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Database Protection in the Digital Information Age

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> It would be an atrocious doctrine to hold that dispatches, the result of the diligence and expenditure of one man, could with impunity be pilfered and published by another . . . . The mere fact that a certain class of information is open to all that seek it, is no answer to a claim to a right of property in such information made by a person who, at his own expense and by his own labor, has collected it.[1]

INTRODUCTION

As industries in the global market increasingly come to rely on electronic compilations of data,[2] calls for new, *sui generis* forms of legal protection for databases have grown apace. Yet, as the quotation above illustrates, the issue of data protection is not new—nor is the world without precedent in determining how the issue of data protection ought to be resolved.

Indeed, the quotation contains the seeds of two possible approaches to data protection, and therein lies the problem. Should the law focus more on the data pilferer's wrong or on the data collector's claim to a property right in the data? In other words, is the

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1. Kiernan v. Manhattan Quotation Telegraph Co., 50 How. Pr. 194, 14 C.O. Bull. 1493 (N.Y. Sup. Ct. 1876).

2. *See* Robert M. O'Neil, *Campus Database Issues*, 27 J.C. & U.L. 109 (2000).

legal solution to the problem of database protection to be found in the law of unfair competition or the law of intellectual property?

While the United States, which currently dominates the world database industry,[3] remains mired in debate over which approach to take, the European Union has aggressively opted to create a new intellectual property right in data. In 1996, after nearly eight years of discussions over how to improve "a very great imbalance in the level of investment in the database sector both as between the Member States and between the Community, and the world's largest database-producing third countries"[4] (the latter being code words for the United States), the European Union promulgated its Directive on the Legal Protection of Databases (EU Database Directive). The Directive not only mandated the harmonization of European copyright law with respect to the protection of compilations of data, but also obliged its members to create a new, *sui generis* form of intellectual property protection for the contents of the database itself, irrespective of its eligibility for copyright or other legal protection. Article 7 of the Directive requires Member States to provide "a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database."[5] Coupled with this controversial new intellectual property right, the Database Directive contains an equally controversial reciprocity provision, which specifies that this right will apply to databases whose makers are nationals or habitual residents of third countries "only if such third countries offer comparable protection to databases produced by na-

3. *See The Collections of Information Antipiracy Act and The Vessel Hull Design Protection Act: Hearing on H.R. 2652 and H.R. 2696 Before the Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 105th Cong. (1997) [hereinafter Kirk Statement] (statement of Michael K. Kirk, Executive Director, American Intellectual Property Law Association) (stating that according to the Gale Directory of Databases, "the U.S. produces 64.2% of all the world's databases. Compared to the 6000+ databases produced in the United States, only nine other countries produce more than 100 databases (Australia, Canada, England, France, Germany, Italy, Japan, Netherlands, and Spain)."), *available at* http://www.house.gov/judiciary/106-kirk.htm.

4. Council Directive 96/9/EC of 11 March 1996, on the Legal Protection of Databases, 1996 O.J. (L 77) 20, recital 11 [hereinafter EU Database Directive].

5. *Id.* at art. 7.

tionals of a Member State or persons who have their habitual residence in the territory of the Community."[6] In other words, unless the United States enacts comparable protection for European databases, U.S. database producers other than those who also establish themselves in an EU member state will not be entitled to this *sui generis* protection.

Not surprisingly, within weeks of the promulgation of the EU Database Directive, the first U.S. bill aimed at creating a similar *sui generis* right in data was proposed in the United States House of Representatives.[7] Yet today, after five years of pitched debate, most recently over two bills embodying the two competing approaches to the problem of data piracy, all the United States seems to have achieved is a legislative stalemate on the issue.

In the now-expired 106th Congress, committees of the United States House of Representatives considered two bills—H.R. 354 (the "Collections of Information Antipiracy Act")[8] and H.R. 1858 (the "Consumer and Investor Access to Information Act").[9] H.R. 354 would effectively create a *sui generis* right, somewhat analogous to that mandated by the EU Database Directive, by prohibiting the extraction or making available to others of all or a substantial part 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 material harm to the primary or a related market of that other person or a successor in interest.[10] Though labeled an "antipiracy" act and containing features, such as the "material harm" requirement, suggestive of a bill designed merely to prevent unfair competition, H.R. 354 nevertheless extends protection to both the primary market of a database producer and to any related market, and defines a "related market" sufficiently broadly that a database producer would

6. *Id.* at recital 56.

7. *See infra* note 149 and accompanying text.

8. H.R. 354, 106th Cong. (1999). Actually, there are two versions of this bill, the original bill as introduced in the House, dated Jan. 19, 1999, and a revised bill as reported in the House (Union Calendar No. 212), dated Oct. 8, 1999. Unless otherwise noted, all references in this article will be to the later version of the bill.

9. H.R. 1858, 106th Cong. (1999). There are likewise two versions of this bill, the original bill as introduced in the House, dated May 19, 1999, and a revised bill as reported in the House (Union Calendar No. 213), dated Oct. 8, 1999. All references herein are to the later version of the bill.

10. H.R. 354 § 1402.

be able control a wide range of non-competitive uses of data and reserve those potential markets for itself.[11]

By contrast, H.R. 1858 would adopt a much narrower approach to data piracy by prohibiting (1) the use of any means or instrumentality of interstate or foreign commerce or communication to sell or distribute to the public a database that is a duplicate of another database and is sold or distributed in competition with the original database and (2) the misappropriation of real-time market information.[12] Indeed, H.R. 1858 arguably does little more than federally codify the common-law tort of "hot news" misappropriation,[13] as it might apply to databases used in interstate and foreign commerce, and provide the Federal Trade Commission with enforcement authority. Like the common-law tort of "hot news" misappropriation, H.R. 1858 responds straightforwardly to the problem of data piracy by prohibiting the wholesale duplication of databases for competitive purposes or the misappropriation of real-time market information, while at the same time ensuring that transformative uses can be made of factual compilations.[14] By contrast, H.R. 354, like the EU Database Directive, will provide database producers with substantial control over what transformative uses can be made of databases, thus potentially undermining competitive conditions in the database industry and discouraging innovative uses of the very databases whose production it is designed to stimulate. Apparently aware of precisely that possibility, the EU specified in Article 16(3) of the Database Directive that by the end of 2001, and every three years thereafter, a report is to be prepared to verify whether the application of the *sui generis* right "has led to abuse of a dominant position or other interference with free competition which would justify appropriate measures being taken, including the establishment of non-voluntary licensing arrangements."[15]

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11. *Id.* § 1401(4). For a detailed discussion of the bill's definition of a "related market," see *infra* notes 159-62 and accompanying text.

12. H.R. 1858 §§ 102, 201.

13. For a discussion of the genesis of this common law tort, see *infra* notes 34-40 and accompanying text.

14. *See generally* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994) (discussing the importance of being able to make transformative uses of the copyrighted works of others).

15. EU Database Directive, *supra* note 4, at art. 16(3). It appears that the EU's concerns were not unfounded. *See* Commission Decision 01/165/EC of 3 July 2001, Case COMP D3/38.044—NDC Health/IMS Health: Interim measures, 2002

The emergence of two competing bills in the United States Congress suggests that the reciprocity provision of the EU Database Directive is skewing the U.S. debate over database protection, just as it was intended to do. Nor is the United States in much of a position to protest this use of a reciprocity provision that foists off a new form of intellectual property protection on an unwilling world, as the United States itself used precisely the same tactic in 1984 to induce the rest of the world to create *sui generis* protection for semiconductor chip designs.[16] Perhaps the best one can hope for is that the legislative stalemate in Congress might continue until either the economic consequences of the EU Database Directive or the legality of its reciprocity provision, or both, can be determined. However, U.S. congressional leaders are said to have already decided that a database bill will be introduced in the current session of Congress, and negotiations with the committee staffs responsible for H.R. 354 and H.R. 1858 have begun.[17] The question is what sort of database bill the United States ought to adopt in light of the challenge posed by the EU Directive.

Accordingly, Part I of this Article will examine how the United States law of copyrights and unfair competition, as well as the emerging law of electronic contracts, currently protects compila-

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O.J. (L 59) 18 (granting interim measures requiring sales data company to license its copyrighted database structure to its competitors based on a finding of abuse of its dominant position). However, this decision was later suspended by the President of the Court of First Instance pending further examination upon appeal; *see* Order T-184/01 R 2 (Oct. 26, 2001), *available at* http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=en; *see also* EC Competition Policy Newsletter, Feb., 2002, at 61, *available at* http://europa.eu.int/comm/competition/publications/cpn/cpn2002_1.pdf.

16. *See* Charles R. McManis, *Taking TRIPS on the Information Superhighway: International Intellectual Property Protection and Emerging Computer Technology*, 41 Vill. L. Rev. 207, 258-59 (1996) [hereinafter McManis, *Taking TRIPS*]; Charles R. McManis, *International Protections for Semiconductor Chip Designs and the Standard of Judicial Review of Presidential Proclamations Issued Pursuant to the Semiconductor Chip Protection Act of 1984*, 22 Geo. Wash. J. Int'l L. & Econ. 331, 338-39 (1988).

17. *See* Robert MacMillan, *House Committees Try To Thaw Database Bill Freeze*, Newsbytes (Mar. 29, 2001) (reporting the reopening of discussions to try to fashion a common database intellectual property bill out of the two conflicting bills), *at* http://www.newsbytes.com/news/01/163826.html; Washington Affairs Office, Am. Ass'n of Law Libraries, *House Legislation to Protect Databases* (July 2001) (reporting on eight weekly meetings, co-hosted by House Judiciary Committee Chairman James Sensenbrenner and House Energy & Commerce Committee Chairman Billy Tauzin, between proponents and opponents of database legislation), *available at* http://www.ll.Georgetown.edu/aallwash/ib0720012.html.

tions of data, and what additional legislative protection is being proposed. Part II will examine how the changing face of the database industry in the new digital age has enhanced both the value and the vulnerability of investments in electronic compilations of data, thus precipitating the current spate of legislative proposals for *sui generis* database protection. Part III will examine the particular conditions and motivations that led to the promulgation of the EU Database Directive, and describe the *sui generis* protection mandated therein. Finally, Part IV will compare the two most recent United States legislative proposals, both with each other and with the EU Database Directive, concluding with some thoughts about what the United States government should do in light of the dilemma it faces in responding to the challenge posed by the EU Database Directive.

I. PROTECTION OF COMPILATIONS OF DATA: CURRENT U.S. LAW AND PROPOSED LEGISLATION

In the United States, calls for *sui generis* database protection began to mount in the wake of the United States Supreme Court's 1991 ruling in *Feist Publications, Inc. v. Rural Telephone Service Co.*,[18] which held that white pages of a telephone directory were not sufficiently original and creative to warrant copyright protection.[19] In *Feist*, the Court reiterated its long-standing insistence "that the fact/expression dichotomy limits severely the scope of [copyright] protection in fact-based works."[20] Specifically, it held that:

> Facts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted. A factual compilation is eligible for copyright if it features an original selection or arrangement of facts, but the copyright is limited to the particular selection or arrangement.[21]

In so holding, the Court repudiated a line of lower court cases that held that compilations of data were copyrightable *per se*, merely because they were the product of the "sweat of the brow" of their producers.[22]

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18. 499 U.S. 340 (1991).
19. *Id.* at 364.
20. *Id.* at 350.
21. *Id.*
22. *Id.* at 352-61.

For almost a century, U.S. copyright protection had seemed to derive from two not altogether consistent theoretical models. On the one hand, the courts insisted that the *sine qua non* of copyright protection was the requirement of "originality," which was defined to mean not only that the work was an independent creation of the author (as opposed to being copied from other works), but also that it possessed at least some minimal degree of creativity.[23] On the other hand, a competing line of lower court decisions involving compilations of data also embraced the "sweat of the brow" or "industrious collection" concept, which viewed copyright protection as a reward for the hard work that went into compiling facts.[24]

The "sweat of the brow" doctrine, however, was seriously undermined by the Copyright Act of 1976[25] and then definitively put to rest by the Supreme Court in *Feist*. Section 103 of the 1976 Copyright Act explicitly included compilations within the subject matter of copyright, but section 101 defined a "compilation" as a "work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."[26] Notwithstanding this language, some lower courts continued to reward "sweat of the brow" by extending copyright protection to mere facts,[27] thus stimulating the Supreme Court to reiterate in *Feist* that compilations are copyrightable only if and to the extent that their selection or arrangement of data is original.[28] As if to preempt any subsequent legislative modification of its holding, the Court emphasized that "originality" of expression is not merely statutory but a constitutional requirement for United States copyright protection.[29]

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23. *See* The Trade-Mark Cases, 100 U.S. 82 (1879); Burrow-Giles Lithograph Co. v. Sarony, 111 U.S. 53 (1884).

24. *See, e.g.*, Jeweler's Circular Publ'g Co. v. Keystone Publ'g Co., 281 F. 83 (2d Cir. 1922); Leon v. Pac. Tel. & Tel. Co., 91 F.2d 484 (9th Cir. 1937).

25. 17 U.S.C. §§ 101-1332 (1994).

26. *Id.* § 101.

27. *See, e.g.*, West Publ'g. Co. v. Mead Data Cent., Inc., 799 F.2d 1219 (8th Cir. 1986) (holding that Mead Data Central's proposal to introduce "star pagination" showing West's page numbers in its own LEXIS database service would constitute copyright infringement).

28. *See Feist*, 499 U.S. at 350.

29. *Id.* at 358-62.

The *Feist* decision has not only brought the lower courts in the United States to heel,[30] but also seems to have gained a measure of international recognition,[31] and the statutory language on which it was based subsequently found its way into the text of the GATT/WTO Agreement on Trade Related Aspects of Intellectual Property Rights, commonly known as the TRIPS Agreement.[32] Article 10(2) of TRIPS states that "compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such."[33] Far from quieting the debate over the protection of databases, however, the *Feist* decision and Article 10 of TRIPS have merely served to transform the terms of the debate, both in the United States and elsewhere.

Frustrated with the *Feist* decision and the limited application of copyright laws to factual compilations, some United States database owners have looked to state misappropriation law to protect their investments. Ironically, the common-law concept of "hot news" misappropriation traces its roots to another seminal United States Supreme Court case, *International News Service v. Associated Press*,[34] decided some seventy years prior to *Feist*. The *International News* case is a relic from an earlier era in which federal courts created their own "federal common law" for application in diversity of citizenship cases. The Court's reasoning in *International News* is reminiscent of the colorful New York Supreme Court quotation appearing at the outset of this article, denouncing the "atrocious doctrine . . . [that would] hold that dispatches, the

30. *See* Matthew Bender & Co. v. West Publ'g. Co., 158 F.3d 693 (2d Cir. 1998) (holding pagination not copyrightable); Warren Publ'g., Inc. v. Microdos Data Corp., 115 F.3d 1509 (11th Cir. 1997), *cert. denied*, 522 U.S. 936 (1997) (holding that a comprehensive compilation of cable system providers was not sufficiently original and was not protected against wholesale copying).

31. *See, e.g.*, Tele-Direct (Publications) Inc. v. Am. Bus. Info., Inc., 76 C.P.R. (3d) 296, 1997 CPR Lexis 1276 (Fed. Ct. of App., Quebec, 1997) (citing *Feist* and other U.S. lower court decisions as "useful guides" in a case holding a compilation of information contained in Yellow Pages directories to be uncopyrightable under Canadian law).

32. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments – Results of the Uruguay Round vol. 31, 33 I.L.M. 81 (1994).

33. *Id.* at art. 10(2).

34. 248 U.S. 215 (1918); *see also* Bd. of Trade v. Christie Grain & Stock Co., 198 U.S. 236 (1905).

result of the diligence and expenditure of one man, could with impunity be pilfered and published by another."[35] In *International News*, the Court held that a news service had a "quasi-property" interest in the news that it had gone to the expense of collecting,[36] and could thus prevent, on a theory of unfair competition, a rival news service from appropriating that news for a competitive purpose even after the news had become public.[37]

Although *International News*, as a part of the federal common law, was effectively overruled by the Supreme Court's later decision in *Erie Railroad Co. v. Tompkins*,[38] which held that federal courts are to apply state common law in diversity cases,[39] its underlying principles have survived in state case law, and indeed, have been applied even in the absence of any competition between the parties, thus coming perilously close to creating de facto (or quasi-) property rights in data.[40] In *Feist* itself, the United States Supreme Court quoted with seeming approval a respected commentator's observation that protection of facts and ideas "may in certain circumstances be available under a theory of unfair competition."[41] More recently, in *National Basketball Association v. Motorola, Inc.*,[42] the Court of Appeals for the Second Circuit ruled that although sports scores were mere facts, thus lacking sufficient originality to qualify for federal copyright protection, they might nevertheless be protected against misappropriation as "hot news"

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35. *Kiernan*, 50 How. Pr. at 194.

36. *Int'l News*, 248 U.S. at 236. It is important to note, however, that the Court's characterization of the news as "quasi property" was primarily designed to sustain the Court's equity jurisdiction over the controversy, as a court of equity generally "concerns itself only in the protection of property rights," but "treats any civil right of a pecuniary nature as a property right." *Id.* (citations omitted).

37. *Id.*

38. 304 U.S. 64 (1938).

39. *Id.* at 78-80. Pockets of federal common law may nevertheless remain, yet are "few and restricted." *See* Atherton v. FDIC, 519 U.S. 213, 218 (1997) (citing O'Melveny & Myers v. FDIC, 512 U.S. 79, 87 (1994) (quoting Wheeldin v. Wheeler, 373 U.S. 647, 651 (1963))).

40. *See, e.g.*, Bd. of Trade of the City of Chicago v. Dow Jones & Co., 456 N.E. 2d 84 (Ill. 1983) (holding that offering a commodity futures contract based on the Dow Jones Industrial Average without the consent of Dow Jones & Co. would misappropriate a valuable business asset of Dow Jones & Co., even though the latter did not deal in commodity futures contracts and had no plans to do so).

41. *Feist*, 499 U.S. at 354 (quoting Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 3.04, at 3-23 (footnote omitted)).

42. 105 F.3d 841 (2d Cir. 1997).

despite their lack of originality.[43] Significantly, however, the court went on to hold that "hot news" misappropriation claims would survive the federal preemption provisions of U.S. copyright law only when the plaintiff and the defendant are in direct competition and the appropriation, if not prohibited, would threaten the very existence of the product or service provided by the plaintiff.[44] Because this had not been shown, the court ordered the NBA's claim for misappropriation dismissed.[45]

Database owners have also sought to avail themselves of various forms of federal and state legislative protection. For example, the Electronic Communications Privacy Act[46] protects electronic communications from interception and provides civil remedies and criminal penalties for violations of the Act.[47] The Act also prohibits intentionally accessing without authorization a facility through which an electronic communication service is provided and thereby obtaining access to an electronic communication while it is in electronic storage in such a system.[48] Database developers have also sought protection under the Lanham Act. Claims for false designation of origin under section 43(a), passing off, and trademark dilution under section 43(c) are potential causes of action for database developers against pirates.[49] When the source and reliability of data is significant to the intended users, these Lanham Act claims may prove efficacious.

With the enactment of the Digital Millennium Copyright Act (DMCA) of 1999,[50] yet another form of protection became available to database producers. The DMCA implements the World Intellec-

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43. *Id.* at 852-53; *but see* Alcatel USA, Inc. v. DGI Technologies, Inc., 166 F.3d 772, 786-89 (5th Cir. 1999) (finding federal preemption).

44. *Nat'l Basketball Ass'n*, 105 F.3d at 853.

45. *Id.* at 853-54.

46. 18 U.S.C. §§ 2510-22, 2701-11 (1994).

47. An "electronic communication" is defined as "any transfer of signs, signals, writing, images, sounds, data, or intelligence of any nature transmitted in whole or in part by a wire, radio, electromagnetic, photoelectronic or photooptical system that affects interstate or foreign commerce . . . ." 18 U.S.C. § 2510(12).

48. *Id.* § 2701(a). An "electronic communications service" is defined as "any service which provides to the users thereof the ability to send or receive wire or electronic communications," *id.* § 2510(15), while the term "electronic storage" is defined as "any temporary, intermediate storage of a wire or electronic communication incidental to the electronic transfer thereof . . . ." *Id.* § 2510(17).

49. 15 U.S.C. § 1125(a) (1994).

50. 17 U.S.C. § 1201 (Supp. IV 1998).

tual Property Organization Copyright Treaty[51] by prohibiting circumvention of copyright protection systems and protecting the integrity of copyright management information systems, including terms and conditions for use of a work.[52] The anti-circumvention provision of the DMCA prohibits (1) the circumvention of technological measures that effectively control access to or a work protected under U.S. copyright law and (2) the manufacture of, importation of, offering to the public of, providing of, or trafficking in any technology, product, service, device, component, or part thereof, that is primarily designed or produced for the purpose of circumventing either anti-access or anti-copying technological measures.[53] The copyright management information provision prohibits the unauthorized removal or alteration of copyright management information or providing, distributing, or importing for distribution, false copyright management information, which is defined to include any terms and conditions for use of the work.[54]

The DMCA explicitly limits its prohibitions to circumvention of technological measures that effectively control access to or copying of "a work protected under this title" [i.e., Title 17 of the U.S. Code], and removal or alteration of "copyright" management information without the authority of the copyright owner.[55] Thus, the DMCA would not seem to protect uncopyrightable databases. However, a party engaging in either circumvention of technological protection measures or deletion or alteration of management information associated with an ostensibly uncopyrightable compilation of data apparently bears the risk that the database will turn out to contain copyrightable subject matter, thereby subjecting the party to liability under the DMCA. Thus, the DMCA appears to provide inadvertent legal protection for self-help technological and contractual measures designed to deter data piracy.

In addition to and complementing the DMCA, another potent legislative source of protection for databases can be found in the recently promulgated Uniform Computer Information Transactions Act (UCITA), which is explicitly designed to make enforcea-

51. The World Intellectual Property Organization Copyright Treaty, Apr. 12, 1997, S. Treaty Doc. No. 105-17 (1997).

52. 17 U.S.C. §§ 1201, 1202 (Supp. IV 1998).

53. *Id.* § 1201.

54. *Id.* § 1202.

55. *Id.* §§ 1201, 1202.

ble so-called "shrinkwrap" and "click-wrap" licenses.[56] UCITA has now been adopted in two states,[57] thus creating the prospect that database contents can be effectively protected by a combination of technological protection measures and "click-wrap" contracts—in short, a kind of "electronic trade secret" protection.

Even before UCITA was promulgated, the potency of this form of database protection had been illustrated in cases such as *ProCD, Inc. v. Zeidenberg*,[58] the facts of which are strongly reminiscent of *Feist*. In *ProCD*, the plaintiff compiled more than 3,000 telephone directories into a computer database and sold a version of the database on CD-ROMs, accompanied by a shrinkwrap license encoded on the CD-ROMs, as well as printed in an instruction manual, which limited the use of the database to non-commercial purposes.[59] The defendant, Matthew Zeidenberg, bought a copy of the CD-ROM but decided to ignore the license and began reselling the information on the Internet to anyone willing to pay a price that was less than what ProCD charged its commercial customers for the database.[60] ProCD filed suit, seeking an injunction against any further dissemination that exceeded the rights specified in the license.[61] The district court refused to grant relief, holding that the licenses were ineffectual because their terms did not appear on the outside of the CD-ROM packages, and that even if the license terms were enforceable contracts, they were preempted under section 301(a) of the United States Copyright Act.[62] In an opinion by Judge Frank Easterbrook, the Court of Appeals for the Seventh

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56. Uniform Computer Information Transaction Act (UCITA), *available at* http://www.law.upenn.edu/bll/ulc/ucita/ucitsFinal00.htm; *see also*, Amelia H. Boss, *Taking UCITA on the Road: What Lessons Have We Learned?*, 7 Roger Williams Univ. L. Rev. 167, 168 n.1 (2001).

57. *See* Md. Code Ann., Com. Law II § 22 (Supp. 2001); Va. Code Ann. § 59.1-43 (Michie 2001). For detailed information about the ongoing debate over the Uniform Computer Information Transactions Act, see www.ucitaonline.com.

58. 86 F.3d 1447 (7th Cir. 1996); *see also* Hill v. Gateway 2000, Inc., 105 F.3d 1147 (7th Cir. 1997), *cert. denied*, 118 S. Ct. 47 (1997); Brower v. Gateway 2000, Inc., 676 N.Y.S.2d 569, 570 (N.Y. Sup. Ct. 1998); M.A. Mortenson Co. v. Timberline Software Corp., 970 P.2d 803 (Wash. Ct. App. 1999); *but see* Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91 (3d Cir. 1991); Klocek v. Gateway, Inc., 104 F. Supp. 2d 1332 (D. Kan. 2000); U.S. Surgical Corp. v. Orris, Inc., 5 F. Supp. 2d 1201 (D. Kan. 1998).

59. *See ProCD*, 86 F.3d at 1449-50.

60. *Id.* at 1450.

61. *Id.*

62. *Id.* at 1450, 1453.

Circuit reversed and remanded with instructions to enter judgment for the plaintiff. The court of appeals held that the contracts were enforceable under Article 2 of the Uniform Commercial Code and not preempted by federal copyright law.[63] Though the case is controversial, it nevertheless underscores the potency of existing legal protections for databases under U.S. law.

Meanwhile, the European Union, recognizing its shrinking market share in the global information industry, promulgated its landmark 1996 Database Directive requiring member countries to implement *sui generis* protection that accords a broad, transferable right to prevent the extraction and/or utilization of the whole, or a substantial part (evaluated qualitatively and/or quantitatively), of the contents of a database, whether or not copyrightable.[64] The Directive makes it equally clear that the maker of a database may not prevent a lawful user from extracting and/or re-utilizing insubstantial parts of the database, evaluated qualitatively and/or quantitatively, for any purpose whatsoever, and that any contractual provision to the contrary shall be null and void.[65] Member states may (but are not required to) create exceptions, allowing lawful users of a database made available to the public to extract or re-utilize a substantial part of its contents for three limited purposes.[66] The term of protection is fifteen years from the first day of the next calendar year following completion of the database, or if it is made available to the public, fifteen years from the first day of the next calendar year following publication.[67] Any substantial change in the contents of the database that would result in the database being considered a substantially new investment would be entitled to its own term of protection.[68] Finally, in stating that

63. *Id.* at 1452-55. For a critique of the *ProCD* decision, see Charles R. McManis, *The Privatization (or "Shrink-wrapping") of American Copyright Law*, 87 Cal. L. Rev. 173, 178-79, 182-84 (1999).

64. EU Database Directive, *supra* note 4, at art. 7.

65. *Id.* at art. 8.

66. *Id.* at art. 9. Lawful users of a database made available to the public may extract or re-utilize as substantial part of its contents: (a) in the case of extraction for private purposes of the contents of a non-electronic database; (b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved; and (c) in the case of extraction and/or re-utilization for the purposes of public security or an administrative or judicial purpose. *Id.*

67. *Id.* at art. 10.

68. *Id.*

protection will be accorded to databases whose makers are not nationals, habitual residents, or legal persons established in a member state only if the country of origin of the database offers "comparable protection" to databases produced by nationals, habitual residents or legal persons established in a member country of the European Community, the Directive seems to place those segments of the U.S. database industry that do not have an established presence in the EU at a potentially serious competitive disadvantage in the EU.[69]

Not surprisingly, promulgation of the EU Database Directive immediately generated demands for *sui generis* database protection in the United States and stimulated a series of proposed legislative responses. Thus far, however, the only result has been a legislative stalemate. As we have seen, the two bills most recently considered by the United States Congress—H.R. 354 and H.R. 1858—reflect two competing approaches to *sui generis* database protection. H.R. 354 would accord a database developer a limited-term right,[70] somewhat analogous to that created by the EU Database Directive, to prevent non-competing as well as competing uses of substantial portions of a database, thus recreating a limited form of the "sweat of the brow" protection laid to rest in *Feist*.[71] By contrast, H.R. 1858 would provide a narrower form of misappropriation protection by prohibiting only (1) the sale or distribution to the public of a competing duplicate of a database collected and organized by another and (2) misappropriation of real-time market information, thus effectively "re-federalizing" the holding in *International News*, at least as applied to databases.

Other countries are closely following the debate in the United States over database protection. Japan may have opted in favor of an unfair competition approach to database protection when it amended its Unfair Competition Law in 1993 to prohibit, for a limited three-year term of protection, the slavish imitation (referred to

69. *See id.* at art 11(3) and recital 56; *but see infra* note 184 and accompanying text.

70. H.R. 354 § 1409(c), 106th Cong. (1999). For a detailed discussion of the interesting way H.R. 354 manages to create a limited term of protection and yet maintain its credentials as an antipiracy act, see *infra* notes 168-71 and accompanying text.

71. H.R. 354, § 1409(d).

in Japanese as "dead copies") of another's goods.[72] While the subject of slavish copying under Japan's Unfair Competition Law can only be products, not services, computer software and databases apparently qualify as products when marketed on floppy discs or CDs, and the law may even extend to virtual goods.[73] Australia is said to be "walking a fine line between, on the one hand, supporting improvement of copyright protection against new uses in the digital environment and, on the other, avoiding excessive copyright protection resulting in denial of reasonable access to works and/or increased adverse balance of trade in copyright royalties."[74] Korea is also considering how databases ought to be protected.[75] Accordingly, the choice of one U.S. bill over the other will be extremely influential in determining the fate of database protection on the global scale.

II. THE CHANGING FACE OF THE DATABASE INDUSTRY

A. *Databases and Digital Technology*

Digital technology is radically changing the face of the database industry. The number of files in electronic databases has increased from four billion in 1991 to eleven billion in 1997, a staggering 200+% increase.[76] The number of searches of such information grew comparably, roughly doubling during any five-year period during the past decade.[77] Likewise, the source of database development has dramatically shifted. In the late 1970s, 78% of all databases were produced by government, academic and other nonprofit providers, while the commercial sector accounted for the remaining 22%. By 1997, the percentages were exactly reversed.[78]

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72. *See* Unfair Competition Act [Japan], Law No. 47/1993, § 2(3) (May 19, 1993); *see generally* Christopher Heath, The System of Unfair Competition Prevention in Japan 120-40 (2001) (discussing Japan's approach to combating unfair competition).

73. *See* Heath, *supra* note 72, at 130-31.

74. Matilda in Cyberspace, Berne Protocol–Latest Development (July 9, 1996) (e-mail from Jaime Wodetski, commenting on database protection proposals prepared for the benefit of the Libraries Copyright Committee), *at* http://www.anu.edu.au/Matilda/issues/199607/715.source.html (last visited Apr. 11, 2001).

75. *See* Sang Jo Jong & Junu Park, *Property Versus Misappropriation: Legal Protection for Databases in Korea,* 8 Wash. U. J.L. & Pol'y (forthcoming) (2002).

76. O'Neal, *supra* note 2, at 109.

77. *Id.*

78. *Id.*

While the database industry has long been producing databases in the absence of *sui generis* protection, the digital revolution has both enhanced the utility of databases and exposed the vulnerability of investments in their production. Although printed databases, such as telephone directories and retail catalogs, remain important in certain industries, digitized multimedia databases have far more utility than printed compilations. Because electronic databases can be navigated more efficiently than printed publications, they are of growing importance to the database industry and have made the creation of exhaustive factual compilations practical.[79] Internet search engines allow users to engage in their own selection and arrangement of the contents of mega-databases into smaller, individually tailored databases.

The limitation of copyright to the original selection and arrangement of a database was developed with printed databases in mind. The selection and arrangement of data in a printed database creates value to the user because a random collection of facts would be of little or no use.[80] Today, database software performs the tedious task of coordination and arrangement. Internet databases are generally arranged to maximize storage capacity and only become arranged for human use upon a user's individual request.

Free riding in the database industry has been facilitated by the exponential increase in the speed at which data can be transmitted. In 1991, the year *Feist* was decided, it would have taken the average modem, working 24 hours a day, 154 days to copy an average sized database.[81] With current modems and the advent of DSL, the same database can be copied in 1.7 minutes.[82]

Electronic databases on the Internet afford many advantages, such as access and ease of subsequent modifications; however, accessibility also facilitates data piracy. A closed network would allow for a higher level of security and easier detection of unauthorized uses, but is more difficult and time-consuming and

79. *See* Kirk Statement, *supra* note 3, at 2 (noting that of the approximately 11,000 databases listed in the Gale Directory of Databases, almost all are in electronic form—5,950 are made available online, 3,000 are on CD-ROM, 1,000 on diskette, and 700 on magnetic tape).

80. *Id.* at 3.

81. *Id.* at 5.

82. *Id.*

may tend to discourage use.[83] As internet applications become more widespread, consumers expect access to data over the web.

Moreover, the mere ability to protect a database with anti-copying technology does not necessarily obviate the need for legal protection. The fact that a landowner can erect a fence around his property does not mean he should forfeit a cause of action for trespassing. The question currently before U.S. legislators is what kind of fences should be created and what kind of trespass claims should be allowed.

B. *Reasons For Providing* Sui Generis *Protection of Databases*

There are several reasons for providing *sui generis* protection for databases. First, the collection and organization of data require a large up-front investment. Second, the accessibility of information in the digital information age has made the wholesale copying of large compilations a simple task. Third, there is considerable concern among U.S. companies that the lack of protection in Europe, in the absence of reciprocal protection in the United States, will put them at a distinct competitive disadvantage.

The compilation of a database requires a substantial investment. Producers of printed databases at one time enjoyed natural "lead-time" with which to exploit their product, as copying a large printed compilation was time consuming. Today, the wholesale copying of an electronic database can be completed in seconds with 100% accuracy. The concept of providing artificial "lead-time" to minimize harm to a database developer's market is reflected in the state common law "hot news" misappropriation doctrine.[84] Providing a limited term of such artificial leadtime allows database developers to recoup their investment of research and development costs.[85] If free riders can immediately and perfectly copy the database, the original developer will be deprived of the opportunity to develop its market niche.

Because under current copyright law databases are protected only if and to the extent that they contain material selected or arranged in an organized manner, massive databases intended to be

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83. *Id.*

84. For a discussion of the origins of this doctrine, see *supra* notes 34-40 and accompanying text.

85. *See generally* J. H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 Vand. L. Rev. 51, 145-46 (1997).

comprehensive may fall short of the minimum level of originality required by *Feist.* Moreover, computer searchable databases are not organized in any humanly understandable manner until there is a request from a specific user. Even if the organization of a comprehensive database does present a modicum of creativity, the resulting "thin" copyright protection may be abrogated by the merger doctrine.[86] Those works surviving the merger doctrine will be subject to a fair use privilege that is generally thought to be far broader when factual compilations, rather than highly creative works, are involved.[87]

Economists argue that databases present a significant potential for a free rider problem.[88] For example, the American Medical Association (AMA) licenses many of its databases internationally.[89] If the EU reciprocity provision is enforced in the absence of U.S. legislation, the AMA fears it may have little recourse for the widespread appropriation of its efforts in Europe.[90] "Adopting database protection legislation in the United States could be a step toward providing the necessary 'reciprocity' in order to protect U.S. databases in the EU."[91]

C. *The Dangers of Too Much Protection*

As compelling as these reasons may be for providing some sort of *sui generis* protection for databases, there are equal dangers in providing too much protection. Recognizing the market effects of intellectual property legislation is essential to the maintenance of

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86. *See* Morrissey v. Proctor & Gamble Co., 379 F.2d 675, 678-79 (1st Cir. 1967) (stating that when there is only a limited number of ways to express an idea, courts will find that the idea has merged with the expression and thus not copyrightable). Highly factual or functional expression, such as recipes, parts lists, identification numbers, and the like, even if capable of being expressed in more than one way, are particularly vulnerable to application of the merger doctrine.

87. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).

88. *See, e.g., Collections of Information Antipiracy Act: Hearing on H.R. 2652 Before the Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 105th Cong. (1998) [hereinafter *Hearing 2652*] (statement of Robert E. Aber, on behalf of The NASDAQ Stock Market, Inc.), *available at* http://www.house.gov/judiciary/41143.htm.

89. *Id.* (statement of Richard F. Corlin, M.D., on behalf of the AMA), *available at* http://www.house.gov/judiciary/41145.htm.

90. For a less alarmist view of the availability of protection for U.S. databases in Europe, see *infra* note 184 and accompanying text.

91. *See Hearing 2652, supra* note 88 (statement of Richard F. Corlin, M.D., on behalf of the AMA), *available at* http://www.house.gov/judiciary/41145.htm.

a sound industrial policy. The combination of *sui generis* database protection, copyright law, unfair competition law, contract law and encryption measures may overprotect databases and thus allow database developers to dominate markets and extract monopoly profits.

Opponents of *sui generis* protection for databases may well argue that no further economic incentive is needed in the United States, as its database industry is not only thriving, but dominating the global market place under current U.S. law. Because copyright protection requires only a modicum of creativity in selection and arrangement, databases could probably be organized sufficiently to qualify for at least "thin" copyright protection–though not for protection against wholesale duplication of the data itself. As we have seen, database developers can also rely on the contractual self-help measures of the sort authorized by UCITA, which validates and enforces click-through agreements.[92] Also available to database developers are the technological self-help measures protected by the DMCA, which prohibits both the circumvention of technological protection for copyrighted works and the deletion or alteration of any copyright management information, including conditions for use of the work.[93]

The scientific research community claims that *sui generis* database legislation of the sort mandated by the EU Database Directive and embodied in legislative predecessors of H.R. 354 will increase costs for future research projects.[94] Scientific researchers claim that implementation of such legislation will make it more difficult and costly to access data concerning a wide range of topics such as weather statistics and human genome data.[95] Some data is so expensive that with *sui generis* database protection in effect, it would be cost-prohibitive to gather a large collection of facts.[96] One particularly striking example of the harm that can result from a grant of property rights in data can be found in the privatization

92. *See supra* notes 56-57 and accompanying text.

93. *See supra* notes 50-55 and accompanying text.

94. *See* Andrew Lawler, *Database Access Fight Heats Up*, Science, Nov. 15, 1996, at 1074.

95. *Id.*

96. *See, e.g.*, Anne Linn, *History of Database Protection: Legal Issues of Concern to the Scientific Community* (Mar. 3, 2000) ("a single synthetic aperture radar scene costs $1600."), *at* http://www.codata.org/codata/data_access/linn.html (last visited Apr. 11, 2001).

of data from the Landsat series of remote sensing satellites.[97] Following privatization, the prices of Landsat data increased from approximately $400 to $4,400 per image, effectively putting them out of reach of most academics and independent researchers.[98]

More importantly, as one congressional witness noted: "To a great degree, the value of technology is cumulative. We cannot make progress without building freely on the data and results of the past."[99] Likewise, in testimony before the House of Representatives Subcommittee on Courts and Intellectual Property, a spokesman for several large scientific organizations stated that:

> Data are the building blocks of knowledge and the seeds of discovery. They challenge us to develop new concepts, theories, and models to make sense of the patterns we see in them. They provide the quantitative basis for testing and confirming theories and for translating new discoveries into useful applications for the benefit of society. They also are the foundation of sensible public policy in our democracy. The assembled record of scientific data and resulting information is both a history of events in the natural world and a record of human accomplishment.[100]

When assessing the value of *sui generis* legislation and deciding to what degree exclusionary rights should be granted, lawmakers must balance the social benefits of databases that would not be available in the absence of protection against the loss of innovative and transformative uses of databases that might not occur because of the existence of database protection. The scientific community and research and development industries frequently conduct research by applying novel theories of analysis to existing data in order to highlight certain trends. By reviewing larger databases and carefully organizing selected data, a researcher may discover

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97. *See* Michael J. Bastian, *Protection of "Noncreative" Databases: Harmonization of United States, Foreign and International Law*, 22 B.C. Int'l & Comp. L. Rev. 425, 431 (1999).

98. *Id.* at 431-32.

99. *Hearing 2652*, *supra* note 88 (statement of Tim D. Casey on behalf of the Information Technology Association of America), *available at* http://www.house.gov/judiciary/41149.htm.

100. *Collections of Information Antipiracy Act: Hearing on H.R. 354 before the Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 106th Cong. (1999) (statement of Joshua Lederberg, Nobel laureate, on behalf of NAS, NAE, IOM and the American Association for the Advancement of Science), *available at* http://www.house.gov/judiciary/106-lede.htm.

trends lost in the larger context of the original database. By further refining the original data, secondary databases thus add value to the original.[101]

Some sectors of the information technology industry itself are also disturbed by the prospect of *sui generis* protection for databases. They claim that the imposition of increased business costs will drive the entire information technology industry offshore and heighten the dangers of incipient monopoly.[102] As one congressional witness noted: "Tom [Feist] was left with no choice but to copy listings in order to provide consumers a convenient, one-book directory covering eleven different service areas, because one of the telcos refused to license its listings to him."[103] Internet based companies argue that database protection will result in industry concentration, and will increase the cost and diminish the utility of search engines, as web browsers will either have to maintain their own databases or license them from competitors.[104] Technologically oriented companies also predict rising costs associated with world wide web industries due to monopoly pricing.[105] Concern has also been expressed that "granting protection for interface specifications could threaten competition on the Internet" by concentrating a highly competitive industry into a nucleus of dominant firms.[106]

Overly broad database protection could thus inhibit the production of transformative databases by raising barriers to entry

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101. National Research Council, Preserving Scientific Data on Our Physical Universe 16 (1995):

> In all areas of research, the collection of data sets is not an end in itself, but rather a means to an end, the first step in the creation of new information, knowledge, and understanding. As part of that process, the original databases are continually refined and recombined to create new databases and new insights. Typically, each level of processing adds value to an original (raw) data set by summarizing the original product, synthesizing a new product, or providing an interpretation of the original data.

Id.

102. *Hearing 2652*, *supra* note 88 (statement of Tim D. Casey on behalf of the Information Technology Association Of America), *available at* http://www.house.gov/judiciary/41149.htm.

103. *Id.* (statement of William Hammack on behalf of the Association of Directory Publishers), *available at* http://www.house.gov/judiciary/4116.htm.

104. *See generally id.* (discussing the impact of concentrated ownership) (statement of Jonathan Band on behalf of the Online Banking Association), *available at* http://www.house.gov/judiciary/41148.htm.

105. *Id.*

106. *Id.*

and costs associated with gathering, verifying and maintaining compilations.[107] While observations and facts have little inherent value, the collection and processing of such facts to discern trends adds economic value to the bare facts. Unprocessed facts are the most difficult to understand and frequently of little use to anyone other than an expert researcher.[108] "With every successive level of processing, the data tend to become more understandable and frequently are better documented for the lay user."[109] As a matter of sound public policy, scientists should be encouraged to analyze and refine, rather than simply collect, data; protection should only be accorded to compilations that add value to the underlying facts by providing a new or creative organization. Regard for the value of transformative uses of databases reveals an overlap with copyright protection. As raw facts are selected, refined and arranged, their expression is more likely to benefit from copyright protection.

Because *sui generis* protection will create an economic barrier to the access of information, not only companies but also developing countries would inevitably face higher barriers to entry. The worldwide implementation of protective legislation for databases could have profound economic consequences for developing countries. Because the right to exclude is inherent in intellectual property rights, "enhancing the value of the intellectual property assets of one company—or country—will necessarily lead to increased intellectual property liability of other companies or countries."[110]

D. *Term of Protection*

A further problem posed by *sui generis* proposals for database protection is defining the term of protection. There are three possible schemes for defining the term of protection for a database. The first provides static protection for a term beginning at the completion of the original edition of the database. The second provides dynamic protection for the most recent edition of the database in

107. *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994).

108. *See* J. H. Reichman & Paul F. Uhlir, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science on Technology*, 14 Berkeley Tech. L.J. 793 (1999).

109. *Id.* at 813.

110. Charles R. McManis, *Intellectual Property and International Mergers and Acquisitions*, 66 U. Cin. L. Rev. 1283, 1289 (1998).

its entirety. The third provides variable protection for the original database and subsequent additions for staggered fixed terms.

The static model protects an initial investment, but does not provide incentives for the developer to update the compilation. The static model has an inherent bias in favor of historic data, as updates to databases would not be protected. Dynamic protection encourages further revision and development of a database by granting a new term of protection for each new edition of the work. A major concern regarding dynamic protection for electronic databases is that the term may effectively be perpetual for frequently updated databases, unless some method of distinguishing between new and old material is specified.[111] The variable model provides a fixed term of protection to the original work and protects new entries in future editions for a similar term, resulting in staggered terms of protection for different entries in the same database. Protecting only those modifications that were made after the initial term expires may be impractical. Either the database developer would have to provide notice, which would create unnecessary bulk and complexity within the database, or the user would incur the burden of identifying which entries were protected and which were not.

The very difficulty in developing a workable option regarding the term of a property right in data suggests that a liability scheme may be preferable.

III. THE EUROPEAN DIRECTIVE

A. *Impetus for the EU Directive*

The dilemma for Europe is that the United States currently dominates the world database industry.[112] While in 1990 European database developers produced almost half the world total of databases, they accounted for only one-quarter of the total revenue.[113] The explanation for the discrepancy is that non-profit pro-

111. *See infra* note 132 and accompanying text.

112. Mortimer B. Zuckerman, *The Times of Our Lives*, U.S. News & World Rep., Dec. 27, 1999, at 68 (stating that of the "48 information technology companies that Morgan Stanley Dean Witter believes will enjoy a competitive advantage over the next number of years, 31 are American. Only six are European.").

113. *See* Charles von Simson, Note, *Feist or Famine—American Database Copyright as an Economic Model for the European Union*, 20 Brook. J. Int'l L. 729, 731 (1995).

ducers (i.e., governments) produced the majority (54%) of European databases, whereas the private sector produced the majority of databases in the United States.[114] With one exception, Europe is nearly completely dependent on foreign commercial databases.[115] The exception is Reuters, a U.K. corporation, which is the world's largest supplier of real-time financial information.[116] Given this state of affairs, it is initially surprising that the EU would be the first to implement highly protectionist database legislation. There are however basically two underlying reasons—one technological and one linguistic.

1. *Development of Computer Related Technology*

As the market for printed databases deteriorates, the integration of modern computing technologies becomes increasingly important.[117] The European Union sought legislative protection for databases in an effort to reverse a growing trade deficit in the electronic data market. The promulgation of the Database Directive came on the heels of a 1994 study of electronic information services, which stated that, "with the exceptions of the United Kingdom and the Netherlands all EEA countries had negative trade balances."[118]

The digital revolution originated in the United States rather than in Europe, and the European Union is thus getting a late start. The Internet was created by the United States government and quickly fostered "a thriving Internet core economy, creating new businesses, new revenue streams, and, more importantly, new jobs."[119] As of 1997, the United States was acknowledged to have

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114. *Id.*

115. *See* Information Market Observatory, *European Information Trends*, § 1, *at* http://158.169.50.95:10080/imo/en/trend96/trend96-toc.html (last visited Dec. 11, 2001). Iceland imports 93.3% of data, Austria imports 86.2%, and Luxembourg imports 88.0%. *Id.*

116. *Id.* § 3.5.

117. Of 147 European directory publishers, only 27 earned gross revenues of 50 million ECU per year. These publishers are also responsible for many retail catalogs. As corporate catalogs are indicative of future retail performances, the potential loss of catalog publication companies within the EU may make it easier for foreign firms to develop a significant market share. *Id.*

118. *Id.* § 2.2.

119. A European Initiative in Electronic Commerce, Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, at para. 17, *available at* http://www.cordis.lu/src/ecomcom1.htm (last updated Apr. 16, 1997).

built a substantial lead over Europe.[120] The EU also acknowledged that a similar lead seemed to be opening up in the strategic sector of electronic commerce tools, products and technologies that underpin the future development of electronic commerce.[121]

2. *Linguistic Fragmentation*

Linguistic fragmentation may be another reason that the European market share of the database industry is eroding. The EU operates in eleven different languages; every document produced by EU government authorities is translated into each language before publication.[122] The large number of languages complicates competitive markets by eliminating economies of scale in the production of language-based databases. As English is the preferred language of many business transactions, the demand is higher for English-based databases.

Between 1992 and 1998 the percentage of sites based on English rose from 67% to 70%.[123] The worldwide number of internet sites based on the English language is currently 65.1%.[124] As databases are frequently based in part on prior data compilations, the entrenchment of English language databases should continue. Additionally, the two largest encyclopedia services, Microsoft's Encarta and the British Encyclopedia Britannica, are English-based works.

Nearly half of the current 250 million Americans rely on internet based data.[125] That consideration alone accounts for the high demand for data provided in the English language. Moreover, recent economic growth in the United States has encouraged further capital investment in the information technology industry.[126] The United States is also home to many of the world's major software producers, including AT&T, Hewlett Packard, Microsoft,

120. *Id.* at para. 18.

121. *Id.*

122. *See, e.g.*, http://europa.eui.int. The official European Union website is available in eleven different languages.

123. Equally significant is the numbers that underlie those percentages. In 1992, 1,489 of 2,213 multimedia databases were in English. By 1998 the number of multimedia databases had risen to 28,199, of which 19,602 were in English. *Id.* at 31.

124. *Id.* at 4.

125. *Id.*

126. Information Market Observatory, *supra* note 115, § 4.1.

Motorola, IBM, GTE, Lucent Technologies and Oracle. As software is important to the creation of databases, the platform on which they are created is most often based on English

B. *The EU Database Directive and Its Implementation*

The EU Database Directive, promulgated on March 11, 1996, mandated implementation by all states in the European Economic Area by January 1, 1998.[127] As we have seen, the EU Database Directive both defines the scope of copyright protection for databases and creates a new *sui generis* right. Consistent with Article 10 of TRIPS, the Directive specifies that copyright protection extends to databases that by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation.[128] The exclusive rights granted to qualifying databases largely parallel the exclusive rights granted under U.S. copyright law.[129] The *sui generis* rights are vested in "a maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment" in its creation, and allow the maker to prevent the extraction and/or re-utilization of the contents in whole or in any substantial part (evaluated qualitatively and/or quantitatively).[130] Although the initial term of the *sui generis* right is fifteen years from the date of completion of a database, the EU Directive mandates a new term of protection for any database in which the original contents undergo substantial change, and imposes no obligation to identify what data is new and what has ostensibly fallen into the public domain.[131] The effect of this provision is to create a perpetually exclusive right for dynamic

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127. EU Database Directive, *supra* note 4, at art. 16, § 1.

128. *Id.* at art. 3.

129. *Id.* at art. 5. The Directive provides:

> The author of a database shall have the exclusive right to carry out or authorize:
>
> (1) temporary or permanent reproduction by any means and in any form, in whole or in part
>
> (2) translation, adaptation, arrangement and any other alteration
>
> (3) any form of distribution to the public of the database or copies thereof
>
> (4) any communication, display or performance to the public
>
> (5) any reproduction, distribution, communication, display or performance to the public of the results of the acts referred to in (b).

Id.

130. *Id.* at art. 7, § 1.

131. *Id.* at art. 10, §§ 1, 2.

databases.[132] Also troubling is that the EU Directive authorizes but does not require member states to create fair use exceptions to the general prohibition.[133]

Two reasons have been given to explain why the EU adopted a *sui generis* property right rather than a norm of unfair competition—(1) the logistical difficulty of harmonizing unfair competition laws across the board and (2) a desire to protect databases from "information Samaritans" as well as free riders.[134] Some commentators have observed, however, that the creation of the *sui generis* right mainly serves its intended purpose to "favor European database publishers at the expense of their customers and non-EU competitors."[135] Others have noted a discrepancy between the economic arguments justifying the protection of database contents and the particular solution proposed in the Directive.[136] The main reason given for a "copyright plus" approach to database protection is to prevent the potential damage caused by the slavish copying by competitors; the "economic case for the creation of a right to prevent extraction and reutilization of unoriginal content by users has never been satisfactorily explained."[137] Even so, the compromise reached in the Database Directive has satisfied neither database makers nor users.[138] Whereas users would have preferred to see compulsory licensing provisions incorporated into the Directive, rather than simply held in reserve by the review clause of Article 16, database makers would have liked, among other things, to prevent the extraction and re-utilization of insubstantial amounts of the contents of databases, if not by law, then by contract.[139]

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132. The danger of inadvertently creating perpetual protection for databases in the United States was duly noted. *See The Collections of Information Antipiracy Act: Hearings on H.R. 354 Before the Subcomm. on Courts and Intellectual Prop. of the Comm. on the Judiciary*, 106th Cong. (Mar. 19, 1999) [hereinafter Pincus Statement] (statement of Andrew J. Pincus, General Counsel, United States Department of Commerce), *available at* http://www.house.gov/judiciary/106-pinc.htm.

133. EU Database Directive, *supra* note 4, at art. 9; *see also supra* note 66 and accompanying text.

134. *See* Michael J. Bastian, *supra* note 97, at 444; Mark Powell, *The European Union's Database Directive: An International Antidote of the Side Effects of Feist?*, 20 Fordham Int'l L.J. 1215, 1224-25 (1997); Reichman & Samuelson, *supra* note 85, at 81.

135. *See* von Simson, *supra* note 113, at 735.

136. Powell, *supra* note 134, at 1225.

137. *Id.*

138. *Id.* at 1217.

139. *Id.*

As of the end of 1998, only nine member states had passed national legislation.[140] The Commission of the European Union was forced to file complaints in the European Court of Justice against several member states.[141] Today, with the exception of Ireland,[142] all member states are now in compliance with the Directive.[143] However, the Directive has yielded disappointing results.[144] Harmonization of the originality standard for copyright protection has not been achieved. Moreover, in some countries compilations of data are now subjected to a *triple* standard of protection, as countries which previously granted a measure of protection to mere compilations of data have invoked their right under Recital 52 of the Directive to retain exceptions traditionally specified by such rules.[145] Copyright limitations applicable to databases continue to vary from country to country, as do, albeit to a lesser degree, the limitations on the *sui generis* right.

C. *Reciprocity*

The European Database Directive contains a reciprocity provision that only accords protection to non-resident foreigners whose home countries have enacted similar legislation.[146] While this pro-

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140. Linn, *supra* note 96, at Table 1. The nine states were: Austria, Jan. 1, 1998; Belgium, Sept. 1, 1998; Denmark, July 1, 1998; Finland, Apr. 4, 1998; France, June 16, 1998; Germany, Jan. 1, 1998; Spain, Apr. 1, 1998; Sweden, Jan. 1, 1998; United Kingdom, Jan. 1, 1998.

141. Countries with no implementation legislation as of January 1, 1999: Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Iceland, Norway and Liechtenstein. *See, e.g.*, Case C-484/99, Comm'n v. Hellenic Republic (1999) 2000 O.J. (C47/24); Case C-506/99, Comm'n v. Portuguese Republic (1999) 2000 O.J. (C79/13).

142. *See* ECJ C-370/199, Comm'n v. Ireland, 11 January 2001.

143. *See* F.W. Grosheide, *Database Protection—The European Way*, 8 Wash. U. J.L. & Pol'y (forthcoming) (2002).

144. P. Bernt Hugenholtz, *Implementing the European Database Directive*, *in* Intellectual Property and Information Law: Essays in Honour of Herman Cohen Jehoram 194 (Jan C. Kabel & Gerard J.H.M. Mom eds., 1998).

145. EU Database Directive, *supra* note 4, at recital 52.

146. *Id.* at recital 56, which states:

> [T]he right to prevent unauthorized extraction and/or re-utilization of a database should apply to databases whose makers are nationals or habitual residents of third countries or to those produced by legal persons not established in a Member State, within the meaning of the Treaty, only if such third countries offer comparable protection to databases produced by nationals of Member States or persons who have their habitual residence in the territory of the Community.

Id.

vision discriminates on the basis on nationality, the Directive was carefully drafted to avoid conflict with the national (i.e., non-discriminatory) treatment provisions of both TRIPS and the Berne Convention.[147] As the United States is now learning, allowing countries with sufficient market power to force *sui generis* intellectual property provisions on other countries through reciprocity provisions creates a dangerous precedent. As recent experience illustrates, industrialized nations can use reciprocity provisions to influence the public policy choices of other countries. Further, developing countries lacking sufficient market power to impose legislation through reciprocity provisions will likely be further disadvantaged relative to industrialized nations.

It has been argued elsewhere that the new, *sui generis* data right (like the semiconductor chip design right that preceded it) might fall within the meaning of "industrial property" as used in the Paris Convention for the Protection of Industrial Property; thus, even if data rights fall outside the national treatment provisions of TRIPS and the Berne Convention, the *sui generis* data right may be subject to the national treatment provisions of the Paris Convention.[148] However, until this question is raised and resolved, either in World Trade Organization (WTO) dispute settlement proceedings or elsewhere, the United States must make a unilateral determination as to what is in its national interest.

IV. UNITED STATES LEGISLATIVE EFFORTS

A. *History of Database Protection in the United States*

Within ten weeks of the promulgation of the EU Database Directive, the first legislation aimed at creating a *sui generis* right in the United States, H.R. 3531, was proposed in the House of Representatives.[149] H.R. 3531 would have created a very strong property right with a twenty-five year term and potentially severe

147. Debra B. Rosler, *The European Union's Proposed Directive for the Legal Protection of Databases: A New Threat to the Free Flow of Information*, 10 High Tech. L.J. 105, 137 (1995).

148. *See* McManis, *Taking TRIPS*, *supra* note 16, at 258-59; Paul E. Geller, *Intellectual Property in the Global Marketplace: Impact of TRIPS Dispute Settlements?*, 29 Int'l. Law. 99, 112 (1995).

149. Database Investment and Intellectual Property Antipiracy Act of 1996, H.R. 3531 §§ 6, 9, 104th Cong. (1996).

criminal sanctions for infringement.[150] Opposition was unexpectedly intense and the bill never reached the floor. H.R. 3531's sequel, H.R. 2652, responded to concerns from the research and library communities by including limited fair use provisions.[151] This bill was passed by the House as part of the Digital Millennium Copyright Act on August 4, 1998; however, it was subsequently stricken during negotiations with the Senate, and the DMCA passed shortly thereafter on October 28, 1998.[152]

The Collections of Information Antipiracy Act, H.R. 354, as introduced on January 19, 1999, would accord a database developer a broad right in factual compilations, subject not only to a specific limitation for certain non-profit educational, scientific and research uses, but also to a broader limitation for "reasonable uses" generally.[153] The reasonableness of a particular use is to be evaluated by a multi-factor test that is somewhat reminiscent of the fair use privilege contained in section 107 of the United States Copyright Act of 1976.[154] Notwithstanding the inclusion of this broadened fair use provision, opponents of H.R. 354 introduced an alternative bill on May 19, 1999, the Consumer and Investor Access to Information Act, H.R. 1858, that based liability on a theory more analogous to the common law tort of "hot news" misappropriation.[155]

B. *Comparison of H.R. 354, H.R. 1858 and the EU Database Directive*

1. *Theories and Scope of Protection*

As we have seen, H.R. 354 creates a *sui generis* right in the contents of a database, somewhat analogous to that mandated by the EU Database Directive, thus recreating a limited form of the "sweat of the brow" protection laid to rest in *Feist*.[156] By contrast, H.R. 1858 protects databases by creating liability for misappropri-

150. *See id.*
151. Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1998).
152. Digital Millenium Copyright Act, 17 U.S.C. § 1201 (Supp. IV 1998).
153. H.R. 354 § 1403, 106th Cong. (1999).
154. 17 U.S.C. § 107 (1994).
155. H.R. 1858 § 103, 106th Cong. (1999).
156. *See supra* note 71 and accompanying text.

ation, thereby "re-federalizing" the United States Supreme Court's holding in *International News,* at least as applied to databases.[157]

H.R. 354 prohibits the extraction or making available to others all or a substantial part of a collection of information gathered, organized or maintained by another person through the investment of substantial resources, that causes material harm to the primary or a related market of that other person or of a successor in interest.[158] The key to understanding the scope of this property right, and how it differs from a right based on a theory of unfair competition, is in the definitions of "primary" and "related" markets.

A primary market is any market in which a product or service that incorporates a collection of information is offered and in which a person claiming protection with respect to that collection of information derives or reasonably expects to derive revenue—directly or indirectly.[159] In other words, a primary market is an existing market in which the person claiming protection already earns or reasonably expects to derive revenue. A related market, by contrast, includes each of the following (1) any market in which a person claiming protection with respect to a collection of information has "taken demonstrable steps" to offer in commerce within a short period of time a product or service incorporating that collection of information with the reasonable expectation to derive revenue, directly or indirectly (i.e., a "zone of probable expansion," to borrow a phrase from trademark law) and (2) any market in which products or services that incorporate collections of information similar to a product or service offered by the person claiming protection are offered and in which persons offering such similar products or services derive or reasonably expect to derive revenue, directly or indirectly (i.e., virtually any potential market in which a compilation of information or substantial portion thereof might reasonably be expected to earn revenue).[160]

The original language of the bill would have extended its protection to any "actual or potential market" of a database, and defined a "potential market" as any market in which a claimant for protection "has current and demonstrable plans to exploit or that is commonly exploited by persons offering similar products or ser-

157. *See supra* note 71 and accompanying text.
158. H.R. 354 § 1402, 106th Cong. (1999).
159. *Id.* §§ 1401(3)-(4), 1402.
160. *Id.* § 1401(4).

vices incorporating collections of information."[161] The Clinton Administration was sufficiently concerned over the breadth of this proposed language that in testimony before the House Subcommittee on Courts and Intellectual Property the General Counsel of the United States Department of Commerce, Andrew J. Pincus, suggested that the Subcommittee reexamine the concepts of "actual" and "potential" markets.[162] Yet, apart from substituting the word "related" for the word "potential," the final bill seems not to have responded to the Administration's concerns.

As we have seen, the EU Database Directive limits the permissible exceptions to the *sui generis* right in electronic databases to extraction for the purposes of illustration for teaching or scientific research, and only so long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved.[163] By contrast, H.R. 354 not only contains a specific privilege for certain non-profit educational, scientific and research uses[164] (as well as a variety of other specific privileges[165]), but also contains a much broader "reasonable use" privilege,[166] which is reminiscent of the fair use privilege contained in section 107 of the United States Copyright Act. While this "reasonable use" provision was apparently considered a necessary concession to domestic critics of earlier versions of the bill, the resulting difference in the scope of permissible uses under H.R. 354 and the EU Database Directive raises the question whether H.R. 354 would in fact provide protection "comparable" to the *sui generis* right mandated in the EU Directive.

The question of comparability becomes still murkier when the terms of protection under H.R. 354 and the EU Database Directive are compared. While both provide for a fifteen year term of protection that is subject to extension in order to protect cumulatively substantial updating of the database, the EU Database Directive

161. *See* H.R. 354 §§ 1401(3), 1402, 106th Cong. (Jan. 19, 1999) (as originally introduced in the House of Representatives).

162. *See* Pincus Statement, *supra* note 132, at 5.

163. EU Database Directive, *supra* note 4, at art. 9(b).

164. H.R. 354 § 1403(b), 106th Cong. (1999).

165. *Id.* § 1403(c)(i) (allowing individual items and other insubstantial parts, independently gathered information, verification purposes, news reporting, transfer of copy, genealogical information, and investigative, protective, or intelligence activities).

166. *Id.* § 1403(a).

apparently mandates a dynamic approach that would protect a new edition in its entirety, whereas H.R. 354 adopts a variable term of protection that would only protect the new material in the new edition.[167]

Article 10 of the EU Database Directive states that any substantial change to the contents of a database that causes the database to be considered a substantial new investment qualifies "the database resulting from that investment"—and not simply the new material—to its own term of protection. The database producer is apparently under no obligation to distinguish what data in that database is new and what has been previously protected.

By contrast, H.R. 354 states (1) that no action may "be maintained for making available or extracting all or a substantial part of a collection of information that occurs more than 15 years after the portion of the collection that is made available or extracted was first offered in commerce following the investment of resources that qualifies that portion of the collection for protection,"[168] and (2) that "the person claiming protection bears the burden of proving "that the date on which the portion of the collection that was made available or extracted was first offered . . . in commerce . . . was no more than fifteen years prior to the time when it was made available or extracted by the defendant."[169] H.R. 354 also states that "[n]o monetary relief shall be available . . . [if the defendant] could not reasonably determine whether the date on which the portion of the collection that was made available or extracted was first offered in commerce" was more than 15 years prior to the violation.[170] Where "a collection of information into which all or a substantial part of a government collection of information is incorporated, . . . no monetary relief shall be available for a violation . . . unless a statement appear[s] . . . in a manner and location so as to give reasonable notice, identifying the government collection and the government entity from which it was obtained."[171]

In short, whereas the EU Database Directive appears to mandate dynamic (i.e., continuing) protection for an entire database that is the subject of cumulatively substantial updating, H.R. 354

167. *Id.* § 1409(c).
168. *Id.*
169. *Id.* § 1409(d).
170. H.R. 354 § 1408(a), 106th Cong. (1999).
171. *Id.* § 1408(b).

would protect only those substantial portions of a database that can be shown to have been offered in commerce within the last fifteen years, and would deny monetary relief where the defendant could not reasonably distinguish old and new data, or in the case of collections incorporating information collected by the government, was not given reasonable notification of the government source. Here, too, the difference in the scope of protection mandated by the EU Directive and that provided for under H.R. 354 raises the question whether the European Council would consider the two to be comparable.

2. *H.R. 1858*

In contrast to both H.R. 354 and the EU Database Directive, H.R. 1858 is a much more narrowly tailored bill, which would (1) prevent wholesale competitive duplication of databases and (2) prohibit misappropriation of real-time market information.[172] Title I of H.R. 1858 would make it a violation to sell or distribute to the public a database that is a duplicate of another database, when the duplicate is sold or distributed in competition with the original database.[173] The Federal Trade Commission (FTC) is vested with specific jurisdiction, under section 5 of the Federal Trade Commission Act,[174] to prevent violations of the proposed act,[175] but the bill does not expressly create a private right of action to enforce violations of section 102.

This limited enforcement mechanism is H.R. 1858's most controversial feature. While the Federal Trade Commission claims to have experience in formulating policy and remedies in this field[176]

172. H.R. 1858 §§ 102, 201, 106th Cong. (1999).

173. *Id.* § 102(1), (2).

174. 15 U.S.C. § 45 (1997).

175. *Id.* § 107(c). A recent FTC consent agreement and order suggests that the FTC may already have jurisdiction under section 5 to prevent this form of unfair competition. *See* Stipulated Consent Agreement and Final Order, FTC v. ReverseAuction.com, Inc. (DDC 2000) (stating that under the threat of FTC action, ReverseAuction entered into a consent decree for violating eBay's "user agreement," because ReverseAuction, an upstart competitor in the online auction market, copied eBay's customer database in order to solicit new customers), *at* http://www.ftc.gov/os/2000/01/reverseconsent.htm (last visited Dec. 27, 2001).

176. *See Consumer and Investor Access to Information Act of 1999: Hearing on H.R. 1858 Before the Subcomm. on Telecommunications, Trade and Consumer Protection, Comm. on Commerce*, 106th Cong. (1999) (prepared statement of the Federal Trade Commission) [hereinafter FTC Prepared Statement], *available at* http://www.ftc.gov/opp/hr09881.htm. In their prepared statement the FTC cites the

and has agreed that the threat of private actions could be used by market incumbents to threaten potential entrants, thus potentially raising difficult issues for courts called on to interpret the misuse defense contained in section 106(b) of the bill,[177] the FTC itself has expressed concern about the enforcement feature of the bill, particularly if the FTC is the sole statutory enforcer.[178] Apparently, the drafters of H.R. 1858 do not wish to encourage private lawsuits, and believe that market incumbents, particularly sole-source providers, will think twice before complaining about data piracy to one of the country's two federal antitrust enforcement agencies.

Although Title I would be enforceable only through the FTC proceedings, the theory of liability is akin to the common law tort of misappropriation of "hot news."[179] Value-added and transformative uses are permitted, as H.R. 1858 considers a copy to be an infringement only if it is "substantially the same" as the original,[180] and prohibits the public sale or distribution of a duplicate database only where it is distributed in competition with the original database.[181]

Title II of H.R. 1858 would create a separate prohibition against the "misappropriation" of real-time market information. Section 201 states that any person who "obtains directly or indirectly from a market information processor real-time market information," and "directly or indirectly sells, distributes, redistributes,

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Hearings on Global and Innovation-Based Competition, and three of its recent decisions, *In re* Softsearch Holdings, Inc., 5 Trade Reg. Rep. (CCH) ¶ 24,171 (F.T.C. July 28, 1997 (consent decree); *In re* Automatic Data Processing, Inc., 5 Trade Reg. Rep. (CCH) ¶ 24,006 (F.T.C. Mar. 27, 1996) (consent decree); *In re* Provident Cos., Inc., No. 991-0101, 64 Fed. Reg. 27,991 (F.T.C. May 24, 1999) (proposed consent decree, subject to public comment), in which the FTC considered the potentially anticompetitive effects of the increased market power that can result from consolidation among database owners and vendors. *Id.*

177. FTC Prepared Statement, *supra* note 176, at 10; *see also infra* notes 188-89 and accompanying text.

178. *Id.* In a footnote, the FTC states its understanding that state common law misappropriation suits involving databases will generally be preempted under section 105(b) of the proposed act. *Id.* at 10 n.68. However, section 105(b) merely states that "no State law that prohibits or that otherwise regulates conduct that is subject to the prohibitions specified in section 102 shall be effective *to the extent that such State law is inconsistent with section 102.*" H.R. 1858 § 105(b), 106th Cong. (1999) (emphasis added).

179. *See supra* notes 34-45 and accompanying text.

180. H.R. 1858 §§ 101(2), 102.

181. *Id.* § 102.

or otherwise disseminates such information without the authorization of such market information processor, shall be liable to that market information processor . . . ."[182] In contrast to Title I, the prohibition of Title II is not limited to the wholesale duplications of real-time market information, nor to the sale or distribution of the information in competition with the information processor. Moreover, this prohibition would be privately enforceable through a civil action for monetary and injunctive relief.[183]

While the protection that H.R. 1858 would provide could hardly be called comparable to that specified in H.R. 354 or mandated by the EU Database Directive, this is not to suggest that enactment of H.R. 1858, rather than H.R. 354, would leave U.S. database producers wholly unprotected in Europe. To the contrary, U.S. database producers would arguably be entitled to precisely the same protection in Europe that they would be (and in fact currently are) entitled to in the United States. This is so because Article 10*bis* of the Paris Convention states that member countries of the Paris Union are bound to assure nationals of such countries effective protection against unfair competition, and goes on to state that any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.[184] Given that the EU has now mandated *sui generis* protection for database contents even against non-competitive extractions and re-utilizations, European countries can hardly argue that wholesale duplication of database contents in order to compete with the database producer is not an act of unfair competition within the meaning of Article 10*bis* of the Paris Convention.

Thus, the argument that enactment of *sui generis* protection of the sort spelled out in H.R. 354 is necessary (or sufficient) for U.S. database producers to obtain protection for their databases in the EU is suspect. As we have also seen, it is not clear that passage of H.R. 354 will be deemed sufficiently comparable to qualify U.S. database producers for the (arguably over-broad) *sui generis* protection now available in Europe. Indeed, one feature that H.R. 354

182. *Id.* § 201 (proposing to amend § 11A of the Securities Exchange Act of 1904).

183. *Id.*

184. Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, 13 U.S.T. 2, 828 U.N.T.S. 107, *as last revised* at the Stockholm Revision Conference, July 14, 1967, 21 U.S.T. 1538, 828 U.N.T.S. 303, art. 10*bis*.

and H.R. 1858 have in common distinguishes both bills from the type of protection mandated by the EU Directive, and further undermines the argument that either bill would provide comparable protection. This feature concerns the enforceability of contracts that put additional restrictions on the use of database contents.

3. *Contractual Circumvention*

While the two U.S. bills provide two different approaches to the protection of database contents, both bills make it clear that nothing in the legislation would preempt contracts that place additional restrictions on the use of a database. H.R. 354 is particularly adamant in this regard. Section 1405(a) of H.R. 354 states that nothing in this bill "shall affect rights . . . or obligations relating to information, including . . . the law of contract."[185] While section 1405(b) would preempt state law with respect to rights that are equivalent to those protected under the new act, that same section makes it clear that the law of contracts "shall not be deemed to provide equivalent rights for purposes of this subsection."[186] Additionally, section 1405(e) reiterates that nothing in the proposed act "shall restrict the rights of parties . . . to enter into licenses or any other contracts with respect to making available or extracting collections of information."[187]

Section 105(c) of H.R. 1858 contains a nearly identical provision, stating that nothing in the act "shall restrict the rights of parties freely to enter into licenses or any other contracts with respect to the use of information." However, this provision is made subject to section 106(b) of the bill, which states that a person shall not be liable for a violation of the act if the person benefiting from the protection afforded a database under the act "misuses" the protection.[188] In determining whether a person has misused the protection, a court is to consider, among other factors (1) the extent to which the ability of persons to engage in the permitted acts under this title has been frustrated by contractual arrangements or technological measures and (2) the extent to which information contained in a database that is the sole source of the information contained therein is made available through licensing or sale on

185. H.R. 354 § 1405(a), 106th Cong. (1999).
186. *Id.* § 1405(b).
187. *Id.* § 1405(e).
188. H.R. 1858 §§ 105(c), 106(b), 106th Cong. (1999).

reasonable terms and conditions.[189] While this provision may not be precisely "comparable" to the EU Directive's absolute nullification of contract provisions contrary to the rights of lawful users of databases, it certainly comes closer to the public policy served by that prohibition than does section 1405 of H.R. 354. The upshot is that H.R. 354 may be disqualified as "comparable" to the protection specified by the EU Directive precisely because it gives database producers too much contractual freedom to vary the terms of the statutory protection.

CONCLUSION

In the short time since the Supreme Court decided *Feist*, electronic databases have become an integral part of many industries. As electronic databases are navigated more efficiently than printed publications, ensuring incentives for the creation of future databases is of growing importance to a sound industrial policy. Recent technological developments have eroded the natural lead-time that database developers have heretofore enjoyed.

As we have seen, two distinct legislative responses to *Feist* can be found in H.R. 354 and H.R. 1858. Whereas H.R. 354 would accord a database producer rights that are analogous (but not necessarily "comparable") to those mandated by the EU Database Directive, thus recreating a limited form of the "sweat of the brow" protection that *Feist* laid to rest, H.R. 1858 would in effect "re-federalize" the holding of *International News*, at least as it applies to databases in interstate and foreign commerce, and provide protection against two specific types of data piracy.

The general approach (though not necessarily the enforcement mechanism) of H.R. 1858 is superior to H.R. 354 because it prohibits wholesale competitive duplication of databases, while ensuring access to and transformative uses of factual compilations. H.R. 354, by contrast, would extend protection beyond a database producer's primary market to related markets, and would define related markets sufficiently broadly that a database producer could control a wide range of non-competitive uses of data and reserve those potential markets for itself.

Reincarnations of H.R. 1858 and H.R. 354 are likely to surface during the present congressional session. The passage of either

189. *Id.* § 106(b)(1)-(2).

bill will have a significant impact on intellectual property laws and policies in both the United States and worldwide. If the United States is perceived to be following the European Union's lead, by according a comparable *sui generis* right to database developers, then one would expect similar systems to be implemented worldwide.

However, there is no domestic policy justification for the United States to follow the EU's lead. The economic case for creating a *sui generis* right to prevent extraction and reutilization of unoriginal database contents has never been satisfactorily explained by the EU itself. The EU Database Directive frankly seems designed to favor European database producers at the expense of their customers and non-EU competitors, and to pressure the rest of the world to create comparable protection. The Directive will inevitably drive up the price of databases produced in Europe. If the United States resists the temptation to adopt overbroad database legislation, the U.S. database industry should become all the more competitive in the global market place. Nor will U.S. database producers be all that disadvantaged in Europe itself, as European countries are obliged under Article 10*bis* of the Paris Convention to provide protection against unfair competition, which would arguably include protecting against the wholesale competitive duplication of databases created by others. Those U.S. database producers who believe that the new *sui generis* protection is crucial for their operations in Europe can qualify for protection by opening a registered office in the EU that is genuinely linked on an ongoing basis with the economy of an EU member state.

If, on the other hand, the United States gives in to the temptation to adopt overbroad database protection, then U.S. database users (and, in short order, database users worldwide) will have been unwittingly enlisted to subsidize a European effort to gain market share in an industry that the United States currently dominates.