Protection of "Noncreative" Databases: Harmonization of United States, Foreign and International Law

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INTRODUCTION

Like new technologies of the past, databases have caught the world’s intellectual property system unprepared.\(^1\) Traditional copyright principles require a modicum of originality or creativity in the selection or arrangement of data in a compilation, or other indicia of creative authorship, for the compilation to be copyrightable.\(^2\) Yet, this requirement may be too stringent for electronic information tools which process and store information automatically. Moreover, the requirement may effectively exclude many of the most important commercial and scientific databases from copyright protection.\(^3\)

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\(^3\) See Reichman, supra note 1, at 2491; Office of Technology Assessment, U.S. Congress, Inte-
“[V]ery few people have information. What they actually have is data, in such quantities that it causes information overload or black-out.”4 The accessibility of such large quantities of data has turned information into a “commodity”5 owing to peoples’ need to extract a needle of desired information from a haystack of data.6 Information about information has become a product whose value can exceed that of the information itself.7 Databases8 are the tools that provide information about information; and have become the new building blocks of knowledge.9 Databases are, as such, indispensable to the American economy.10

Tremendous resources are often invested to assemble large quantities of information into a database.11 Nevertheless, the resulting product is vulnerable to being quickly and inexpensively copied using today’s digital technology.12 Moreover, because of widespread access to global information networks, pirated copies of a database can be disseminated in a matter of moments to millions of people across the globe.13 Consequently, compilers of uncopyrightable databases face

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6 See Reichman & Samuelson, supra note 2, at 64–65.
8 This Note defines database in broad terms to include both electronic and non-electronic compilations of information. As used herein, a “database” is a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means. To distinguish databases which would qualify for copyright protection in most jurisdictions from those which would not, the term “noncreative database” is used to refer to databases that do not contain even a minimum level of originality, creativity or expression of personality in the selection, organization or arrangement of their contents and hence, are typically uncopyrightable.
12 See id.
13 See Reichman & Samuelson, supra note 2, at 67 & n.69.
diminishing prospects of commercial success unless they obtain international standards of protection to thwart pirating of their products.  

However, it is a mistake to think that intellectual property rights for database compilers are the only avenue of protection against harm. The positive law has long recognized protection from harm for a variety of nonowned interests: examples range from ducks not yet caught to a barber's customers. Thus, an interest is not disqualified from protection simply because it is not ownable in the usual sense.

This Note argues that protection of noncreative databases is best based on unfair competition law, under a doctrine of misappropriation. Although solutions based on unfair competition law have generally been downplayed or criticized because they are a "haphazard protection whimsically afforded," a law based on misappropriation particularly tailored to the context of databases will ameliorate the legal uncertainty.

This Note further argues that protection of noncreative databases under a doctrine of misappropriation provides a better basis for harmonization than the grant of an intellectual property right. The norm underpinning misappropriation is recognized across cultures whereas a right in noncreative works is not. Considering that many of the

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14 See S. 2291 at § 2; D'Amato & Long, supra note 1; John A. Armstrong, Trends in Global Science and Technology and What They Mean for Intellectual Property Systems, in Global Dimensions of Intellectual Property Rights in Science and Technology, supra note 1, at 204–06; Reichman & Samuelson, supra note 2, at 67 & n.69; Thurow, supra note 1, at 100.
15 See D'Amato & Long, supra note 1, at 31.
18 See D'Amato & Long, supra note 1, at 31.
20 See Hunsucker, supra note 19, at 703; Reichman, supra note 1, at 2476; Raskind, supra note 19, at 881 & n.36.
21 See Dennis S. Karjala, Copyright and Misappropriation, 17 Dayton L. Rev. 885, 928 (1992); Raskind, supra note 19, at 880–81.
22 There is general agreement that a work deserves to be protected by copyright only if it presents a minimum of originality, creativity or expression of personality. See, e.g., Berne Convention, supra note 2, art. 2(5); TRIPS Agreement, supra note 2, Part II, § 1, art. 10(2); WIPO
world's political cultures differ widely from Western norms and that concepts of property are shaped by the political cultures out of which they arise, it is inappropriate to assume that intellectual property laws will or should be the same from one country to another. Harmonization of disparate intellectual property systems based on contradictory philosophical or cultural bases is only viable when each system can find an acceptable basis in its own philosophy for the necessary changes. Therefore, efforts to revise existing intellectual property systems must consider the effect of the revisions not just on intellectual property laws but also on the historical and cultural treatment of ownership and use of intangible property, as well as norms on the protection of public access to ideas, information and expressions. A law based on misappropriation provides a viable solution to harmonization based on an accepted philosophical basis: expressed metaphorically by the U.S. Supreme Court as reaping what another has sown, in German academic circles as "ploughing with another's heifer" or in Japan as "Hito no fundoshi de sumó wo toru" (to wrestle in another's loin cloth).

Part I of this Note provides a brief background on the vulnerability of databases. In addition, Part I discusses the detriments to society that can result from proprietary rights in information. Part II explores the approach taken by several foreign nations, the EU and international community to the protection of noncreative databases. Part III discusses current U.S. law and a pending congressional bill, the Collections of Information Antipiracy Act, S. 2291, on the protection of noncreative databases. Finally, Part IV of this Note discusses how international protection of noncreative databases would be best effectuated under a doctrine of misappropriation and proposes that a promising and pragmatic model for harmonization of noncreative database protection can be fashioned from S. 2291.

Database Memorandum, supra note 2, at 7-8; INT'L ENCYCLOPEDIA, supra note 2 at § 3–14; Reichman & Samuelson, supra note 2, at 72 & n.95.

23 See D'AMATO & LONG, supra note 1, at 37.

24 See id. at 413; see also James E. Armstrong III, Comparative National Approaches to Intellectual Property Rights: Japan, in GLOBAL DIMENSIONS OF INTELLECTUAL PROPERTY RIGHTS IN SCIENCE AND TECHNOLOGY, supra note 1, at 157–58 (discussing difficulty in harmonization of U.S. and Japanese patent laws).

25 See D'AMATO & LONG, supra note 1, at 71.


28 See id. at 349.
I. BACKGROUND ON DATABASES

The term database, broadly, includes both electronic and non-electronic compilations of information. In this sense, "databases" have been with us for millennia and, arguably, are a foundation of civilization. Yet, developments in computer software and digital technology have lead to the creation of many commercially and scientifically important databases which are excluded from copyright protection in most jurisdictions because they are "noncreative," i.e., they lack even a minimum of originality, creativity or expression of personality in the selection, coordination or arrangement of their contents.

A. Vulnerability of Databases

Only modest familiarity with the capabilities of digital technology is required to understand the vulnerability of databases to market-destructive approbations. The digital technologies that enhance a database compiler's power to collect and disseminate data also enhance a second-comer's power to cheaply copy or manipulate the contents and disseminate the resulting products to large numbers of people. The motive for such approbations is most often either an attempt to obtain a commercial free-ride on the work of others or to simply distribute information out of a belief it should be free, i.e., information samaritanism. Regardless of the motives, such approbations discourage in-

29 See supra note 8.
30 Ancient examples of "databases" include tables charting the position of stars over a night or throughout the year; arguably this data permitted the development of civilization by enabling the prediction of such important events as the flood of the Nile. See ADOLF ERMAN, LIFE IN ANCIENT EGYPT 349 (Helen Mary Tirard trans., Dover Publications 1971) (1894) (providing an example of such an ancient Egyptian "database"—dating from circa. 1100 B.C.).
31 See Reichman, supra note 1, at 2491; OTA Report, supra note 3; see, e.g., supra note 22 and accompanying text.
34 See, e.g., CCC Information Serv., Inc. v. Maclean Hunter Mkt. Reports, Inc., 44 F.3d 61, 72 (2d Cir. 1994) (stating that CCC took "virtually the entire compendium" of Maclean's used car valuations and "effectively offer[ed] to sell its customers Maclean's Red Book through CCC's database").
35 An "information samaritan" is one who extracts data from a database without paying for it
vestment in database compilation and result in a lower supply of databases. 36

A lower supply of databases can have adverse effects on technological progress. 37 Technology progresses by using existing knowledge and adding to it. 38 Databases are powerful tools which enable users to more efficiently access and organize existing knowledge. 39 Thus, access to an appropriate database increases a user’s ability to add to the existing stock of knowledge. 40 However, the lower the supply of databases, the lower the probability that an appropriate database will be available. Furthermore, lower supply creates the prospect that some information will not be available in any database. 41 Consequently, as essential tools for improving productivity, advancing education and creating a more informed citizenry, a lower supply of databases can have a strong impact on technological progress. 42

B. Detriments of Protection

Even though a plentiful supply of databases is important, the grant of a property right in noncreative databases would be detrimental to the public interest. 43 In particular, the grant of a property right in

and, for non-economic reasons, makes it available to the public. Possibly, “information samaritans” act in accordance with the hacker’s ethic: “Access to computers—and anything which might teach you something about the way the world works—should be unlimited and total,” and “All information should be free.” See Fred Warshofsky, The Patent Wars 176 (1994) (quoting Dorothy Denning’s presentation of a Digital Equipment Corp. study of hackers at the National Computer Security Conference, Washington, D.C., 1-4 October 1990); see, e.g., U.S. v. LaMacchia, 871 F. Supp. 535, 536-37 (D. Mass. 1994) (involving an MIT student who uploaded commercial software onto electronic bulletin board, to be downloaded for free, and encouraged others to do the same. Although unmotivated by any desire for financial gain, his actions cost the affected software makers over $1 million in losses).


37 See supra note 9.

38 See Bits Of Power, supra note 9.

39 See Reichman & Samuelson, supra note 2, at 64-65.

40 See Bits Of Power, supra note 9, at 4-5; Reichman & Samuelson, supra note 2, at 64-65; see also S. 2291, at § 2.

41 See S. 2291, supra note 11, at § 2(14); Raber, supra note 36, at 28.

42 See supra note 10.

43 The term “public interest” as used in this Note connotes Constitutionally mandated goals and protected interests. Specifically, the purpose of copyright “[t]o promote the Progress of Science and useful Arts” and the 1st Amendment’s protection of “the freedom of speech”. See
noncreative databases is antithetical to the *sine qua non* of progress in science: the full and open exchange of information. Basic science needs abundant, unrestricted flows of data at prices it can afford because the acquisition of scientific knowledge is a cumulative process that depends on the ability of researchers to continually collect and share data. When data becomes too expensive, scientific research suffers irremediable harm.

A striking example of the harm that can result from a grant of proprietary rights in data is the privatization of data from the Landsat series of remote sensing satellites. Under the management of the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA), Landsat data and images were originally made available to all users at marginal cost. In 1984, Congress passed the Land Remote-Sensing Commercialization Act which privatized the system and in 1985 the contract for the Landsat system was awarded to a joint venture of Hughes and RCA called the Earth Observation Satellite Company (EOSAT).

Following privatization, the prices of Landsat data increased from approximately $400 to $4,400 per image. Few academic or inde-


44 *See Information Meeting on Intellectual Property in Databases: Observation submitted by the World Meteorological Organization (WMO), WIPO Doc. DB/IM/4, passim (September 4, 1997); Bits of Power, supra note 9, at 3; Reichman & Samuelson, supra note 2, at 121.

45 *See Bits of Power, supra note 9, at 121; Reichman & Samuelson, supra note 2, at 121.

46 *See Bits of Power, supra note 9, at 121–23 (1997).

47 *See id.*

48 *See id.* at 121.

49 *See id.* at 121–23.

50 *See Bits of Power, supra note 9, at 121.

51 *See id.* at 121.
pendent researchers could afford these new prices. The high data costs hampered, inter alia, the ability to conduct low-cost basic research from which many technological innovations have come and brought some areas of research to a complete halt.

II. FOREIGN AND INTERNATIONAL MODELS

Several nations have legislation which addresses the protection of databases. This section will examine that of Japan, the Nordic nations, and the European Union (EU). It will also briefly describe the most prominent multilateral treaty concerning copyright, the Berne Convention. These specific foreign models are chosen because they are representative of the spectrum of protection afforded, or not afforded, to noncreative databases. Japan, at one end of the spectrum, does not recognize copyright protection for noncreative databases. It has what can be characterized as a “hard to copyright/easy to infringe” system. On the other end of the spectrum is the EU. It has created in its Database Directive an easily accessible sui generis protection that is, nevertheless, still easy to infringe. The Nordic nations’ approach occupies the middle.

This section also examines legal norms in Japan that are analogous to the doctrine of misappropriation and the norms behind the EU’s Database Directive. Japan and the EU are chosen because eventual harmonization among U.S., Japan and EU law appears the most feasible. Collectively, the U.S., Japan and EU possess nearly all the technological capacity in the world and thus, have a natural and strong interest in protecting their technological and informational assets.

52 See id.
53 See id. at 122–23.
54 See WIPO Database Memorandum, supra note 2, passim.
55 See infra Parts II.A, II.B, II.C and II.D.
57 See Infra Part II.C.
58 See Mitchel B. Wallerstein et al., GLOBAL DIMENSIONS OF INTELLECTUAL PROPERTY RIGHTS IN SCIENCE AND TECHNOLOGY, supra note 1, at 185.
59 See id.
A. Japan

The Japanese legal system, while technically following a Civil Law model, also contains elements of Common Law as well as a traditional legal system. Thus, although Japanese copyright law follows the Civil Law model, judicial precedent has defined the outlines of this legal regime. The Japanese Copyright Law protects "works" (chosakubutsu) in which "thoughts or sentiments are expressed in a creative way" and "fall within the literary, scientific, artistic or musical domain." Judicial precedents have created a "hard to copyright/easy to infringe" system.

1. Copyright and Unfair Competition

Under Article 12(1) of the Japanese Copyright Act, compilation works (henshū-chosakubutsu) are protected independently of the material constituting the compilation if they possess some creativity in the selection or arrangement of the material. Similarly, under the 1986 Amendment of the Copyright Act, databases (détabésu) are protected if they evidence some creativity. However, the materials of which they

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60 See Kenneth L. Port, Introduction to the Study of Japanese Law, in Comparative Law: Law and the Legal Process in Japan, supra note 56, at 3; Hiroshi Oda, Japanese Law 36 (1992). Custom is also an important part of Japanese law. For example, "the Law on the Application of Law (hōrei) provides that where custom is not contrary to public order nor morals it has an effect equivalent to law, on the condition that the law expressly provides for the custom to be applied, or where there is no law on the issue." See Hiroshi Oda, Japanese Law 36, 60 (1992).

61 The first copyright law of Japan was enacted in 1899, shortly before Japan’s accession to the Berne Convention. See Oda, supra note 60, at 251-52. The present copyright law of Japan traces its roots to the 1970 Copyright Act and major amendments in 1985 and 1986 which, respectively, extended copyright protection to computer programs and databases. See id.


64 See supra note 56 and accompanying text.


66 See Act for Partial Amendment of the Copyright Act, Article 12(1), Law No. 64 of 1986, translated in Doi, supra note 65, at 113 & n.36; Oda, supra note 60, at 253.
are composed may not be works of authorship and no other special laws regulate the extraction of data from a database.

The decision in *Sakimura v. Yashiro* (the *Telephone Directory* case) makes clear that protection is not afforded to noncreative databases and illustrates the "hard to copyright" system. Similar to the facts in the U.S. Supreme Court case *Feist Publications v. Rural Telephone*, the plaintiff had compiled a telephone directory in which telephone subscribers were classified in accordance with their type of business and listed alphabetically. The court denied copyright protection for plaintiff's directory because a directory of identical arrangement had been published some years before and hence, the plaintiff's directory contained no "new thought." The court reasoned that the fundamental concept of plaintiff's directory—arranging telephone numbers in alphabetical order—was identical to the earlier work. Thus, plaintiff's directory was held uncopyrightable because it was not "expressed in a creative way."

The Japanese Unfair Competition Act of 1993 adopts a general-purpose anticopying norm. The law "expressly targets wholesale or slavish imitation that deprives investors of a return on their investment by unduly shortening the life cycle of innovative goods." However, the legislative history indicates that ideas and concepts remain unpro-

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67 See Articles 12(2), 12(2), translated in Doi, supra note 65, at 64 & n.16, 113 & n.36.
68 See Peter Knight, *Recent Developments in Information Technology Law in the Asia-Pacific Region (Part I)*, 14 No. 3 Computer Law. 19, 25 (1997).
72 See id.
73 See id.
74 See id.
75 See The Unfair Competition Act [Japan], Law No. 47/1993, May 19, 1993, Section 2(3), translated in Rahn & Heath, supra note 27, at 352–53; Reichman, supra note 1, at 2475.
76 Reichman, supra note 1, at 2475; see also The Unfair Competition Act [Japan], Law No. 47/1993, May 19, 1993, Section 2(3). Section 2(3) provides: "Definition of prohibited acts: . . . (3)The act of transferring or dealing in (including the display for such purposes), exporting or importing goods that imitate the form of another party's goods (excluding such forms that are commonly used for such or similar goods or that have an identical or similar function or effect), provided that not more than three years from the date of first commercial circulation have elapsed.", translated in Rahn & Heath, supra note 27, at 352–53.
tected. Thus, noncreative compilations of information or databases do not enjoy any protection under either Japanese Copyright or Unfair Competition law.

2. Norms Analogous to the Doctrine of Misappropriation

"A central tenet of Confucianism is that an idea cannot be owned but must be shared." The very idea of intellectual property rights tied to a single individual or company is alien to ancient Japanese culture. Even in the present day many Japanese view with disdain the American enforcement of intellectual property rights. However, the misappropriation rationale disapproves of the exploitation of another's achievement. It is succinctly stated by the U.S. Supreme Court in International News Service v. Associated Press as one should not "reap where [one] has not sown." The Japanese, too, understand this rationale, and express it with the Japanese proverb "Hito no jundoshi de sumó wo toru" (to wrestle in another's loin cloth).

An analysis of Japanese trademark cases concerning the "danger of confusion" (kondó no osore) reveals that Japanese law is apt to recognize the free-ride (tandanori) as misappropriation. A necessary element of a case of unfair exploitation of another's achievements under the Unfair Competition Act is that a "danger of confusion" exists. "In fact, these cases do not concern an actual danger of confusion, but a 'free-ride' on famous marks." Although the decisions do not always explicitly refer to the danger as being one also of "free-riding," legal

77 See Reichman, supra note 1, at 2475.
78 See The Unfair Competition Act [Japan], Law No. 47/1993, May 19, 1993; Act for Partial Amendment of the Copyright Act, Law No. 64 of 1986.
79 D'AMATO & LONG, supra note 1, at 409.
80 See D'AMATO & LONG, supra note 1, at 409; WARSHOFSKY, supra note 35, at 11.
81 Akio Morita, Chairman of Sony Corp., summed up the disdain which many Japanese feel toward American enforcement of intellectual property rights with the following anecdote: "When I was living in the United States, my child got sick, so I called my doctor. Our American doctor gave us instructions on what to do and what kind of medication to take. Now in Japan, you wouldn't expect anything else to happen—but in the States, I received a bill for that telephone call from my doctor. Now this tells you they don't give out any intelligence for free." D'AMATO & LONG, supra note 1, at 409.
82 See International News Service, 248 U.S. at 239.
83 See Rahn & Heath, supra note 27, at 349.
84 See id.
85 See The Unfair Competition Act [Japan], Law No. 47/1993, May 19, 1993, Article 1(1)(1) and (2), translated in Dôi, supra note 65, at 341.
86 Rahn & Heath, supra note 27, at 351.
scholarship widely regards the concepts of dilution and "free-ride" as being at the heart of several of the courts' decisions.\textsuperscript{87}

In the case of famous trademarks, Japanese courts have analyzed the "danger of confusion" in two senses: "narrow" and "broad."\textsuperscript{88} In the narrow sense, Japanese courts reason that a lack of identity or similarity of goods or business would not mislead consumers about a product's origin because consumers will not associate, and thereby confuse, the trademark with the dissimilar product.\textsuperscript{89} Hence, the focus is "narrow" because it only looks at the characteristics and uses of the products.\textsuperscript{90} In contrast, under an analysis conducted in the broad sense, Japanese courts reason that consumers, while not confusing the dissimilar products, may assume a connection between the enterprises in question.\textsuperscript{91} Hence, the focus is "broad" because it looks at perceptions of the whole market and relationships between enterprises.\textsuperscript{92}

A case which makes clear the courts' censure of "free-riding" is \textit{K.K. Yashica v. Daiya Kogyo K.K.}\textsuperscript{93} In \textit{Yashica}, the defendant enterprise registered\textsuperscript{94} and placed the exact mark (YASHICA) of the plaintiff on

\textsuperscript{87}See \textit{id.} at 351 \& n.28.
\textsuperscript{88}See \textit{id.} at 350.
\textsuperscript{89}See \textit{id.}.
\textsuperscript{90}For example, under a narrow analysis a trademark on shaving products would not be confused with one on writing instruments.
\textsuperscript{91}For example, the concepts of dilution and "free-ride" better explain the Tokyo District Court's finding in \textit{Pornoland Disney}, 515 \textit{HANREI TAIMUZU} 210 (Tokyo Dist. Ct., Jan. 18, 1984), of a danger of confusion between the "Disney" mark of US Walt Disney Productions and a Japanese sexshop called "Pornoland Disney." According to the court, a danger of confusion existed because Disneyland symbolized a world of children's dreams, whereas the defendant promised to fulfill adult dreams. See Rahn \& Heath, \textit{supra} note 27, at 350 \& n.26. Similarly, dilution and "free-ride" better explain the decision in \textit{Disney Pachinko}, 750 \textit{HANREI TAIMUZU} 238 (Fukuoka Dist. Ct., April 2, 1990), another case concerning the "Disney" mark and a pachinko shop called "Disney Pachinko." See \textit{id.} at 350 n.27. In \textit{Disney Pachinko}, although the Fukuoka District Court expressly stated that hardly any Japanese would mistakenly assume a connection between the Walt Disney Corporation and a pinball machine gambling parlor, the Court nevertheless affirmed that a danger of confusion existed. See \textit{id.}.
\textsuperscript{92}Thus, under a broad analysis consumers could perceive a connection between a shaving product and a writing instrument because enterprises exist that produce both, e.g., "BIC."
\textsuperscript{94}Japanese Trademark Law is a first to register system except in certain cases of well known marks. See Trademark Law [Japan], §§ 18(1), 32(1), Law No. 127 of April 13, 1959, as last amended by Law No. 65 of 1991. In addition, under Japanese Law, an application for trademark covers only one class of goods. See \textit{id.} at § 6(1). See Kenneth L. Port, in \textit{COMPARATIVE LAW: LAW AND THE LEGAL PROCESS IN JAPAN}, \textit{supra} note 56, at 794; Protecting Intellectual Property in Asia-Pacific 86 (Diana Sharpe ed., 1989).
its cosmetic packaging. In contrast, the plaintiff’s enterprise primarily consisted of the sale and manufacture of cameras and camera equipment—for which it was widely known. The court recognized that consumers would not confuse the products of the enterprises (i.e., there was no “danger of confusion” in the narrow sense) but did not address the “danger of confusion” in the broad sense. Instead, the Tokyo District Court reasoned that defendant’s registration of a mark identical to the plaintiff’s, at a time when the plaintiff’s mark graced very popular products, was an action clearly intended to free ride on plaintiff’s mark. The court further reasoned that such a free ride was a violation of the Unfair Competition Law sufficient to create an exception to the defendant’s right to use its registered mark. Thus, the Tokyo District Court held that a non-competitor should not be allowed to use an exact mark, even on distinct products where there is no danger of confusion, because this could result in “free-riding” on the goodwill of the original trademark registrant.

3. Summary

Japan does not grant a copyright to noncreative databases and maintains a “hard to copyright” system; nevertheless, Japanese law and culture possess a legal norm on which to base protection of noncopyrightable databases. The Japanese courts have been willing to step outside strict trademark law to prevent use of famous trademarks, even when there is no “danger of confusion,” under a theory that “free-riding” on the goodwill created by another is an unfair competitive act. The Japanese courts have, in colloquial terms, found “Hito no fundoshi de sumō wo toru” (to wrestle in another’s loin cloth) impermissible. Accordingly, a law prohibiting acts which pirate the contents of an uncopryrightable database and amount to a “free-ride” on the efforts

96 See id.
97 See id.
98 See id.
100 See id.
101 See Rahn & Heath, supra note 27, at 349.
102 See supra Part II.A.2.
103 See Rahn & Heath, supra note 27, at 349.
of the compiler has a recognized basis in Japanese legal and cultural norms.

B. The Nordic Nations

In contradistinction to Japanese law, 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. The Copyright Acts of all five Nordic nations contain provisions which protect noncreative compilations of information. Together, these provisions have been called the "Nordic Catalogue Rule." The Nordic Catalogue Rule originates from a 1951 proposal for joint copyright legislation in Denmark, Finland and Norway. The 1975 Icelandic provision is the most recent one, whereas the others date from 1960–61.

The acts differ in scope somewhat from one Nordic nation to another, but their common aim is to make the law uniformly applicable to 'catalogue matter' wherein unlawful reproduction is punishable as a copyright infringement. The preparatory documents to the Copyright Acts indicate the subject matter intended for protection includes sale and exhibition catalogues, even lists of names or persons. For example, local telephone directories have been protected in a number of cases. In contrast to copyright protection, the subject matter of

\[\text{\textsuperscript{104}}The term "neighboring rights" is short for "rights neighboring on copyright" and refers to rights that provide protection short of copyright against certain acts of unfair competition akin to copyright infringement. See, e.g., D'AMATO & LONG, supra note 1, at 97–98.\]


\[\text{\textsuperscript{106}}The provisions are in the following sections of the respective Copyright Acts: Denmark \textsection{} 49, Finland \textsection{} 49, Iceland \textsection{} 50, Norway \textsection{} 43, and Sweden \textsection{} 49. See \textit{id.} at 67, 68; WIPO Database Memorandum, \textit{supra} note 2, at 12. An example is \textsection{} 49 of the Swedish Copyright Act of 1960 which reads in pertinent part: "Catalogues, tables, and similar compilations in which a large number of particulars have been summarized may not be reproduced without the consent of the producer before ten years have elapsed from the year in which the production was published." See Karnell, \textit{supra} note 105, at 67, 68.\]

\[\text{\textsuperscript{107}}See \textit{id.}; WIPO Database Memorandum, \textit{supra} note 2, at 12–13.\]

\[\text{\textsuperscript{108}}See Karnell, \textit{supra} note 105, at 67, 68. Besides the EU and the Nordic Nations, statutory protection for noncreative databases exists only in Mexico. See WIPO Database Memorandum, \textit{supra} note 2, at 12–14.\]

\[\text{\textsuperscript{109}}See Karnell, \textit{supra} note 105, at 67; see generally INTELLECTUAL PROPERTY LAWS OF EUROPE 101, 125, 219, 333, 397 (George Metaxas-Maranghidis ed., 1995).\]

\[\text{\textsuperscript{110}}See Karnell, \textit{supra} note 105, at 67, 68; WIPO Database Memorandum, \textit{supra} note 2, at 12–13.\]

\[\text{\textsuperscript{111}}See Karnell, \textit{supra} note 105, at 67, 70; WIPO Database Memorandum, \textit{supra} note 2, at 12–13.\]

\[\text{\textsuperscript{112}}See \textit{id.}\]
catalogue protection does not require creativeness manifested in either individuality or in originality. In addition, the catalogue rule has gained general acceptance as a means of protection for databases, thus guarding them against unlawful reproduction.

Although the Nordic catalogue rules are contained within the “Copyright Acts” of the Nordic nations, the protection given is intended to be of competition law character rather than copyright. The aim is to protect enterprises that have expended capital and labor on the production of “catalogue matter” (e.g., a database) from plagiarism and ensuing unfair competition by means of unwarranted reproduction. Thus, in order to be protected, the collection must list a “large number of particulars” (pieces of information). This criterion denies protection to compilations which are too easily achieved, at too small a cost in capital and labor while it ensures protection of substantial investments of capital and labor.

The Nordic Catalogue Rule provides an alternative protection to noncreative databases under a neighboring rights regime and eases the pressure on copyright law to protect noncreative databases that otherwise lack protection against commercial piracy. Thus, by acting as a “legal relief valve” the approach of the Nordic Catalogue Rule lessens (1) the risk that courts will banalize the creativity requirement, so as not to leave a compiler’s substantial investments in capital and labor wholly unprotected; and (2) the exigency to extend a sui generis copyright to noncreative databases.

113 See Karnell, supra note 105, at 67, 68; WIPO Database Memorandum, supra note 2, at 12–13.
114 See Karnell, supra note 105, at 67, 72.
115 See id., at 67, 70.
116 See id.
117 See id.; WIPO Database Memorandum, supra note 2, at 12–13.
118 See id. at 67, 71.
119 See Karnell, supra note 105, at 67, 70; Reichman, supra note 1, at 2493.
120 See Karnell, supra note 105, at 67, 70; Reichman, supra note 1, at 2493; see, e.g., Bellsouth Adver. & Publ’g Corp. v. Donnelley Info. Publ’g, Inc., 933 F.2d 952, 957, 958 (11th Cir. 1991) (finding selection of geographic boundaries and business classifications in a classified business directory (yellow pages) sufficient creativity to make directory copyrightable), vacated and reh’g en banc granted, 977 F.2d 1435, 1435 (11th Cir. 1992), rev’d, 999 F.2d 1436, 1443, 1445 (11th Cir. 1993) (finding selections obvious because dictated by functional considerations and common industry practice and hence, insufficient to make directory copyrightable); cf. Key Publications, Inc. v. Chinatown Today Publ’g Enter., Inc., 945 F.2d 509, 514 (1991) (finding classified business telephone directory, i.e., white and yellow pages, for New York City’s Chinese-American community copyrightable on grounds that there is sufficient creativity in deciding which business categories to include).
C. The EU Database Directive

On January 1, 1998, the long awaited Directive on the Legal Protection of Databases ("Database Directive") entered into force. The Database Directive was enacted by the EU on March 11, 1996, after nearly eight years of discussion. The primary purpose of the Database Directive is to stimulate investment in databases and thereby increase the European share of a market which is a "cornerstone" to the economic development plans of the EU. This section discusses the Database Directive as it applies to noncreative databases and the normative reasons behind its provisions.

1. Database Directive

The Database Directive defines a database as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means," but does not require the data contained within the database "to have been physically stored in an organized matter." This very broad definition is specifically intended to include non-electronic databases and "the materials necessary for the operation or consultation of certain databases such as thesaurus or indexation systems." Thus, databases covered by the Database Directive can be as diverse as a CD-ROM-based multimedia package, a World Wide Web site, an electronic or paper library card catalogue, or even the library itself.

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121 See Database Directive, supra note 32, at art. 16(1).
125 See id. at recital 21.
126 See id. at recital 14 and art. 1(1).
127 See id. at recital 20.
Article 2 of the Database Directive provides that the Directive does not preempt other Community statements on copyright, including the 1992 Software Directive. Further, Article 1(3) excludes any computer programs used in the manufacture or operation of databases from protection under the Database Directive. This last point, however, appears at odds with the statement in Recital 20 that protections may extend to “the materials necessary for the operation or consultation of certain databases.” The issue of whether the regime of the Database Directive or Software Directive will apply to the mechanisms involved in manipulating the contents of a database has yet to be resolved.

a. Protections

The Database Directive extends copyright protection only to databases that by reason of selection or arrangement of the database’s contents constitute “the author’s own intellectual creation,” i.e., that which evidence some amount of “originality” or “creativity” on the part of the author. Nevertheless, the Database Directive does not provide clear guidance on where the line should be drawn. The Database Directive does make clear that Member States shall provide a new sui generis right to the maker of a database when the maker can show a “substantial investment” in obtaining, verifying or presenting the database’s contents. Further, this new sui generis right grants a bundle of exclusive rights which may be transferred, assigned or granted under contractual license although the sui generis right may not prejudice other rights in the contents of the database. The sui generis right protects the qualifying database from the moment it is completed, and expires 15 years from the first of January following the date of completion. Perhaps more importantly, a new 15 year term may be obtained if the database maker makes any “substantial change” or accumulates a series of successive changes which constitute a “substan-
tial new investment” in the database. Moreover, there is no apparent limit to the number of 15 year terms of protection a database may obtain.

The sui generis right enables the maker of a database “to prevent extraction and/or re-utilization of the whole or of a substantial part” of the database contents and to prevent repeated and systematic extraction or re-utilization which unreasonably prejudices the maker’s “legitimate interests.” Extraction is defined as a transfer of the database contents to another medium by any means or in any form including temporary transfers such as on-screen display. Re-utilization is defined as making the database contents available to the public whether by distribution of copies or some form of transmission. From this broad grant of protection to uncopyrightable databases, several exceptions are carved.

b. Exceptions and Limits to the Sui Generis Right

An exception from the definitions of extraction and re-utilization is specifically carved out for “public lending” which is expressly defined as not an act of extraction or re-utilization. Further, a maker of a database may not prevent in any manner a “lawful user” of the database from extracting and/or re-utilizing insubstantial parts of the contents of the database. The lawful user is authorized to use the database for any purpose which does not conflict with normal exploitation of the database or unreasonably prejudices the legitimate interest of the maker.

139 See id. at art. 10(3).
140 See Reichman, supra note 1, at 2495 & n.352.
141 See Database Directive, supra note 32, at art. 7(1).
142 See id. at art. 7(5).
143 See id. at art. 7(2)(a) and recital 44.
144 See id. at art. 7(2)(b).
145 See id.
146 See Database Directive, supra note 32, at arts. 7(2), 8 and 9.
147 See id. at art. 7(2). Article 7(2) reads in pertinent part: “Public lending is not an act of extraction or re-utilization.” Id. However, nowhere in the Database Directive is the term “public lending” defined nor distinguished from the phrase “making available to the public” found in the definition of “re-utilization.”
148 See id. at art. 8(1) and recital 49.
149 See id. art. 8(1).
150 See Database Directive, supra note 32, at art. 8(2).
In addition to these mandatory exceptions, Member States have the option to limit the *sui generis* right in certain ways. They may allow the extraction or re-utilization of a substantial part of the contents of a database without authorization by its maker, provided such extractions or re-utilizations are for non-commercial purposes, when: (i) extraction is from a non-electronic database for private purposes (i.e., you can take notes), (ii) extraction is reasonable and for the purpose of illustration for teaching or scientific research as long as the source is indicated, or (iii) extraction and/or re-utilization is for the purpose of public security or an administrative or judicial procedure. In addition to limits on the exercise of the *sui generis* right, there are also limits on who may benefit therefrom.

The *sui generis* right does not apply to databases made by persons outside the EU unless they reside in a jurisdiction which provides comparable protection to EU persons. The decision whether a non-EU jurisdiction provides comparable legal protection is vested in the European Council of Ministers acting upon a proposal from the European Commission. Thus, these reciprocity provisions of the Database Directive provide the EU with a bargaining chip in negotiations with its trading partners.

2. Norms Behind the Database Directive

The EU Database Directive protects and encourages production of noncreative databases by an underlying norm that, *de facto*, recognizes an ownership interest in the contents of the database itself. The *sui generis* right permits control of extraction or re-use of a databases' con-

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151 See infra notes 152-56 and accompanying text.
152 See id. at recital 50
153 See id. at art. 9(a).
154 See Database Directive, supra note 32, at art. 9(b).
155 See id. at art. 9(c).
156 See id. at art. 11(3) and recital 56.
157 See id. at recital 56.
158 See Database Directive, supra note 32, at art. 11(3).
159 See Powell, supra note 122, at 1248.
160 See Reichman & Samuelson, supra note 2, at 89, 94; Von Simson, supra note 123, at 755-56; see also Cindy Alberts Carson, Laser Bones: Copyright Issues Raised by the Use of Information Technology in Archaeology, 10 Harv. J.L. & Tech. 281, 295, 311 (1997) (describing how a *de facto* monopoly over purely factual materials may be obtained by embedding them in protectable expression); Hunsucker, supra note 19, at 763 (recognizing that a *sui generis* regime may permit a *de facto* ownership in sole source data). But see Database Directive, supra note 32, at recital 46, which specifically disclaims the creation of any right in the database contents.
tents and creates, *a priori*, a bundle of transferable property rights.161 In contrast, an unfair competition approach sanctions actions *a posteriori*.162

There are primarily two reasons why the EU adopted a norm based on a *sui generis* property interest instead of one based on principles of unfair competition: (1) the logistical difficulty of harmonization, and (2) a desire to protect databases from information samaritans as well as free riders.163 The former argument is based on the premise that an unfair competition approach would require harmonization of a regime of law which varies between Member States, both in form and degree of development.164 Accepting this premise, the Commission logically chose not to undertake a logistically difficult harmonization of unfair competition law when its goal was simply to boost one narrow economic sector of the EU—database production.165 Similarly, this narrow sector possessed specific problems considered not addressed by unfair competition law: the prevention of both commercial and non-commercial approbations of database contents.166 Clearly, based on the assumption that unfair competition principles are limited to regulation of behavior between competitors, a property interest provides a more general legal regime whereby to regulate the acts of all unauthorized users of the property.167 Thus, a norm based on a *sui generis* property interest catches not just the free rider but the information samaritan as well.168

3. Summary

The *sui generis* right provided by the Database Directive creates an intellectual property right which goes much further than the copyright law of most nations.169 The *sui generis* right prohibits substantial extrac-

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161 See Gaster, *supra* note 122, at 1143.
162 See id.
163 See Reichman & Samuelson, *supra* note 2, at 81; Powell, *supra* note 122, at 1224–25. Some commentators have observed that the *sui generis* right created serves the intention to “favor European database publishers at the expense of their customers and non-EU competitors.” Von Simson, *supra* note 123, at 735.
166 See id. at 1224–25.
167 See id. at 1225.
168 See id.
169 See WIPO Database Memorandum, *supra* note 2, at 7–8; Reichman & Samuelson, *supra* note 2, at 86; Cornish, *supra* note 122, at 13; Carolina, *supra* note 128, at 23.
tion or re-use of a database’s contents by all unauthorized users.\textsuperscript{170} Further, this right is not subject to compulsory licensing arrangements even in cases where the database compiler is the sole source of the database contents.\textsuperscript{171} In effect, the EU Database Directive has created an “easy to protect/easy to infringe” system for protection of noncreative databases.\textsuperscript{172}

Nevertheless, the Directive does provide Member States the option to enact exceptions to this right.\textsuperscript{173} These optional exceptions are extremely important because, absent one of these exceptions, the \textit{sui generis} right creates a functional monopoly on the contents of a sole source database.\textsuperscript{174}

D. WIPO, \textit{The Berne Convention and TRIPS}

The World Intellectual Property Organization (WIPO) is a specialized agency of the United Nations which administers the Berne Convention.\textsuperscript{175} The goal of the Berne Convention is to protect and promote the international rights of authors.\textsuperscript{176} The Berne Convention protects “literary, scientific and artistic” works but “news of the day [or] . . . miscellaneous facts having the character of mere items of press information” are expressly excluded from protection.\textsuperscript{177} Authors of qualifying works under the Berne Convention are granted the exclusive rights of translation, reproduction, public performance, broadcasting, adaptation, and arrangement of their work for a term of the author’s life

\begin{itemize}
\item \textsuperscript{170} See Database Directive, \textit{supra} note 32, at art. 7(1).
\item \textsuperscript{171} See Cornish, \textit{supra} note 122, at 11. A compulsory license provision was part of previous drafts. See Council Directive Amended Proposal, art. 11, 1993 O.J. (C 308) 1, 13–14. However, database producers lobbied hard to secure its removal. See Cornish, \textit{supra} note 122, at 11; Reichman & Samuelson, \textit{supra} note 2, at 75, 94.
\item \textsuperscript{172} “Easy to protect” because the Database Directive broadly defines a database and provides a \textit{sui generis} intellectual property right with only a showing of a qualitative or quantitative substantial investment. See Database Directive, \textit{supra} note 32, at art. 7(1); \textit{supra} notes 125–28, 135, 136 and accompanying text. “Easy to infringe” because of the broad protection afforded by the \textit{sui generis} right. See \textit{supra} notes 136–46 and accompanying text.
\item \textsuperscript{173} See Database Directive, \textit{supra} note 32, at art. 9.
\item \textsuperscript{174} See Von Simson, \textit{supra} note 123, at 755–56; \textit{see also} Carson, \textit{supra} note 160, at 295, 311 (describing how a \textit{de facto} monopoly over purely factual materials may be obtained by embedding them in protectable expression). \textit{But see} Database Directive, \textit{supra} note 32, at recital 46 which specifically disclaims the creation of any right in the database contents.
\item \textsuperscript{175} See Berne Convention, \textit{supra} note 2; D’AMATO & LONG, \textit{supra} note 1, at 222.
\item \textsuperscript{176} See Berne Convention, \textit{supra} note 2, at preamble and art. 1; D’AMATO & LONG, \textit{supra} note 1, at 267.
\item \textsuperscript{177} See Berne Convention, \textit{supra} note 2, at art. 2(1), 2(8); D’AMATO & LONG, \textit{supra} note 1, at 264–65.
\end{itemize}
plus 50 years. Additionally, the Berne Convention provides protection to collections, such as encyclopedias or anthologies, that by reason of the selection and arrangement of their contents constitute intellectual creations. Consequently, the Berne Convention does not provide protection for noncreative databases.

However, by its very terms, the Berne Convention prohibits the EU from denying to other signatory states, such as the U.S. and Japan, the protections afforded by the Database Directive’s *sui generis* right to works within the EU regardless of whether such signatory state provides comparable protection. To achieve its ends, the Berne Convention requires minimum standards of protection for authors and “national treatment” of authors of signatory states. Consequently, any application of material reciprocity that denies an author “national treatment” is an act in violation of the Berne Convention, even if the rights granted the author far exceed the minimums imposed by the convention. However, the Berne Convention does not provide for

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178 See D’Amato & Long, *supra* note 1, at 265.
179 See Berne Convention, *supra* note 2, at art. 2(5), which reads: “Collections of literary or artistic works such as encyclopedias 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.”
180 In December 1996, however, WIPO hosted a diplomatic conference at Geneva to consider proposals to supplement and update the Berne Convention. See Basic Proposal for the Substantive Provision of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference, WIPO Doc. CRNR/DC/6 (Aug. 30, 1996) [hereinafter WIPO Proposal on Databases]; Recommendation Concerning Databases, WIPO Doc. CRNR/DC/100 (Dec. 23, 1996); Samuelson, *supra* note 123, at 375 & n.36, 418–28; Jack E. Brown, *Proposed International Protection of Electronic Databases*, 14 No. 1 *COMPUTER LAW* 17, 19 (1991). One proposal called for providing noncreative databases with *sui generis* protection along the lines of those contained in the EU Database Directive. See WIPO Proposal on Databases, *supra*; Recommendation Concerning Databases, WIPO Doc. CRNR/DC/100 (Dec. 23, 1996); Samuelson, *supra* at 375 & n.36; Brown, *supra* at 19. Although the proposed protection was not adopted, the conference did adopt a resolution calling for additional work to be done concerning a possible treaty on database protection. See WIPO Proposal on Databases, *supra*; Recommendation Concerning Databases, WIPO Doc. CRNR/DC/100 (Dec. 23, 1996); Samuelson, *supra* at 375 & n.36; Brown, *supra* at 19. Recently, in September 1997, at the WIPO Information Meeting on Intellectual Property in Databases, the EU *sui generis* approach was discussed and a draft of a report of the meeting is being prepared. As of this writing (January 22, 1999), however, no further meetings are on record as scheduled. See World Intellectual Property Organization, *Information Meeting on Intellectual Property in Databases*, 12 INDUS. PROP. & COPYRIGHT 349, 349–50 (Dec. 1997).
181 See Berne Convention, *supra* note 2, at art. 5(1), (2).
182 “National treatment” requires a country to provide no less favorable treatment to persons of foreign member states than it does to its own citizens. See Peter Burger, *The Berne Convention: Its History and Its Key Role in the Future*, 3 J.L. & TECH. 1, 16–17 (1988).
183 See Berne Convention, *supra* note 2, at art. 5.
184 See id. at art. 5(1), (2).
enforcement measures, dispute resolution, or a mechanism to sanction parties who fail to adhere to their treaty obligations.\textsuperscript{185}

Nevertheless, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), administered by the World Trade Organization (WTO), does provide enforcement mechanisms to sanction parties who fail to adhere to their treaty obligations under TRIPS.\textsuperscript{186} Moreover, the TRIPS Agreement explicitly requires both "national treatment" and compliance with Articles 1 to 21, and the Appendix thereto, of the Berne Convention.\textsuperscript{187} Accordingly, the TRIPS Agreement's requirement of "national treatment" puts in question the validity of the Database Directive's reciprocity clause.\textsuperscript{188}

III. THE UNITED STATES MODEL

A. Existing Law

1. Copyright

In \textit{Feist Publications v. Rural Telephone},\textsuperscript{189} the U.S. Supreme Court made clear in an unanimous decision that under both the 1976 Copyright Act\textsuperscript{190} and the U.S. Constitution,\textsuperscript{191} a compilation qualifies for copyright only if it displays originality and a modicum of creativity in the selection or arrangement of its contents.\textsuperscript{192} Although "the requisite level of creativity is extremely low"\textsuperscript{193} and novelty\textsuperscript{194} is not required for originality,\textsuperscript{195} it remains that "[t]he \textit{sine qua non} of copyright is originality."\textsuperscript{196} The Court reasoned that the primary objective of copyright is not to reward the labors of authors but "[t]o promote the Progress

\textsuperscript{185} See D'AMATO \& LONG, \textit{supra} note 1, at 267.
\textsuperscript{186} See TRIPS Agreement, \textit{supra} note 2, at Part VII art. 68.
\textsuperscript{187} See id. at art. 3 and Part II, § 1, art. 9; D'AMATO \& LONG, \textit{supra} note 1, at 276.
\textsuperscript{188} See TRIPS Agreement, \textit{supra} note 2, at Part I, art. 3 and Part II, § 1, art. 9.
\textsuperscript{190} See 17 U.S.C. § 102(a) (1994).
\textsuperscript{191} See U.S. CONST. art. I, § 8, cl. 8.
\textsuperscript{192} See Feist, 499 U.S. at 358, 362.
\textsuperscript{193} See id. at 345.
\textsuperscript{194} Originality means only that the work was created independently; thus a work may be original even though it is identical to another so long as the similarity is fortuitous, not the result of copying. See id. at 345–46. Whereas novelty would require that a work not be identical to or even closely resemble another work. See id.
\textsuperscript{195} See id. at 358.
\textsuperscript{196} See id. at 345.
of Science and useful Arts." Accordingly, the expenditure of labor and capital, i.e., "sweat of the brow," to create a compilation, no matter how extensive, in and of itself does not make a compilation copyrightable. Thus, in the United States noncreative databases are not protected by copyright from approbation of their contents.

In practice, determining whether and what aspects of a database display "originality and a modicum of creativity" may prove very difficult since new technologies which permit more "intelligent" computer-based analysis of text blur the line between information and expression. An exemplary and relevant case, which appears to survive Feist, is West Publishing v. Mead Data Central wherein the Eighth Circuit found copyrightable expression in the page numbers and page breaks of West's reports. The case turned on the issue of whether West's pagination was merely a sequence of Arabic numbers which are the natural result of its arrangement of cases, and hence uncopyrightable information, or whether West's pagination was integral to West's arrangement of the cases, and hence copyrightable expression. The Eighth Circuit found the latter to be the case on the grounds that internal page citations are an important part of West's case arrangements. Hence, the court reasoned that because pagination was integral to the copyrightable aspects of the compilation it was protected by copyright. Nevertheless, the fact that a substantial investment in compilation of a database can turn on such fine characterizations of the facts generates uncertainty and justifiable concern amongst database compilers as to the security of their investments.

See Feist, 499 U.S. at 349.
See id. at 364.
See id.
See id.
See id. at 1227. But cf. id. at 1237 (J. Oliver, concurring in part and dissenting in part, stating that there is no indication in the record of who creates West's page numbers or of how they are created).
See Hearings, supra note 11, (written statement of the Coalition Against Database Piracy) (readily available at <http://www.house.gov/judiciary/41117.htm>); Susan H. Nycum, Database Protection, 453 PLI/Pat 575, 578 (1996); compare Bellsouth Adver. & Publ'g Corp. v. Donnelley Info. Publ'g, Inc., 933 F.2d 952, 957, 958 (11th Cir. 1991) (finding selection of geographic boundaries and business classifications in a classified business directory (yellow pages) sufficient creativity to make directory copyrightable), vacated and reh'g en banc granted, 977 F.2d 1435, 1435
Sensibly, the Supreme Court in *Feist* heeded the legitimate concerns of database compilers over market-destructive approbations of their investment and the need to provide incentives for investment in database development. The Court expressly stated, in dicta, that protection for the investment of labor and capital in noncreative databases "may in certain circumstances be available under a theory of unfair competition."  

2. Unfair Competition Law & The Doctrine of Misappropriation

The doctrine of misappropriation in United States jurisprudence arises out of *International News Service v. Associated Press* (*INS v. AP*). During the first world war, the International News Service (INS) and Associated Press (AP) were engaged in keen competition over the gathering and publication of news concerning the war. When foreign governments barred INS from securing news from their respective countries, INS began a campaign to "pirate" AP's news. As part of its campaign, INS copied AP news, either exactly or rewriting it, from bulletin boards and early editions of AP newspapers. The Supreme Court characterized AP's right as a "quasi property" right in the news it had gathered and held that AP could prohibit competitors from using it "until its commercial value as news . . . has passed away." In the Court's view, INS was "endeavoring to reap where it ha[d] not sown" in a process that amounted to "an unauthorized interference with . . . [AP's] legitimate business precisely at the point where the profit is to be reaped." The court reasoned that unless such practices
were prohibited, no news service could stay in business. Nevertheless, although the norm applied by the court is clear—to prevent free rides on the labor of others—the constellation of facts under which this norm should be applied, and the criteria which make subsumption of a particular fact under the norm possible, are not.

The doctrine of misappropriation is difficult to understand and apply primarily because it lacks a firm analytical underpinning. In part, this is due to the ad hoc nature of its creation in *INS v. AP*, as such it has been suggested that the misappropriation holding of *INS v. AP* should be confined to its facts. Nevertheless, it is useful to sketch the outline of a claim of misappropriation in order to analyze and understand the development of the doctrine. The possible elements of misappropriation under a broad reading of *INS v. AP* are (1) an unauthorized and (2) knowing appropriation of (3) an intangible product of a competitor (or other's) labor from (4) a legitimate business so as to (5) diminish the profit of said competitor (or other) and/or (6) appropriate the profit for oneself. The sources of the characterization of misappropriation as a "haphazard protection whimsically afforded" are readily apparent from a cursory reading of these elements. First, the object of protection (the "intangible product")

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213 See id. at 240-41.
216 See id.
217 See National Basketball Ass'n, 105 F.3d at 852 & n.7; R.C.A. Mfg. Co. v. Whitman, 114 F.2d 86, 90 (2d Cir. 1940) (J. Learned Hand urging *INS v. AP* be held to its facts because it lacks analytical underpinnings, i.e., "any clue to its preference"); Cheney Bros. v. Doris Silk Corp., 35 F.2d 279, 280 (2d Cir. 1929) (J. Learned Hand urging *INS v. AP* be held to its facts because it lacks analytical underpinnings, i.e., "[t]he difficulties of understanding it are insuperable"); *cert. denied*, 281 U.S. 728 (1930); see also Restatement (Third) of Unfair Competition § 38 cmt. c (1995) ("The facts of the INS decision are unusual and may serve, in part, to limit its rationale. . . . Many subsequent decisions have expressly limited the INS case to its facts.")
218 See *INS v. AP*, 248 U.S. at 240. The Supreme Court characterized INS's conduct as "amount[ing] to an unauthorized interference with the normal operation of complainant's legitimate business precisely at the point where the profit is to be reaped, in order to divert a material portion of the profit from those who have earned it to those who have not; with special advantage to defendant in the competition because of the fact that it is not burdened with any part of the expense of gathering the news." See id.; cf. Restatement (Third) of Unfair Competition § 38 (1995) which reads: "One who causes harm to the commercial relations of another by appropriating the other's intangible trade values is subject to liability to the other for such harm . . . ."; cf. also Keeble v. Hickeringill, 11 East at 575, 577–78 (prohibiting malicious interference with trade precisely at point where ducks, i.e., "profits," are to be reaped).
219 See Hunsucker, *supra* note 19, at 703; Reichman, *supra* note 1, at 2476; Raskind, *supra* note
is ill-defined; second, it is unclear who is eligible for protection (is it only competitors?); and, third, it appears there are no safeguards to balance public interest concerns.\textsuperscript{220}

Not surprisingly, the most recent definition of misappropriation, set forth by the Second Circuit in \textit{National Basketball Association v. Motorola, Inc.}, interprets \textit{INS v. AP} narrowly.\textsuperscript{221} The Second Circuit reasoned that \textit{INS v. AP} should be held to its facts owing to a lack of an analytic underpinning for the doctrine of misappropriation.\textsuperscript{222} Consequently, under \textit{NBA v. Motorola}, the central elements for a claim of misappropriation are (1) the compiler generates or collects information at some cost, (2) the value of which is highly time-sensitive and (3) the defendant's use thereof constitutes a free-ride on the compiler's investment and (4) competes directly with the compilers product or service, and (5) is conduct of a kind that if repeated by others would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened.\textsuperscript{223} Arguably, the Second Circuit in \textit{NBA v. Motorola} interpreted the remedy provided in \textit{INS v. AP}—an injunction on INS's use of the news "until its commercial value as news to the complainant . . . has passed away"—as an element for a claim of misappropriation and hence, read \textit{INS v. AP} very narrowly.\textsuperscript{224} Nonetheless, such a reading does clarify the object of protection and indirectly provides a safeguard to the public interest.\textsuperscript{225}

However, the shortcomings of the doctrine of misappropriation may have more to do with the yeoman's duty\textsuperscript{226} which it has been made to

\begin{footnotesize}
\begin{enumerate}
\item 19, at 881 \& n.36; \textit{see also} Carpenter v. U.S., 484 U.S. 19, 26–27 (1987) (suggesting monetary loss is not necessary element of claim of misappropriation).
\item \textsuperscript{220} \textit{See} Reichman, supra note 1, at 2476; \textit{cf.} Karjala, supra note 21, at 2604–05 (advocating that a better focus for doctrine of misappropriation is prevention of market failure instead of objects of protection). \textit{See also} supra note 43 and accompanying text.
\item \textsuperscript{221} \textit{See} NBA v. Motorola, 105 F.3d at 852.
\item \textsuperscript{222} \textit{See id.} at 851, 852 \& n.7, 853.
\item \textsuperscript{223} \textit{See id.} at 845, 852; \textit{cf.} INS v. AP, 248 U.S. at 245.
\item \textsuperscript{224} \textit{See INS v. AP}, 248 U.S. at 245.
\item \textsuperscript{225} The limitation to time-sensitive information, i.e. "hot-news," provides a determinable boundary to the object of protection and provides an inherently short limit on the length of time information may be held out of the public domain. \textit{See} NBA v. Motorola, 105 F.3d at 845, 852 \textit{n.7}.
\item \textsuperscript{226} \textit{See}, \textit{e.g.}, Metropolitan Opera Ass'n v. Wagner-Nichols Recorder Corp., 101 N.Y.S.2d 483, 488, 492 (N.Y. Sup. Ct. 1950) (describing that misappropriation law developed to deal with "commercial immorality"); \textit{see also} National Basketball Ass'n, 105 F.3d at 845, 853 ("INS is not about ethics"); Gerhard Schricker, \textit{International Aspects of the Law of Unfair Competition, in International Harmonization of Competition Laws} 129, 130–32 (C.J. Cheng et al. eds., 1995) (discussing origin and development of unfair competition law).
\end{enumerate}
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perform and the case-by-case way it has evolved. Legislation limited to a specific object of protection and economic context may avoid these shortcomings.

B. The 105th Congress’ Proposal: S. 2291 “The Collections of Information Antipiracy Act”

Congressional Bill S. 2291 of the 105th Congress, the “Collections of Information Antipiracy Act,” under a doctrine of misappropriation, offers an answer to the legitimate concerns of database compilers over market-destructive approbations of their investment and the need to provide incentives for investment in database development. This bill differs dramatically from H.R. 3531, the “Database Investment and Intellectual Property Antipiracy Act,” introduced in the 104th Congress. The Database Investment Act, H.R. 3531, proposed to enact a sui generis right for noncreative databases strikingly similar to that provided under the EU Database Directive. H.R. 3531 languished in the Senate; S. 2291, has risen.

The limited, and evolving, legislative history behind Congressional bill S. 2291 indicates that its primary purpose is to provide protection

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227 Courts have never articulated a coherent set of principles for application of the doctrine of misappropriation, rather, it has only been occasionally invoked and then on an ad hoc basis. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 cmt. b (1995); Reichman, supra note 1, at 2476.

228 Cf. Karijal, supra note 21, at 928 (concluding a more nearly perfect scheme for protection of works such as noncreative databases might lie in an anti-misappropriation statute tailored to specific characteristics of work); Raskind, supra note 19, at 906 (concluding that examination of misappropriation issues in context of competitive markets can give doctrine analytic content).

229 See Collections of Information Antipiracy Act, S. 2291, 105th Cong., 2d Sess. § 2 (1998); 143 CONG. REC. E2000–02 (daily ed. Oct. 9, 1997) (statement of Rep. Coble). The United States is not unique in favoring an approach under unfair competition laws as opposed to sui generis rights. For example, Germany and Spain prefer an unfair competition approach. See Powell, supra note 122, at 1224; Cristina Garrigues, Databases: A Subject-matter for Copyright or for a Neighboring Rights Regime?, 1 EUR. INTELL. PROP. REV. 3, 5 n.18 (1997). And the Swiss use unfair competition principles extensively. See Kamen Troller & Isabelle Hering, Switzerland, in UNFAIR TRADING PRACTICES 279, 283, 308 (Dennis Campbell ed., 1996); Cornish, supra note 122, at 3 & n.8; see also WIPO Database Memorandum, supra note 2.


231 Compare, e.g., H.R. 3531 at § 4 with Database Directive, supra note 32, art. 7.


to noncreative databases\textsuperscript{234} from unscrupulous competitors who would pirate the investment of others.\textsuperscript{235} The legislative history particularly recognizes that such legislation is needed in response to the decision in \textit{Feist}.\textsuperscript{236} Further, although not a primary motivation for S. 2291, the history indicates Congress' interest in whether this bill meets the requirements of comparable protection found in the EU database directive.\textsuperscript{237}

S. 2291, by definition, covers collections of facts, data, works of authorship, and any other intangible material capable of being collected and organized in a systematic way.\textsuperscript{238} It proposes protection under a doctrine of misappropriation that extends to noncreative databases:

Any person who extracts, or uses in commerce, all or a substantial part, measured either quantitatively or qualitatively, of a collection of information gathered, organized, or maintained by another person through the investment of substantial monetary or other resources, so as to cause harm to the actual or potential market of that other person, or a successor in interest of that other person, for a product or service that incorporates that collection of information \textit{and} is offered or intended to be offered for sale or otherwise in commerce by that other person, or a successor in interest of that person, shall be liable to that person or successor in interest for the remedies set forth in section 1206.\textsuperscript{239}

This protection is limited to collections of information that entail a substantial investment on the part of the compiler.\textsuperscript{240} The object of protection is further narrowed by exclusions contained in § 1204 of the bill.\textsuperscript{241} Specifically, § 1204(a)(1) excludes from protection collections of information gathered by or within the scope of employment


\textsuperscript{234} See S. 2291, supra note 11.


\textsuperscript{236} See id.

\textsuperscript{237} See Hearings, supra note 11, at 125–26 (question of Rep. Delahunt).

\textsuperscript{238} See S. 2291, supra note 11, at § 1201.

\textsuperscript{239} See id. at § 1202 (emphasis added).

\textsuperscript{240} See id. at § 1202.

\textsuperscript{241} See id. at § 1204.
of a governmental entity whether Federal, State or local; § 1204(a) (2) excludes certain information reported under the Securities Exchange Act of 1934 or Commodity Exchange Act; and § 1204(b) specifically excludes computer programs from protection under S. 2291. More­
over, considerations of public interest are incorporated in § 1203 which describes acts permitted under the bill. Specifically, § 1203(a) permits de minimus extractions and uses; § 1203(b) permits independent gathering of information by other means; § 1203(c) allows extraction and use to verify independently gathered information; § 1203(d) permits extractions and uses for nonprofit educational, scientific, or research purposes; § 1203(e) permits extraction and utilization for the sole purpose of news reporting; and § 1203(f) permits the sale, or other disposal, of a lawful copy.

Congressional Bill S. 2291 provides a practical approach to the protection of noncreative databases under a doctrine of misappropria­
tion because it is limited to a specific object of protection and addresses the economic context in which noncreative databases exist. The bill specifically protects databases but only those in which a substantial investment has been made and which are not produced by or through a governmental entity. Further, although misappropriation is generally held to apply only to commercial approbations, the bill also protects noncreative databases from non-commercially motivated mis­
appropriations recognizing that a lone individual, employing digital technologies, can easily, cheaply and widely disseminate a database with significant market-destructive consequences. Moreover, the bill provides provisions to safeguard public interest concerns in the pro-

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242 See S. 2291, supra note 11, at § 1204.
243 See id. at § 1203.
244 See id. at § 1203(a) which reads in part: "Nothing in this chapter shall prevent the extraction or use of an individual item of information, or other insubstantial part of a collection of information, in itself"; id. at § 1203(d) reads: "Nothing in this chapter shall restrict any person from extracting or using information for nonprofit educational, scientific, or research purposes in a manner that does not harm the actual or potential market for the product or service referred to in section 1202."
245 See S. 2291, supra note 11, at §§ 1202 and 1204(a).
247 See S. 2291, supra note 11, at § 1202 (protecting qualifying databases from market destructive approbations without regard to motivation or use of misappropriator); § 1207(a)(1)(B) (provid­
ing criminal penalty for misappropriations not motivated by desire for commercial advantage or financial gain).
gress of science and freedom of expression. Thus, S. 2291 represents a balanced, practical approach to addressing the legitimate concerns of database compilers.

IV. TOWARDS HARMONIZATION

A. Harmonization

Harmonization should consist of serious inquiry into which normative principle is best able to achieve a common goal. The EU Database Directive has profoundly increased the protection afforded Community member compilers of noncreative databases. The consequences of the EU's decision to grant this sui generis property right to noncreative databases are economic and political. Although touted as a balanced approach, protection of the public interest is largely left to Member State implementation of optional exclusions which may or may not prevent acquisition by database compilers of a de facto ownership interest in the contents of the database itself. By removing virtually all mandatory accommodations to the public interest, the EU approach favors database compilers at the expense of their customers. Moreover, the Directive's reciprocity provision sets the stage for promotion of Member State database compilers at the expense of their non-EU competitors. Certainly, the approach taken by the EU Database Directive is well appointed to stimulate European investment in databases and thereby increase the European share of a market which is a "cornerstone" to the economic development plans of the EU. On the other hand, to posit reciprocity on other countries amending their laws—primarily to make it easier for EU database producers to acquire market share—makes no sense as a basis for harmonization. However, a proposal for the protection of noncrea-
tive databases under a *sui generis* right regime has been submitted by the EU to the WIPO and, although not accepted, such a regime is still under consideration.258 Nevertheless, the current EU approach is not harmonization but rather use of a legal system as a bargaining chip to acquire favorable trade relationships.259 Accordingly, if the EU, Japan and the U.S. seek harmonization, or even "materially equivalent" protection for noncreative databases, any approach must find an acceptable basis in each nation's philosophy.260

The functional effect of the EU *sui generis* right is incongruous with that of both the Japanese and U.S. copyright law.261 The differences between U.S. and Japanese copyright law may be more expressive than substantive in the context of databases.262 Consider the set of facts which lead to a remedy against an alleged infringement of a database in Japan and in the U.S.263 In Japan, the courts require more than originality and a modicum of creativity in the selection or arrangement of its contents; they also require a modicum of novelty or "new thought."264 This approach produces a "hard to copyright" system.265 On the other hand, Japanese copyright, once obtained, is "easy to infringe."266 Compare this to the U.S. system.267 The U.S. courts set a low threshold of originality and a modicum of creativity for copyrightability.268 This produces an "easy to copyright" system.269 However, this is counter-balanced by the "thin" protection the U.S. extends to factual compilations, making databases "hard to infringe."270 The functional effect is the same under both systems: only databases of "considerable" creativity obtain a meaningful remedy from infringement.271 Accord-

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258 See *supra* note 180 and accompanying text.
259 See Powell, *supra* note 122, at 1248.
261 See *supra* Parts II.A. and III.
262 Compare *supra* Parts II.A.3. with *supra* Part III.A.1.
263 Id.
265 See id.
266 See *supra* Part III.A.1.
267 See id.
268 See id.
269 Id.
271 See *supra* notes 261-70 and accompanying text.
ingly, the "easy to protect/easy to infringe" system created by the EU for databases is functionally incongruous with the Japanese "hard to protect/easy to infringe" system and the United States' "easy to protect/hard to infringe" system.\footnote{272}

The normative underpinning of the EU sui generis right is also incongruous with that of both the Japanese and U.S. copyright laws.\footnote{273} The primary normative underpinning for U.S. copyright law is clear: copyright does not reward the labors of authors but "promote[s] the Progress of Science and useful Arts."\footnote{274} A similar normative underpinning in Japanese copyright law can be inferred from the Japanese requirement of novelty or "new thought."\footnote{275} The Japanese courts' emphasis on "new thought" is, in actuality, an evaluation of an author's contribution and addition to the world of something it did not have before; and thus, by inference, the author's contribution to the advancement of knowledge.\footnote{276} Hence, the predominant norm underlying copyright in Japan and the U.S. is the advancement of the public interest. This norm conflicts with the EU Database Directive's de facto grant of a property interest in information.\footnote{277}

The approach taken by the EU Database Directive to protect non-creative databases does not provide an acceptable basis for harmonization of database protection among the EU, Japan and the U.S.\footnote{278} Neither the functional effect nor the normative basis of the Directive's sui generis property right is compatible with the principles of Japanese and U.S. copyright law.\footnote{279} In fact, the possibly perpetual protection obtainable under the sui generis right and the profound underprotection of the public interest create a regime of rights that supersedes even that granted copyrightable works in most nations.\footnote{280} Not surprisingly, the "world" under the auspices of WIPO is also unready to

\footnotesize{\begin{itemize}
\item \footnote{272} Compare supra notes 124–28, 136, 141–45, 172 and accompanying text with notes 261–70 and accompanying text.
\item \footnote{273} See supra Part II.C; cf. supra Parts II.A.1, II.A.3 and III.A.1.
\item \footnote{274} See supra Part III.A.1.
\item \footnote{275} See supra Part II.A.1.
\item \footnote{276} See id.
\item \footnote{277} See supra Part II.C; cf. supra Parts II.A.1, II.A.3 and III.A.1.
\item \footnote{278} See D'Amato & Long, supra note 1, at 37, 71, 413; Cornish, supra note 122, at 13; Carolina, supra note 128, at 23; see also Armstrong, supra note 24, at 157–58 (discussing difficulty in harmonization of U.S. and Japanese patent laws); see generally Geller, supra note 250.
\item \footnote{279} See supra notes 261–77 and accompanying text.
\item \footnote{280} See Database Directive, supra note 32, art. 10(3); Cornish, supra note 122, at 13; Carolina, supra note 128, at 23.
\end{itemize}}
recognize a *sui generis* property right as the solution for database protection.\(^{281}\)

However, another and better solution exists, which finds support both in the copyright systems and cultural norms of Japan, the Nordic Nations and the U.S.: the doctrine of misappropriation.\(^{282}\) The norm underpinning this doctrine was expressed by the U.S. Supreme Court as reaping what another has sown,\(^ {283}\) and the same norm, expressed differently, has been applied in several Japanese trademark cases.\(^{284}\) Consequently, misappropriation as a norm of protection for noncreative databases is in greater harmony with Japanese and U.S. legal and cultural treatment of ownership and use of intangible interests which do not find protection under traditional notions of intellectual property.\(^ {285}\) An underlying concern of any form of intellectual property protection is whether the restriction on the flow of ideas threatens the advance of knowledge or public access to ideas, information and expressions.\(^{286}\)

A doctrine based on misappropriation is more compatible with traditional notions of copyright and better protects public interest concerns.\(^ {287}\) Misappropriation doctrine carves a set of impermissible uses out of a general right of the public to use an intangible interest, whereas a *sui generis* property right grants the owner exclusive control over use of the intangible interest and from this right carves out public interest exceptions.\(^ {288}\) Nevertheless, a doctrine of misappropriation is not inherently limited to regulation of behavior between competitors or commercial approbations.\(^ {289}\) Misappropriation also protects incentives to invest in the creation of an intangible asset from appropriations that destroy all incentive to create the asset.\(^ {290}\)

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\(^{281}\) See *supra* note 180 and accompanying text.

\(^{282}\) See *supra* Parts II.A.2, II.A.3, II.B and III.A.2; see also *supra* notes 25–28 and accompanying text.


\(^{284}\) See *supra* Part II.A.2.

\(^{285}\) See *supra* Parts II.A and III.A.

\(^{286}\) See Paepke, *supra* note 36, at 80; *supra* note 41 and accompanying text.


\(^{288}\) See sources cited *supra* note 287.


The problem with a harmonized doctrine of misappropriation is not its normative underpinnings, but rather, its analytic underpinnings. Although examples are few, consider that the Nordic Catalogue Rule has successfully reduced the pressure on copyright to protect noncreative databases. The principle criticisms of the doctrine of misappropriation have been directed at its amorphous elements. Accordingly, a misappropriation approach can be given a workable analytic foundation if a noncreative database protection law based thereon is particularly tailored to the context of databases. Such an approach would limit the object of protection to databases that require substantial investments of labor or capital to compile. Further, the context in which databases exist requires that protection extend to cover acts of both free-riders and information samaritans. Correspondingly, the importance of databases as the new building blocks of knowledge requires that such protection does not extend so as to prohibitively interfere with public interest uses. In essence, the solution is to create a sui generis misappropriation law, a solution recognized by the Nordic nations decades ago.

Congressional Bill S. 2291 offers a promising solution to, and model for, the protection of noncreative databases based on a doctrine of misappropriation particularly tailored to the context of databases. The current bill clearly recognizes the public interest in the advance of knowledge and access to ideas, information and expression. In particular, S. 2291 ensures: (1) that uses against the norm underpinning misappropriation include non-commercial approbations such as information samaritanism; (2) that sole source data providers may not obtain a de facto property right in data that is injurious to the public interest; (3) that public interest uses for the non-commercial advancement of knowledge are broadly permissible; and (4) that the protec-

291 See Powell, supra note 122, at 1224–25; Hunsucker, supra note 19, at 703; Reichman, supra note 1, at 2476; Raskind, supra note 19, at 881 & n.36.
292 See Karnell, supra note 105, at 67, 70; Reichman, supra note 1, at 2493.
293 See sources cited supra note 291.
294 See Karjala, supra note 21, at 928; Raskind, supra note 19, at 880.
295 See sources cited supra note 294.
296 See supra Part I.A.
297 See supra Part I.B; supra notes 9, 10 and accompanying text.
298 See supra Part II.B.
299 See supra Part III.B.
300 See, e.g., S. 2291, supra note 11, at § 1203(d) and (e) respectively.
tions afforded a noncopyrightable database are limited in time.301 These features of S. 2291 ameliorate the legal uncertainty of protection under a misappropriation regime and ensure the presence of statutory safeguards to protect public interest concerns. This is not to suggest that the world should adopt U.S. law wholesale, but only to illustrate a pragmatic form for a protection based on a doctrine of misappropriation.

B. S. 2291: Exquisitely Tailored for Database Protection

1. S. 2291 Prohibits Non-Commercial Misappropriations

A criticism of protection of noncreative databases under unfair competition law has been that it regulates only behavior between competitors.302 Although misappropriation falls under the rubric of unfair competition law, there is no inherent reason why the norm underpinning the doctrine of misappropriation cannot extend to cover non-commercial and non-competitor behavior.303 Specifically, such non-commercial appropriations can wreak considerable harm on the legitimate interest of the database compiler.304 Accordingly, S. 2291, under §§ 1202, 1207(a)(1), clearly prohibits uses and extractions for both commercial and non-commercial motives.305

301 See S. 2291, supra note 11, at §§ 1202, 1207(a)(1), 1205(d), 1203(d), 1206(e), 1207(a)(2) and 1208(c) respectively.
302 See supra Part III.A.2. and note 167 and accompanying text.
303 See supra note 289.
304 See, e.g., U.S. v. LaMacchia, 871 F. Supp. 535, 536-37, 540 & n.8, 542-43 (D. Mass. 1994). (Involving an MIT student who uploaded commercial software onto electronic bulletin board, to be downloaded for free, and encouraged others to do the same. Although unmotivated by any desire for financial gain, his actions cost the affected software makers over $1 million in losses).
305 See, e.g., S. 2291, supra note 11, at §§ 1202, 1207(a)(1). However, to protect individuals who use or extract information they legitimately believe to be in the public domain, the application of the civil remedies under § 1206 to non-commercial actions should be limited to situations wherein the database compiler can show the individual knew or should have known said information was protected under § 1202 (for example by a simple notice that said database was protected). An appropriate amendment to S. 2291 could be phrased “The court shall reduce or remit entirely monetary relief under section 1206(d) in any case in which a defendant believed and had reasonable grounds for believing that his or her conduct was permissible under this chapter and where such conduct was not undertaken for direct or indirect commercial advantage or financial gain.”
2. S. 2291 Limits the Protection Afforded to Sole Source Databases

The central danger and criticism of legal protection for noncreative databases is that they create a \textit{de facto} property right in the database contents themselves.\textsuperscript{306} This danger is particularly striking in the case of scientific data since practically all sources of scientific data are unique and non-reproducible and hence arise from a sole source.\textsuperscript{307} Accordingly, although S. 2291, as set forth in § 1205(a) in no way affects rights, limitations or remedies arising from trade secrets or the law of contract, S. 2291 makes clear that it in no way limits the constraints imposed by Federal and State antitrust law, especially those applicable to sole source databases.\textsuperscript{308} Consequently, S. 2291 protects compilers from misappropriations for non-public interest uses by free-riders and information samaritans and ensures public interest users significant access to sole source data without the complications of a system of compulsory licensing.\textsuperscript{309}

3. S. 2291 Broadly Protects Nonprofit Educational, Scientific and Research Uses

The principle norm underpinning copyright protection is to promote the advancement of knowledge.\textsuperscript{310} Accordingly, the protections afforded a noncopyrightable database should not provide less protection to uses deemed for the "advancement of knowledge" than those available under copyright. However, simple reiteration of a market harm test, as in § 1203(d), does not protect such users when they are

\textsuperscript{306} See Reichman & Samuelson, \textit{supra} note 2, at 94; Von Simson, \textit{supra} note 123, at 755–56; see also Carson, \textit{supra} note 160, at 295, 311 (describing how a \textit{de facto} monopoly over purely factual materials may be obtained by embedding them in protectable expression).

\textsuperscript{307} For example, the site context of archeological or paleontological finds is destroyed and cannot be reproduced once artifacts are removed. See, e.g., Carson, \textit{supra} note 160, at 283; \textit{supra} Part I.B. Similarly, the observational data of natural phenomena, such as the weather or Landsat images of geophysical phenomena, are unique and non-reproducible. See \textit{supra} Part I.B.

\textsuperscript{308} See S. 2291, \textit{supra} note 11, at § 1205(a) which reads in pertinent part: "nothing in this chapter shall affect rights, limitations, or remedies concerning copyright, or any other rights or obligations relating to information, including laws with respect to patent, trademark, design rights, antitrust, trade secrets, privacy, access to public documents, and the law of contract."

\textsuperscript{309} Certainly the substantial weakening of protection for noncreative databases proposed by this solution may entail a \textit{de facto} compulsory license. Nevertheless, this solution does not entangle the courts in a determination of the value of a license leaving the compiler and user to determine the license's market value in the shadow of the weakened protection for sole source databases.

\textsuperscript{310} See sources cited \textit{supra} notes 43 and 197.
the principle market for a sole source database or a "potential market" for any database. Accordingly, § 1201(3) limits the term "potential market" to markets that are traditional, reasonable or likely to be developed. In addition, and similar to the approach under the Copyright Act, S. 2291 remits or reduces damages in cases of good faith violations that involve nonprofit educational, scientific or research uses. It also makes criminal offenses and penalties inapplicable to violations that involve nonprofit educational, scientific or research uses, and it provides that costs and fees shall be awarded to educational, scientific or research users when actions are brought against them in bad faith.

4. S. 2291 Limits Duration of Protection

Under S. 2291, § 1208(c) protection of noncreative databases is limited to fifteen years. This provision lowers the potential for affording a noncopyrightable database protection exceeding that available under copyright, a possibly impermissible act. Both the bill's purpose, to provide incentive for investment in databases, and its concerns about public access, require that it limit the duration of protection as do the Nordic Catalogue Rules. Further, S. 2291's fifteen year limit facilitates harmonization with the current EU Database Directive or its future incarnations. Consequently, S. 2291 provides compilers with a reasonable time to recoup their investment yet limits the time information may be held out of the public domain.

311 Market harm definitions derived from such indefinite markets as potential ones threaten to swallow any exception for uses in the public interest since, arguably, any conceivable market is a potential market.

312 See S. 2291 at § 1201(3). This limitation is similar to that provided under the Copyright Act. See, e.g., 17 U.S.C. § 107(4) (1994); American Geophysical Union v. Texaco, Inc., 60 F.3d 913, 920 (2d Cir. 1994).

313 See 17 U.S.C. § 504(c)(2) (1994); S. 2291 at § 1206(c).

314 See 17 U.S.C. § 504(c)(2) (1994); S. 2291 at §§ 1206(e), 1207(a)(1) and 1206(d) respectively (emphasis added).

315 See S. 2291, supra note 11, at § 1208(c).

316 See U.S. Const. art. I, § 8, cl. 8.

317 See, e.g., § 49 of the Swedish Copyright Act of 1960 which reads in pertinent part: "Catalogues, tables, and similar compilations in which a large number of particulars have been summarized may not be reproduced without the consent of the producer before ten years have elapsed from the year in which the production was published." Karnell, supra note 105, at 67-68.

318 See Database Directive, supra note 32, art. 16(3) (calling for evaluation of sui generis right provisions no later than January 1, 2001).

319 Although, the time necessary for compilers to recoup their investments will vary from
CONCLUSION

Any approach to harmonization of the EU, Japan, the Nordic Nations, the Berne Convention and the United States approaches to protection of noncreative databases must find an acceptable basis in the philosophical norms of each nation. This Note has inquired into which normative principle is best able to achieve the common goal of noncreative database protection.

The approach taken by the EU Database Directive to protect non-creative databases does not provide an acceptable basis for harmonization of database protection. The Directive's *sui generis* property right is not compatible with the principles of Japanese, U.S. or international copyright law, either in its functional effect or in its normative basis.

A better approach towards harmonization of noncreative database protection is based on a doctrine of misappropriation. The norm of misappropriation is more compatible with traditional notions of copyright and better protects public interest concerns. Towards this end, proposed U.S. Congressional Bill S. 2291 offers a promising and pragmatic model for harmonization of noncreative database protection based on a doctrine of misappropriation particularly tailored to the context of databases. Although it is not suggested that the world should adopt U.S. law wholesale, S. 2291 is illustrative of a regime of protection that addresses the legitimate concerns of noncreative database compilers yet protects the public interest in the advancement of knowledge and access to ideas, information and expression.

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database to database, fifteen years is a reasonable time given that under current U.S. law patents last twenty years from the filing date and the Database Directive *sui generis* protection nominally lasts fifteen years.