

E.C. DATABASE DIRECTIVE

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In an effort to harmonize the level of database protection throughout the European Union (“E.U.”) and promote the growth of the European database industry,¹ the European Parliament (“Parliament”) and the Council of the European Union (“Council”) adopted Directive 96/9/EC on the legal protection of databases (“E.C. Directive”) on March 11, 1996.² The E.C. Directive creates a sui generis right which protects database content from unauthorized “extraction” and/or “re-utilization,” in addition to copyright protection which guards the structure and organization of databases.³ While the copyright protection is similar to that granted by the United States (“U.S.”) copyright law,⁴ the sui generis provisions create a property-like right in database contents.⁵ During the past few years, many E.U. Member States have incorporated the Directive in their national laws,⁶ and more than two dozen cases have been decided under this legislation.⁷

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1. See J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 74-76 (1997).

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

3. *Id.* at ch. III, arts. 7-11 (defining the sui generis right).

4. *Id.* at ch. II, arts. 3-6. These articles define the copyright in databases; in particular, Article 3 defines the object of copyright protection of databases as “the author’s own intellectual creation” “by reason of the selection or arrangement of [databases’] contents.” Cf. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991) (the landmark United States Supreme Court decision holding that originality must exist in the selection, coordination, or arrangement of contents for a database to qualify for copyright protection). The Court emphasized that “[t]he *sine qua non* of copyright is originality.” *Id.* at 345.

5. See E.C. Directive, *supra* note 2, at art. 7. See generally *infra* Part I.B.

6. Stephen M. Maurer, *Across Two Worlds: Database Protection in the US and Europe*, at 29-31 (paper prepared for Industry Canada’s Conference on Intellectual Property and Innovation in the Knowledge-Based Economy, May 23-24, 2001) (on file with author) (observing that not all Member States voluntarily implemented the E.C. Directive).

7. See *id.* at 32-34 (discussing European case law developed since national implementation of the E.C. Directive); see also P. Bernt Hugenholtz, *The New Database Right: Early Case Law from Europe* (paper presented at Ninth Annual Conference on International IP Law & Policy, Fordham University School of Law, New York, Apr. 19-20, 2001), at <http://www.ivir.nl/publications/hugenholtz/fordham2001.html>.

The E.C. Directive has influenced lawmaking in the U.S. as well. Databases created in countries outside the E.U. do not qualify for sui generis right protection under the E.C. Directive unless these countries outside of the European Community ("Community") have a similar level of protection for databases.⁸ This reciprocity requirement appears to be driving forward similar legislation in the U.S.⁹ The database industry has been lobbying Congress to strengthen database protection in the United States,¹⁰ while the scientific research communities, public policy researchers, and libraries have criticized the legislative attempts to create a property-like right in database contents.¹¹ Proponents of database rights worry that data-

8. The E.C. Directive contains a provision requiring that database makers be nationals of a member state in the Community or have their habitual residence in the E.U. See E.C. Directive, *supra* note 2, pmbl., recital 56. See also David Mirchin, *The European Database Directive Sets the Worldwide Agenda*, 39 NFAIS NEWSL. 7, 9 (Jan. 1997), available at <http://www.pa.utulsa.edu/nfais/pubscat/mirchin.html>; Ferris Webster, *A Summary of Database Protection Activities*, Scientific Access to Data and Information, at http://www.codata.org/data_access/summary.html (Nov. 30, 2000) (observing that "The EU Directive contains a reciprocity clause Though this clause has been frequently cited as a motivation for legislation in other countries, it may violate the principles of the World Trade Organization").

9. Stephen M. Maurer et al., *Europe's Database Experiment*, 294 SCIENCE 789 (2001) (observing the weak database lobbying from 1991 until 1996 when "Congress took the EC's threat seriously").

10. See Laura D'Andrea Tyson & Edward F. Sherry, Information Industry Association, *Statutory Protection for Databases: Economic & Public Policy Issues*, <http://www.house.gov/judiciary/41118.htm> (last visited Feb. 12, 2002).

11. See, e.g., Maurer et al., *supra* note 9; Stephen M. Maurer & Suzanne Scotchmer, *Database Protection: Is It Broken and Should We Fix It?*, 284 SCIENCE 1129 (1999) (arguing that, unless there is a demonstrated immediate need for strong database protection, legislature should not act); William Gardner & Joseph Rosenbaum, *Database Protection and Access to Information*, 281 SCIENCE 786 (1998) (criticizing the Collections of Information Antipiracy Act of 1998, H.R. 2652, and using a hypothetical situation to illustrate the bill's negative effects on scientific research); J.H. Reichman & Paul F. Uhlir, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793, 796 (1999) (concluding that "a daunting array of legal and contractual restraints on the ability of scientists and engineers to access factual data and information" could compromise the research-based institutions); *European Union Database Directive Sets Dangerous Precedent for Librarians Worldwide*, Association of Research Libraries, at <http://www.arl.org/info/frn/copy/iff1.html> (last modified May 21, 1998). The National Academy of Sciences also conducted a workshop that studied the characteristics of scientific and technical databases, reviewed technologies available and in development for protecting or misappropriating digital contents, and discussed legal and policy options for promoting access to data in the government sector, non-profit sector, and commercial sector. See PROCEEDINGS OF THE WORKSHOP ON PROMOTING ACCESS TO SCIENTIFIC AND TECHNICAL DATA FOR THE PUBLIC INTEREST: AN ASSESSMENT OF POLICY OPTIONS (Comm'n on Physical Sciences,

base makers in the U.S. would not qualify for protection in the E.U. and thereby lose their competitive advantages against the European counterparts, since the U.S. does not offer a similar sui generis database right.¹²

This Note discusses developments in the E.U. since the adoption of the E.C. Directive, with a focus on the sui generis right provisions and the development of a body of case law on this topic in the Member States. It also considers whether it is appropriate and constitutionally permissible to adopt similar database legislation in the U.S. Part II briefly describes the origins of the E.C. Directive, and, specifically, how database protection evolved into a sui generis right. Part II also focuses on key E.C. Directive provisions and concepts and how Member States courts have interpreted these provisions. Part III discusses similar developments in the U.S., focusing on whether a new legal regime for database protection is necessary, and whether it provides a viable model for the U.S. This Part also briefly discusses alternatives to a sui generis database right. This Note concludes that a new legal regime, which creates a property right in databases, is neither necessary nor appropriate in the U.S. Instead, alternative legal regimes based on the doctrine of unfair competition, and supplemented by contract law or a modified liability rule may simultaneously promote the growth in the database industry and unobstructed access to data.

I. THE EUROPEAN DIRECTIVE AND CASE DEVELOPMENT

This Part introduces the key provisions on sui generis protection of databases, beginning with historical background and the main driving forces behind the E.C. Directive, and moving to key provisions and concepts in the E.C. Directive and an analysis of their interpretations by courts in the Member States following national implementation. This analysis will

Mathematics, and Applications ed., 1999), available at <http://www.nap.edu/books/NI000903/html/>.

12. Cf. Myths and Facts About S. 2291/Title V of H.R. 2281 (Originally enacted as H.R. 2652): The Collections of Information Antipiracy Act, Association of Research Libraries, at <http://www.arl.org/info/frn/copy/myth.html> (last modified Aug. 24, 1998) (rejecting the argument that H.R. 2652 is required to assure protection for U.S. databases in Europe); *Collections of Information Antipiracy Act of 1998: Hearing on H.R. 2652 Before the Subcomm. on Courts and Intellectual Property, House Comm. on the Judiciary*, 105th Congress (1998) (testimony of Jonathan Band on behalf of the Online Banking Ass'n), at <http://www.house.gov/judiciary/41148.htm> [hereinafter Band testimony]; *Professor Pamela Samuelson's Letter re: Tyson/Sherry Report* (Oct. 23, 1997), at <http://www.arl.org/info/frn/copy/psamlet.html> [hereinafter *Samuelson's letter*] (Oct. 23, 1997).

demonstrate that the E.C. Directive has yet to fulfill its goal of harmonizing database protection in the Member States.¹³

A. History of the E.C. Directive

Database protection in the E.U. originated in 1988, when the European Commission ("Commission") set forth an agenda to harmonize copyright issues involving information technology among the Member States.¹⁴ The issue of database protection did not draw significant attention until 1991, however, when the Supreme Court of Netherlands (Hoge Raad) held, for the first time, that copyright law was an inappropriate "vehicle for database protection,"¹⁵ and the U.S. Supreme Court in *Feist* extended copyright protection only to the original selection, arrangement, and coordination of a compilation of data, but not to the factual contents therein.¹⁶

These developments in Europe and the U.S. convinced the Commission that copyright law was not the best regime for database protection.¹⁷ Consequently, the Commission presented an initial proposal for database protection to the Council in May 1992¹⁸ and an amended proposal in Oc-

13. Furthermore, a recent empirical study indicates that the E.C. Directive has yet to fully realize the other goal of strong database protection, which is to promote the growth of European database industry. See Maurer et al., *supra* note 9, at 789 (showing a one-time only growth spurt of new companies entering database markets in France, United Kingdom, and Germany after their respective national implementations of the E.C. Directive 1998).

14. P. Bernt Hugenholtz, *Implementing the European Database Directive*, in INTELLECTUAL PROPERTY AND INFORMATION LAW, ESSAYS IN HONOUR OF HERMAN COHEN JEHOAM 183-200 (Jan J.C. Kabel & Gerard J.H.M. Mom eds., 1998), available at <http://www.ivir.nl/publications/hughholtz/PBH-HCJ-LIB.doc> (discussing the European Commission's *Green Paper on Copyright and the Challenge of Technology*) (on file with author).

15. *Id.* (discussing the Dutch Supreme Court's decision that "a collection of words will only be protected by copyright if it results from a selection process expressing the author's personal views").

16. *Id.* *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991), is the landmark decision that explicitly rejected the "sweat of the brow" doctrine in copyright protection of databases and held that the "*sine qua non* of copyright is originality."

17. *E.g.*, Hugenholtz, *supra* note 14, at 3. Although some databases could qualify for copyright protection, traditional copyright did not extend protection to "the essence of the database," that is, the compiled, disparate data. *Id.* The level of traditional copyright protection of databases varied among the Member States. See, *e.g.*, *Proposal Would Harmonize Laws, Extend Safeguards to Data Bases*, 3 EUROWATCH (Mar. 6, 1992) [hereinafter *Proposal Would Harmonize*] (describing that sui generis database protection is based on the Scandinavian catalogue rule).

18. Commission Proposal for a Council Directive on the Legal Protection of Databases, 1992 O.J. (C 156) 4.

tober 1993.¹⁹ After more than two years of inactivity, the Council suddenly adopted a Common Position²⁰ which was quite distinct from the amended proposal—one of the main distinctions was the absence of compulsory licensing requirement in the Common Position.²¹ The Parliament eventually accepted the Common Position as the final version of the Directive in December 1995 and enacted it in March 1996.²²

Scholars have observed that the Commission based its initial proposal on an unfair competition model, in an attempt to safeguard “the investment of considerable human, technical and financial resources” in the making of databases from the possibility that they “can be copied or accessed at a fraction of the cost needed to design them independently.”²³ The unfair competition principle is similar to the traditional common law notion of misappropriation.²⁴ However, the Council likely did not adopt the unfair competition approach in the end for the following three reasons.²⁵ An unfair competition regime does not create “transferable economic rights at the outset,”²⁶ but only provides remedies after an unfair act, (e.g., misappropriation), occurs. Further, an unfair competition principle applies only to questionable acts by a competing party, and not to all potential users.²⁷ Finally, existing unfair competition laws are not uniform among the E.U. Member States.²⁸ Instead, the final version of the E.C. Directive creates a *sui generis* right in databases made by “substantial investment” to prevent unauthorized “extraction and/or re-utilization” of the

19. Amended Commission Proposal for a Council Directive on the Legal Protection of Databases, 1993 O.J. (C 308) 1.

20. See Hugenholtz, *supra* note 14, at 3.

21. See *infra* note 29.

22. See Common Position Adopted by the Council on the Legal Protection of Databases, 1995 O.J. (C 288) 14 [hereinafter Common Position]; E.C. Directive, *supra* note 2.

23. Reichman & Samuelson, *supra* note 1, at 74-80. See also *Fighting International Piracy of Data Bases: European Commission Proposes to Harmonise Legal Protection in the Community*, RAPID, at 8 (Jan. 29, 1992) (describing the proposal as including some unfair competition principles).

24. Reichman & Samuelson, *supra* note 1, at 81-82 (describing Commission's initial approach as “modeled on existing laws that protected trade secrets or confidential information [to] repress conduct amounting to the ‘misappropriation’ of an electronic database provider's investment without imposing either legal barriers to entry or the social costs of actual or legal secrecy”). *Id.* at 139-45 (discussing U.S. case law that extended the misappropriation doctrine to offer legal protection of a producer's investment in information goods and identifying a multiplicity of factors that courts should adopt to defend the incentive to invest).

25. Maurer, *supra* note 6, at 28.

26. *Id.*

27. *Id.*

28. *Id.*

compiled data.²⁹ This database right affords eligible database makers strong, property-like right protection for their contents, which would not otherwise be protected under traditional copyright law in some E.U. Member States.³⁰ This modification has led some scholars to believe that the legislative history of the E.C. Directive “illustrate[s] how a modest, pro-competitive initial proposal for sui generis protection has been transformed into a virtually absolute monopoly by the backdoor lobbying efforts of publishers and by the coordinated efforts of U.S. and E.U. officials to propagate a protectionist strategy for the global information infrastructure.”³¹ As discussed below, this modification would also lead to dissimilar protection of databases among Member States that do not have uniform national competition rules.³²

B. The Directive: Key Provisions/Definitions of Sui Generis Right

The E.C. Directive protects an eligible database from unauthorized extraction and re-utilization of its data through its sui generis right provisions.³³ Chapter I of the Directive sets forth the scope of database protection and defines “database” as “a collection of independent works, data or other materials arranged in a systematic or methodical way and individu-

29. See E.C. Directive, *supra* note 2. The Common Position adopted in July 1995 concluded that “a proper balance between the rights of the maker of a database and the rights of the users no longer hinged on the possibility of obtaining such licences and [the Council] has deleted the provisions allowing for it.” Common Position, *supra* note 22 (Recital No. 15 “Non-voluntary licences,” in the Statement of the Council’s Reasons). In the final version, Recital 47 of the preamble provides that “protection by the sui generis right must not be afforded in such a way as to facilitate abuses of a dominant position. . . [and] the provisions of this Directive are without prejudice to the application of Community or national rules of competition.” Given the existing discrepancy between national competition rules adopted by various Member States, it is interesting to see how the Directive would harmonize database protection to different database makers of dominant positions in different countries. See *infra* notes 924-96 and accompanying text.

30. Those E.U. Member States that did not recognize the Scandinavian catalog rule were unlikely to protect factual contents of a database under their copyright law prior to national implementation of the E.C. Directive. See *Proposal Would Harmonize*, *supra* note 17. On the other hand, for the five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) that had “expressly protect[ed] non-original compilations of data . . . the Database Directive is of only limited consequence.” Hugenholtz, *supra* note 14, at 15.

31. Reichman & Samuelson, *supra* note 1, at 75.

32. See *supra* note 29; *infra* notes 88-100 and accompanying text.

33. See E.C. Directive, *supra* note 2. As noted above, this paper will focus on the sui generis right provisions. Chapter II, Articles 3-6, unifying copyright protection of databases constituting “the author’s own intellectual creation” “by reason of the selection or arrangement of their contents,” is therefore not discussed here.

ally accessible by electronic or other means.”³⁴ Chapter III grants a sui generis right to a database maker who has demonstrated “qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents” of the database.³⁵ The enforcement of this right prevents “extraction and/or re-utilization . . . of the contents of that database,”³⁶ the substantiality of which a court evaluates “qualitatively and/or quantitatively.”³⁷ The Directive further defines “extraction” as “the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form” and “re-utilization” as “any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission.”³⁸ The sui generis right in eligible databases also serves to prevent “repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents . . . which unreasonably prejudice the legitimate interests of the maker of the database.”³⁹

The E.C. Directive allows certain exceptions to the sui generis right, an example of which is extraction, but not re-utilization, for educational or scientific research needs “justified by the noncommercial purpose.”⁴⁰ Further, this sui generis protection lasts for fifteen years, although any substantial modification of a database leads to a renewal of the term of protection.⁴¹

34. *Id.* at art. 1. The E.C. Directive excludes from its legal protection “computer programs used in the making or operation of databases accessible by electronic means.” *Id.* at para. 3.

35. *Id.* at art. 7.

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.* The E.C. Directive allows “repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents” which does not “conflict with a normal exploitation of that database.” *Id.*

40. *Id.* at art. 9.

41. *Id.* at art. 10. “Any substantial change, evaluated qualitatively or quantitatively, to the contents of a database. . . which would result in the database being considered to be a substantial new investment, evaluated qualitatively or quantitatively, shall qualify the database resulting from that investment for its own term of protection.” *Id.* This prolonged protection of dynamic databases that are continually modified has led many commentators to believe that the right could become perpetual. *See, e.g.,* Hugenholtz, *supra* note 7 (observing that “a regularly updated database is awarded semi-permanent protection” and “a mere ‘substantial verification of the contents of the database’ would be enough to trigger a new term of protection”).

C. The Courts' Responses

Since its enactment, courts in various Member States have handed down more than two dozen decisions under the E.C. Directive.⁴² Most of the cases concerned database makers in France, Germany, and The Netherlands,⁴³ while two involved United Kingdom databases.⁴⁴ Commentators also noted that more than half of these cases were about "synthetic data," which, unlike discovered, existing facts, could not have been independently generated by those other than the database maker.⁴⁵ Simply put, only the database creators could have generated the contents of these databases.⁴⁶

1. Database Protection

The E.C. Directive provides a two-pronged test to determine whether a database is eligible for protection.⁴⁷ First, a database can qualify for protection if it contains information arranged in a qualifying way, e.g., a systematic collection of individually accessible data.⁴⁸ Second, the database must be created through a substantial investment.⁴⁹

The first part of the qualifying test is "extremely elastic."⁵⁰ For example, factual data—including information about the times and places of

42. See Maurer, *supra* note 6; Hugenholtz, *supra* note 7.

43. Maurer, *supra* note 6; Hugenholtz, *supra* note 7.

44. Hugenholtz, *supra* note 7. One of the two British cases is of particular interest because the British appellate court wanted to refer the case to the European Court of Justice to resolve the discrepancy in different courts' interpretation of the E.C. Directive. See *infra* note 75 and accompanying text.

45. Maurer et al., *supra* note 9.

46. For example, only a telephone company could create a directory of its subscribers in the first place. Likewise, only the organizer of horseracing could access the information regarding event schedules and participants in the first place. See *infra* notes 51-52.

47. See E.C. Directive, *supra* note 2, at arts. 1 & 7.

48. See E.C. Directive, *supra* note 2. Article 1 loosely defines "database" as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means." *Id.* at art. 1. Article 7 grants a sui generis right against "extraction and/or re-utilization" of a database's contents compiled by "substantial investment." *Id.* at art. 7.

49. *Id.* at art. 7.

50. Maurer, *supra* note 6, at 32 ("According to one British judge, the concept of a 'database . . . has a very wide meaning covering virtually all collections of data in searchable form.' In practice, courts have been liberal. According to one German case, even a collection of hyperlinks qualifies as a database.") (citing *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, [2001] R.P.C. 31, [2001] 2 C.M.L.R. 12 (Eng. Ch. Pat. Ct.), available at 2001 WL 98034, at ¶ 30.

horse races⁵¹ and telephone directories⁵²—can qualify as core information in protectible databases. Further, even information in the public domain such as laws and regulations can become contents of a protectible database.⁵³

Courts have formulated different factors in determining what constitutes a substantial investment in the creation of a database, and thus qualifies for the sui generis protection under the E.C. Directive.⁵⁴ Under one relatively consistent test that may represent a quantitative evaluation dictated by the E.C. Directive, the court looks at the investment itself in monetary terms.⁵⁵ For example, the costs of collecting, verifying and maintaining the data in an electronic telephone directory can qualify as “substantial investment,”⁵⁶ if the court finds them substantial. Similarly, the costs or investment in hiring someone else to create the database can amount to “substantial investment.”⁵⁷ Some courts seem to base their quantitative evaluation on the amount of labor involved in collecting and compiling the data.⁵⁸ For example, a British trial court held that controlling, verifying and maintaining horseracing information—a four to five-month annual process of compiling, granting and publishing the fixture list for horse racing and maintaining and constantly updating a computer database—was a substantial investment.⁵⁹ Moreover, a German court held that

51. *British Horseracing Bd. Ltd.*, [2001] R.P.C. 31.

52. *See, e.g., France Télécom SA v. MA Editions Sàrl and Others*, [2001] E.C.C. 4, (Trib. Comm. Paris 1999), available at 1999 WL 33231726.

53. *Vermande/Bojkovski, Pres. Rb., Den Haag*, 20 maart 1998, translated at <http://www.ivir.nl/rechtspraak/vermande-en.html> (finding that a commercially published CD-ROM containing laws and regulations can be protected under the E.C. Directive).

54. Maurer, *supra* note 6, at 32-33 (discussing three different tests that courts have used in determining substantiality).

55. *See* E.C. Directive, *supra* note 2, at art. 7.

56. *See France Télécom*, [2001] E.C.C. 4, at ¶ 6 (finding the plaintiff's annual costs in collecting, managing, checking, and maintaining the telephone directory made the directory protectible under the E.C. Directive).

57. At least one commentator noted this “safe harbor” in that databases created by outside employees or contractors could qualify for substantial investment. Maurer, *supra* note 6, at 32 (noting that “[a] Belgian court found that an umbrella organization of self-help groups had made a ‘substantial investment’ when it hired an outside contractor to prepare a directory”). Two German courts have held that trade fairs that hire professional catalog compilers also make “substantial investments.” These cases also raised the issue as to who can qualify as the database maker and thus receive protection under the E.C. Directive. *Id.*

58. *See generally* Hugenholtz, *supra* note 7.

59. *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, [2001] R.P.C. 31, [2001] 2 C.M.L.R. 12 (Eng. Ch. Pat. Ct.), available at 2001 WL 98034, at ¶ 5. This court also noted that the costs and efforts in creating the actual data, e.g., scheduling the races, did

converting classified advertisements from a newspaper into digital form and the amount of labor in selecting, updating and verifying the ads qualified for substantial investment.⁶⁰

A second judicial test measures substantiality of investment in making a database by inferring "investment by examining the face of the database."⁶¹ Such an evaluation can be either quantitative or qualitative, and, therefore, this test appears to be almost as elastic as the test for qualifying ways of arranging data.⁶² For example, a German court held that a catalogue of 251 alphabetically ordered links to sites on parenting-related subjects constituted a protectible database, finding substantial investment in "compiling, *researching*, and up-dating" the list.⁶³ An "effort [to put] [sic] 'frames' around another provider's Web pages was not 'substantial,'"⁶⁴ although a similar web site containing a collection of web pages was held to be a database within the meaning of the E.C. Directive. To the German court, designing a way to display data on a web site is relevant to determining the substantiality of efforts in making the web site, a potentially protectible collection of data under the Directive.⁶⁵ The absolute amount of data also matters to another German court: "a single promoter's concert schedule was [therefore] 'insubstantial,' although the combined schedule of 400 such promoters would not be."⁶⁶ Finally, merely reproducing data weighs against a finding of "substantial investment."⁶⁷ A French court found no substantial investment in making a database of advertised calls for tender in the field of public procurement, because such a maker merely reproduced calls received from the advertisers.⁶⁸

not "count towards the relevant investment to which database right is directed. On the other hand, the efforts which go into gathering all the data together . . . is relevant." *Id.* at ¶ 34.

60. Hugenholtz, *supra* note 7 (discussing the case of *Berlin Online*, decided by the Landgericht Berlin, Oct. 8, 1998).

61. Maurer, *supra* note 6. For this test, a court makes an evaluation of the investment based on the characteristics of the database at issue, the nature and amount of data compiled, and so on.

62. *See supra* notes 47-52 and accompanying text.

63. Hugenholtz, *supra* note 7 (discussing the case of *Kidnet/Babynet*, decided by the Landgericht Köln, Aug. 25, 1999) (emphasis added).

64. Maurer, *supra* note 6, at 32.

65. Hugenholtz, *supra* note 7 (discussing the case of *baumarkt.de*, decided by the Oberlandesgericht (Court of Appeal) Düsseldorf, June 29, 1999).

66. Maurer, *supra* note 6, at 32.

67. Hugenholtz, *supra* note 7 (discussing the case of *Groupe Moniteur v. Observatoire des Marchés Publics*, decided by the Paris Court of Appeal, June 18, 1999).

68. *Id.*

Despite the broad scope of protection of databases under the E.C. Directive, several Dutch courts have tried to limit the database right by creating a “spin-off” doctrine when finding against substantial investment in creating a database.⁶⁹ For example, because the headlines were a spin-off of newspaper publishing, a court found no substantial investment in creating a web site of automatic hyperlinks (in the form of headlines) to newspaper articles.⁷⁰ Another appellate court, also applying the spin-off doctrine, held that a collection of real estate objects on a web site did not qualify for the sui generis database right, because individual real estate brokers in the plaintiff organization had designed it for use in an internal network.⁷¹ Further, broadcasters’ program listings were also the products of a spin-off activity, reflecting no substantial investment in their making.⁷² However, in other cases, several Dutch courts have rejected the defendants’ argument that the database in question was a mere spin-off of plaintiffs’ core activities.⁷³ For example, two different courts held that telephone subscriber listings and online telephone directories were not mere spin-off products of the plaintiff company’s core activity of providing telephone services.⁷⁴

In sum, the E.C. Directive does not provide a clear guideline for determining whether a database qualifies for the sui generis right. The ambiguity inherent in the word “substantial” makes it difficult for courts in different Member States to interpret the Directive in a consistent manner. A British appellate court, deciding to refer its case to the European Court of Justice (“ECJ”) said, “we cannot say that we can resolve the [Directive’s interpretation] issues with complete confidence nor that there is no scope for any reasonable doubt, still less that the matter is equally obvious to the courts of other Member States.”⁷⁵ The ECJ will likely be called upon to formulate a consistent test for: (1) interpreting the Directive; (2) deter-

69. See Maurer, *supra* note 6, at 33; Hugenholtz, *supra* note 7.

70. Dagbladen/Eureka Internetdiensten, Rb., Rotterdam, 22 augustus 2000, translated at <http://www.ivir.nl/rechtspraak/kranten.com-english.html>.

71. Hugenholtz, *supra* note 7 (discussing the case of *NVM v. De Telegraaf*, decided by the Court of Appeal at The Hague, Dec. 21, 2000).

72. Hugenholtz, *supra* note 7 (discussing the case of *NOS v. De Telgraaf*, decided by the Court of Appeal at The Hague, Jan. 30, 2001).

73. See Maurer, *supra* note 6, at 33; Hugenholtz, *supra* note 7.

74. Hugenholtz, *supra* note 7 (discussing the case of *KPN v. Denda Int’l*, decided by the Court of Appeal at Arnhem, Apr. 15, 1997, and the case of *KPN v. XSO*, decided by the President District Court of the Hague, Jan. 14, 2000).

75. *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, [2001] EWCA CIV 1268, [2002] E.C.D.R. 4 (Eng. C.A. 2001), available at 2001 WL 825162, at ¶ 45 (July 31, 2001).

mining how much or what kind of time, money, efforts, etc., spent in making a database constitute “substantial investment;” and (3) determining whether any factors limiting the scope of the database right, e.g., the Dutch spin-off doctrine, are feasible.

2. *Prohibited Extraction and/or Re-utilization*

After determining whether a collection of data conforms to the E.C. Directive’s definition of “database,” and qualifies for the sui generis right based on substantial investment expended in making it, a court must then assesses whether another party infringed the database right.⁷⁶

The Directive defines infringement of protectible databases as the unauthorized substantial “extraction” and/or “re-utilization,” or the “repeated and systematic extraction” of insubstantial parts, “evaluated quantitatively and qualitatively.”⁷⁷ However, courts have not established a definitive test for database infringement. A court may measure the substantiality of extraction and/or re-utilization by looking at the data’s value to an infringer, and a few pieces of data of great value to an infringer would be “substantial.”⁷⁸ According to a British trial court, to determine the substantiality of unauthorized extraction, the extracted data’s value to an infringer must be appraised both quantitatively and qualitatively.⁷⁹ Courts may also look at the infringer’s acts or the infringing activities from a database maker’s perspective when making this determination. For example, a German court found substantial extraction because the alleged infringer copied 239 of the 251 links, including the same grammatical errors, in the catalogue of alphabetically ordered links to parenting-related subjects.⁸⁰ Therefore, either extracting and re-utilizing core information of great value to an infringer or verbatim copying a substantial part of content from a protectible database can amount to substantial extraction and/or re-utilization prohibited by the E.C. Directive.

76. See E.C. Directive, *supra* note 2, at art. 7.

77. *Id.*

78. Hugenoltz, *supra* note 7 (discussing the case of *NVM v. De Telegraaf*, decided by the President District Court of the Hague (Sept. 12, 2000)). This case was reversed by the Court of Appeal The Hague, because the database did not meet the substantial investment test—the appellate court applied the spin-off doctrine. *Supra* note 71.

79. *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, [2001] R.P.C. 31, [2001] 2 C.M.L.R. 12 (Eng. Ch. Pat. Ct.), available at 2001 WL 98034, at ¶ 53 (finding that defendant’s “relying on taking advantage of the completeness and accuracy of the information taken from the [plaintiff’s database]” contributed to a finding of substantial extraction).

80. Hugenoltz, *supra* note 7 (discussing the case of *Kidnet/Babynet*, decided by the Landgericht Köln, Aug. 25, 1999).

Further, two German courts have held that “[t]he use of [a] search engine amounted to repeated and systematic extraction of insubstantial parts of the database that unreasonably damaged the lawful interests of the owner of the database right.”⁸¹ In both of these German cases, the search engine systematically bypassed advertisements on the originating web sites and sent extracted information directly to end users and therefore affected the database owners’ commercial interests.⁸² Similarly, a Dutch court also found “a dedicated search engine” infringed an online telephone directory owner’s database right, because it provided its users the extracted data without referring them to the original directory.⁸³

In sum, the E.C. Directive does not provide definitive guidelines for determining what constitutes prohibited extraction and re-utilization. The courts have yet to reach a consensus on whether the substantiality of prohibited extraction and/or re-utilization depends on the objective amount of extracted contents or the subjective value of the extracted contents to an alleged infringer or both. As for “repeated and systematic extraction of insubstantial parts,” the three decisions on search engines⁸⁴ are illustrative of potential judicial treatment, but cannot reflect whether the courts in different Member States would adopt a similar test.

3. *Effect of Competition Rules*

The E.C. Directive provides that, “in the interests of competition, protection by the *sui generis* right must not be afforded in such a way as to facilitate abuses of a dominant position.”⁸⁵ As indicated by several cases discussed below, national courts of Member States are willing to apply the Community or national competition rules in deciding cases involving alleged database right infringement.⁸⁶ The famous “Magill” decision exem-

81. Hugenholtz, *supra* note 7 (discussing the case of *Berlin Online*, decided by the Landgericht Berlin, Oct. 8, 1998, and the case of *Süddeutsche Zeitung*, decided by the Landgericht Köln, Dec. 2, 1998).

82. *Id.*

83. Hugenholtz, *supra* note 7 (discussing the case of *KPN v. XSO*, decided by the President District Court of the Hague, Jan. 14, 2000). It is not clearly from the source whether the court held the search engine’s extraction to be a “repeated and systematic extraction and re-utilization of insubstantial parts.”

84. *See supra* notes 81-83 and accompanying text

85. E.C. Directive, *supra* note 2, at pmb., recital 47.

86. *See* Hugenholtz, *supra* note 7 (discussing several cases where courts applied both competition rules and the *sui generis* database right and, in particular, the case of *De Telegraaf v. NOS and HMG*, decided by the Dutch Competition Authority which is “[i]nspired by the Magill decision” by the ECJ).

plifies the Community competition rule that prohibits abuse of a dominant position.⁸⁷

Courts in different Member States have attempted to apply the E.C. Directive in conjunction with the Community or their respective national competition rules.⁸⁸ At least three Dutch courts found for the alleged infringers, because the database owners, while *not* eligible for the sui generis right for lack of substantial investment in creating the databases in question, abused their dominant positions by refusing to license under reasonable terms.⁸⁹ In contrast, a French court held for the plaintiff under both the E.C. Directive and the competition rule, because the plaintiff's electronic telephone subscriber directory qualified for the database right *and* because the plaintiff was willing to license the information for a reasonable fee, and, therefore, did not display anti-competitive behavior.⁹⁰

Other courts have also applied the competition rule by focusing on the alleged infringers' conducts, regardless of whether the databases at issue qualify for protection under the E.C. Directive. For example, the German Supreme Court upheld a plaintiff's database right in its subscriber telephone directories, and additionally considered the defendant's unfair competition behavior of scanning and subsequently publishing the plaintiff's data on a CD-ROM.⁹¹ Further, a French court, without any explicit determination of a database right, found no copyright infringement in the defendant's copying of the contents of agreements in the plaintiff's collec-

87. In this case, the ECJ upheld the Commission's finding that three broadcasting organizations abused their dominant position by refusing to grant licenses for the publication of their weekly program listings in Magill's TV Guide. Case C-241/91, *Radio Telefis Eireann v. Comm'n of the European Communities*, 1995 E.C.R. I-743. The Commission ordered the broadcasting companies to "supply [sic] third parties on request and on a non-discriminatory basis with their. . . program listings and permit [sic] reproduction of those listings by such parties. . . [Further] if the three organizations chose to grant reproduction licences, any royalties requested should be reasonable." *Id.* at ¶ 12. It appears that the European competition rule applied in this case is different from the traditional common law unfair competition principles in the United States. While the former considers the plaintiffs' abuse of dominant position, the latter focuses on whether defendants' conduct amounts to misappropriation. See Reichman & Samuelson, *supra* 1, at 139-45.

88. See Hugenholtz, *supra* note 7.

89. *Id.* (discussing the case of *KPN v. Denda Int'l*, decided by the Court of Appeal at Arnhem, Apr. 15, 1997, the case of *De Telegraaf v. NOS and HMG*, Dutch Competition Authority, Sept. 10, 1998, and the case of *NOS v. De Telegraaf*, decided by the Court of Appeals of The Hague, Jan. 30, 2001) (emphasis added).

90. See *France Télécom SA v. MA Editions Sàrl and Others*, [2001] E.C.C. 4, (Trib. Comm. Paris 1999), available at 1999 WL 33231726 (emphasis added).

91. Hugenholtz, *supra* note 7 (discussing the case of *Tele-Info-CD*, decided by the Bundesgerichtshof (Federal Supreme Court), May 6, 1999).

tion of over 400 collective bargaining agreements.⁹² But the court held that the defendant's parasitic behavior amounted to unfair competition.⁹³ Therefore, unfair competition principles can strengthen database protection, even in the absence of a clear database right.

Although the cases discussed above indicate that national courts in the Community have attempted to reconcile the E.C. Directive and competition rules, the courts have yet to decide upon a potential situation where a database owner, eligible for the sui generis right, abuses its dominant position. For example, whose side would the French court take, had France Télécom displayed anti-competitive behavior by refusing to license under a reasonable fee?⁹⁴ It remains uncertain whether competition rules would undercut database right, as the E.C. Directive permits.⁹⁵ Perhaps the Office of Fair Trading in the United Kingdom is the first to address such uncertainty: preliminary inquiries, following a complaint by William Hill Organization Ltd., indicated that the British Horseracing Board might have abused its dominant position by setting excessive and discriminatory pricing and restrictive licensing terms.⁹⁶ So far, unfair competition principles have strengthened database protection. But applying national unfair competition rules that are not uniform throughout the Community in the database context may defeat an important goal that the E.C. Directive intended to achieve—a Community-wide harmonized level of database protection.

4. *Current Problems Facing Courts*

The decisions discussed above reflect the difficulties that courts are facing in interpreting the E.C. Directive. They further highlight the uncertainties that the E.U. will face in attempting to harmonize the level of database protection among its Member States through the new legal regime of database protection.

First, the E.C. Directive does not offer courts much help in defining the key concepts of the sui generis database right: Because the E.C. Directive defines the database concept and the scope of protection so broadly, courts have not been able to apply consistent tests.⁹⁷ As noted by the Brit-

92. *Id.* (discussing the case of *Dictionnaire Permanent des Conventions Collectives*, decided by the Tribunal de grande instance at Lyon, Dec. 28, 1998).

93. *Id.*

94. This would not have been a problem, had the Commission kept the compulsory licensing requirement as initially proposed. *See supra* note 29.

95. E.C. Directive, *supra* note 2, at pmb., recital 47.

96. *OFT Investigates British Horseracing Board*, Office of Fair Trading, Press Release PN26/01, at <http://www.offt.gov.uk/html/research/press-no/pn26-01.htm> (June 12, 2001) [hereinafter *OFT Investigates BHB*].

97. *See supra* notes 48-83 and accompanying text.

ish appellate court,⁹⁸ the ECJ would have to resolve these uncertainties, if and when cases reach this highest-level court.

Second, the inconsistency displayed by the courts' interpretation of the E.C. Directive suggests that this new law has not reached its first goal of harmonizing database protection in Europe. For example, a spin-off database, not granted protection by some Dutch courts, may qualify for the *sui generis* protection in the United Kingdom or Germany.

Third, the courts have yet to reconcile the potential tension between the competition rules and the new database right.⁹⁹ Whether the Commission will reconsider a compulsory license requirement in amending the E.C. Directive to avoid such a situation remains an open question. Applying national unfair competition rules would further undermine the effort to harmonize the level of database protection in different Member States.¹⁰⁰

Finally, a recent empirical study has also indicated that the E.C. Directive is yet to reach its goal of promoting and sustaining the growth of the database industry in the Community.¹⁰¹ Despite that only database makers in the E.U. qualify for the strong property-like right in database contents, the E.C. Directive has not generated enough incentive for U.S. database companies to move to Europe.¹⁰² The E.C. Directive, therefore, has yet to reach its original goals of granting uniform protection of databases among the Member States and of providing sufficient, sustained incentives to invest in the database industry in Europe.

II. DEVELOPMENTS IN THE UNITED STATES

Proponents for additional legal database protection in the U.S. have been lobbying the Congress since *Feist*.¹⁰³ It was not until the adoption of

98. See *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, [2001] EWCA CIV 1268, [2002] E.C.D.R. 4 (Eng. C.A. 2001), available at 2001 WL 825162, at ¶¶ 40-47 (CA) (July 31, 2001) (appeal taken from the High Court of Justice, Chancery Division, Patents Court).

99. *Supra* notes 94-96 and accompanying text.

100. See *supra* notes 91-93 and accompanying text.

101. Maurer et al., *supra* note 9.

102. Maurer, *supra* note 6, at 35-36 (discussing that three large biotechnology companies decided against moving to Europe because of the presence of adequate protection of their databases in the U.S., insufficient additional protection by the *sui generis* right, and other practical concerns). Compare with Jasper A. Bovenberg, *Should Companies Set up Databases in Europe?*, 18 NATURE BIOTECHNOLOGY 907 (2000) (discussing incentives to set up bioinformatics database in Europe and potential data access problems associated with highly protected databases).

103. See Maurer et al., *supra* note 9.

the E.C. Directive, however, that Congress started a serious discussion about database protection.¹⁰⁴

This Part first addresses whether the E.C. Directive's reciprocity requirement will force the U.S. Congress to enact additional protection for databases. It then examines protection currently available in the U.S. for the database industry, both legal and technical, to illustrate whether additional legal protection is necessary. This Part further notes that any legislation modeled on the Directive may not survive the scrutiny under the U.S. Constitution. It finally concludes that certain legal regimes alternative to the sui generis database right might nonetheless be permissible in the U.S. from both constitutional and policy perspectives.

A. Database Right in the United States after the E.C. Directive

The E.C. Directive intends to influence worldwide database protection legislation via its reciprocity requirement denying protection to citizens of countries which do not enact database protection statutes granting similar levels of database protection.¹⁰⁵ This requirement may violate the World

104. *Id.* In fact, heavy debates among congressional staff started in 2000 and the topic of database legislation will likely surface again in 2002. See Robert MacMillan, *Congress Likely To Defer Database Protection to 2002*, NEWSBYTES, at <http://www.newsbytes.com/cgi-bin/udt/im...ble?client.id=newsbytes&story.id=170742> (Oct. 2, 2001) (discussing the status of the House Energy & Commerce Committee's version, i.e., Consumer and Investor Access to Information Act, H.R. 1858, 106th Cong. (1999) and the House Judiciary Committee's version, i.e., Collections of Information Antipiracy Act, H.R. 354, 106th Cong. (1999), of database protection in light of the September 11, 2001, terrorist attacks). See also *Database Proposals and Legislation*, Association of Research Libraries, at <http://www.arl.org/info/frn/copy/database.html> (last modified Nov. 16, 2000) (providing a list of hyperlinks to letters, testimonies, statements, and legislation on database protection).

105. Maurer, *supra* note 6, at 29:

It has been objected that the net effect of the [Directive] seems to amount to a rather cynical attempt to boost the European information technology market at the expense of the rest of the world. We would not quarrel with such an apparently harsh judgment. We are dealing with the realms of Big Money and High Politics. The Commission, having cottoned on to the economic importance of databases, was not about to let the opportunity pass of digging another section of the trench around Fortress Europe and labeling it database right.

(quoting CHRISTOPHER REES, DATABASE LAW 64).

This reciprocity requirement may find its precedent in the Semiconductor Chip Protection Act enacted in 1984 in the United States. Leon Radomsky, *Sixteen Years After the Passage of the U.S. Semiconductor Chip Protection Act: Is International Protection Working?*, 15 BERKELEY TECH. L. J. 1049, 1063-65 (2000) (commenting that the reciprocity requirement in the Semiconductor Chip Protection Act ("SCPA") was to induce similar legislation in other countries). Cf. *Samuelson letter*, *supra* note 12 (commenting

Trade Organization ("WTO") rules.¹⁰⁶ Nevertheless, the Directive has already revived discussions and legislative attempts on database protection in the U.S.¹⁰⁷

It is not clear if the E.C. Directive's reciprocity requirement would *compel* the U.S. to create a similar legal regime for database protection. To address this question, one may first ask whether the current situation in the Community, i.e., the strong property right in database contents compiled in the Community by citizens or residents of the Member States of the Community, renders U.S. database companies, which are unprotected by a property right in database contents, vulnerable to their European competitors. Thus far, the answer appears to be no. The U.S. database industry is and will likely remain far more advanced than the European counterparts,¹⁰⁸ even in the absence of a formal database right. Even if the need to protect the U.S. database industry did justify a new legal regime for database protection, one must still ask whether the U.S. should or could follow the model set forth in the E.C. Directive. A *sui generis*, property right in database contents would directly contradict the current U.S. law and might violate the U.S. Constitution as well.¹⁰⁹

Commentators generally agree that some form of database protection is necessary to promote the growth of the database industry. However, they disagree on what type of protection is appropriate and constitutionally permissible in the U.S. The remainder of this Note will argue that a model based on unfair competition principles supplemented with liability rules, in combination with the ever-improving technological protection meas-

that the U.S. has become an advocate for "international treatment," i.e., without national protectionism, because of the bad experience with the SCPA).

106. Webster, *supra* note 8. Article III of the General Agreements on Tariffs and Trade of 1947 prohibits "national treatment," i.e., laws, regulations and requirements that would afford protection of domestic production of "like products." General Agreement on Tariffs and Trade, Oct. 30, 1947, art. III, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194, 204-06 [hereinafter GATT]. But the reciprocity requirement in the E.C. Directive offers more protection to European database makers than it would do to database makers in other WTO member countries that do not enact *sui generis* database right.

107. See Maurer et al., *supra* note 9.

108. See Daniel R. Valente, *Feist Overruled? Database Protection in the Next Century*, 17 THE COMPUTER LAWYER 20, 20 (2000) (quoting Mortimer B. Zuckerman, *The Time of Our Lives*, 127 U.S. NEWS & WORLD REP. 68, 70 (1999), that 31 out of 48 information technology companies with "sustainable competitive advantages" are in the United States). See also *Legal Protection Now Available to Databases*, at <http://www.databasedata.org/hr1858/legalprt/legalprt.html> (last visited Feb. 12, 2002) (showing statistical data that demonstrates a "phenomenal rate" of growth of the database industry since 1991) [hereinafter *Legal Protection*].

109. See *infra* notes 131-36 and accompanying text.

ures, will achieve the goals of fostering the growth of the database industry while leaving sufficient free space for the education and scientific communities to access and exchange data.

B. The U.S. Database Industry Enjoys Adequate Protection

Proponents of a database right in the U.S. perceive but cannot prove an actual threat to the U.S. database industry by its European counterparts who enjoy a strong *sui generis* right in their database contents. As discussed below, however, current legal regimes have yet to hinder the growth of the U.S. database industry.¹¹⁰ In addition, the rapid, pioneering technological developments have put the U.S. database industry in a much more advantageous position than its European competitors.¹¹¹

Current U.S. law does offer some database protection.¹¹² Although limiting the copyright protection of data, *Feist* would nonetheless grant a database copyright protection if it displayed “a modicum of originality” in the “selection, coordination, or arrangement” of its contents.¹¹³ Indeed, several cases following *Feist* granted copyright protection to databases, including yellow pages of a telephone directory with categorized business listings,¹¹⁴ a compilation of collectible coin prices listed in the Coin Dealer Newsletter,¹¹⁵ and a collection of state trademark data organized under

110. See *infra* notes 113-126 and accompanying text.

111. See *infra* notes 127-130 and accompanying text.

112. See, e.g., *Legal Protection*, *supra* note 108; Paul T. Sheils & Robert Penchina, *What's All the Fuss About Feist? The Sky Is not Falling on the Intellectual Property Rights of Online Database Proprietors*, 17 U. DAYTON L. REV. 563, 564 (1992) (arguing that “properly drafted license agreements for online database services provide proprietors with enforceable remedies against unauthorized copying of database contents, and that causes of action sounding in misappropriation and unfair competition will continue to be effective weapons against ‘information aftermarket’ speculators”); Amy C. Sullivan, *When the Creative is the Enemy of the True: Database Protection in the U.S. and Abroad*, 29 AIPLA Q.J. 317, 346-52 (2001).

113. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

114. See *Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc.*, 945 F.2d 509 (2d Cir. 1991). The Second Circuit, while recognizing “‘the copyright in a factual compilation is thin, [it is not] anorexic.’” *Id.* at 514 (quoting *Feist Publ'ns*, 499 U.S. at 349.)

115. See *CDN, Inc. v. Kapes*, 197 F.3d 1256 (9th Cir. 1999). Proponents for strong database protection usually cite *Warren Publ'g Inc. v. Microdos Data Corp.*, 115 F.3d 1509 (11th Cir. 1997), *cert. denied*, 522 U.S. 963 (1997), where the court denied copyright protection of listings of cable service providers. However, several commentators believe that the Eleventh Circuit erred in that case. See, e.g., Band testimony, *supra* note 12.

different, searchable fields “such as name of the mark, date of first use, owner of the mark, or description of the goods.”¹¹⁶

Further, state common law doctrines based on contract law, unfair competition law, and trespass can also protect a database from free-riding misuses, as long as a court finds no preemption of these state law actions by section 301 of the Copyright Act.¹¹⁷ In *ProCD, Inc. v. Zeidenberg*, the Seventh Circuit upheld a shrinkwrap license agreement that would protect the plaintiff’s CD-ROMs of telephone listings from being posted on the Internet.¹¹⁸ Unfair competition law also prohibits free-riding misappropriation of certain factual data such as “hot news.”¹¹⁹ Finally, frequent accessing and copying auction items’ information on eBay’s web site by search robots or web crawlers may constitute trespass.¹²⁰

Business method patent protection may afford databases additional protection, since many business method patents offer protection to a novel system of processing certain types of information.¹²¹ For example, the United States Patent and Trademark Office recently granted patent protection to a system used to process adverse event information concerning

116. See *Corsearch, Inc. v. Thomson & Thomson*, 792 F. Supp. 305, 309 (S.D.N.Y. 1992).

117. E.g., Sullivan, *supra* note 112.

118. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996). Some courts have agreed with the Seventh Circuit. See, e.g., *Lipscher v. LRP Publications, Inc.*, 266 F.3d 1305, 1318 (11th Cir. 2001) (agreeing with the Seventh Circuit that “claims involving two-party contracts are not preempted because contracts do not create exclusive rights.”)

119. See *Int’l News Serv. v. Associated Press*, 248 U.S. 215, 242 (1918) (finding that “the [defendant’s] entire system of appropriating complainant’s news and transmitting it as a commercial product to defendant’s clients and patrons amounts to a false representation”). But see *NBA v. Motorola, Inc.*, 105 F.3d 841, 851 (2d Cir. 1997) (finding that “if . . . the work is unprotected by federal law because of lack of originality, then its use is neither unfair nor unjustified”).

120. *eBay, Inc., v. Bidder’s Edge, Inc.*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

121. See, e.g., Peter R. Lando, *Business Method Patents: Update Post State Street*, 9 TEX. INTEL. PROP. L.J. 403, 416-422 (2001) (discussing several business method patents involved in recent patent infringement litigations, of which one “is directed to an information handling system including, e.g. a digital information storage, retrieval and display system” and another one’s title is “Online Interactive System and Method for Providing Content and Advertising Information to a Targeted Set of Viewers”). This article also presented statistical data on recent patent applications in the area of communications and information processing technologies, e.g., 3068 applications for Class 707 (databases and word processors) and 2658 applications for Class 705 (business methods) in 1999. *Id.* at 411.

medical products.¹²² Notably, the granted claims cover new products generated by processing proprietary data with the patented system.¹²³ Thus, patent protection is available for the use of a database comprising such proprietary information.¹²⁴ While the term of patent protection may be shorter than what the European *sui generis* right could potentially offer to an ever-changing database as a whole, the fifteen-year protection of contents afforded by the database right is comparable to a normal patent term.¹²⁵ The relatively short term of patent protection is nonetheless valuable, as it may serve as a “blocking time” during which a protected database maker can enjoy monopoly of the market and establish its trademark or brand name.¹²⁶

The U.S. database industry has also enjoyed tremendous advantages over its European counterpart in terms of technological advancements.¹²⁷ The development of encryption technologies, for example, has provided electronic databases strong protection against unauthorized access.¹²⁸ Further, the anti-circumvention provision of the Digital Millennium Copyright Act prohibits acts intended to bypass technological protections such as encryption.¹²⁹ Finally, electronic “tattooing” which gives database contents an identity can serve to recognize infringing copying immediately.¹³⁰

122. U.S. Patent No. 6,219,674 (issued Apr. 17, 2001) (describing “systems and methods for creating and using product data to enhance safety of a medical or non-medical products”).

123. *Id.* For example, claim 12, a dependent claim of claim 1, of U.S. Patent No. 6,219,674 is directed to a “proprietary product” created using the patented system comprising “at least one adverse event database for storing adverse event data associated with a commercially available product.”

124. *Id.* It is perhaps worth noting that patent protection, similar to copyright, does not extend to the contents in these databases. But contents, or data, protection is not what is at issue in the debates on database protection. The spotlight of these debates is how to balance database protection, and, therefore, provide incentives to invest in the database industry with the need for free exchange and access to data by scientific and educational communities. Compare Tyson & Sherry, *supra* note 10, with Reichman & Samuelson, *supra* note 1.

125. Compare E.C. Directive, *supra* note 2, at art. 10, with 35 U.S.C. § 154 (1994) (Post-GATT patent term is 17 years from the date of the patent issuance).

126. See Reichman & Samuelson, *supra* note 1; *Legal Protection*, *supra* note 108 (acknowledging that “trademark is a valuable form of protection” in certain markets).

127. See Valente, *supra* note 108, at 20.

128. See *Legal Protection*, *supra* note 108.

129. *Id.*

130. *EU’s Adoption of Database Directive Raises Issue of Data Protection*, 8 EUROWATCH (Apr. 30, 1996).

C. Why the European Model May Not Work in the United States

Even if additional database protection is necessary in the U.S., the E.C. Directive may not be a good model. The sui generis right in a database may not survive judicial review under the U.S. Constitution. First, the scope of the protection afforded by the Directive, (i.e., substantial investment), reflects the “sweat of the brow” doctrine which was explicitly rejected by *Feist* as exceeding what is permissible under the U.S. Constitution.¹³¹ According to *Feist*, this doctrine’s “most glaring [flaw is] that it extended copyright right protection in a compilation beyond selection and arrangement—the compiler’s original contributions—to the facts themselves.”¹³² *Feist* pointed out that the Intellectual Property Clause in the U.S. Constitution¹³³ mandates originality as a prerequisite for copyright protection and that Congress cannot create a property-like right in database to exceed the limit of or to bypass the Intellectual Property Clause.¹³⁴ Second, scholars have identified potential First Amendment issues.¹³⁵ If a property right stemming from factual information is vested in one group of people, Congress necessarily takes the right of freedom to access, use, or express such information from another group of people.¹³⁶

D. Viable Solutions for the United States

There appears to be some consensus that databases need both technological and legal protection against free-riding, market-destructive acts.¹³⁷ However, the question remains as to which legal regime offers an appropriate level of database protection while surviving constitutional scrutiny in the U.S.¹³⁸ The House Judicial Committee and Commerce Committee each presented a bill for database protection, indicating many unresolved differences among congressional members and various lobbying organizations.¹³⁹ Scholars have proposed an additional approach based on unfair

131. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 353-60 (1991).

132. *Id.* at 353.

133. U.S. CONST., art. I, § 8, cl. 8.

134. *Feist Publ'ns*, 499 U.S. at 346.

135. E.g., Yochai Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 BERKELEY TECH. L.J. 535, 552-57 (2000).

136. *Id.*

137. Compare Tyson & Sherry, *supra* note 10, with Reichman & Samuelson, *supra* note 1.

138. As noted in Benkler, *supra* note 135, at 588, if it provides content-based protection, a legal regime “must be subject to the strictest First Amendment scrutiny.”

139. See, e.g., Letter to all Members of the House of Representatives, Association of Research Libraries (Oct. 8, 1999), at <http://www.arl.org/info/letters/abercrombie.html>

competition principles, but also recognized the difficulties—case-by-case adjudication which creates inconsistency and enormous transactional costs—inherent in such an approach.¹⁴⁰

Scholars have also proposed a more favorable approach based on a modified liability rule.¹⁴¹ Combining “a blocking period” to prevent any form of market-destructive appropriation of the protected database contents with a subsequent “automatic license” mechanism may serve as the most balanced model.¹⁴² A problem may nonetheless arise out of a compulsory licensing regime for database protection, because of the wide range, depth, and breadth of what can be defined as protectible data. Therefore, although compulsory licensing requirement succeeded in the music industry,¹⁴³ a baseline statutory rate for the automatic licensing mechanism would unlikely work for all types of databases.

Perhaps, instead of letting Congress set a statutory fee for the automatic licensing of databases, different sectors in the database industry can form “Collective Rights Organizations (CROs)”¹⁴⁴ and these CROs, with their expert knowledge and flexibility, can set and change the licensing terms with low transaction costs.¹⁴⁵ Although the modified liability approach is not premised on a property rule entitlement theory, the initial mechanism of “a blocking period” may achieve the same “benign purpose” as property rule entitlements.¹⁴⁶ Just as the initial high transaction

(supporting H.R. 1858, the Consumer and Investor Access to Information Act of 1999, which “protects databases against commercial piracy while preserving the critically important role that information plays in the progress of science and education,” and protesting against H.R. 354, the Collections of Information Antipiracy Act, which “provides overly broad protection for “collections of information” that would reduce the public’s access to information and would impose unreasonable and costly burdens on scientific research, scholarship, and education”).

140. See Tyson & Sherry, *supra* note 10; Reichman & Samuelson, *supra* note 1 (discussing how expensive and inconsistent an unfair competition regime may become due to the case-by-case adjudicating). See also *An Unfair Competition Model for Protecting Databases*, in PROCEEDINGS OF THE WORKSHOP ON PROMOTING ACCESS TO SCIENTIFIC AND TECHNICAL DATA FOR THE PUBLIC INTEREST: AN ASSESSMENT OF POLICY OPTIONS, 218-50 (Comm’n on Physical Sciences, Mathematics, and Applications ed., 1999), available at http://books.nap.edu/html/proceedings_sci_tech/ch11.html.

141. Reichman & Samuelson, *supra* note 1, at 145-51.

142. *Id.*

143. See *id.* at 148 (comparing the numbers of voluntary licenses with involuntary licenses for the recording of musical works under section 115 of the U.S. Copyright Act of 1976).

144. Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CAL. L. REV. 1293, 1296 (1996).

145. See *id.*

146. *Id.*

costs associated with property rule entitlements “lead individual [intellectual property right] holders to form CROs,”¹⁴⁷ the strong protection of databases during the “blocking period” may also lead to the formation of CROs in the database industry. The modified liability approach further balances judicial inquiries by focusing on the alleged infringer’s behavior during the initial “blocking period” and shifting the focus on whether the database owners provide access to their contents under the automatic licensing terms.¹⁴⁸ Such a balanced approach, therefore, addresses what is at issue in the debates on database protection: to provide incentives for investment in the database industry by guarding against market-destructive, free-riding uses, while not to compromise the scientific and educational needs for free exchange and access to data.

III. CONCLUSION

Because the E.C. Directive fails to clearly define several key concepts in its *sui generis* protection provisions, courts in the Member States have not been able to interpret the database right consistently. Such a strong, property-like right in database contents has not led to persistent, robust growth of the European database industry either. The E.C. Directive, therefore, has yet to realize its goals of harmonizing database protection among the different Member States and advancing the growth of database industry in the Community.

Should the U.S. decide to enact database legislation, a property-like right in databases modeled after the E.C. Directive’s *sui generis* provisions would be unlikely survive scrutiny under the U.S. Constitution. Such a *sui generis* right in database contents does not serve to advance science and technology, as the research and education communities thrive on freedom of accessing and exchanging data. Congress would have to evaluate any additional legal protection of databases guardedly, in order to strike a proper balance between the necessity to freely access information by the education and scientific research communities and the need to preserve incentives in investments to foster the growth of the database industry.

147. *Id.*

148. This balance makes sense: an initial “blocking period” can foster the growth of smaller companies and encourage entry into the industry and a subsequent compulsory licensing requirement is necessary if the initial “blocking period” succeeds in bringing the company to a dominant position.