.[104] On the other hand, and particular to the electronic databases, "a new open-access online medical journal database teaches African doctors with no research budgets about new medicines and surgical techniques. Scientists are able to study the 'greenhouse effect' because weather data is made freely available to the public

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[102] J.H. Reichman and Pamela Samuelson, *supra* note 93, at 113. Yet, the level of disagreement about even the most rudimentary components of the proposed reforms is very great, and an impartial evaluation of them is further complicated by the larger (but often unstated) policy implications of even the most seemingly innocuous technical proposals. Under these circumstances, the unseemly haste with which both the U.S. and E.U. authorities have moved to implement these measures at the international level raises troubling and still unanswered questions about the extent to which the public interest has been sacrificed to the private interests of "right owners, who . . . are generally very well-represented at the (national and international) legislative level.""

[103] NATIONAL RESEARCH COUNCIL, *supra* note 100, at 39-50. "By making databases more profitable, new protectionist legislation could shift responsibility for their creation for the public sector to the private sector. The social harm of such a shift would be an increase in the price for access, especially for highly specialized databases—such as some S&T databases—with a comparatively small market. A possible social benefit would be that the private sector would be subjected to a weak market test of whether the value of the databases exceeded their cost."

[104] J.H. Reichman and Pamela Samuelson, *supra* note 93, at 122. "For example, when data from the Landsat series of remote sensing satellites were privatized in the 1980s, the prices charged to most users, including academic and federal government users increased from $400 to $4,400 per image. When the research community pressed to use Landsat data for global exchange research in the early 1990s, complaints about high prices persuaded Congress to return the Landsat system to the public sector. Consequently, there was a negotiated price reduction to $425 per image for U.S. government and affiliated users only. This result nonetheless left non-government researchers, including the academic community, to pay $ 4,400 per image, a ten to one price differential that severely limits the use of Landsat data by most non-government U.S. scientists, who cannot afford to pay these prices from their limited research budgets. While one cannot know which scientific advances were delayed or prevented by this practice, evidence gathered by the National Research Council presents a sobering picture of the social costs of this lost potential."

over the Internet."[105] It suggests that the availability of information databases fuels innovation by lowering the cost of research and development and spreading knowledge to new sectors.

The effects of any increasing cost to access would be felt especially by scientists in developing countries, interfering with the right of everyone to benefit from science. Article 2(1) of the ICESCR, where State Parties agree to "take steps individually and through international assistance, especially economic and technical, to the maximum of its available resources, with a view to achieving the full realization of the rights"[106] underscores the global obligations accepted by signatories. While the Internet promises easy and less expensive access to the latest scientific and educational developments, charging for information and data that is now freely accessed at minimal or no cost will, once again, widen the distance between the developed and developing countries.

The State Parties to the ICESCR have undertaken to balance the rights of creators with the rights of society as a whole, under Article 15, and the right to education, under Article 13. More than economic considerations are at stake. The proper balance must provide incentive for scientists to create and for scientific tools such as databases to be developed without shifting research by making data available only to wealthier sectors,

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[105] Robin Gross, *Buy the Numbers Publishers Seek Special Database Monopoly Protections*, Multinational Monitor, Vol. 25, No. 7&8 (July/August 2004). "The Politic Economy of R&D "A new open-access online medical journal database teaches African doctors with no research budgets about new medicines and surgical techniques. Scientists are able to study the "greenhouse effect" because weather data is made freely available to the public over the Internet. Electronic databases have proliferated in recent years, creating new information products and services for the public. The availability of information databases fuels innovation by lowering the costs of research and development and spreading knowledge to new sectors...But "too much protection will prevent the creation of new databases that incorporate information extracted from existing databases, and this will halt the advancement of knowledge in all realms of human endeavor."

[106] ICESCR art. 2(1).

thereby failing to promote the right of everyone to benefit from science and the societal right to education.

### C. A Global Picture of a Need for the Free Flow of Access to Information

The databases are recognized as a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural, and technological advancement.[107] Privatizing the contents of facts, data, and information imposes a conflicting interest to public policy. A primary impression is that developing countries basically need capital flow for the purpose of national infrastructure and, therefore, a legal reform, which is primarily stimulated by cross-border private investors, is needed, of which the least developed nations are to be the primarily recipients. Human resources are, therefore, essential. If there is knowledge and information but no one knows exactly how to use it, it would be wasted: hence, it conflicts the economic theory of maximization.[108]

The economic-political conflicts between countries in the North and South inevitably take place in the arena of intellectual property regimes. Most industrialized countries maintain that strong intellectual property provisions promote growth and strong domestic economy.[109] Developing countries, however, generally do not believe that it is in their present economic interests to implement stronger intellectual property laws.[110]

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[107] WIPO Draft Database Treaty, Preamble.
[108] CHRISTOPHER MAY, A GLOBAL POLITICAL ECONOMY OF INTELLECTUAL PROPERTY RIGHTS; THE NEW ENCLOSURES? 30 (2000). (Stating changes in the distribution and availability of the theoretical or symbolic knowledge required to make a full use of information-including the availability to expertise and scientific methods, for instance; and changes in the rules governing the ownership and characterization of property in knowledge resources.)
[109] ANTHONY D'AMATO AND DORIS ESTELLE LONG, INTERNATIONAL INTELLECTUAL PROPERTY ANTHOLOGY (1996).
[110] Audrey R. Chapman, *supra* note 92, at 15.

Their opposition is based on three factors: (1) the benefits of an intellectual property system tend to be long-term and tenuous; (2) in the short-term, intellectual property protection increases the cost of development, with the protection awarded and resulting payments for the use of these technologies going primarily to foreign multi-national corporations; and (3) few of these countries have the requisite infrastructure to uphold strong intellectual property systems.[111] Thus, developing countries sometimes accuse former colonizing countries and multinational corporations of seeking to impose "technological colonialism."

Article 1 of the Charter of the United Nations obliged member states to achieve international co-operation in solving international problems such as economic, social and cultural problems.[112] The principle set forth under Article 1 is reflected in a number of subsequent conventions, such as the UDHR's objectives ("Whereas Member States have pledged themselves to achieve, in co-operation with the United Nations");[113] Article 2 of the ICESCR ("Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical");[114] and even in Article 7 of the TRIPS Agreement ("The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations").[115] In particular to the human rights approach of the free flow of access to information,

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[111] *Id.*
[112] U.N. Charter art. 1.
[113] UDHR Preamble.
[114] ICESCR art. 2(1).
[115] TRIPS art. 7.

Article 15(2), 15(3) and 15(4) of the ICESCR impose three sets of obligations on State Parties: to undertake the steps necessary for the conservation, development and diffusion of science and cultural; to respect the freedom indispensable for scientific research and creative activity; and to recognize the benefits to be derived from encouragement and development of international contacts and cooperation in the scientific and cultural fields.[116] In turn, Article 13 of the ICESCR obliges its State Parties to provide equal opportunity of education.[117] Ultimately, in regard to the universal acceptance of Common Heritage of Mankind recognized under the Universal Declaration of the Rights to Peoples, it affirms that: "Scientific and technical progress, being part of the common heritage of mankind, every people has the right to participate in it."[118] As a result of the 1974 agreement to join the UN system,[119] the WIPO should administer the intellectual property conventions and mandate any new treaty by considering the concept of human rights approach to intellectual property that often is an implicit balance between the rights of inventors and authors and the interests of the wider society.

## IV. Conclusion

The balance that copyright law, including other kinds of intellectual property laws, strikes is between the protections granted to the author to have sufficient incentive to produce and to the public use or access granted everyone else. The concept of fair use is built into copyright law to limit the power of the author to control use of the ideas he has created. Fair use, therefore, is the right to use copyrighted material, regardless of the

[116] ICESCR art. 15(2)-(4).
[117] *Id.* arts. 13&14.
[118] Universal Declaration of the Right of Peoples, adopted July 1-4, 1976, art. 9.
[119] Convention Establishing the World Intellectual Property Organization, signed July 14, 1967.

wishes of the owner of that material, such as to criticize and to reproduce. An appropriate balance between the interests of the authors and the public, therefore, is maintained. The proposed database treaty, on the other hand, gives more weight to the economic interests of investors than does the traditional copyright law, and arguably less weight to moral interests than traditional creators and inventors would like. Copyright fair use exceptions do not apply to the underlying facts and data contained in an author's work. Constituting a fair use of such facts and data sounds odd. If the proposed database treaty were enacted, it would create a number of legal questions regarding the standard of substantial taking; as it is now, the courts already find it difficult to distinguish and define fair use exceptions in each decision. Scientists, researchers, and educators engage primarily in data sharing and are often working within limited budgets. If the free flow of access to information that once was available to them was withdrawn from the public domain and privatized, there would be a tremendous negative impact on society as a whole.

Balance is attractive. The UDHR and its successor the ICESCR promote the right "to education,"[120] the right "to enjoy the benefits of scientific progress and its applications"[121] and the right "to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author."[122] Such balance is reflected in intellectual property protection as a means to foster scientific, economic, and social development and disseminating knowledge and information that profoundly affect the well being of people and an improvement in their living standards. National governments absorb the principle of the full and open exchange of information to promote vital economic and cultural progress and advance

[120] UDHR art. 26(1).
[121] UDHR art. 27(1). ICESCR. art. 15(1)(b).
[122] UDHR art. 27(2). ICESCR. art. 15(1)(c).

technological transfer to all. The protection of *sui generis* databases does not recognize this principle; rather, its intention is to benefit particular industries. To be consistent with the human rights norm, the proposed database treaty should be calculated based on benefits to all, based on the goals of promoting the progress of scientific ideas and innovations and their application, and fair and equal opportunity in education. Granting *sui generis* protection would signify another type of imperialism in modern times by allowing entrepreneurs in developed countries to steal the undeveloped knowledge of developing and least developed countries, such as the records of ancient Chinese medical science and collections of medical plants in developing countries, recompile that traditional knowledge, and claim it as their own in protected databases. If the databases were priced out of the reach of people in developing and least developed countries, they would not be able to gain access to the information in the databases. The national infrastructure would be halted; the gap between the "Haves" and "Have-Nots" would be widened. The history of imperialism should not be repeated under a different name: globalization. The free flow of access to information to all in the global community should be disseminated fairly and safeguarded for all.

# Chapter V

# Wishful Consideration of Database Protection

## I. Introduction

Law is politics. The legislative battle between two powerful economic parties, Member States of the European Union[1] and the United States of America,[2] led to a possible recognition of a *sui generis* right modeled on investment in the making, collection, assembly, verification, organization, or presentation of the contents of databases. This political pressure resulted in the World Intellectual Property Organization producing and finally adopting, its own version of a draft treaty on databases, *"Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases"* ("WIPO Draft Database Treaty"),[3] containing similar *sui generis* right. However, the *sui generis* right is not an intellectual property right because its unique

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[1] *The Sui Generis Right Provided for in the Proposal for a Directive on the Legal Protection of* Databases, WIPO Doc. BCP/CE/V/5 (September, 1995). *The European Community and its Member States Proposal for the International Harmonization of the Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/V/13 (February 1996) [hereinafter E.U. Proposal].

[2] *The U.S. Proposal for Sui Generis Protection of Databases*, WIPO Doc. BCP/CE/VII/2-INR/CE/VI/2 (May 1996) [hereinafter U.S. Proposal].

[3] *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, WIPO Doc. CRNR/DC/6 (December 1996) [hereinafter WIPO Draft Database Treaty].

nature is in contrast the underlying principle of copyright law, the free flow of access to information. If enacted, the *sui generis* right would impact on several public sectors, particularly in the fields of education, science, and research, leading to a possible violation of human rights norms, the right "to education,"[4] and the right "to enjoy the benefits of scientific progress and its applications,"[5] as set forth in the Universal Declaration of Human Rights ("UDHR") and the International Covenant on Economic, Social and Cultural Rights ("ICESCR") respectively.

Free and open access to facts, data, and information should be promoted for the purpose of the development of a global information infrastructure and for the development of economic, cultural, and technological advancement around the globe. As set forth in Article 1 of the Charter of the United Nations,[6] all member states are obligated to promote such objectives and co-operate by virtue of living together with peace and security. This obligation is imposed upon a State, and its national government is responsible for preserving its constitution and laws, and for striving to achieve international co-operation, solving international problems of an economic, social, cultural, or humanitarian character. The protection of *sui generis* databases, giving database makers a property right in factual contents of databases threatens the public's need for free and open access to information and increases problems of socio-economic infrastructure.

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[4] Universal Declaration of Human Rights, adopted December 10, 1948, G.A. Res 217A, U.N. GAOR, 3rd Sess., Pt. I, Resolutions, at 71, U.N. Doc. A/810 (1948) [hereinafter UDHR] art. 26(1). International Covenant on Economic, Social and Cultural Rights, concluded December 16, 1966, entered into force January 3, 1976, 993 U.N.T.S. 3, 1966 U.N.J.Y.B. 170; 1977 U.K.T.S. 6, Comd. 6702 [hereinafter ICESCR] art. 13(1).

[5] UDHR art. 27(1). ICESCR art. 15(1)(b).

[6] Charter of the United Nations, concluded June 26, 1945, entered into force October 24, 1945, 1 U.N.T.S. XVI, 1976 Y.B.U.N. 1043; 1945 Can. T.S. 7; 1945 S.A.T.S. 6; 1946 U.K.T.S. 67, Comd. 7015 B.F.S.P. 805; U.S.T.S. 993, 59 Stat. 1031 [hereinafter U.N. Charter] art. 1.

This chapter provides a wishful consideration toward the concept of protection of *sui generis* databases. Section II summarizes the concept of the protection of *sui generis* databases based on three propositions: (1) the concept of *sui generis* right opposes the principle of copyright law, the proper balance between the interests of the authors and the public sectors such as scientific and educational institutes that need the free flow of access to information; (2) the *sui generis* right creates unfair competition and is economically unjustified to the database industries; and (3) the *sui generis* right opposes human rights, the right to education and the right to enjoy the benefits of scientific progress and its applications. Section III emphasizes that both national and international governmental bodies have duty to promote the public free flow of access to information, and suggests a possible remedy for *sui generis* databases. Section IV concludes on the concept of protection of *sui generis* databases

## II. Summary of the Concept of the Protection of *Sui Generis* Databases

The free flow of access to facts, data, and information must be promoted to all. The aforementioned chapters have provided detailed analysis, which can be summarized in three propositions. First, the *sui generis* right is in contrast to the principle of copyright law, the free flow access to information. Second, the economic rationale of *sui generis* right is not justifiable. Last, the *sui generis* right does not complement human rights.

### A. Contrasting Concepts of Protection

The *sui generis* right is in contrast to the principle of copyright law, the free flow of access to information. To constitute justification of *sui generis* right, the WIPO

Committees of Experts consider a possible criterion of human, technical and financial resources in the making of databases.[7] Under the *sui generis* regime, Contracting Parties are required to extend protection to any database that represents a substantial investment in the collection, assembly, verification, organization or presentation of the contents.[8] This means it embraces all kinds of factual collections and compilations merely if the database makers can prove a substantial investment in the making of their databases. The Berne Convention for the Protection of Literary and Artistic Works of 1886,[9] on the other hand, provides copyright protection only for creative collections. Article 2(5) of the Berne Convention provides copyright on authors' literary and artistic collections "which by reason of the selection and arrangement of their contents constitutes an intellectual creation."[10] Although there is no definition of "collections of literary and artistic works," Article 2(5) requires that "collections of literary and artistic works," including encyclopedias, anthologies, and dictionaries, must contain creativity in the selection and arrangement of their contents.[11] It excludes facts, preexisting materials protected under copyright or other forms of protection, news of the day,[12] and official texts of a legislative administrative and legal nature,[13] that form part of such collections. Thus, the protection of *sui generis* databases intends to cover facts, data, and information that copyright law intends to leave them unprotected.

In a number of judiciary jurisdictions in copyright protection cases, the national courts have made a distinction between creative and factual collections. In *Feist*

[7] WIPO Draft Database Treaty Preamble.
[8] *Id.* art. 1(1).
[9] Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886 (Paris Act of July 1971) [hereinafter Berne Convention].
[10] Berne Convention art. 2(5).
[11] *Id.* art. 2(5).
[12] *Id.* art. 2(8).
[13] *Id.* art. 2(4).

*Publications, Inc.* v. *Rural Telephone Service Co., Inc.* (1991) case,[14] the U.S. Supreme Court has demonstrated that, for works to be protected under copyright law, there must be an author's creative expression attached to the selection and arrangement of the contents. The Court has addressed that facts or raw data, such as names and addresses of subscribers appearing in telephone directories, are not copyrightable in nature, but factual compilations may be protected under copyright law if there is any creative expression in their selection and arrangement.[15] Put simply, in conformity with the Berne Convention, the Court requires an author's creative expression to be contained within the collection.[16] The Court rationalized that copyright law promotes the proper balance of interests between the author's incentive to produce creative works and the public's entitlement to free flow of access to facts, data, and information. In addition, the U.S. Constitution, the Court asserted, promotes "the progress of science and useful arts" by securing the protection for a limited duration.[17] Scientific, research and educational sectors rely heavily on the free flow of access to facts, data, and information. Granting a property right in factual contents opposes the principle of free flow of access to information because it increases a cost to view, receive, or use facts, data, and information which were free.

The problem of the protection of *sui generis* databases between countries derives from applicability of principles under the Berne Convention. The Berne Convention requires its member countries to provide minimum copyright protection on collections.[18]

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[14] Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340, 111 S. Ct. 1282 (1991).
[15] *Id.* at 345.
[16] Berne Convention art. 2(8).
[17] U.S. Constitution art. I, sect. 8, cl. 8.
[18] ANTHONY D'AMATO AND DORIS ESTELLE LONG, INTERNATIONAL PROPERTY ANTHOLOGY (1996) at 228-229. "Signatory nations must grant protection at a level equal to or above the minimum standards espoused by the Convention." PAUL GOLDSTEIN, INTERNATIONAL COPYRIGHT PRINCIPLE, LAWS AND PRACTICES

This means member countries, based upon their legal systems, could provide extra protection on other kinds of collections that do not contain creative selection and arrangement, such as factual collections or catalogues.[19] On condition, as the principle of national treatment applied,[20] when the authors of these member countries have their factual collections exhibited or exploited in other member countries where no protection is afforded, they must be satisfied with that level of protection.

However, the European Union adopts a different strategy to prevent their *sui generis* databases from unfair competition. First, in *British Horseracing Board Ltd. and others* v. *William Hill Organization Ltd.* case (2001),[21] the Chancery Court, as a result of being a member state in the European Union, has recognized that the online compiled statistical data regarding horseracing should be protected in accordance with the E.U. Database Directive, Article 7(1),[22] and granted an injunction against William Hill's unlicensed use of online horseracing statistics and data.[23] Second, if any third-party country wishes its databases to be protected in the Union, the E.U. Commission requires reciprocal treatment that becomes political pressure on foreign *sui generis* databases

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(2001). "Article 2 establishes a floor, not a ceiling, to protectible subject matter, and leaves member countries free to add other categories."

[19] Sherif El-Kassas, *Study on the Protection of Unoriginal Databases*, WIPO Doc. SCCR/7/3 (April 4, 2002), at 6. "The survey identified *sui generis* legal protection for databases which do not meet the criterion of originality in the following countries: Denmark, Finland, Iceland, Norway and Sweden." Jörg Reinbothe, *The Legal Protection of Non-Creative Databases,* WIPO Doc. EC/CONF/99/SPK/22-A (September, 1999), at 3. "Apart from the compilation copyright in the UK and in Ireland, which provided "sweat of the brow" databases with true copyright protection, a similar neighboring right existed in the five Nordic States for several decades in form of the so-called "catalogue rule"." Michael J. Bastian, *Protection of "Noncreative" Database: Harmonization of United States, Foreign and International Law*, 22 B.C. INT'L & COMP. L. REV. 425 (1999). "The Nordic nations—Denmark, Finland, Iceland, Norway and Sweden—have instituted a system of "neighboring rights" to protect investments of capital and labor in noncreative databases from free-riders."

[20] Berne Convention art. 5.

[21] British Horseracing Board Ltd. v. William Hill Organization Ltd., 151 NJC 271 (Ch. 2001).

[22] Council Directive 96/9/EC on the Legal Protection of Databases, 1996 O.J. L 77/20 [hereinafter Database Directive].

[23] 151 NJC 271 (Ch. 2001) paras. 3-20.

being exhibited and exploited in the Union. Article 11(3) of the E.U. Database Directive imposes: "Agreements extending the right provided for in Article 7 to databases made in third countries and falling outside the provisions of paragraphs 1 and 2 shall be concluded by the Council acting on a proposal from the Commission."[24] The third-party country needs to upgrade its national legislation to achieve the same standard as the E.U. Database Directive must enter into a special agreement with the E.U. if it wants its national database makers to survive legitimate exploitation in the European market.

The principle of reciprocal treatment used for the protection of *sui generis* databases between countries creates unfair protection. The protection of *sui generis* databases in the United States which is the biggest producer in the world market disadvantages U.S. database makers. If their databases entered into the European market, European database makers could recompile them, claim the exclusive owner rights under the Database Directive, and sell them back to the U.S. The U.S. database makers would suffer from this unfair treatment as long as the U.S. government does not upgrade its law to the same standard of protection that offered in Europe. Likewise, database makers from other part of the globe suffer from this unfair treatment. Member States of the European Union are countries with advanced legal systems, but most developing and least developed countries are countries with less advanced legal systems. If developing and least developed countries cannot comply with the E.U.'s standard of protection, their collections, which are mostly based on traditional knowledge and information such as collections of medical plants and ancient medical science, would be lost to the European market. Such a requirement, to upgrade the protection of *sui generis* databases, definitely and unfairly widens a gap between "Have" and "Have-Not" countries.

[24] Database Directive art. 11(3).

### B. Economic Justification of *Sui Generis* Databases

The economic justification of *sui generis* databases, through investment schemes, creates unfair competition. Article 1(1) of the WIPO Draft Database imposes Contracting Parties to protect any database that represents a substantial investment in the collection, assembly, verification, organization or presentation of the contents of the database.[25] Article 2(i) of the WIPO Draft Database Treaty defines "database" as "a collection of independent works, data or other materials arranged in a systematic or methodical way and capable of being individually accessed by electronic or other means."[26] The broad definition of *sui generis* databases embraces a wide scope of databases. In addition, Article 8(3) of the WIPO Draft Database Treaty stipulates: "Any substantial change to the database, evaluated qualitatively or quantitatively, including any substantial change resulting from the accumulation of successive additions, deletions, verifications, modifications in organization or presentation, or other alterations, which constitute a new substantial investment, shall qualify the database resulting from such investment for its own term of protection."[27] This provision creates unlimited duration of protection if the database makers continue to update, change, and develop that database and claim it as a new substantial investment.

D'Amato and Long regard a lengthy duration of protection; the author's life plus fifty years, under copyright law, as a temporary monopoly over reproduction and dissemination of expressive contents.[28] The owner's exclusive rights normally include the

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[25] WIPO Draft Database Treaty art. 1(1).
[26] *Id.* art. 2(i).
[27] *Id.* art. 8(3)
[28] ANTHONY D'AMATO & DORIS ESTELLE LONG, INTERNATIONAL INTELLECTUAL PROPERTY ANTHOLOGY; UNDERLYING THEORIES 54 (1996). "In a desire to reward the author, and hence encourage production of new works, copyright essentially grants the author a monopoly over the reproduction and dissemination of his creative expression for a limited period of time."

rights to reproduction and dissemination of the contents through a licensing scheme.[29] Based upon the capital economic system, this means consumers have to absorb the licensing cost and pay more than they should for licensed products. For the market competition perspective, the subsequent compilers will be reluctant to incur the costs by starting from scratch, entering a market that is already possessed by the original players, or even absorbing monopolistic prices of copyrighted items.[30] Copyright law promotes a proper balance of interests between the authors and the public sectors by limiting the ownership of data for a certain period of time and, therefore, contributing to the general progress of society. In addition, it promotes the public's need of the free flow of access to facts, data, and information, leaving the raw materials for the subsequent compilers to gather, collect, compile, produce and develop better works and enter into the market; so that competition flourishes. The *sui generis* system, promoting a property right in complied facts, data, and information and an unlimited duration of protection, on the other hand, opposes this position and creates a monopoly window to the database industries.

In order to enhance competition in the market, national authorities use competition law to ensure the free flow of access to facts, data, and information. In *Radio Telefis Eireann* v. *Commission* (*1995*) (*Magill*),[31] the European Court of Justice ("ECJ") held that a refusal to license copyright in factual contents infringed Article 82 of the E.C. Treaty. To prevent the obstruction to the free flow of access to information in the Community, the ECJ made clear that any abuse, such as direct or indirect imposing of

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[29] *Id.*
[30] *Id.*
[31] Court of Justice C-241-241/91 P, RTE & ITP v. EC Commission [1995] ECR I-743, [1995] 6 CMLR 718.

unfair purchase or selling prices, or limiting production, markets or technical development to the prejudice of consumers, that constitutes a dominant position within the common market is prohibited.

The U.S. Court, in turn, in *National Basketball Association* v. *Motorola, Inc.* (*NBA* v. *Motorola*) (1997),[32] held that, using its own expenses to collect purely factual information, Motorola neither constitute unfair competition nor free-ride on NBA's product since it expended its own resources to collect purely factual information. The Second Circuit Court utilized an application of the doctrine of misappropriation to produce a result that: (1) the subject matter must result from the plaintiff's own contribution, expenses, and labor in generating or collecting information; (2) the information was time sensitive, (3) the defendant's use of the information must constitute free-riding status; (4) the defendant's use of the information was in competition with a product or service offered by the plaintiff or likely to be offered by the plaintiff, and (5) the ability of other parties to free ride on the efforts of the plaintiff would so reduce the incentive to produce the product or service that the existence or equality of the product would be substantially threatened.[33] The Second Circuit Court found that Motorola had not engaged in unlawful misappropriation because the information transmitted to SportsTrax was not precisely contemporaneous, but was, in fact, time sensitive.[34] Besides, the NBA failed to show any competitive effect from SportsTrax on the following grounds: first, the product was generating the information by playing the games; second, the product was transmitting live, full descriptions of those games; and third, the product was collecting and retransmitting strictly factual information about the

[32] National Basketball Association v. Motorola, Inc., 105 F. 3d 841 (2nd Cir. 1997).
[33] *Id.* at 845.
[34] *Id.* at 853.

games.[35] The Court also found that the NBA's primary product—producing basketball games with live attendance and licensing copyrighted broadcasts of those games—was not infringed upon nor did it involve a free-ride, inasmuch as Motorola markets SportsTrax as being designed for those times when a person could not be at the arena, watch the game on TV or listen to it on the radio.[36] In addition, the Court asserted that transmitting contents of live events such as baseball games was not copyrightable and, therefore, survived the Copyright Act's preemptive effect.[37] The U.S. courts recognize the substantial investment in compiled facts, data, and information, using competition law to ensure competition, and explicitly demonstrate that the economic justification of the protection of *sui generis* databases must be considered based upon free competition of the database industries.

For the judicial authorities to assert the extraterritorial jurisdiction, the U.S. and the European courts provide examples of how far they can assert such extraterritorial jurisdiction. By adopting the principle of effect doctrine, both parties share this similarity imposing conditions that: (1) there must be agreement(s) or concerted practice(s) that create a *direct and immediate* restriction of competition; (2) the effect of the conduct must be *reasonably foreseeable*; and (3) that the effect produced on the territory must be *substantial*.[38] Though there is no supportive evidence of how the extraterritorial jurisdiction could apply directly to the databases subject-matter, the courts in both jurisdictions have presented a satisfactory interpretation of the useful effect doctrine that

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[35] *Id.* at 854.
[36] *Id.*
[37] *Id.* at 846.
[38] Court of Justice, C-89, 104, 114, 116-117, 125-129/85, A Ahlström Osakeyhtiö v. Commission [1993] ECR I-1307. (Concerning price-fixing in the wood pulp industry). Timberland Lumber Co. v. Bank of America, 549 F 2d 597 (9th Cir. 1976). (Concerning conspiracy to exclude U.S. company from the Honduran lumber market).

could be adjusted to prevent unlawful reproduction and dissemination of *sui generis* databases in the global dimension.

Although the database makers claim technological impacts on the reproduction and dissemination of *sui generis* databases, the free-riding problem of databases, whether non-electronic or electronic, is normally solved by market mechanisms.[39] In general, the market mechanisms, the Demand-Supply and the Profit-Maximization, allow competition to flourish in the market. In a consumer-supplier relation, the price mechanism dictates demand and supply of databases.[40] At the same time, in a relation between suppliers, the maximization of profit motivates competition and brings about innovation.[41] The market flourishes only if the underlying facts, data, and information are available to the subsequent compilers. This is because the cost advantage drives competition. On the global scale, however, if the protection of *sui generis* databases meant to enhance and stimulate the socio-economic infrastructure for all in the global society, the underlying facts, data, and information must be freely available and accessible to allow competition to flourish.

[39] WIPO Draft Database Treaty Preamble.
[40] BRAD R. SCHILLER, THE ECONOMY TODAY (8th ed. 2000).
[41] *Id.* at 462.

### C. Human Rights Violation

The *sui generis* right does not complement human rights. Article 9(2) of the Berne Convention safeguards the public interest in creative contents, providing fair use exceptions to the author's works for purposes such as criticisms, comment, news reporting, teaching, scholarship, or research.[42] The fair use exceptions under Article 9(2) of the Berne Convention are drafted to complement human rights in respect to the right to "equality of educational opportunity"[43] and the right "to enjoy benefits of scientific progress and its application"[44] and "to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author"[45] under the auspices of the UDHR and ICSCR respectively. Granting a *sui generis* right, which constitutes owner exclusive right to authorize or prohibit the extraction or utilization of the contents,[46] for the database makers is in contrast to these norms. Although Article 5(1) of the WIPO Draft Database Treaty provides exceptions or limitations of the *sui generis* right,[47] such exceptions or limitations are vague because Article 5(1) obliges Contracting Parties to provide exceptions or limitations of *sui generis* right based upon national legal systems. Therefore, there is no general scope of exceptions or limitations to the *sui generis* right structured in the draft treaty. The national courts have already encountered the difficulty in providing interpretation of

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[42] *Id.* art. 9(2). Known as the three-step test, Article 9(2) imposes conditions: First, the criteria permit exceptions only in certain special cases; second, the exceptions may never conflict with normal exploitation of the works; and third, the exceptions may not unreasonably impair or prejudice the legitimate interests, including economic interests of the author.

[43] UDHR art. 26(1).

[44] *Id.* art. 27(1). ICSCR art. 15(1)(b).

[45] UDHR art. 27(2). ICSCR art. 15(1)(c).

[46] WIPO Draft Database Treaty art. 3(1).

[47] *Id.* art. 5(1). "Contracting Parties may, in their national legislation, provide exceptions to or limitations of the rights provided in this Treaty in certain special cases that do not conflict with the normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder."

copyright fair use exceptions. To provide interpretation for exceptions or limitations of *sui generis* right would further complicate matters. If the databases are recognized as an essential element for promoting economic, cultural, and technological advancement,[48] one must observe how far the exceptions or limitations of *sui generis* right would benefit the larger public sectors, such as scientific and educational communities around the globe.

## III. Emphasis and Suggestion on the Protection of *Sui Generis* Databases

The legislative battle derives not only from the political pressure between nations, but from internal pressure exerted by lobbyists who represent industries that are making every effort to approach legislatures to consider an enactment of database legislation.[49] However, based upon the concept of government duty, for the purpose of promulgating legislation, governmental bodies must emphasize the proper balance of interests between the public and private sectors. Similarly, the government duty regards not only a relationship between government and its citizens, but also between countries. Any legislation which benefits industries at the expense of individuals should be considered irresponsible. Again, if databases are recognized as essential tools to promote socio-economic infrastructure around the globe, the use of computer technology suggests a self-help solution to support this proposition.

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[48] WIPO Draft Database Treaty Preamble Clause.

[49] A number of draft legislations regarding the protection of *sui generis* databases have been proposed in Congress since 1996 as follows: Database Investment and Intellectual Property Antipiracy Act, H.R. 3531, 104th Cong. (1996). Former Rep. Carlos J. Moorhead of California introduced this bill on May 23, 1996. Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1998). Collections of Information Antipiracy Act. H.R. 354, 106th Cong. (1999). Representative Howard Coble introduced this bill. Consumer and Investor Access to Information Act, H.R. 1858, 106th Cong. (1999). Representative Bliley introduced this bill. Database and Collections of Information Misappropriation Act, H.R. 3261, 108th Cong. (introduced Oct 8, 2003).

## A. Emphasis on Government's Duty

### 1. Duty to Citizens

Democratic government, as elected by its citizens, is responsible to preserve the "freedom" of its citizens. The constitution derives from a need for mutual benefit and security, such as individual rights, equality of opportunity, and liberties, of citizens who have joined in and formed the social contract.[50] The national government is obligated to establish and maintain order, and enhance the reliability of expectations; to protect persons and their property, and other interests; to promote the welfare of individuals; and to further social value—justice, the good life, and the good society.[51] Any attempt to extend legal protection that benefits a particular sector but creates a negative impact on other parts of society is unconstitutional.

In the United States, there is a growing amount of evidence of how private entities have placed influences on legislation and consequently created negative impacts on larger public sectors. Throughout U.S. legal history, the battle between the interests of private sectors to maximize profit in their business opportunities and the public sectors' needs for value has been ongoing. Time and time again corporate power has sought to manipulate Congress and indeed the U.S. Constitution. In *Santa Clara County* v. *Southern Pacific Railroad Co.* (1886),[52] the U.S. Supreme Court exempted the state tax assessment on the fences on the line of railroads in favor of defendant corporations.[53] The Court reasoned, under the constitution and laws of California, relating to taxation, fences erected upon the line between the roadway of a railroad and the land of coterminous

[50] JOHN LOCKE, TWO TREATIES ON GOVERNMENTS (1690).
[51] *Id.*
[52] Santa Clara County v. Southern Pacific Railroad Co., 118 U.S. 394, 6 S. Ct. 1132 (1886).
[53] *Id.*

proprietors were not part of "the roadway," to be included by the State Board in its valuation of the property of the corporation, but were "improvements" assessable by the local authorities of the proper county.

In *Lochner* v. *New York* (1905),[54] the U.S. Supreme Court delivered judgment in favor of the employer, a corporation engaged in the bakery business, holding that: "under Section 110 of the labor law of the State of New York, no employee shall be required or permitted to work in bakeries more than sixty hours in a week, or ten hours a day. However, the State could not legitimately exercise any police power unnecessarily and arbitrarily to interfere with the right and liberty of the individual to contract."[55] The police power of the State was in conflict with the Federal Constitution and, therefore, void. The Court reasoned that "there was no reasonable ground, on the score of health, for interfering with the liberty of the person or the right of free contract, by determining the hours of labor, in the occupation of a baker. Nor can a law limiting such hours be justified as a health law to safeguard the public health, or the health of the individuals following that occupation."[56]

The most recent incident, the Enron case, shows how government who once designed laws to protect the public interest from private or corporate misdeeds has subsequently scaled them down.[57] Based upon facts reported by the pubic media, Enron

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[54] Lochner v. New York , 198 U.S. 45, 25 S. Ct. 539 (1905).
[55] *Id.*
[56] *Id.*
[57] JOEL BAKAN, THE CORPORATION: THE PATHOLOGICAL PURSUIT OF PROFIT AND POWER 98-102 (2004). http://www.cnn.com/SPECIALS/2002/enron/stories/archive/archive.html#1. "A second kind of deregulation involves the actual repeal of regulations. This phenomenon too is pervasive throughout the regulatory system. Laws designed to protect the public interest from corporate misdeeds are being scale back and are sometimes disappearing altogether. There is better illustration of the dangers of this trend that the Enron debacle." Alternative to Economic Globalization: A Better World is Possible, A Report of the International Forum on Globalization 127 (2002). "Hundreds of years ago, state characters contained

had used political influence to remove government restrictions on its operations and then exploited its resulting freedom to engage in dubious activities which resulted in their being able to make considerable profits.[58] Through the 1990s, the company and its officials dumped huge amounts of money into the political process to help transform an unremarkable pipeline company into a powerhouse energy trader.[59] It successfully lobbied for deregulation of electricity markets in several states, among them California, and continued to campaign to deregulate the trading of energy futures.[60] In the early 1990s, it and several other energy companies sought to exempt themselves from the Commodity Exchange Act's requirement that energy traders disclose information about their futures contracts to the Commodity Futures Trading Commission ("CFTC"), the agency responsible for enforcing the act.[61] The result was that the trading in energy futures was no longer subject to CFTC oversight.

The *Enron* case challenged a proposition whether energy futures trading should remain in regulated markets because supply and price manipulation would almost certainly occur if it did not.[62] Enron persisted. It continued to lobby to deregulate auction

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significant restrictions and much higher standards of accountability and responsibility that they do today. But as the landmark research of Richard Grossman and Frank Adams of the Program on Corporations, Law and Democracy (POCLAD) has revealed, corporations have managed over the centuries to wear down the kind and quality of state character rules as well as the state and federal laws that govern their existence. By now, these directives contain relatively few restrictions, and even when corporations violate these restrictions their permanent existence is rarely threatened. Governing bodies today, beholden to corporations for campaign finance support, are loath to enforce any sanctions except in cases of extreme political embarrassment, such as has occurred with Enron, Arthur Anderson, and others. Even then, effective sanctions may be few and small." http://www.time.com/time/nation/article/0,8599,193907,00.html. http://www.time.com/time/business/printout/0,8816,193520,00.html. http://news.findlaw.com/legalnews/lit/enron/.

[58] JOEL BAKAN, *supra* note 57, at 98-102.

[59] *Id.*

[60] *Id.*

[61] *Id.*

[62] *Id.*

requirements, resulting in the passing of the Commodity Futures Modernization Act.[63] Enron had won; the Act was signed on December 21, 2000, gaining Enron an ability to run its own auctions on its own trading floor hidden from governmental scrutiny and the public view.[64] It took full advantage of its new freedom by targeting California's energy markets for manipulation.[65] It manufactured an artificial energy shortage that drove the price of electricity, and consequently its own profits, sky high. The consequence of such governmental deregulation was the first blackout in California on December 7, 2000, an event that occurred thirty-eight more times over the following six months after the Commodity Futures Modernization Act was signed.[66] The commodities deregulation law allowed Enron to control electricity in California, wreak havoc on the state and its citizens, pocket billions in extra revenues and force millions of California residents to go hundreds of hours without electricity and pay outrageous prices.[67] The Enron case proves the danger of granting the private sector an excessive right over public utilities. In this case the electricity, the kind of public utilities government has to control to ensure the welfare of all its people. Enron is not a person, with feelings and life. It is only a legal entity, a kind of corporation dictated by a group of covetous executives with inexhaustible desire for wealth, that sucks and lives in the blood stream of an economic system and intends only to maximize the profit making without shame or remorse.

The corporate lobbyists have also won legal battles with regard to intellectual property protection that opposes the principle of free flow of access to information.

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[63] *Id.*
[64] *Id.*
[65] *Id.*
[66] *Id.*
[67] *Id.*

In *Eric Eldred* v. *John D. Ashcroft* (2003),[68] the U.S. Supreme Court extended the copyright duration of 20 years after its expiration. In the 1998 Copyright Term Extension Act (CTEA), Congress extended the duration of copyright by 20 years. Under the 1976 Copyright Act (1976 Act), copyright protection generally lasted from a work's creation until 50 years after the authors death; under the CTEA, most copyright now run from creation until 70 years after the author's death.[69]

Petitioners, whose products or services build on copyrighted works that have entered the public domain, brought this suit seeking a determination that the CTEA failed constitutional review under both the Copyright Clause's "limited times" prescription and the First Amendment's free speech guarantee.[70] Petitioners did not challenge the CTEA's "life-plus-70-years" time span itself.[71] They maintained that Congress went awry not with respect to newly created works, but in enlarging the term for published works with existing copyrights.[72] The limited time in effect when a copyright is secured, petitioners urged, becomes the constitutional boundary, a clear line beyond the power of Congress to extend. As to the First Amendment, petitioners contended that the CTEA was a content-neutral regulation of speech that failed inspection under the heightened judicial scrutiny appropriate for such regulations.[73] The District Court entered judgment on the pleadings for the Attorney General, holding that the CTEA did not violate the Copyright Clause's "limited times" restriction because the CTEA's terms, though longer than the 1976 Act's terms, were still limited, not perpetual, and, therefore, fit within Congress' discretion.[74]

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[68] Eric Eldred et. al v. John D. Ashcroft, Attorney General, 537 U.S. 186, 123 S. Ct. 769 (2003).
[69] 17 U.S.C. §302(a).
[70] Eldred v. Janet Reno, 74 F. Supp. 2d 1, 3 (1999).
[71] *Id.* at 5.
[72] *Id.*
[73] *Id.* at 6.
[74] *Id.*

The court also held that there were no First Amendment rights to use the copyrighted works of others.[75]

The Court of Appeals affirmed.[76] The court reasoned that copyright does not impermissibly restrict free speech, for it grants the author an exclusive right "only to the specific form of expression;" it does not shield any idea or fact contained in the copyrighted work, and it allows for "fair use" even of the expression itself.[77] A majority of the court also rejected petitioners' Copyright Clause claim.[78] The court ruled that Circuit precedent precluded petitioners' plea for interpretation of the "limited times" prescription with a view to the Clause's statement of purpose: "To promote the Progress of Science."[79] The court found nothing in the constitutional text or history to suggest that a term of years for a copyright was not a "limited time" if it may later be extended for another limited time.[80] Recounting that the First Congress made the 1790 Copyright Act applicable to existing copyrights arising under state copyright laws, the court held that that construction by contemporaries of the Constitution's formation merited almost conclusive weight.[81]

The Supreme Court recognized that the Court of Appeals made it plain that the Copyright Clause permits Congress to amplify an existing term.[82] The Court added that this Court has been similarly deferential to Congress' judgment regarding copyright.[83] Concerning petitioners' assertion that Congress could evade the limitation on its authority

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[75] *Id.*
[76] Eldred v. Reno, 345 U.S. App. D.C. 89, 239 F.3d 372 (2001).
[77] *Id.* at 376.
[78] *Id.*
[79] *Id.* at 375.
[80] *Id.*
[81] *Id.*
[82] 537 U.S. 186, 123 S. Ct. 769.
[83] *Id.*

by stringing together an unlimited number of limited times, the Court stated that such legislative misbehavior clearly was not before it.[84] Rather, the Court emphasized, the CTEA matched the baseline term for United States copyrights with the European Union term in order to meet contemporary circumstances.[85]

Another example of Congress manipulation of legislation after lobbying by powerful corporate interests centers on the Disney organization.[86] Disney lobbied hard to extend the duration of protection, additional twenty years after the end of the author's life plus fifty years, so that it was be able to prevent the image of Mickey Mouse, its mascot, and other cartoon characters, entering the public domain, rather it was thus able to retain ownership rights and to continue to profit greatly from its cartoon characters. [87] Without this extension, Mickey's copyrights would have begun expiring in 2003.[88] The extension of this legislation covers 400,000 books, movies and songs, including early works by Robert Frost, Ernest Hemingway and George Gershwin.[89]

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[84] *Id.*

[85] *Id.* at 697. "A key factor in the CTEA's passage was a 1993 European Union directive instructing EU members to establish a baseline copyright term of life plus 70 years and to deny this longer term to the works of any non-EU country whose laws did not secure the same extended term. By extending the baseline United States copyright term, Congress sought to ensure that American authors would receive the same copyright protection in Europe as their European counterparts. The CTEA may also provide greater incentive for American and other authors to create and disseminate their work in the United States. Additionally, Congress passed the CTEA in light of demographic, economic, and technological changes, and rationally credited projections that longer terms would encourage copyright holders to invest in the restoration and public distribution of their works."

[86] Face Value; Free Mickey Mouse, The Economist, October 12th, 2002. http://www.technologyreview.com/articles/print_version/shuman1102.asp. "Why, in 1998, did Congress feel the urgent need to extend copyright? The legislators certainly weren't being lobbied by the Dead Poets Society. The plain fact is that this was a corporate giveaway. The beneficiaries are big publishing conglomerates including AOL Time Warner and movie studios such as Disney. The first Mickey Mouse character, copyrighted in 1928, was set to revert to the public domain in 2003. Now thanks to Congress, Disney can keep Mickey until 2023. Considering that the cash cow mouse helps earn the company billions of dollars a year in products and theme park revenues, the giveaway was lavish indeed."

[87] *Id.*

[88] *Id.*

[89] *Id.*

Lessig argued that Congress' latest extension of copyright is unconstitutional, because it ignores the balance between the interests of copyright holders and those of the public.[90] The constitution grants Congress the power to grant copyright and patents only for "limited of times" in order to "promote the progress of science and the useful arts."[91] How, he asked, can the retrospective extension of the rights of dead authors be an incentive to present-day creativity?[92] He has a point. The courts answer by extending the extra duration of protection, even though Lessig has assured that creativity in a media-obsessed culture relies on easy access to existing creative works.[93] Disney itself, he pointed out, has thrived in large part by exploiting stories already in the public domain, such as Snow White, Mulan, Little Mermaid, Pinocchio, and Cinderella.[94] Disney uses public information by reincarnating it into its own versions, so that it can obtain exclusive rights over that information and thus become an impetus to the creativity cycle of innovation and invention. Granting additional duration actually lessens the opportunity for innovation and invention. Government must be responsible to the larger public, promoting a free flow access to facts, data, and information, to complement the creativity cycle and thus promote the progress of science and useful arts. Otherwise, it could be warned that American's mighty entertainment industries might face a genuine dilemma; how to use the digital revolution to make loads of money when new technology can turn customers into their biggest enemy.

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[90] *Id.*
[91] U.S. Constitution art. I, sect. 8, cl. 8.
[92] Face Value; Free Mickey Mouse, *supra* note 86. "He claimed that Congress's 11 extensions of copyright in the past 40 years amounts to a "perpetual term on the installment plan," not the limited time authorized by the constitution."
[93] *Id.*
[94] *Id.*

In further support, based upon John Locke's *Two Treaties on Governments*,[95] governments are responsible for citizens' fundamental rights, protection of their property and other interests, promoting their welfare, and to further social value—the ideals of justice, the good life and the good society. Like other countries' constitutions, the U.S. Constitution reflects fundamental rights such as free speech, assembly, press, the right to privacy of one's person and property, freedom of conscience and religion, and protection from arbitrary laws and governmental powers. Fundamental rights are recognized for persons and their property including legal persons such as corporations. Thus, when it turns to a question of the justification of *sui generis* protection, granting a property right in compiled facts and information for a purpose of investment recovery, but posing a numerous socio-economic issues; the government must draw a line to minimize the impact on the larger public.

The final argument comes from an economist's perspective on fundamental rights and freedom. Milton Friedman commented on President Kennedy's inaugural address: "Ask not what your country can do for you—ask what you can do for your country" that though the passage expressed a relation between the citizen and his government which is worthily ideal of free men in a free society, at odds, it implies that government is the master or the deity and that the citizen is the servant or votary.[96] To a free man, he explained, the country is a collection of the individuals who comprise it, not something over or above them.[97] Government is regarded as a means, an instrumentality, neither a

[95] JOHN LOCKE, *supra* note 50.
[96] MILTON FRIEDMAN, CAPITALISM AND FREEDOM: THE CLASSIC STATEMENT OF MILTON FRIEDMAN'S ECONOMIC PHILOSOPHY 1-3 (1982).
[97] *Id.* at 2.

grantor of favors or gifts, nor a master or god to be blindly worshipped and served.[98] The citizen recognizes no national goal except that it is the consensus of the goals that other citizens severally serve.[99] Instead, he would rather ask "What can I and my compatriots do through government to help us discharge our individual responsibilities, to achieve our several goals and purposes, and above all, to protect our freedom?" And he should accompany this question with another: "How can we keep the government we create from becoming a Frankenstein that will destroy the very freedom we establish it to protect?"[100] For Friedman, "freedom" is a rare and delicate plant and the greatest threat to freedom is the concentration of power. Government is necessarily responsible to preserve freedom as laid down in its constitution but it needs to protect freedom from being abused, particularly to protect it from those who take advantage of such freedom.

Again and again, we experience corporate lobbyists making efforts to control the world. In the past, when industries groups have been unsuccessful in creating new intellectual property rights at the national level, they have simply lobbied to include those measures in international treaties and then forced unpopular legislative change at home.[101] A growing amount of evidence shows the attempts of private entities to gain private rights in public assets. The attempt to gain a property right in databases is not exceptional. Whereas the European database industries have succeeded in lobbying the European Parliament to issue them an absolute right in the factual or data contents,[102] and to extend the *sui generis* regime outside the Union;[103] the U.S. database makers failed to

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[98] *Id.*
[99] *Id.*
[100] *Id.*
[101] Robbin Gross, Buy the Numbers Publishers Seek Special Database Monopoly Protections, The Political Economy of R&D, Multinational Monitor, July/August 2004, vol. 25, no. 7 & 8.
[102] Database Directive art 7.
[103] WIPO Doc. BCP/CE/V/5, *supra* note 1. E.U. Proposal.

achieve this goal at the national level, but succeeded at the international level. This corporate virus, taking global traditional knowledge and wealth to be its own, is spreading around the globe.

### 2. Duty to the Global Community

Government duty also refers to an ability to carry out its obligation of international co-operation.[104] Article 1 of the Charter of the United Nations sets forth the purposes to which all member states are bound:

> "1. To maintain international peace and security...;
>
> 2. To develop friendly relations among nations...;
>
> 3. To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedom for all..."[105]

The U.N. Charter binds its member states to an obligation to give effect to its Charter. Member states must co-operate to solve socio-economic problems between countries and to promote fundamental freedom to all in the global society. Any action or omission, done by state's agents or nationals, which has a negative impact to all in the global society, is considered as an act of the state thereby establishing a breach of international

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[104] LOUIS HENKIN, RICHARD CRAWFORD PUGH, OSCAR SCHACHTER AND HANS SMIT, INTERNATIONAL LAW, CASES AND MATERIALS 545 (Third ed. 1993). "As these statement indicates, responsibility arises whenever there is a breach of an international obligation, whatever its origin. There is no distinction in this respect between breach of an agreement and a violation of a rule of international law. Moreover, since any violation of an obligation resulting in injury to another state gives rise to international responsibility, the substantive grounds for such responsibilities are as numerous and varied as the norms of international law."

[105] Charter of the United Nations, concluded June 26, 1945, entered into force October 24, 1945, 1 U.N.T.S. XVI, 1976 Y.B.U.N. 1043; 1945 Can. T.S. 7; 1945 S.A.T.S. 6; 1946 U.K.T.S. 67, Comd. 7015 B.F.S.P. 805; U.S.T.S. 993, 59 Stat. 1031 [hereinafter U.N. Charter] art. 1.

obligation.[106] This is because an ideal global community under the U.N. Charter is established in the basis of humanity, freedom, and equality of its members. The most important and difficult task for all in the global society is the attainment of a universally just society based upon equality and respect, in which all people would be treated as ends in themselves rather than means to others' ends.

The corporate influence on a government's national policy of global engagement is often found to aim at expanding its political influence and economic markets. One clear example of how an irresponsible conduct affects all in the global society is the U.S. withdrawal from the Kyoto Protocol.[107] The Kyoto Protocol sets legally-binding targets for developed countries to reduce greenhouse emissions within 7 years, to about 5% below 1990 levels. To reach this goal, countries must put greenhouse emissions controls on its largest polluters, which are corporations and militaries. Shockingly, the U.S. accounts for 25% of all greenhouse emissions in the world.

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[106] *Id.* at 546-7. "Since the State can act physically only through actions or omissions by human beings or human collectivities, the problems posed by this fundamental notion of the "act of the State" which have to be resolved in the present chapter have a common denominator. The basic task is to establish when, according to international law, it is the State which must be regarded as acting: what actions or omissions can in principle be considered as conduct of the State, and in what circumstances, such conduct must have been engaged in, if it is to be actually attributable to the State as a subject of international law. In that connexion, it must first of all be pointed out that, in theory, there is nothing to prevent international law from attaching to the State the conduct of human beings or collectivities whose link with the State might even have no relation to its obligations; for example, any actions or omissions taking place in its territory could be considered acts of the State. In practice, however, we find that what is, as a general rule, attributed to the State at the international level are the acts of members of its "organization," in other words, the acts of its "organs" or "agents.""

[107] http://www.time.com/time/world/article/0,8599,168701,00.html. "The real significance of Bonn was that the Europeans decided to stand up to what many view as a dangerous U.S. unilateralism on an issue in which American domestic decisions are deemed to have a global impact. And the need to send Washington a message would certainly have added incentive for the Europeans, Japanese, Canadians and others to sort out their own differences on Kyoto. Whatever the treaty's imperfections, there was a collective sense of achievement among the overwhelming majority of the world's industrialized and developing nations at the fact that they'd fashioned an epic international consensus on global warming despite the objections of the one nation that still aspires to global leadership...President Bush may have spoken loftily about American leadership on global warming, but the reality is that he has missed the boat — instead, the international community will now be focusing its efforts on bringing Washington on board, as unlikely as that may look right now. And the Kyoto decision will have given the Europeans and other industrialized nations a sense of collective power and confidence to act independently of the U.S. that is likely to grow rather than ebb."

Vice President Al Gore was a main participant in putting the Kyoto Protocol together in 1997. President Bill Clinton signed the agreement in 1997, but the U.S. Senate refused to ratify it, citing potential damage to the U.S. economy required by compliance. The Senate also balked at the agreement because it excluded certain developing countries, including India and China, from having to comply with new emissions standards. President Bush, speaking in 2000 promised to regulate carbon dioxide as a pollutant. However, in 2001, after winning the presidential election, President Bush pulled the U.S. out of the Kyoto Protocol as one of the first acts of his presidency as stated: "I oppose the Kyoto Protocol because it exempts 80 percent of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the U.S. economy."[108] The reason was, in fact, that it is too costly as described as "an unrealistic and ever-tightening straitjacket," and as the Congress questioned on the validity of the science behind global warming, "that millions of jobs will be lost if the U.S. joins in this world pact."[109] In fact, the national policy of international affairs was pressured by corporate influence, the U.S. gas industries in this case.

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[108] http://www.asiasource.org/news/at_mp_02.cfm?newsid=59931 "Prior to the Bonn summit, the Bush administration had decided to withdraw from the 1997 Kyoto Protocol, for which the US received widespread condemnation, most notably from the European Union and Japan. In explaining the reasons for US withdrawal, President Bush said, "I oppose the Kyoto Protocol because it exempts 80 percent of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the US economy." ...The effects of climate change will arguably be felt most in the South, where marginal populations will be made more vulnerable in the face of extreme events such as floods, droughts and cyclones, which are all likely to occur with greater frequency."

[109] http://usliberals.about.com/od/environmentalconcerns/p/KyotoProtocol.htm. "George Bush made campaign promises in 2000 to regulate carbon dioxide as a pollutant. However, in 2001, George Bush pulled the US out of the Kyoto accords as one of the first acts of his presidency. Bush dismissed Kyoto Protocol as too costly, describing it as "an unrealistic and ever-tightening straitjacket." Lately, the White House has even questioned the validity of the science behind global warming, and claims that millions of jobs will be lost if the US joins in this world pact."

The scientific community believes that the global climate is warming because of greenhouse gas emissions from human activities, including industrial and manufacturing processes, fossil fuel combustion (gas) and changes in land use, such as deforestation. While U.S. industries are busy making strategies of how to maximize profit, the scientists suggest that productivity will only be maintained if the polluters seek cleaner, renewable alternative energies to replace fossil fuel or gas energy.[110] Solar, wind, and geothermal energy are examples of renewable sources.[111] The term "globalism" or "globalization" is applied to the view that problems derived from a lack of international co-operation, the ozone depletion and global warming in this case, cannot be effectively dealt with in a local or regional scale but must be attacked globally.

In addition, we should note, the government willingness and ability to carry out international obligations is prescribed under the constitution. Article VI, Section 1, Clause 2 of the United States Constitution stipulates: "This Constitution, and the Laws of the United States which shall be made in pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supremacy Law of the Land; and the Judges in every State shall be bound by thereby, and Thing of the Constitution or Laws of any State to the Contrary notwithstanding."[112] The U.S. Constitution does not impose prohibitions or prescribe limits on the Treaty Power, nor does it patently imply that there is any.[113] No provision on any treaty has been held unconstitutional by the Supreme Court and few have been seriously challenged there.

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[110] PAUL HAWKEN, AMORY LOVINS, L. HUNTER LOVINS, NATURAL CAPITALISM; CREATING THE NEXT INDUSTRIAL REVOLUTION 22-47 (1999). (Suggesting on how the world's dominant business could be transformed to become profoundly less harmful to the biosphere.)

[111] *Id.*

[112] U.S. Constitution art. VI, sect. 1, cl. 2.

[113] LOUIS HENKIN, RICHARD CRAWFORD PUGH, OSCAR SCHACHTER AND HANS SMIT, *supra* note 104, at 165. "Again, there is extant a myth that treaties are equal in authority to the Constitution and not subject to

International organizations are also bound by international law. The WIPO, as a result of joining the U.N. system in 1974,[114] sets its objectives to promote "the protection of intellectual property throughout the world" incorporating the U. N. objectives, "to achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedom for all."[115] The WIPO maintains its position to promote economic and social progress to all in the global society by helping developing and least developed countries to establish intellectual property rules and regulations, at the same time, addressing that education, freedom to receive information, and a proper balance of right to enjoy benefits of scientific progress and its application must be highlighted as a priority. Granting a property right in the contents of facts, data and information is in contrast to this goal.

The emphasis on the principle of the public free flow of access to facts, data, and information must be stressed for the purpose of global socio-economic infrastructure development. Particularly, Article 2(5) of the Berne Convention recognizes the significance of these fundamental rights, promoting the public free flow of access to information; copyright protection extends only to collections of literary and artistic works "which, by reason of the selection and arrangement of their contents, constitute intellectual creations."[116] It promotes the public free flow of access to information by only referring to the creative structure of collections and compilations, not the data or

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its limitations. The doctrine, propagated even by eminent authority, found its origins, no doubt, in the language of the Supremacy Clause (Article VI, section 2)."

[114] Convention Establishing the World Intellectual Property Organization, signed July 14, 1967, amended September 28, 1979 *at* http://www.wipo.int/treaties/en/convention/trtdocs_wo029.html.

[115] U.N. Charter art. 1.

[116] Berne Convention art. 2(5).

other material contained within. The Berne Convention intends to leave the underlying facts available to the public, taking into account a serious need of the scientific research and educational communities for the free flow of access to information and of developing countries that need this available access for purposes of national infrastructure.

The WIPO Draft Database Treaty, influenced by the European Union[117] and the United Sates,[118] is just politics between two powerful economic parties. Like its predecessors, the WIPO Draft Database Treaty holds propositions: (1) the *sui generis* right derives from an investment criterion alone, and (2) the technology affords new methods of manipulation of contents of databases and creates the free-riding problem.[119] However, the E.U. version of draft database treaty, which comes into force in the Union, goes further; Article 11(3) of the E.U. Proposal requires reciprocal treatment between nations.[120] The E.U. approach is protectionist and irresponsible. If any Contracting Party could not upgrade its legal system to the level of the E.U's system, their database industries could suffer as the European database makers can claim exclusive rights on the contents of their databases. For instance, if the U.S. database makers sell the cliental databases for pharmaceuticals products to an individual who resides in the Community, this person can recompile and sell these databases to local companies who engage in online business soliciting or spamming, the U.S. database makers would, therefore, be disadvantaged suffering investment loss and indeed the loss of their databases forever to the European market. This would be the consequence of the U.S. government failing to upgrade its law to the point of compatibility with E.U. law.

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[117] E.U. Proposal.
[118] U.S. Proposal.
[119] WIPO Draft Database Treaty Premble.
[120] E.U. Proposal art. 11(3).

An increasing cost of access to facts and information impacts on global social and economic infrastructure. The database is recognized as a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural and technological advancement.[121] It is true that the *sui generis* system fulfills economic expectations of the database industries, particularly those in developed countries. The *sui generis* system directly affects people in developing and least developed countries by reducing their opportunity to receive and access information. For instance, farmers in African countries will have less chance to learn new techniques to improve agricultural yields. They won't be able to learn about new thinking regarding e.g. irrigation systems, crop selection, soil improvement and weather conditions or to access available information to study trends and demands for agriculture products.[122] An open-access to information would help to improve living conditions. The opportunity to learn, improve, and develop should be much greater now because so much new thinking is available online. The online medical journal database teaches African doctors with no research budgets about new medicines and surgical techniques.[123]

Open-access to information is essential. The Thai government has, since 1951, launched a series of initiatives on hill tribe development, with the objective of providing

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[121] *Id.* Preamble Clause.

[122] http://www.une.edu.au/agronomy/agsystems/organic/links/other_regions.html#Africa. (Providing information and links on an issue of sustainable agriculture resources-Africa, Middle East and Central & South America.) http://ppathw3.cals.cornell.edu/mba_project/CIEPCA/home.html "The Cover Crops Information and Seed Exchange Center for Africa (CIEPCA) assisted researchers and development specialists to develop, target, and test appropriate cover cropping systems in Africa from 1998 through 2001. Beginning in 2002, CIEPCA was reconfigured as a web-based cover crops information center which continues to provide access to on-line newsletters, Africa-based extension material and the French language cover crops electronic discussion group (EVECS-L)."

[123] Robin Gross, *Buy the Numbers Publishers Seek Special Database Monopoly Protections*, Multinational Monitor, Vol. 25, No. 7&8 (July/August 2004). "The Politic Economy of R&D "A new open-access online medical journal database teaches African doctors with no research budgets about new medicines and surgical techniques. Scientists are able to study the "greenhouse effect" because weather data is made freely available to the public over the Internet.

general welfare services in remote, relatively inaccessible communities affected by poverty.[124] Their initiatives include both online education via satellite and more traditional teaching and support. Hill tribe people are unskilled and unprepared for a new environment, they are thus susceptible to exploitation and unlawful conduct that creates problems in both national and international levels, such as HIV/AIDS epidemic, prostitution, drug addiction as well as degradation in agriculture and income.[125] Having received more education, the younger generations have become a force, a human resource able to improve their own lives and the lives of those in their communities. The success of promoting education enables them to enjoy better living standards, employment, and health care; it promotes national policy and stimulates socio-economic potential, the idea

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[124] *Case Study on Education Opportunity for Hill Tribe in Northern Thailand, Implications for Sustainable Rural Development*, Food and Agriculture Organization of the United Nations, Regional Office for Asia and the Pacific, Bangkok, Thailand (2002), *at* http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/004/AC383E/AC383E00.HTM [hereinafter FAO Case Study]. "Education, for FAO, is a prerequisite to building a food-secure world, reducing poverty and conserving and enhancing natural resources. This research is as an attempt to analyse the impact of support activities by the Royal Thai Government in promoting education opportunities for hill tribe people. Government initiatives on hill tribe development date back to 1951, with the objective to provide general welfare services in remote, relatively inaccessible communities affected by poverty. In 1959 the government established the National Committee for the Hill Tribes as the first national-level organization in charge of formulating policies focusing on hill tribe development. To date, the government policy towards the hill tribes is based on the Cabinet resolution of 6 July 1976. The resolution states the government's intention to integrate hill tribe people into the Thai state as self-reliant Thai citizens. In addition, the Master Plan on Community Development, Environment and Narcotic Crop Control in Highland Areas provides the basis for the government's support of hill tribe people, with emphasis on natural resource conservation in highland development. Furthermore, the national economic and social development plans are the key plans underpinning government assistance to hill tribe communities." http://www.maefahluang.org/maefahluang/royal_patron/education.asp. "Illiteracy due to the lack of educational opportunity is the main obstacle in human resource development, which further affects national development...The Princess Mother knew from her experience that a large number of hill tribe children did not have the opportunity to learn within the school system. They could neither read nor write, and were, therefore, unable to improve their lives and communities."

[125] FAO Case Study. "Most of these people are unskilled and unprepared for a new environment, and thus susceptible to exploitation and unlawful conduct. HIV/AIDS, prostitution, drug addiction as well as degradation in agriculture and income are other serious problems... Education, along with infrastructure, communication and health care, is an indispensable enabling factor for enhancing rural livelihood. It enables hill tribe people to take fuller advantage of employment and training opportunities, whether they choose to stay in their communities or decide to earn income in urban areas. Consequently, hill tribe people, based on the skills they acquired, would be in a position to reinforce their income-generating capacities and socio-economic potential, which will be the foundation of sustainable rural development."

of sustainable rural development is now understood and practiced; ultimately such development contributes to a reduction in socio-economic problems around the globe.[126] National and inter-governmental bodies must co-operate to promote the principle of free flow of access to information.

### B. Suggestion of Technological Mechanism to the Database Industries

Technology suggests sufficient means to safeguard economic losses of the database industries. The database industries thirst for database legislation because of free-riding problems. However, Leonardo Chiariglione, Head of Multimedia Technologies and Services at Centro Studi e Laboratori Telecomunicazioni ("CSELT"), Telecom Italia's R&D center in Torino, Italy,[127] suggests a technology self-help solution. He refers to the digital recording technology that has been developed by the Moving Picture Experts Group ("MPEG"),[128] a committee of the International Organization for Standardization, in 1988. The technology, MPEG standard, which is the technology behind MP3, enables storage of compressed digital video and audio on compact discs and their transmission over the Internet.

MP3 technology is incredibly effective because it overcomes the clumsy traditional way of distributing contents based on the sale of a physical objective such as a

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[126] *Id.* "In enhancing assistance to hill tribe people, integrated approaches to highland development would need to be emphasized as a means to address a wide range of problems. Particularly, quality of life issues that include education and health care would need to be given higher prominence, as they would contribute to the human potential and self-reliance of highland communities. Enhancement of education opportunities in such a way as to contribute to improved agricultural production, employment and income generation should be based on efforts to harmonize modern knowledge and technologies with local wisdom and practices. In supporting such efforts in Thailand, international development agencies would need to strengthen partnership in advocating sustainable highland development."

[127] Leonardo Chiariglione, *The Value of Content*, MIT's Magazine of Innovation, Technology Review, vol. 103, no. 2 (March-April 2000) at 79. http://www.telecomitalialab.com/. "Technologies applied to digital contents will play an important role in the future of our network society."

[128] http://cselt.it/mpeg.

vinyl record or CD. It causes problems too, however, because as the technology advances so the ease of copying and distributing increases, piracy by another word; musical and other database contents are now widely available on the Internet. Users justify their action with a philosophy that holds: "Bits are bits, content should be free."[129] If such a philosophy is true, artists and authors could not earn a living. Could the contents be used as a vehicle for a message that has a monetary value? These questions could be answered by the protection technologies such as a specification for portable devices that plays digital contents in a secure form[130] or a specification for the secure download of proprietary protection systems that will enable Web surfers to consume whatever type of protected content they may encounter.[131] He advocated: "When content can no longer be indiscriminately copied, it recovers its lost value. And instead of being the cause of its devaluation, the Internet becomes the place where content's value is enhanced because everybody can post works in a protected form and be compensated for them. Artists will have a better way to reach their fans, and consumers will be able to acquire the right to consume a piece of work in more ways than it is possible today. Instead of buying a CD, for instance, a consumer might buy the right to 10 playbacks."[132]

In addition, in a world where anybody can be author, performer, producer, value-adder reseller and consumer all in one, how will it be possible to acquire the rights for a specific work, possibly worth a few cents, for reuse under some given conditions, unless all these negotiations and transactions are rendered automatically? The Foundation for

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[129] Leonardo Chiariglione, *supra* note 127.
[130] http://www.sdmi.org. The Secure Digital Music Initiative is a nonprofit organization with 150 corporate members whose shared goal is to develop specifications for secure digital music. So far, SDMI has produced a specification for portable devices that play digital music in a secure form.
[131] http://www.iec.ch/opima.
[132] *Id.*

Intelligent Physical Agents who developed Agent Communication Language which defines a *lingua franca* which all intelligent agents will speak by the same standard, MPEG.[133] The modified version, MPEG-21 Multimedia Framework, generates two critical objectives: how consumers can search for and get content—directly by themselves or through the use of intelligent agents—and how the contents can be decoded for consumption according to usage rights. For example, one can send an intelligent agent to search for a picture of the Golden Gate Bridge and it will negotiate to buy for the lowest price.

Technology has a profound effect on legislative improvement. At the end of the Twentieth Century new means of dissemination and communication evolved, more and more advanced technology has assisted every field of endeavor; computer software, entertainment products (motion pictures, videos, games, sound recordings), information services (electronic database, online newspaper), technical information, product licenses, financial services, and professional services (business and technical consulting, accounting, architectural design, legal advice, travel services). Legislatures have adopted new definitions of technological forms to accommodate loopholes in legal interpretation and public demands for protection. Some successful endeavors evidently reflect in, for instance, protection attained for sound recording and film industries, broadcasters, performers. Most new regulations are a result of modification and extension of existing copyright law. For the protection of *sui generis* databases, the question arises in a manner of the database's unique nature that conflicts the principle of the public free flow of access to information under copyright law. As the database makers are aware of technological impact on the reproduction and dissemination of the contents of

[133] http://www.figa.org.

databases,[134] the above-narration has demonstrated that technological means, like MP3, have provided a satisfactory solution. In addition, to justify legal principles for the protection of databases, as Conley pointed out, "the legal principles of protection are predicted and foreseen to be the same whether the subject is a simple paper database like a telephone book or a complex aggregation dispersed through cyberspace."[135] Rather, he added, "The way in which those principles are applied will be heavily dependent on the nature of the subject matter."[136] Like copyrightable collections that are justified by creative selection and arrangement, the appropriate focus of protection for a given database should be considered upon the basis whether the primary value placed by its creator consists in the underlying data structure or in the search and organization tools.

## IV. Conclusion

The free flow of access to information must be promoted for all. The problem of the protection of *sui generis* databases is that it promotes an intellectual property right in factual compilations and collections that copyright law crafted out from its scope over centuries. Copyright law is meant to encourage innovation and creation, and to subsidize socio-economic and human resource development in every country around the globe. Thus, the database industries are aware of the advent of new technology that creates free-ride problem, and trying to lobby legislatures to pass the law in favor of them, proving throughout the legal history countless examples of corporate entities influencing

[134] John M. Conley, *Database Protection in a Digital World,* 6 Rich. J. L. Tech. 2 (Symposium 1999). "A lack of confidence in protections may drive some database proprietors to use technological means to prevent certain user activities. For information service providers, the general business conducts may stimulate self-interested database owner to utilize certain mechanism by way of: (1) permitting authorized persons to use the database fully, (2) preventing unauthorized persons from using it, and (3) preventing competitors from copying it in order to create a competitive product."
[135] *Id.*
[136] *Id.*

legislation. The compilation or collection of factual contents is unexceptional and a new episode of legislative battles that challenge legislature to take a careful consideration toward legal revolution. By granting the database industries a *sui generis* right, such a regime safeguards them from economic losses, but, at the same time, increases a cost to the large public sectors' access. The ultimate concept is that government, whether national, regional or international, must be responsible to the larger public sectors, the citizens, by taking a position to reserve and maintain law and justice, as Pollock mentioned: "In short the conception of law, many of its ideas, and much even of its form, are prior in history to the official intervention of the State, save in the last resort, to maintain law. True it is that in modern States law tends more and more to become identified with the will of the State as expressed by the authorities instructed with the direction of the common power. But to regard law as merely that which the State wills or commands is eminently the mistake of a layman, as one of the greatest modern jurists has hinted; and, we may add, of a layman who has not considered the difference between modern and archaic societies, or the political and social foundations of law." [137]

However, law is not only politics between private and public sectors, but also between states. The legislative battle between two powerful economic imperialisms, the United States and the European Union, has resulted in a possible draft database treaty at the forum of the WIPO which aims to govern all the global knowledge assets. Developing and least developed countries demand that all knowledge and information be treated as a "common" and be made available free of charge to all in the global community. Databases are an essential building block of the Information Society. I believe that if the free flow of access to facts, data, and information is allowed intact,

[137] Sir Frederick Pollock, A First Book of Jurisprudence, 1896.

national infrastructure would benefit and increasingly progress as a result of human resources development and overall global infrastructure. Promoting the principle of the free flow of access to information is long-term investment. Once the contents are no longer discriminated and people have equal opportunity to learn and be educated, they would become a new force of human resource readily and competitively to participate in every single economic mechanism, creators, inventors, suppliers and even consumers. Competition and marketplace of ideas flourish. Like other kinds of intellectual property, the protection of *sui generis* databases is, therefore, seen as a means of dominating and exploiting the socio-economic progress of developing and least developed countries. By promoting the principle of the public free flow of access to information, the WIPO must take a position to administer international agreements, to achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and to promote and encourage respect for human rights and freedom for all. Therefore, in addressing the question what are the most appropriate goals for intellectual property system in an age of information, we must ask ourselves first: "What kind of society would we like to live in?"

# Appendix 1

## Draft Treaty on Intellectual Property in Respect of Databases

**Contents**



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### *Preamble*

**The Contracting Parties,**

**Desiring** to enhance and stimulate the production, distribution and international trade in databases,

**Recognizing** that databases are a vital element in the development of a global information infrastructure and an essential tool for promoting economic, cultural and technological advancement,

**Recognizing** that the making of databases requires the investment of considerable human, technical and financial resources but that such databases can be copied or accessed at a fraction of the cost needed to design them independently,

**Desiring** to establish a new form of protection for databases by granting rights adequate to enable the makers of databases to recover the investment they have made in their databases and by providing international protection in a manner as effective and uniform as possible,

**Emphasizing** that nothing in this Treaty shall derogate from existing obligations that Contracting Parties may have to each other under treaties in the field of intellectual property, and in particular, that nothing in this Treaty shall in any way prejudice the rights granted to authors in the Berne Convention for the Protection of Literary and Artistic Works,

**Have agreed** as follows:

## Article 1
## Scope

(1) Contracting Parties shall protect any database that represents a substantial investment in the collection, assembly, verification, organization or presentation of the contents of the database.

(2) The legal protection set forth in this Treaty extends to a database regardless of the form or medium in which the database is embodied, and regardless of whether or not the database is made available to the public.

(3) The protection granted under this Treaty shall be provided irrespective of any protection provided for a database or its contents by copyright or by other rights granted by Contracting Parties in their national legislation.

(4) The protection under this Treaty shall not extend to any computer program as such, including without limitation any computer program used in the manufacture, operation or maintenance of a database.

## Article 2
## Definitions

For the purposes of this Treaty:

(i) "database" means a collection of independent works, data or other materials arranged in a systematic or methodical way and capable of being individually accessed by electronic or other means;

(ii) "extraction" means 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;

(iii) "maker of the database" means the natural or legal person or persons with control and responsibility for the undertaking of a substantial investment in making a database;

(iv) "substantial investment" means any qualitatively or quantitatively significant investment of human, financial, technical or other resources in the collection, assembly, verification, organization or presentation of the contents of the database;

(v) "substantial part", in reference to the contents of a database, means any portion of the database, including an accumulation of small portions, that is of qualitative or quantitative significance to the value of the database;

(vi) "utilization" means the making available to the public of all or a substantial part of the contents of a database by any means, including by the distribution of copies, by renting, or by on-line or other forms of transmission, including making the same available to the public at a place and at a time individually chosen by each member of the public.

## Article 3
## Rights

(1) The maker of a database eligible for protection under this Treaty shall have the right to authorize or prohibit the extraction or utilization of its contents.

(2) Contracting Parties may, in their national legislation, provide that the right of utilization provided for in paragraph (1) does not apply to distribution of the original or any copy of any database that has been sold or the ownership of which has been otherwise transferred in that Contracting Party's territory by or pursuant to authorization.

## Article 4
## Rightholders

(1) The rights provided under this Treaty shall be owned by the maker of the database.
(2) The rights provided under this Treaty shall be freely transferable.

## Article 5
## Exceptions

(1) Contracting Parties may, in their national legislation, provide exceptions to or limitations of the rights provided in this Treaty in certain special cases that do not conflict with the normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder.
(2) It shall be a matter for the national legislation of Contracting Parties to determine the protection that shall be granted to databases made by governmental entities or their agents or employees.

## Article 6
## Beneficiaries of Protection

(1) Each Contracting Party shall protect according to the terms of this Treaty makers of databases who are nationals of a Contracting Party.
(2) The provisions of paragraph (1) shall also apply to companies, firms and other legal entities formed in accordance with the laws of a Contracting Party or having their registered office, central administration or principal place of business within a Contracting Party; however, where such a company, firm or other legal entity has only its registered office in the territory of a Contracting Party, its operations must be genuinely linked on an on-going basis with the economy of a Contracting Party.

## Article 7
## National Treatment and Independence of Protection

(1) The maker of a database shall enjoy in respect of the protection provided for in this Treaty, in Contracting Parties other than the Contracting Party of which he is a national, the rights which their respective laws do now or may hereafter grant to their nationals as well as the rights specially granted by this Treaty.
(2) Protection of a database in the Contracting Party of which the maker of the database is a national shall be governed by national legislation.
(3) The enjoyment and the exercise of rights under this Treaty shall be independent of the existence of protection in the Contracting Party of which the maker of a database is a national. Apart from the provisions of this Treaty, the extent of protection, as well as the means and extent of redress, shall be governed exclusively by the laws of the Contracting Party where protection is claimed.
(4) Makers of databases who are not nationals of a Contracting Party but who have their habitual residence in a Contracting Party shall, for the purposes of this Treaty, be assimilated to nationals of that Contracting Party.

## Article 8
## Term of Protection

(1) The rights provided for in this Treaty shall attach when a database meets the requirements of Article 1(1) and shall endure for at least

***Alternative A***: 25

***Alternative B***: 15

years from the first day of January in the year following the date when the database first met the requirements of Article 1(1).

(2) In the case of a database that is made available to the public, in whatever manner, before the expiry of the period provided for in paragraph (1), the term of protection shall endure for at least

***Alternative A***: 25

***Alternative B***: 15

years from the first day of January in the year following the date when the database was first made available to the public.

(3) Any substantial change to the database, evaluated qualitatively or quantitatively, including any substantial change resulting from the accumulation of successive additions, deletions, verifications, modifications in organization or presentation, or other alterations, which constitute a new substantial investment, shall qualify the database resulting from such investment for its own term of protection.

## Article 9
## Formalities

The enjoyment and exercise of the rights provided for in this Treaty shall not be subject to any formality.

## Article 10
## Obligations concerning Technological Measures

(1) Contracting Parties shall make unlawful the importation, manufacture or distribution of protection-defeating devices, or the offer or performance of any service having the same effect, by any person knowing or having reasonable grounds to know that the device or service will be used for, or in the course of, the exercise of rights provided under this Treaty that is not authorized by the rightholder or the law.

(2) Contracting Parties shall provide for appropriate and effective remedies against the unlawful acts referred to in paragraph (1).

(3) As used in this Article, "protection-defeating device" means any device, product or component incorporated into a device or product, the primary purpose or primary effect of which is to circumvent any process, treatment, mechanism or system that prevents or inhibits any of the acts covered by the rights under this Treaty.

## Article 11
## Application in Time

(1) Contracting Parties shall also grant protection pursuant to this Treaty in respect of databases that met the requirements of Article 1(1) at the date of the entry into force of this Treaty for each Contracting Party. The duration of such protection shall be determined by the provisions of Article 8.

(2) The protection provided for in paragraph (1) shall be without prejudice to any acts concluded or rights acquired before the entry into force of this Treaty in each Contracting Party.
(3) A Contracting Party may provide for conditions under which copies of databases which were lawfully made before the date of the entry into force of this Treaty for that Contracting Party may be distributed to the public, provided that such provisions do not allow distribution for a period longer than two years from that date.

**Article 12**
**Relation to Other Legal Provisions**

The protection accorded under this Treaty shall be without prejudice to any other rights in, or obligations with respect to, a database or its contents, including laws in respect of copyright, rights related to copyright, patent, trademark, design rights, antitrust or competition, trade secrets, data protection and privacy, access to public documents and the law of contract.

**Article 13**
**Special Provisions on Enforcement of Rights**

***Alternative A***

(1) Special provisions regarding the enforcement of rights are included in the Annex to the Treaty.
(2) The Annex forms an integral part of this Treaty.

***Alternative B***

Contracting Parties shall ensure that the enforcement procedures specified in Part III, Articles 41 to 61, of the Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, Annex 1C, of the Marrakesh Agreement Establishing the World Trade Organization, concluded on April 15, 1994 (the "TRIPS Agreement"), are available under their national laws so as to permit effective action against any act of infringement of the rights provided under this Treaty, including expeditious remedies to prevent infringements, and remedies that constitute a deterrent to further infringements. To this end, Contracting Parties shall apply *mutatis mutandis* the provisions of Articles 41 to 61 of the TRIPS Agreement.

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***Alternative A***
**Enforcement of Rights**

***SECTION 1***
***GENERAL OBLIGATIONS***

**Article 1**

1. Contracting Parties shall ensure that enforcement procedures as specified in this Annex are available under their law so as to permit effective action against any act of infringement of rights covered by this Treaty, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements. These

procedures shall be applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse.

2. Procedures concerning the enforcement of rights covered by this Treaty shall be fair and equitable. They shall not be unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays.

3. Decisions on the merits of a case shall preferably be in writing and reasoned. They shall be made available at least to the parties to the proceeding without undue delay. Decisions on the merits of a case shall be based only on evidence in respect of which parties were offered the opportunity to be heard.

4. Parties to a proceeding shall have an opportunity for review by a judicial authority of final administrative decisions and, subject to jurisdictional provisions in a Contracting Party's law concerning the importance of a case, of at least the legal aspects of initial judicial decisions on the merits of a case. However, there shall be no obligation to provide an opportunity for review of acquittals in criminal cases.

5. It is understood that this Annex does not create any obligation to put in place a judicial system for the enforcement of rights covered by this Treaty distinct from that for the enforcement of law in general, nor does it affect the capacity of Contracting Parties to enforce their law in general. Nothing in this Annex creates any obligation with respect to the distribution of resources as between enforcement of rights covered by this Treaty and the enforcement of law in general.

## *SECTION 2*
## *CIVIL AND ADMINISTRATIVE PROCEDURES AND REMEDIES*

### Article 2
### Fair and Equitable Procedures

Contracting Parties shall make available to the right holders[1] civil judicial procedures concerning the enforcement of any right covered by this Treaty. Defendants shall have the right to written notice which is timely and contains sufficient detail, including the basis of the claims. Parties shall be allowed to be represented by independent legal counsel, and procedures shall not impose overly burdensome requirements concerning mandatory personal appearances. All parties to such procedures shall be duly entitled to substantiate their claims and to present all relevant evidence. The procedure shall provide a means to identify and protect confidential information, unless this would be contrary to existing constitutional requirements.

### Article 3
### Evidence

1. The judicial authorities shall have the authority, where a party has presented reasonably available evidence sufficient to support its claims and has specified evidence relevant to substantiation of its claims which lies in the control of the opposing party, to order that this evidence be produced by the opposing party, subject in appropriate cases to conditions which ensure the protection of confidential information.

2. In cases in which a party to a proceeding voluntarily and without good reason refuses access to, or otherwise does not provide necessary information within a reasonable period, or significantly impedes a procedure relating to an enforcement action, a

Contracting Party may accord judicial authorities the authority to make preliminary and final determinations, affirmative or negative, on the basis of the information presented to them, including the complaint or the allegation presented by the party adversely affected by the denial of access to information, subject to providing the parties an opportunity to be heard on the allegations or evidence.

**Article 4**
**Injunctions**

1. The judicial authorities shall have the authority to order a party to desist from an infringement, *inter alia* to prevent the entry into the channels of commerce in their jurisdiction of imported goods that involve the infringement of a right covered by this Treaty, immediately after customs clearance of such goods. Contracting Parties are not obliged to accord such authority in respect of protected subject matter acquired or ordered by a person prior to knowing or having reasonable grounds to know that dealing in such subject matter would entail the infringement of a right covered by this Treaty.
[Paragraph 2 of Article 44 of the TRIPS Agreement is not reproduced here.]

**Article 5**
**Damages**

1. The judicial authorities shall have the authority to order the infringer to pay the right holder damages adequate to compensate for the injury the right holder has suffered because of an infringement of that person's right covered by this Treaty by an infringer who knowingly, or with reasonable grounds to know, engaged in infringing activity.
2. The judicial authorities shall also have the authority to order the infringer to pay the right holder expenses, which may include appropriate attorney's fees. In appropriate cases, Contracting Parties may authorize the judicial authorities to order recovery of profits and/or payment of pre-established damages even where the infringer did not knowingly, or with reasonable grounds to know, engage in infringing activity.

**Article 6**
**Other Remedies**

In order to create an effective deterrent to infringement, the judicial authorities shall have the authority to order that goods that they have found to be infringing be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to avoid any harm caused to the right holder, or, unless this would be contrary to existing constitutional requirements, destroyed. The judicial authorities shall also have the authority to order that materials and implements the predominant use of which has been in the creation of the infringing goods be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to minimize the risks of further infringements. In considering such requests, the need for proportionality between the seriousness of the infringement and the remedies ordered as well as the interests of third parties shall be taken into account. [A clause not reproduced here.]

**Article 7**
**Right of Information**

Contracting Parties may provide that the judicial authorities shall have the authority, unless this would be out of proportion to the seriousness of the infringement, to order the infringer to inform the right holder of the identity of third persons involved in the production and distribution of the infringing goods or services and of their channels of distribution.

**Article 8**
**Indemnification of the Defendant**

1. The judicial authorities shall have the authority to order a party at whose request measures were taken and who has abused enforcement procedures to provide to a party wrongfully enjoined or restrained adequate compensation for the injury suffered because of such abuse. The judicial authorities shall also have the authority to order the applicant to pay the defendant expenses, which may include appropriate attorney's fees.
2. In respect of the administration of any law pertaining to the protection or enforcement of rights covered by this Treaty, Contracting Parties shall only exempt both public authorities and officials from liability to appropriate remedial measures where actions are taken or intended in good faith in the course of the administration of that law.

**Article 9**
**Administrative Procedures**

To the extent that any civil remedy can be ordered as a result of administrative procedures on the merits of a case, such procedures shall conform to principles equivalent in substance to those set forth in this Section.

***SECTION 3***
***PROVISIONAL MEASURES***

**Article 10**

1. The judicial authorities shall have the authority to order prompt and effective provisional measures:
(a) to prevent an infringement of any right covered by this Treaty from occurring, and in particular to prevent the entry into the channels of commerce in their jurisdiction of goods, including imported goods immediately after customs clearance;
(b) to preserve relevant evidence in regard to the alleged infringement.
2. The judicial authorities shall have the authority to adopt provisional measures *inaudita altera parte* where appropriate, in particular where any delay is likely to cause irreparable harm to the right holder, or where there is a demonstrable risk of evidence being destroyed.
3. The judicial authorities shall have the authority to require the applicant to provide any reasonably available evidence in order to satisfy themselves with a sufficient degree of certainty that the applicant is the right holder and that the applicant's right is being infringed or that such infringement is imminent, and to order the applicant to provide a security or equivalent assurance sufficient to protect the defendant and to prevent abuse.

4. Where provisional measures have been adopted *inaudita altera parte*, the parties affected shall be given notice, without delay after the execution of the measures at the latest. A review, including a right to be heard, shall take place upon request of the defendant with a view to deciding, within a reasonable period after the notification of the measures, whether these measures shall be modified, revoked or confirmed.
5. The applicant may be required to supply other information necessary for the identification of the goods concerned by the authority that will execute the provisional measures.
6. Without prejudice to paragraph 4, provisional measures taken on the basis of paragraphs 1 and 2 shall, upon request by the defendant, be revoked or otherwise cease to have effect, if proceedings leading to a decision on the merits of the case are not initiated within a reasonable period, to be determined by the judicial authority ordering the measures where a Contracting Party's law so permit or, in the absence of such a determination, not to exceed 20 working days or 31 calendar days, whichever is the longer.
7. Where the provisional measures are revoked or where they lapse due to any act or omission by the applicant, or where it is subsequently found that there has been no infringement or threat of infringement of a right covered by this Treaty, the judicial authorities shall have the authority to order the applicant, upon request of the defendant, to provide the defendant appropriate compensation for any injury caused by these measures.
8. To the extent that any provisional measure can be ordered as a result of administrative procedures, such procedures shall conform to principles equivalent in substance to those set forth in this Section.

## *SECTION 4*
## *SPECIAL REQUIREMENTS RELATED TO BORDER MEASURES*[2]

### Article 11
### Suspension of Release by Customs Authorities

Contracting Parties shall, in conformity with the provisions set out below, adopt procedures[3] to enable a right holder, who has valid grounds for suspecting that the importation of [words omitted] pirated goods[4] may take place, to lodge an application in writing with competent authorities, administrative or judicial, for the suspension by the customs authorities of the release into free circulation of such goods. [A clause omitted]. Contracting Parties may also provide for corresponding procedures concerning the suspension by the customs authorities of the release of infringing goods destined for exportation from their territories.

### Article 12
### Application

Any right holder initiating the procedures under Article 11 shall be required to provide adequate evidence to satisfy the competent authorities that, under the laws of the country of importation, there is *prima facie* an infringement of the right holder's right covered by this

Treaty and to supply a sufficiently detailed description of the goods to make them readily recognisable by the customs authorities. The competent authorities shall inform the applicant within a reasonable period whether they have accepted the application and, where determined by the competent authorities, the period for which the customs authorities will take action.

**Article 13**
**Security or Equivalent Assurance**

1. The competent authorities shall have the authority to require an applicant to provide a security or equivalent assurance sufficient to protect the defendant and the competent authorities and to prevent abuse. Such security or equivalent assurance shall not unreasonably deter recourse to these procedures.

[Paragraph 2 of Article 53 of the TRIPS Agreement is not reproduced here.]

**Article 14**
**Notice of Suspension**

The importer and the applicant shall be promptly notified of the suspension of the release of goods according to Article 11.

**Article 15**
**Duration of Suspension**

If, within a period not exceeding 10 working days after the applicant has been served notice of the suspension, the customs authorities have not been informed that proceedings leading to a decision on the merits of the case have been initiated by a party other than the defendant, or that the duly empowered authority has taken provisional measures prolonging the suspension of the release of the goods, the goods shall be released, provided that all other conditions for importation or exportation have been complied with; in appropriate cases, this time-limit may be extended by another 10 working days. If proceedings leading to a decision on the merits of the case have been initiated, a review, including a right to be heard, shall take place upon request of the defendant with a view to deciding, within a reasonable period, whether these measures shall be modified, revoked or confirmed. Notwithstanding the above, where the suspension of the release of goods is carried out or continued in accordance with a provisional judicial measure, the provisions of paragraph 6 of Article 10 shall apply.

**Article 16**
**Indemnification of the Importer and of the Owner of the Goods**

Relevant authorities shall have the authority to order the applicant to pay the importer, the consignee and the owner of the goods appropriate compensation for any injury caused to them through the wrongful detention of goods or through the detention of goods released pursuant to Article 15.

**Article 17**
**Right of Inspection and Information**

Without prejudice to the protection of confidential information, Contracting Parties shall provide the competent authorities the authority to give the right holder sufficient

opportunity to have any goods detained by the customs authorities inspected in order to substantiate the right holder's claims. The competent authorities shall also have authority to give the importer an equivalent opportunity to have any such goods inspected. Where a positive determination has been made on the merits of a case, Contracting Parties may provide the competent authorities the authority to inform the right holder of the names and addresses of the consignor, the importer and the consignee and of the quantity of goods in question.

**Article 18**
***Ex Officio* Action**

Where Contracting Parties require competent authorities to act upon their own initiative and to suspend the release of goods in respect of which they have acquired *prima facie* evidence that a right covered by this Treaty is being infringed:
(a) the competent authorities may at any time seek from the right holder any information that may assist them to exercise these powers;
(b) the importer and the right holder shall be promptly notified of the suspension. Where the importer has lodged an appeal against the suspension with the competent authorities, the suspension shall be subject to the conditions, *mutatis mutandis*, set out at Article 15;
(c) Contracting Parties shall only exempt both public authorities and officials from liability to appropriate remedial measures where actions are taken or intended in good faith.

**Article 19**
**Remedies**

Without prejudice to other rights of action open to the right holder and subject to the right of the defendant to seek review by a judicial authority, competent authorities shall have the authority to order the destruction or disposal of infringing goods in accordance with the principles set out in Article 6. [A clause not reproduced here.]

**Article 20**
***De Minimis* Imports**

Contracting Parties may exclude from the application of above provisions small quantities of goods of a non-commercial nature contained in travellers' personal luggage or sent in small consignments.

***SECTION 5***
***CRIMINAL PROCEDURES***
**Article 21**

Contracting Parties shall provide for criminal procedures and penalties to be applied at least in cases of wilful [words omitted] piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of a corresponding gravity. In appropriate cases, remedies available shall also include the seizure, forfeiture and destruction of the infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence. [A clause not reproduced here.]

[1] For the purpose of this Annex, the term "right holder" includes federations and associations having legal standing to assert such rights.
[2] Where a Contracting Party has dismantled substantially all controls over movement of goods across its border with another Contracting Party with which it forms part of a customs union, it shall not be required to apply the provisions of this Section at that border.
[3] It is understood that there shall be no obligation to apply such procedures to imports of goods put on the Market in another country by or with the consent of the right holder, or to goods in transit.
[4] For the purposes of this Annex:
"pirated goods" shall mean any goods which are copies made without the consent of the right holder or person duly authorized by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a right covered by this Treaty under the law of the country of importation.

# Appendix 2

DIRECTIVE 96/9/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 1996 on the legal protection of databases
THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 57 (2), 66 and 100a thereof,
Having regard to the proposal from the Commission (1),
Having regard to the opinion of the Economic and Social Committee (2),
Acting in accordance with the procedure laid down in Article 189b of the Treaty (3),
(1) Whereas databases are at present not sufficiently protected in all Member States by existing legislation; whereas such protection, where it exists, has different attributes;
(2) Whereas such differences in the legal protection of databases offered by the legislation of the Member States have direct negative effects on the functioning of the internal market as regards databases and in particular on the freedom of natural and legal persons to provide on-line database goods and services on the basis of harmonized legal arrangements throughout the Community; whereas such differences could well become more pronounced as Member States introduce new legislation in this field, which is now taking on an increasingly international dimension;
(3) Whereas existing differences distorting the functioning of the internal market need to be removed and new ones prevented from arising, while differences not adversely affecting the functioning of the internal market or the development of an information market within the Community need not be removed or prevented from arising;
(4) Whereas copyright protection for databases exists in varying forms in the Member States according to legislation or case-law, and whereas, if differences in legislation in the scope and conditions of protection remain between the Member States, such unharmonized intellectual property rights can have the effect of preventing the free movement of goods or services within the Community;
(5) Whereas copyright remains an appropriate form of exclusive right for authors who have created databases;
(6) Whereas, nevertheless, in the absence of a harmonized system of unfair-competition legislation or of case-law, other measures are required in addition to prevent the unauthorized extraction and/or re-utilization of the contents of a database;
(7) Whereas the making of databases requires the investment of considerable human, technical and financial resources while such databases can be copied or accessed at a fraction of the cost needed to design them independently;
(8) Whereas the unauthorized extraction and/or re-utilization of the contents of a database constitute acts which can have serious economic and technical consequences;
(9) Whereas databases are a vital tool in the development of an information market within the Community; whereas this tool will also be of use in many other fields;
(10) Whereas the exponential growth, in the Community and worldwide, in the amount of information generated and processed annually in all sectors of commerce and industry calls for investment in all the Member States in advanced information processing systems;

(11) Whereas there is at present a very great imbalance in the level of investment in the database sector both as between the Member States and between the Community and the world's largest database-producing third countries;
(12) Whereas such an investment in modern information storage and processing systems will not take place within the Community unless a stable and uniform legal protection regime is introduced for the protection of the rights of makers of databases;
(13) Whereas this Directive protects collections, sometimes called "compilations", of works, data or other materials which are arranged, stored and accessed by means which include electronic, electromagnetic or electro-optical processes or analogous processes;
(14) Whereas protection under this Directive should be extended to cover non-electronic databases;
(15) Whereas the criteria used to determine whether a database should be protected by copyright should be defined to the fact that the selection or the arrangement of the contents of the database is the author's own intellectual creation; whereas such protection should cover the structure of the database;
(16) Whereas no criterion other than originality in the sense of the author's intellectual creation should be applied to determine the eligibility of the database for copyright protection, and in particular no aesthetic or qualitative criteria should be applied;
(17) Whereas the term "database" should be understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data; whereas it should cover collections of independent works, data or other materials which are systematically or methodically arranged and can be individually accessed; whereas this means that a recording or an audiovisual, cinematographic, literary or musical work as such does not fall within the scope of this Directive;
(18) Whereas this Directive is without prejudice to the freedom of authors to decide whether, or in what manner, they will allow their works to be included in a database, in particular whether or not the authorization given is exclusive; whereas the protection of databases by the sui generis right is without prejudice to existing rights over their contents, and whereas in particular where an author or the holder of a related right permits some of his works or subject matter to be included in a database pursuant to a non-exclusive agreement, a third party may make use of those works or subject matter subject to the required consent of the author or of the holder of the related right without the sui generis right of the maker of the database being invoked to prevent him doing so, on condition that those works or subject matter are neither extracted from the database nor re-utilized on the basis thereof;
(19) Whereas, as a rule, the compilation of several recordings of musical performances on a CD does not come within the scope of this Directive, both because, as a compilation, it does not meet the conditions for copyright protection and because it does not represent a substantial enough investment to be eligible under the sui generis right;
(20) Whereas protection under this Directive may also apply to the materials necessary for the operation or consultation of certain databases such as thesaurus and indexation systems;
(21) Whereas the protection provided for in this Directive relates to databases in which works, data or other materials have been arranged systematically or methodically;

whereas it is not necessary for those materials to have been physically stored in an organized manner;
(22) Whereas electronic databases within the meaning of this Directive may also include devices such as CD-ROM and CD-i;
(23) Whereas the term "database" should not be taken to extend to computer programs used in the making or operation of a database, which are protected by Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (4);
(24) Whereas the rental and lending of databases in the field of copyright and related rights are governed exclusively by Council Directive 92/100/EEC of 19 November 1992 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (5);
(25) Whereas the term of copyright is already governed by Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights (6);
(26) Whereas works protected by copyright and subject matter protected by related rights, which are incorporated into a database, remain nevertheless protected by the respective exclusive rights and may not be incorporated into, or extracted from, the database without the permission of the rightholder or his successors in title;
(27) Whereas copyright in such works and related rights in subject matter thus incorporated into a database are in no way affected by the existence of a separate right in the selection or arrangement of these works and subject matter in a database;
(28) Whereas the moral rights of the natural person who created the database belong to the author and should be exercised according to the legislation of the Member States and the provisions of the Berne Convention for the Protection of Literary and Artistic Works; whereas such moral rights remain outside the scope of this Directive;
(29) Whereas the arrangements applicable to databases created by employees are left to the discretion of the Member States; whereas, therefore nothing in this Directive prevents Member States from stipulating in their legislation that where a database is created by an employee in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights in the database so created, unless otherwise provided by contract;
(30) Whereas the author's exclusive rights should include the right to determine the way in which his work is exploited and by whom, and in particular to control the distribution of his work to unauthorized persons;
(31) Whereas the copyright protection of databases includes making databases available by means other than the distribution of copies;
(32) Whereas Member States are required to ensure that their national provisions are at least materially equivalent in the case of such acts subject to restrictions as are provided for by this Directive;
(33) Whereas the question of exhaustion of the right of distribution does not arise in the case of on-line databases, which come within the field of provision of services; whereas this also applies with regard to a material copy of such a database made by the user of such a service with the consent of the rightholder; whereas, unlike CD-ROM or CD-i, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line service is in fact an act which will have to be subject to authorization where the copyright so provides;

(34) Whereas, nevertheless, once the rightholder has chosen to make available a copy of the database to a user, whether by an on-line service or by other means of distribution, that lawful user must be able to access and use the database for the purposes and in the way set out in the agreement with the rightholder, even if such access and use necessitate performance of otherwise restricted acts;
(35) Whereas a list should be drawn up of exceptions to restricted acts, taking into account the fact that copyright as covered by this Directive applies only to the selection or arrangements of the contents of a database; whereas Member States should be given the option of providing for such exceptions in certain cases; whereas, however, this option should be exercised in accordance with the Berne Convention and to the extent that the exceptions relate to the structure of the database; whereas a distinction should be drawn between exceptions for private use and exceptions for reproduction for private purposes, which concerns provisions under national legislation of some Member States on levies on blank media or recording equipment;
(36) Whereas the term 'scientific research` within the meaning of this Directive covers both the natural sciences and the human sciences;
(37) Whereas Article 10 (1) of the Berne Convention is not affected by this Directive;
(38) Whereas the increasing use of digital recording technology exposes the database maker to the risk that the contents of his database may be copied and rearranged electronically, without his authorization, to produce a database of identical content which, however, does not infringe any copyright in the arrangement of his database;
(39) Whereas, in addition to aiming to protect the copyright in the original selection or arrangement of the contents of a database, this Directive seeks to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment made in obtaining and collection the contents by protecting the whole or substantial parts of a database against certain acts by a user or competitor;
(40) Whereas the object of this sui generis right is to ensure protection of any investment in obtaining, verifying or presenting the contents of a database for the limited duration of the right; whereas such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy;
(41) Whereas the objective of the sui generis right is to give the maker of a database the option of preventing the unauthorized extraction and/or re-utilization of all or a substantial part of the contents of that database; whereas the maker of a database is the person who takes the initiative and the risk of investing; whereas this excludes subcontractors in particular from the definition of maker;
(42) Whereas the special right to prevent unauthorized extraction and/or re-utilization relates to acts by the user which go beyond his legitimate rights and thereby harm the investment; whereas the right to prohibit extraction and/or re-utilization of all or a substantial part of the contents relates not only to the manufacture of a parasitical competing product but also to any user who, through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment;
(43) Whereas, in the case of on-line transmission, the right to prohibit re-utilization is not exhausted either as regards the database or as regards a material copy of the database or of part thereof made by the addressee of the transmission with the consent of the rightholder;

(44) Whereas, when on-screen display of the contents of a database necessitates the permanent or temporary transfer of all or a substantial part of such contents to another medium, that act should be subject to authorization by the rightholder;
(45) Whereas the right to prevent unauthorized extraction and/or re-utilization does not in any way constitute an extension of copyright protection to mere facts or data;
(46) Whereas the existence of a right to prevent the unauthorized extraction and/or re-utilization of the whole or a substantial part of works, data or materials from a database should not give rise to the creation of a new right in the works, data or materials themselves;
(47) Whereas, in the interests of competition between suppliers of information products and services, protection by the sui generis right must not be afforded in such a way as to facilitate abuses of a dominant position, in particular as regards the creation and distribution of new products and services which have an intellectual, documentary, technical, economic or commercial added value; whereas, therefore, the provisions of this Directive are without prejudice to the application of Community or national competition rules;
(48) Whereas the objective of this Directive, which is to afford an appropriate and uniform level of protection of databases as a means to secure the remuneration of the maker of the database, is different from the aim of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (7), which is to guarantee free circulation of personal data on the basis of harmonized rules designed to protect fundamental rights, notably the right to privacy which is recognized in Article 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms; whereas the provisions of this Directive are without prejudice to data protection legislation;
(49) Whereas, notwithstanding the right to prevent extraction and/or re-utilization of all or a substantial part of a database, it should be laid down that the maker of a database or rightholder may not prevent a lawful user of the database from extracting and re-utilizing insubstantial parts; whereas, however, that user may not unreasonably prejudice either the legitimate interests of the holder of the sui generis right or the holder of copyright or a related right in respect of the works or subject matter contained in the database;
(50) Whereas the Member States should be given the option of providing for exceptions to the right to prevent the unauthorized extraction and/or re-utilization of a substantial part of the contents of a database in the case of extraction for private purposes, for the purposes of illustration for teaching or scientific research, or where extraction and/or re-utilization are/is carried out in the interests of public security or for the purposes of an administrative or judicial procedure; whereas such operations must not prejudice the exclusive rights of the maker to exploit the database and their purpose must not be commercial;
(51) Whereas the Member States, where they avail themselves of the option to permit a lawful user of a database to extract a substantial part of the contents for the purposes of illustration for teaching or scientific research, may limit that permission to certain categories of teaching or scientific research institution;
(52) Whereas those Member States which have specific rules providing for a right comparable to the *sui generis* right provided for in this Directive should be permitted to

retain, as far as the new right is concerned, the exceptions traditionally specified by such rules;
(53) Whereas the burden of proof regarding the date of completion of the making of a database lies with the maker of the database;
(54) Whereas the burden of proof that the criteria exist for concluding that a substantial modification of the contents of a database is to be regarded as a substantial new investment lies with the maker of the database resulting from such investment;
(55) Whereas a substantial new investment involving a new term of protection may include a substantial verification of the contents of the database;
(56) Whereas the right to prevent unauthorized extraction and/or re-utilization in respect of a database should apply to databases whose makers are nationals or habitual residents of third countries or to those produced by legal persons not established in a Member State, within the meaning of the Treaty, only if such third countries offer comparable protection to databases produced by nationals of a Member State or persons who have their habitual residence in the territory of the Community;
(57) Whereas, in addition to remedies provided under the legislation of the Member States for infringements of copyright or other rights, Member States should provide for appropriate remedies against unauthorized extraction and/or re-utilization of the contents of a database;
(58) Whereas, in addition to the protection given under this Directive to the structure of the database by copyright, and to its contents against unauthorized extraction and/or re-utilization under the sui generis right, other legal provisions in the Member States relevant to the supply of database goods and services continue to apply;
(59) Whereas this Directive is without prejudice to the application to databases composed of audiovisual works of any rules recognized by a Member State's legislation concerning the broadcasting of audiovisual programmes;
(60) Whereas some Member States currently protect under copyright arrangements databases which do not meet the criteria for eligibility for copyright protection laid down in this Directive; whereas, even if the databases concerned are eligible for protection under the right laid down in this Directive to prevent unauthorized extraction and/or re-utilization of their contents, the term of protection under that right is considerably shorter than that which they enjoy under the national arrangements currently in force; whereas harmonization of the criteria for determining whether a database is to be protected by copyright may not have the effect of reducing the term of protection currently enjoyed by the rightholders concerned; whereas a derogation should be laid down to that effect; whereas the effects of such derogation must be confined to the territories of the Member States concerned,

HAVE ADOPTED THIS DIRECTIVE:

## CHAPTER I

## SCOPE

Article 1
Scope
1. This Directive concerns the legal protection of databases in any form.
2. For the purposes of this Directive, "database" shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.
3. Protection under this Directive shall not apply to computer programs used in the making or operation of databases accessible by electronic means.

Article 2
Limitations on the scope
This Directive shall apply without prejudice to Community provisions relating to:
(a) the legal protection of computer programs;
(b) rental right, lending right and certain rights related to copyright in the field of intellectual property;
(c) the term of protection of copyright and certain related rights.

CHAPTER II

COPYRIGHT

Article 3
Object of protection
1. In 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. No other criteria shall be applied to determine their eligibility for that protection.
2. The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves.

Article 4
Database authorship
1. The author of a database shall be the natural person or group of natural persons who created the base or, where the legislation of the Member States so permits, the legal person designated as the rightholder by that legislation.
2. Where collective works are recognized by the legislation of a Member State, the economic rights shall be owned by the person holding the copyright.
3. In respect of a database created by a group of natural persons jointly, the exclusive rights shall be owned jointly.

Article 5
Restricted acts
In respect of the expression of the database which is protectable by copyright, the author of a database shall have the exclusive right to carry out or to authorize:

(a) temporary or permanent reproduction by any means and in any form, in whole or in part;
(b) translation, adaptation, arrangement and any other alteration;
(c) any form of distribution to the public of the database or of copies thereof. The first sale in the Community of a copy of the database by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community;
(d) any communication, display or performance to the public;
(e) any reproduction, distribution, communication, display or performance to the public of the results of the acts referred to in (b).

Article 6
Exceptions to restricted acts
1. The performance by the lawful user of a database or of a copy thereof of any of the acts listed in Article 5 which is necessary for the purposes of access to the contents of the databases and normal use of the contents by the lawful user shall not require the authorization of the author of the database. Where the lawful user is authorized to use only part of the database, this provision shall apply only to that part.
2. Member States shall have the option of providing for limitations on the rights set out in Article 5 in the following cases:
(a) in the case of reproduction for private purposes of a non-electronic database;
(b) where there is use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;
(c) where there is use for the purposes of public security of for the purposes of an administrative or judicial procedure;
(d) where other exceptions to copyright which are traditionally authorized under national law are involved, without prejudice to points (a), (b) and (c).
3. In accordance with the Berne Convention for the protection of Literary and Artistic Works, this Article may not be interpreted in such a way as to allow its application to be used in a manner which unreasonably prejudices the rightholder's legitimate interests or conflicts with normal exploitation of the database.

CHAPTER III

SUI GENERIS RIGHT

Article 7
Object of protection
1. Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents 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.
2. For the purposes of this Chapter:

(a) "extraction" shall mean 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;
(b) "re-utilization" shall mean 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 on-line or other forms of transmission. The first sale of a copy of a database within the Community by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community; Public lending is not an act of extraction or re-utilization.
3. The right referred to in paragraph 1 may be transferred, assigned or granted under contractual licence.
4. The right provided for in paragraph 1 shall apply irrespective of the eligibility of that database for protection by copyright or by other rights. Moreover, it shall apply irrespective of eligibility of the contents of that database for protection by copyright or by other rights. Protection of databases under the right provided for in paragraph 1 shall be without prejudice to rights existing in respect of their contents.
5. The repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted.

Article 8
Rights and obligations of lawful users
1. The maker of a database which is made available to the public in whatever manner may not prevent a lawful user of the database from extracting and/or re-utilizing insubstantial parts of its contents, evaluated qualitatively and/or quantitatively, for any purposes whatsoever. Where the lawful user is authorized to extract and/or re-utilize only part of the database, this paragraph shall apply only to that part.
2. A lawful user of a database which is made available to the public in whatever manner may not perform acts which conflict with normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker of the database.
3. A lawful user of a database which is made available to the public in any manner may not cause prejudice to the holder of a copyright or related right in respect of the works or subject matter contained in the database.

Article 9
Exceptions to the sui generis right
Member States may stipulate that lawful users of a database which is made available to the public in whatever manner may, without the authorization of its maker, extract or re-utilize a substantial part of its contents:
(a) in the case of extraction for private purposes of the contents of a non-electronic database;
(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;
(c) in the case of extraction and/or re-utilization for the purposes of public security or an administrative or judicial procedure.

Article 10
Term of protection
1. The right provided for in Article 7 shall run from the date of completion of the making of the database. It shall expire fifteen years from the first of January of the year following the date of completion.
2. In the case of a database which is made available to the public in whatever manner before expiry of the period provided for in paragraph 1, the term of protection by that right shall expire fifteen years from the first of January of the year following the date when the database was first made available to the public.
3. Any substantial change, evaluated qualitatively or quantitatively, to the contents of a database, including any substantial change resulting from the accumulation of successive additions, deletions or alterations, which would result in the database being considered to be a substantial new investment, evaluated qualitatively or quantitatively, shall qualify the database resulting from that investment for its own term of protection.

Article 11
Beneficiaries of protection under the sui generis right
1. The right provided for in Article 7 shall apply to database whose makers or rightholders are nationals of a Member State or who have their habitual residence in the territory of the Community.
2. Paragraph 1 shall also apply to companies and firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community; however, where such a company or firm has only its registered office in the territory of the Community, its operations must be genuinely linked on an ongoing basis with the economy of a Member State.
3. Agreements extending the right provided for in Article 7 to databases made in third countries and falling outside the provisions of paragraphs 1 and 2 shall be concluded by the Council acting on a proposal from the Commission. The term of any protection extended to databases by virtue of that procedure shall not exceed that available pursuant to Article 10.

CHAPTER IV

COMMON PROVISIONS

Article 12
Remedies
Member States shall provide appropriate remedies in respect of infringements of the rights provided for in this Directive.

Article 13
Continued application of other legal provisions
This Directive shall be without prejudice to provisions concerning in particular copyright, rights related to copyright or any other rights or obligations subsisting in the data, works or other materials incorporated into a database, patent rights, trade marks, design rights,

the protection of national treasures, laws on restrictive practices and unfair competition, trade secrets, security, confidentiality, data protection and privacy, access to public documents, and the law of contract.

Article 14
Application over time
1. Protection pursuant to this Directive as regards copyright shall also be available in respect of databases created prior to the date referred to Article 16 (1) which on that date fulfill the requirements laid down in this Directive as regards copyright protection of databases.
2. Notwithstanding paragraph 1, where a database protected under copyright arrangements in a Member State on the date of publication of this Directive does not fulfill the eligibility criteria for copyright protection laid down in Article 3 (1), this Directive shall not result in any curtailing in that Member State of the remaining term of protection afforded under those arrangements.
3. Protection pursuant to the provisions of this Directive as regards the right provided for in Article 7 shall also be available in respect of databases the making of which was completed not more than fifteen years prior to the date referred to in Article 16 (1) and which on that date fulfill the requirements laid down in Article 7.
4. The protection provided for in paragraphs 1 and 3 shall be without prejudice to any acts concluded and rights acquired before the date referred to in those paragraphs.
5. In the case of a database the making of which was completed not more than fifteen years prior to the date referred to in Article 16 (1), the term of protection by the right provided for in Article 7 shall expire fifteen years from the first of January following that date.

Article 15
Binding nature of certain provisions
Any contractual provision contrary to Articles 6 (1) and 8 shall be null and void.

Article 16
Final provisions
1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 January 1998. When Member States adopt these provisions, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.
2. Member States shall communicate to the Commission the text of the provisions of domestic law which they adopt in the field governed by this Directive.
3. Not later than at the end of the third year after the date referred to in paragraph 1, and every three years thereafter, the Commission shall submit to the European Parliament, the Council and the Economic and Social Committee a report on the application of this Directive, in which, inter alia, on the basis of specific information supplied by the Member States, it shall examine in particular the application of the sui generis right, including Articles 8 and 9, and shall verify especially whether the application of this right

has led to abuse of a dominant position or other interference with free competition which would justify appropriate measures being taken, including the establishment of non-voluntary licensing arrangements. Where necessary, it shall submit proposals for adjustment of this Directive in line with developments in the area of databases.

Article 17
This Directive is addressed to the Member States.

Done at Strasbourg, 11 March 1996.

For the European Parliament
The President
K. HÄNSCHFor the Council
The President
L. DINI

(1) OJ No C 156, 23. 6. 1992, p. 4 and OJ No C 308, 15. 11. 1993, p. 1.
(2) OJ No C 19, 25. 1. 1993, p. 3.
(3) Opinion of the European Parliament of 23 June 1993 (OJ No C 194, 19. 7. 1993, p.144), Common Position of the Council of 10 July 1995 (OJ No C 288, 30. 10. 1995, p.14), Decision of the European Parliament of 14 December 1995 (OJ No C 17, 22 1.1996) and Council Decision of 26 February 1996.
(4) OJ No L 122, 17. 5. 1991, p. 42. Directive as last amended by Directive 93/98/EEC (OJ No L 290, 24. 11. 1993, p. 9.)
(5) OJ No L 346, 27. 11. 1992, p. 61.
(6) OJ No L 290, 24. 11. 1993, p. 9.
(7) OJ No L 281, 23. 11. 1995, p. 31.

# Appendix 3

## U.S. Proposal for *Sui Generis* Protection of Databases

**Article 1**
**Scope**

1.1 The legal protection under this [Instrument] extends to databases embodied in any form.

1.2 Contracting Parties shall protect substantial investment in databases in accordance with the provisions of this [Instrument].

1.3 Contracting Parties shall protect all databases that represent a substantial investment in the collection, assembly, verification, organization, or representation of the database contents, whether or not such databases is commercially available or otherwise made to the public, regardless of the form or medium in which the database is embodied, and regardless of whether the database or any of its contents are intellectual creations or are protected under the other domestic legislation.

1.4 The protection under this [Instrument] shall not extend to any computer programs including without limitation any computer programs used in the manufacture, operation or maintenance of a database. However, a database incorporated into a computer program shall be protected under this [Instrument].

**Article 2**
**Definitions**

2.1 A "database' is a collection, assembly, or compilation of works, data, information or other materials arranged in a systematic or methodical way.

2.2 "Extraction" means the permanent or temporary transfer to the same or anther medium, by any maens now known or later developed, of all or a substantial part of the database contents.

2.3 The "maker of database" is the natural or legal person or persons making a substantial investment in the collection, assembly, verification, organization, or presentation of the contents of the database.

2.4 "Substantial Investment" means any qualitatively or quantitatively significant investment of human, financial, technical or other resources in the making of a database.

2.5 "Substantial Part" means any portion of the database that is of qualitative or quantitative significance when evaluated in relation to the entire database.

2.6 "Use" and "reuse" mean the making available, by means now known or later developed, including by the distribution of copies, by renting, or by online or other forms of transmission of all or substantial part of the contents of a database, or making available all or a substantial part of the database to members of the public at a place and at a time chosen by each member of the public, whether or not for direct or indirect commercial advantage or financial gain.

**Article 3**
**Rights in Respect of Database Contents**
3.1 The maker of a database eligible for protection under this [Instrument] shall have the right to do, authorize or prohibit acts of extraction, use or reuse of all or substantial art of the contents of the databases.
3.2 The protection provided under this [Instrument] shall not preclude any person from independently collecting, assembling, or compiling works, data or material any source other than a protected database.

**Article 4**
**Rightholders**
4.1 The rights provided under this [Instrument] shall be owned by the maker of the database or where there is more than one maker, jointly by the makers.
4.2 The rights provided under this [Instrument] shall be freely transferable.

**Article 5**
**Exceptions to Rights**
5.1 A lawful user of a database made commercially available or otherwise made available to the public may extract, use or reuse insubstantial parts of its contents for any purpose whatsoever.
5.2 The repeated or systematic extraction, use or reuse of insubstantial parts of the contents of a database in a manner that cumulatively conflicts with the normal exploitation of the database or adversely affects the actual or potential market for the database shall not be permitted.
5.3 Contracting Parties may, in their domestic legislation, provide for exceptions to or limitations on the rights provided in this [Instrument] so long as such limitations or exceptions do not unreasonably conflicts with a normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the rightholder.
5.4 It shall be a matter for legislation in the Contracting Parties to determine the protection to be granted to databases made by a government entity or its gents or employees.

**Article 6**
**Term of Protection**
6.1 The rights provided under this [Instrument] shall be attach when the database meets the requirements of Article 1.3 and endure for at least 25 years.
6.2 For databases that have been made commercially available or otherwise made available to the public, the rights of the maker of the database shall endure for at least 25 years from the first of January following whichever of such acts has occurred earlier.
6.3 Any significant change, evaluated qualitatively or quantitatively, to the database, including to any significant change resulting from the accumulation of successive additions, deletions, verifications or re-verifications, alterations, resulting modifications in organization or presentation, or other modifications, shall qualify the resulting database for its own term of protection.

**Article 7**
**Relation to Other Laws**
7.1 The protection under this [Instrument] shall be without prejudice to provisions concerning copyright, rights related to copyright or any other rights or obligations in the database or its contents, including laws in respect to patent, trademark, design rights, antitrust or competition, trade secrets, data protection and privacy, access to public documents, and the law of contract.
7.2 No Contracting Parties shall impair the ability to vary by contract the rights and exceptions to rights set forth herein.

**Article 8**
**Prohibition of Protection-Defeating Devices**
Contracting Parties shall make it unlawful to import, manufacture or distribute any device, product, or component incorporated into a device or product, or effect or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without authority, any process, treatment, mechanism or system which prevents or inhibits the unauthorized exercise of any the rights under [Instrument].

**Article 9**
**Application to Existing Databases**
9.1 Databases eligible for protection under this [Instrument] that are in existence at the time this [Instrument] comer in force in respect of a Contracting Parties shall be protected. The duration of such protection shall be determined under Article 6.
9.2 The rights under this [Instrument] shall not prejudice any acts of exploitation performed prior to its effective date. It shall be a matter of domestic legislation to provide for protection of any rights of third parties acquired before the effective date of this [Instrument].

**Article 10**
**Implementation**
10.1 Contracting Parties shall provide for the implementation of this [Instrument] in domestic legislation by its effective date in their territories.
10.2 The means by which this [Instrument] is implemented shall be a matter of national legislation, and may include protection under the laws related to intellectual property, unfair competition, misappropriation or other laws or recognition of a specific right.

**Article11**
**National Treatment**
11.1 Databases whose makers are at the time of the making of the database either nationals of or habitual residents of a Contracting Party shall be protected under this [Instrument].
11.2 Rightholders shall enjoy, in respect of databases that qualify for protection under this [Instrument]. In Contracting Parties other than the country of the nationality or the habitual residence of the maker, the rights which their respective laws do now or may

hereafter grant to their nationals, as well as the rights specially granted by this [Instrument].

11.3 Protection in the country of the nationality or habitual residence of the maker shall be governed by domestic law.

11.4 The enjoyment and the exercise of the rights hereunder shall not be subject to any formality; such enjoyment and exercise shall be independent of the existence of protection in the country of the database maker's nationality or habitual residence. Apart from the provisions of this [Instrument], the extent of protection, as well as the means and extent of redress shall be governed exclusively by the laws of the Contracting Party where protection is claimed.