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Intellectual Property Protection for Noncreative Databases

Dorothy Schrader and Robin Jeweler, American Law Division

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Abstract. Copyright law protects works of authorship that exhibit original, creative expression, including creativity in the selection, arrangement, or coordination of both traditional and automated databases. Noncreative databases are not subject to protection against copying under existing copyright law. Database producers seek new legal protection against piracy of collections of information that result from the investment of substantial amounts of money, time, or other resources. The protection they seek would be based on industrious effort rather than on creativity. This report examines the pending legislative proposal (H.R. 354) to create a misappropriation-style of protection against the copying of all or a substantial part of such collections of information.

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ABSTRACT

Copyright law protects works of authorship that exhibit original, creative expression, including creativity in the selection, arrangement, or coordination of both traditional and automated databases. Noncreative databases are not subject to protection against copying under existing copyright law. Database producers seek new legal protection against piracy of collections of information that result from the investment of substantial amounts of money, time, or other resources. The protection they seek would be based on industrious effort rather than on creativity. This report examines the pending legislative proposals, H.R. 354 and H.R. 1858, to create a misappropriation-style of protection against the copying of all or a substantial part of such collections of information.

Intellectual Property Protection for Noncreative Databases

Summary

Copyright law protects works of authorship that exhibit original, creative expression, including creativity in the selection, arrangement, or coordination both of traditional printed and electronic databases. Noncreative databases are not subject to copyright protection, although some protection is available through a combination of contract law, trade secrecy law, and misappropriation doctrines of state law.

Database producers seek new federal protection against piracy of collections of information that result from the investment of substantial amounts of money, time, or other resources. The protection they seek would be based on industrious effort rather than on creativity.

In response to the concerns of database producers, H.R. 354 has been introduced to create a federal misappropriation right under the Commerce Clause against the unlawful copying of databases. A 15-year prohibition against copying would apply generally to extraction or use in commerce of all or a substantial part of a protected collection of information. To qualify for protection, the database producer must have expended industrious effort and created the database through a substantial investment in money, time, or other resources.

A closely related bill, H.R. 1858, the "Consumer and Investor Access to Information Act of 1999," was introduced on May 19, 1999 and was referred to the House Commerce Committee. H.R. 1858 is similar to H.R. 354 in that it creates a Commerce Clause-based right against prohibited duplication and commercial distribution of a noncreative database. It is unlike H.R. 354 in several respects, for example: 1) the bill provides only civil, not criminal penalties for violation; 2) enforcement is vested solely in the Federal Trade Commission; no private right of action is created; 3) it does not have a fixed 15-year term of protection; and, 4) it applies only to databases created after enactment.

Proponents of database protection argue new laws are needed to encourage the creation and maintenance of databases; to close the gap in protection caused by court decisions and technological developments; and to facilitate competition with European database producers who are protected by a new database extraction right which has been implemented within the European Union.

Opponents argue that the proposed protection is anti-competitive and overbroad; that it will have a negative impact on science and basic research; and will contribute to increased costs in accessing databases.

This report analyzes the legislative proposals for *sui generis* protection of noncreative databases and summarizes the major arguments for and against this new form of intellectual property protection.

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Intellectual Property Protection for Noncreative Databases

The Copyright Act (title 17 of the U.S. Code) protects as copyrightable subject matter those databases or other collections of information that qualify as "works of authorship" within the meaning of 17 U.S.C. 102. To qualify, databases must exhibit at least a modest amount of original, creative expression on the basis of the selection, organization, or the overall coordination of the data elements. The data elements may themselves be original works of authorship or may be uncopyrightable facts or similar items.

Under a decision of the Supreme Court in *Feist Publications v. Rural Telephone Service Co.*,[1] however, databases that lack at least a modest amount of original, creative expression are not constitutionally eligible for copyright protection. In *Feist*, the Supreme Court held the "white pages" of standard telephone directories lack the modest degree of creative expression required by the Constitution to sustain a copyright. The Court rejected the so-called "sweat of the brow" or industrious effort standard that many of the lower appellate courts had invoked to justify copyright protection for telephone directories.

In the aftermath of the *Feist* decision, database producers have become concerned about the lack of protection for databases that are the result of industrious but noncreative effort. That concern was exacerbated by post-*Feist* lower appellate court decisions such as *Warren Publishing v. Microdos Data Inc.*[2] The Eleventh Circuit held that Warren Publishing's DIRECTORY OF CABLE SYSTEMS, the standard reference work in classifying cable systems by the principal communities served, had not been infringed by reproduction of the data by a competitor in a new format.

International developments added to the concerns of database producers. The European Union issued a directive mandating a new form of protection for noncreative databases by its member States. Effective January 1, 1998, EU members must protect noncreative collections of information through an "extraction" right. This *sui generis* form of protection is available to non-EU nationals only on the basis of reciprocity (unless the database producer essentially maintains a subsidiary within an EU member State). That is, American database producers will be able to enjoy this new form of protection in Europe only if they establish European subsidiaries, or if the United States reciprocates by providing essentially the same protection for European-origin databases in the United States as the EU States provide in their countries under the new *sui generis* protection for noncreative databases.

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[1] 499 U.S. 340 (1991).

[2] 115 F. 3d. 1509 (11th Cir. 1997) (en banc).

Developments in the 106th Congress

In response to the concerns of the database producers, legislation was introduced in the 105th Congress, but not enacted, which would have created a misappropriation type of protection for noncreative databases under the authority of the Commerce Power. The House passed a bill twice: the House passed H.R. 2652 as a free-standing bill, and later incorporated closely similar provisions as Title V of H.R. 2281. Although H.R. 2281 was enacted, the proposal concerning noncreative databases was dropped from the bill before final passage, as part of the compromise with the Senate.

A similar database proposal has been re-introduced in the 106th Congress as H.R. 354, the "Collections of Information Antipiracy Act," but with significant modifications. The three major changes in H.R. 354 in comparison with the database bills of the 105th Congress are: 1) a new exception from protection for "individual use" of the database for teaching, research, or explanation, under a reasonableness standard; 2) a specific exclusion from subject matter coverage in the case of products or services that include collections of information used to transmit or store, or provide access to, digital online communications; and 3) new language to clarify further that protection for revised databases is limited to a 15-year period.

Hearings on H.R. 354 were held before the House Subcommittee on Courts and Intellectual Property on March 18, 1999. The bill was reported, with amendments, by the House Judiciary Committee on May 26, 1999.

A closely related bill, H.R. 1858, the "Consumer and Investor Access to Information Act of 1999," was introduced on May 19, 1999 and was referred to the House Commerce Committee. A hearing on Title I of the bill was held before the Subcommittee on Telecommunications, Trade, and Consumer Protection on June 15, 1999.[3] The full committee ordered the bill to be reported in the nature of a substitute on August 5, 1999.

H.R. 1858 is similar to H.R. 354 in that it creates a Commerce Clause-based right against prohibited duplication and commercial distribution of a noncreative database. It is unlike H.R. 354 in several respects, for example: 1) the bill provides only civil, not criminal penalties against violation; 2) enforcement is vested solely in the Federal Trade Commission; no private right of action is created; 3) it does not have a fixed 15-year term of protection; and, 4) it applies only to databases created after enactment.

At this time, a database protection bill has not been introduced in the Senate. In lieu of introducing a formal bill, Senator Hatch on January 19, 1999 placed in the Congressional Record three draft versions of database bills for discussion purposes.[4] One version reflects the last effort by Senator Hatch to reach a consensus on database

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[3]Title I of H.R. 1858 prohibits commerce in duplicated databases. Title II would amend the Securities Exchange Act of 1934, 15 U.S.C. § 78k-1 to prohibit misappropriation of real-time market information. Title II was the subject of a hearing before the H. Subcomm. on Finance and Hazardous Materials on June 14, 1999.

[4] 145 CONG. REC. (daily edition) at S316-S326 (January 19, 1999).

protection in the 105th Congress. The second discussion bill consists of the House bill in this Congress — H.R. 354. The third discussion bill reflects the preferred approach of the higher education, scientific, and library interests, if any new database legislation is enacted.

This report summarizes the proposals for protection of noncreative databases (i.e., "collections of information") and reviews the arguments for and against the proposals.

Background

Although databases are not expressly included in the list of copyright subject matter contained in 17 U.S.C. §102, it is clear from the legislative history of the Copyright Act and judicial interpretation of the Act, that certain databases and other collections of information are eligible for copyright protection if they meet the "work of authorship" standard of the Act. That standard, as interpreted by the courts, requires that a work must contain at least a modest degree of original, creative expression to be entitled to copyright protection.

Prior to the Supreme Court decision in the *Feist* case, the lower appellate courts had protected some collections of information (especially telephone directories) on the basis of the industrious effort in time, money, and other resources that was expended in order to produce and maintain the collection. Arguably, the industrious effort standard was a minority view, although at least four courts of appeal had applied this test to uphold the copyrightability of telephone directories.

Some databases may include component materials that themselves may qualify for copyright protection, e.g., abstracts, annotations, and other textual works. In other cases, the component elements consist of facts and other items that are not themselves subject to copyright. Copyright law protects the expression of an author but does not protect the facts, ideas, discoveries, systems, or methods embodied in the work of authorship.

If the database exhibits original creative expression through the selection, arrangement, or coordination of the data elements, copyright protection subsists in these facets of the database. Protection for the original expression in the selection, arrangement, or coordination of the data is separate from any possible copyright protection in the component parts that may be independently copyrightable.

Another characteristic of many databases is that they are updated on a fairly regular basis. The additions or changes made to update the database may or may not exhibit the modest degree of original, creative expression required to sustain a new copyright in the updated version. Of course, any copyright or lack of copyright in an updated version is independent of the copyright in the original database.

Since most databases are impersonal works, copyright ordinarily endures for a fixed period of years. Each separate copyright expires at the end of that period of years. The copyright terms were extended by enactment of the Sonny Bono

Copyright Term Extension Act[5] in the 105th Congress. The basic copyright term for impersonal works is now 120 years from creation or 95 years from publication, whichever is shorter.

In the post-*Feist* era, database producers are concerned not only about the existence of copyright protection in their databases, but also about the standard of infringement. Even if the database is copyrightable, users of the database may be able to copy certain data elements (especially facts) and may avoid copying any protected elements. If users succeed in copying only noncopyrightable elements, they are not liable as infringers under the Copyright Act.

Computerization of data elements both makes it possible to compile extensive databases more efficiently, but also makes it easier for users to extract data from a database and recompile it in other formats. In theory, however, if the first compiler of the data elements cannot reap sufficient revenues to profit from its efforts, this development will have a chilling effect on the incentive to produce new databases and update them. On the other hand, since facts and ideas have never been copyrightable, society as a whole has long benefitted from the ability of the second compiler to copy the facts collected by a predecessor without forcing the second compiler to engage in wasteful duplication of effort (except in those limited pre-*Feist* situations where the courts applied an industrious effort test for determining copyrightability).

Within the European Union, the effort to harmonize their intellectual property laws led the member states to reexamine the nature of copyright protection for databases. The industrious effort standard was recognized in some member states (such as the United Kingdom and Ireland) but was not recognized in the majority of the EU states. Examination of this discrepancy in protection, coupled with the enormous economic significance of computerized databases, led the European Commission to recommend a new form of protection for databases that are not eligible for copyright protection.

The new right crafted by the EU Database Directive is essentially a right of "extraction" with respect to collections of information that result from substantial investments of time, money, or other resources. Protection endures for 15 years, and is based on the European concept of related or neighboring rights. That is, rights similar or adjacent to copyright but also lesser in duration and scope than the protection extended to copyright subject matter.

Since the EU database "extraction right" is not based on copyright law, the EU arguably has the option, and has exercised the option, to extend this right to foreign nationals only on the basis of reciprocity. In the case of copyright subject matter, both the Berne Convention — the principal international copyright treaty — and the intellectual property standards of the World Trade Organization (known as "TRIPS") require national treatment, subject to the rule of the shorter term.[6] Given the

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[5] P.L. 105-298, October 27, 1998.

[6] The rule of the shorter term is an exception to the general rule of the Berne Convention that nationals of a foreign country shall receive the same protection as nationals of the country (continued...)

international economic importance of databases, American database producers strongly believe that the United States must enact reciprocal database legislation in order for American database producers and distributors to be able to protect their investments abroad and compete effectively in the European marketplace.[7]

The EU Database Directive does permit some exceptions for purposes of teaching and scientific research. In the United States, the educational, library, university, and scientific communities have expressed serious concerns about proposals to create any legal protection against copying of uncopyrightable databases.

Several bills were introduced in the 105th Congress for the purpose of enacting new protection against unauthorized copying of all or a substantial part of protected collections of information. H.R. 2652, known as the "Collections of Information Antipiracy Act," was introduced as a free-standing bill during the first session. A companion bill, S. 2291, was introduced in the second session.

Hearings were held on H.R. 2652 by the House Subcommittee on Courts and Intellectual Property on October 23, 1997 and February 12, 1998. The House Judiciary Committee reported H.R. 2652 on May 12, 1998.[8] The House passed H.R. 2652 on the suspension calendar on May 19, 1998. A revised version of the bill was later included in H.R. 2281 (Title V), as passed by the House of Representatives on August 4, 1998. The Conference Report of the House and Senate dropped the "Collections of Information Antipiracy Act" provisions from H.R. 2281 as enacted.[9]

Database Bills in the 106th Congress

H.R. 354. H.R. 354, the "Collections of Information Antipiracy Act," responds to the requests of database producers for protection of databases that cannot qualify for copyright protection under the standards of the *Feist* case. Essentially, collections of information that result from substantial investments of time, money, or resources would enjoy a misappropriation-style of protection against copying for 15 years.

Basic right. This new misappropriation right would be enacted as a new chapter 14 of title 17 of the U.S. Code, but under the authority of the Commerce Clause rather than the authority of the Patent-Copyright Clause of the Constitution.

The prohibition against copying would apply generally to all or a substantial part of a collection of information that results from the investment of a substantial amount

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[6](...continued)
where protection is claimed (i.e., "national treatment"). The exception applies in computing the duration of copyright. The country where protection is claimed may compare its copyright term with the copyright term in the country of origin and apply the shorter term.

[7] For a more detailed review of international developments relating to database protection, *see* D. Schrader, *Intellectual Property Protection for Databases at the International Level: Copyright and Sui Generis Forms of Protection*, CRS Report RL30104.

[8] H.Rept. 105-525, 105th Cong., 2d Sess. (1998).

[9] The Digital Millennium Copyright Act of 1998, P.L. 105-304, October 28, 1998.

of money or other resources, provided the copying causes actual or potential harm to the market for the database.

Exclusions from protection. The bill would exclude the following from subject matter protection: 1) collections of information developed by Federal, state, or local governments, including the efforts of government employees within the scope of their employment; 2) computer programs used to operate or maintain the collection of information; and 3) collections of information included in products or services that transmit or store, or provide access to, digital online communications.

The government collection exclusion would not apply, however, to information required to be collected by the Securities Exchange Act of 1934 and by the Commodity Exchange Act.

The computer program exclusion would not apply to a collection of information that is "incorporated in a computer program that is otherwise subject to protection" under the bill.

The express exclusion from protection for data that facilitate online digital communications is new in H.R. 354, although the final version of the database bill in the 105th Congress had attempted to achieve a similar exclusion through a definition of "products or services" not covered by the bill. H.R. 354 excludes from protection information gathered, organized, or maintained in order to route, transmit, or store digital online communications or provide access to connections for digital online communications. This exclusion is intended to address concerns about interference with the operations of the Internet, by prohibiting application of the new database rights to the data used to control the operations of the Internet.

Limitations on the right. Exceptions or limitations to the new database right would be established by the bill in the form of permitted activities. The following would be permitted activities in relation to use of a protected collection:

- "individual use or extraction" for teaching, research, or explanation under a reasonableness standard;
- use for nonprofit educational, scientific, or research purposes, provided the use does not materially harm the primary market for the collection;
- extraction of individual items and other insubstantial parts from a collection;
- copying of information obtained from independent efforts;
- use of a collection for the sole purpose of verifying information gathered independently, provided the use does not harm the actual or potential market for the original collection;
- use of the collection for purposes of news reporting, unless the extracted information is time-sensitive and has been gathered by another news-reporting entity and the extraction shows a pattern of use in direct competition with the rights holder;

- the owner of a lawfully made copy of the collection could sell or otherwise dispose of the copy;

- use or extraction of genealogical information for nonprofit, religious purposes; and

- use of information as part of lawfully authorized investigative, protective or intelligence activities.

"Individual use or extraction" limitation. The first limitation above is new in H.R. 354 and represents a major modification of the database bill proposals. The new "individual use or extraction" limitation is apparently intended to respond to criticisms of opponents of protection that earlier proposals did not extend appropriate "fair use" privileges to database users.

In determining whether or not the "individual use or extraction" limitation applies, H.R. 354 lists four factors to be weighed in evaluating the reasonableness of the use: 1) commercial or nonprofit purpose; 2) good faith purpose; 3) appropriateness for purpose; 4) incorporation of the copied material in an independent work or collection and the degree of differences between the protected collection and the subsequent work or collection; and, 5) whether the protected collection was primarily developed for marketing to persons engaged in the same field or business as the database user.

H.R. 354 specifies that in no case can this limitation be applied to permit extraction or use for sale or in commerce, or where the use results in development of a product or service which is likely to serve as a substitute for the original database.

Relationship to other laws. The new database right has no effect on copyright, patent, and trademark laws; design protection; antitrust and contract laws; trade secrets; privacy rights; or access to public documents. Equivalent state law rights would be preempted. There would be no impact on the Communications Act for the purpose of publishing directories in any format.

Detailed provisions specify that there shall be no impact on the Securities Exchange Act and the Commodity Exchange Act, or on the jurisdiction or authority of the Securities and Exchange Commission or the commodity Futures Trading Commission. The permitted acts or limitations of the bill would not apply to use of securities or commodities information except as that use shall be permitted by the Securities Exchange and Commodity Exchange Acts and the regulations issued thereunder.

Civil remedies. The civil remedies for violation of the new database right would include injunction, impoundment, actual damages plus defendant's profits from the violation not counted in damages, treble damages, and costs and attorney's fees to the prevailing party. If a nonprofit educational institution prevails as a defendant and the court finds the plaintiff brought the case in bad faith, attorney's fees shall be awarded to the defendant. The remedies of an injunction and impoundment are not available, however, against the United States Government.

The court shall reduce or remit money damages against a nonprofit educational, scientific, or research institution if the defendant proves it believed and had reason to believe its conduct was permissible.

Criminal penalties. Willful violations of the new database right for purposes of direct or indirect commercial advantage or financial gain, or willful violations that cause $10,000 or more in damages in one year, could be punished by criminal penalties. Employees or agents of nonprofit educational, scientific, or research institutions, libraries, or archives are exempt, however, from any criminal penalties for violations of the new database right, when acting within the scope of their employment.

The penalties include a fine in the maximum amount of $250,000 and/or 5 years in prison for first offenses. For second or subsequent offenses, the maximum fine and prison time are doubled.

Limitations on actions. A statute of limitations clause provides that no action can be brought against an extraction from a collection that occurs more than 15 years after the date of the investment that created the portion of the collection that has been extracted. This clause is intended effectively to limit the protection to a 15-year period. The lack of clarity of the comparable provision in last year's database bills was criticized by opponents of the database proposals. New language has been added in H.R. 354 to make clearer the 15-year limitation on duration of protection. Proposed section 1408 (c) states that protection is not available against an extraction or use that occurs more than 15 years after "the portion of the collection that is extracted or used was first offered for sale or otherwise in commerce" following the investment of resources that qualified that portion of the collection for protection.

H.R. 354 also sets a three-year statute of limitations on any civil or criminal action to enforce database rights. Criminal actions must be filed "within three years after the cause of action arises." Civil actions must be filed "within three years after the cause of action arises or claim accrues."

Effective date. The Collections of Information Antipiracy Act would take effect upon enactment. In general, there is no liability for acts prior to enactment, i.e., for the use of information lawfully extracted from a collection prior to the effective date.

H.R. 1858. H.R. 1858, the "Consumer and Investor Access to Information Act of 1999," is designed to protect the commercial value of and market for databases compiled "through the investment of substantial monetary or other resources." Title I is entitled "Commerce in Duplicated Databases Prohibited." Title II is entitled, "Securities Market Information."[10] It authorizes private, civil actions for securities data misappropriation of real-time market information with remedies in the nature of temporary and permanent injunctions, monetary relief, and disgorgement.

Title I of H.R. 1858 is summarized below.

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[10]Title II was referred to the H. Subcomm. on Finance and Hazardous Materials which approved it on July 21, 1999. *See* note 3 *infra*.

Basic right. The bill makes it unlawful for any person to duplicate, sell or distribute a database that is substantially the same as another database as a result of the extraction of information from the preexisting database. Sale or distribution to the public may unlawfully compete with a preexisting database if doing so displaces substantial sales or licenses, or significantly threatens the opportunity for the owners of the unlawfully duplicated database to recover a reasonable return on their investment. Protection for databases would not, however, extend to the sale or distribution of a duplicate of any individual idea, fact, procedure, system, method of operation, concept, principle, or discovery.

Permitted acts. Restrictions on unlawful duplication and sale do not apply to the sale and distribution of comparable information obtained by means other than extraction from a database organized by another person. Sale or distribution of a duplication of a services-provider database for the sole purpose of news or sports reporting is permissible unless the information is time sensitive and is part of a consistent pattern of direct commercial competition; likewise, material sold or duplicated for scientific, educational, or research uses is permissible unless there is a pattern of commercial competition. Finally, selling or distributing duplicative materials in connection with law enforcement and intelligence activities is expressly permitted.

Exclusions from protection. Federal (and foreign) government databases, including those maintained by a commercial entity under contract with the Federal Government, are excluded from the protections against unlawful duplication and sale. Certain Internet communications transactions and computer program functions are excluded, as are specified subscriber list information, legal materials, and securities market data.

Relationship to other laws. Unlike H.R. 354, H.R. 1858 would not be codified under Title 17 of the U.S. Code, which deals generally with copyright law. It expressly provides that it is not intended to affect rights or remedies under other laws, such as copyright, patent, trademark, design rights, antitrust, etc. The bill expressly preempts state laws inconsistent with it.

Limitations on the right. The defense of "misuse" is made available to potential defendants against claims of unlawful duplication and sale. Among the factors a court is to consider in determining whether a database-owner *qua* plaintiff has misused proprietary rights in a noncreative database are:

- the extent to which potential users have been frustrated by contractual arrangements or technological measures;

- the extent to which the information contained in a database is the sole source of information, and is otherwise made available through licensing or sale on reasonable terms and conditions;

- the extent to which a license or sale has been conditioned on the performance of other activity not directly related to the license or sale;

- the extent to which access to the information is necessary for research, competition, or innovation;

- the extent to which the manner of asserting rights granted under the bill constitutes a barrier to entry into the relevant database market; and

- the extent to which judicial doctrine of misuse is applicable.

Enforcement. The Federal Trade Commission (FTC) is given sole enforcement authority, including rulemaking authority, under the bill. A violation of a rule prescribed by the FTC will be treated as a violation of a rule respecting unfair or deceptive practices under section 5 of the FTC Act, 15 U.S.C. § 45. The FTC is required to report to Congress within 36 months after enactment on the effect the law has had on electronic commerce and on the U.S. database industry.

Relationship to other laws. The rights under the bill are designed to supplement, not displace any rights or remedies that currently exist under, *e.g.*, copyright, patent, trademark, design rights, or antitrust laws. State laws that are inconsistent with the rights established are expressly preempted.

Effective date. The Act would take effect upon the date of enactment, and would apply prospectively to sales or distributions of a database that was created after the date of enactment.

Arguments in Favor of Protection For Noncreative Databases

Arguments in favor of new legal protection against copying of noncreative databases were advanced during the 105th Congress' deliberations on the bills and distill into three main points: 1) databases have enormous economic importance in the electronic, digital world of today and of the future; appropriate laws are needed to encourage the creation and dissemination of new and updated databases by protecting the investment in their development against unfair, predatory conduct; 2) there is a "gap" in appropriate forms of legal protection in the aftermath of the Supreme Court decision in *Feist Publications v. Rural Telephone Service Company;* and 3) the creation of a new database extraction right within the European Union means that the United States must reciprocate by creating an equivalent form of protection for databases within the United States, in order for United States database producers to compete effectively in the lucrative European market.

The new form of legal protection for noncreative databases is supported by the Information Industry Association, the American Intellectual Property Law Association ("AIPLA"), and individual database publishers and producers.

Incentives to encourage database investment. Databases producers argue that there should be no doubt about the validity of their basic argument: since collections of information, whether produced through creative or industrious effort, are a major part of the lifeblood of modern economies, modern societies must encourage and stimulate the development of new and updated versions of commercial databases through appropriate forms of legal protection against unfair, predatory copying. Without appropriate protection against piracy, database producers argue, the

incentive to make the substantial investments necessary to develop and maintain the database will dissipate.

Appropriate protection for databases is especially significant for the United States economy, since it is estimated that the United States produces nearly 65 percent of the world's databases, with minimum total sales of $20 billion annually.[11]

New technological developments, moreover, facilitate harmful, predatory copying and make it necessary, producers argue, to respond with new forms of protection against commercial piracy, in order to provide appropriate economic incentives to create and maintain databases. Given modern copying technologies, database originators can no longer rely on contract-based licensing programs, encryption technologies, or the "head start" advantage that usually accrues to originators in a field, independent of the effectiveness of legal protection against copying. Absent appropriate legal protection against copying, it is argued, originators have no competitive advantage. Everyone becomes a predatory copier. Ultimately, in this kind of legal environment, there is no incentive to invest substantial amounts of money or other resources in the creation of new databases or the updating of existing databases.

The AIPLA points out that at the time of the *Feist* decision, most online users employed modems that required 6 months of continuous downloading to copy an average database of 2 billion characters of data. At that speed, the copying can be detected and stopped before too much data is copied. At the speeds now used in applied research, the same database could be downloaded in less than 2 minutes, and within a few years downloading time will be down to seconds.[12]

Post-Feist gap in protection. Before the decision of the Supreme Court in the *Feist* case, at least some jurisdictions recognized the "industrious effort" standard as a basis of protection of certain kinds of collections of information. While the claim of protection was not always successful, the possible invocation of this standard served as a possible defense against the most egregious forms of predatory commercial copying. In the post-*Feist* era, database producers have been deprived of this possible argument.

The effects of the changed legal environment can be seen in the cases like *Warren Publishing v. Microdos Data, Inc.*.[13] Warren Publishing's cable industry fact-book (DIRECTORY OF CABLE SYSTEMS) had been the primary reference work for facts about the cable industry for decades. The 11th Circuit found no infringement

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[11] Statement of Michael Kirk, Executive Director of the American Intellectual Property Law Association, *Hearing on H.R. 2652, the Collections of Information Antipiracy Act and H.R. 2696, the Vessel Hull Design Protection Act Before the House Subcommittee on Courts and Intellectual Property,* 105th Cong., 1st Sess.——(October 23, 1997) (Hereafter: "AIPLA Statement at 1997 Database Hearing") (Unpublished statement at 2).

[12] AIPLA Statement at the 1997 Database Hearing (Unpublished statement at 4).

[13] 115 F. 3d. 1509 (11th Cir. 1997) (en banc).

when a competitor copied the information in Warren Publishing's reference work and resold the information in a new format.

Cases like the *Warren Publishing* decision, it is argued, will be replicated in many future database cases, to the detriment of the incentive to produce new products and services, unless the legal regime is improved.

Also, the Supreme Court's decision in *Feist* has forced database producers to confront the reality that "copyright law does not provide adequate protection for electronic databases."[14] Copyright protection can be justified on the basis of original, creative effort in either selection, arrangement, or coordination of the contents of the database. Selection, however, is arguably a tenuous basis for copyright protection since most databases are intended to be exhaustive in a given subject field. While arrangement has been and can be an original feature of printed databases, according to the AIPLA, "[i]n the case of electronic databases, the database producer provides neither coordination nor arrangement. This, in fact, is provided by the search software system," which is typically provided by outside vendors rather than by the database producer.[15]

As explained by the AIPLA, the "fact that the database industry only recently has begun to press for database protection may be partially related to lack of understanding of the implications of *Feist* on the part of executives, and of the nature of electronic databases on the part of their attorneys. However, the main reason is that the need for greater protection has been forced by the rapid movement of technology — primarily changes in network architecture and changes in bandwidth."[16]

Until the mid-1990s, online databases delivered their services through closed network architecture to licensees who subscribed to the service. "Within this network architecture, security was relatively easy to maintain, and it was very difficult for unauthorized users or pirates to break-in. Now, every major service is moving to delivery via the Internet and World Wide Web and is facing the problems inherent in the open architecture exemplified by the new digital networks.. . .[T]he need for more legal protection has become painfully obvious.... [A]lthough licensing is broadly used, it does not provide the degree of protection it formerly provided because of these technological changes."[17]

The EU Directive and its reciprocity requirement. The European Union has recognized the economic importance of appropriate database protection by mandating new legal protection of databases under its Database Directive. American database producers can benefit from the EU Database Directive only if they have a substantial economic presence (e.g., a subsidiary) in an EU member country, or if the United States enacts reciprocal database legislation.

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[14] AIPLA Statement at the 1997 Database Hearing (Unpublished statement at 2).

[15] *Id. at* 3.

[16] *Id.* at 4.

[17] *Ibid.*

Database producers argue that they will be at a substantial competitive disadvantage vis-a-vis European competitors unless the United States enacts reciprocal legislation. The July 1998 Report by the Patent and Trademark Office on the recommendations of an April 1998 Conference on Database Protection and Access Issues (hereafter: "1998 PTO Database Conference Report") notes the following competitive disadvantages for American database producers:

> An American firm that does not enjoy protection under the EU Directive faces several possible competitive disadvantages. First and most obviously, its noncopyrightable database may be duplicated and remarketed by others. Second, European data sources looking for a firm to 'process' and market raw data will be more likely to enter into a contract with a European company that can guarantee protection of the database versus an American company that cannot. Thus, even if the American firm could effectively protect the database with technology and contract law, it may be at a disadvantage in obtaining 'suppliers' of data. [18]

Nor does the United States have much leverage to compel the European Union to protect noncreative databases by American companies, unless the United States enacts reciprocal legislation. The United States is attempting to take unilateral trade action against the European Union. The Office of the United States Trade Representative has cited the database reciprocity provision as one reason for its placement of the European Union on the 1998 Priority Watch List for Special 301 review. The 1998 PTO Database Conference concluded, however, that since the EU Database Directive offers additional protection beyond the protection required by the TRIPS Agreement, the EU's "*sui generis* regime is probably not subject to the TRIPS national treatment requirement."[19]

The 1998 PTO Database Conference also concluded that, although the EU Directive and H.R. 2652 (the predecessor to H.R. 354) are based on different legal approaches and differ in details, "on the whole, ... the comparable aspects of the two regimes far outweigh the differences." [20] According to the PTO Conference Report, therefore, enactment of legislation like H.R. 2652 in the 105th Congress should satisfy the European Union's reciprocity requirement. Presumably, the same conclusion applies to H.R. 354 in the 106th Congress.

Arguments Against Protection for Noncreative Databases

Protection of noncreative databases on the basis of the bills considered by the 105th Congress (H.R. 2652, S. 2291, and Title V of H.R. 2281 as passed by the House on August 4, 1998) was opposed by groups representing educational, scientific, and library interests and by some business groups. Among the organizations opposing the passage of H.R. 2652 and the inclusion of the "Collections of Information Antipiracy Act" in H.R. 2281 were: the American Association for the Advancement of Science (AAAS), the Institute of Electrical and Electronic Engineers (IEEE), the Association for Computing Machinery (ACM), the Information

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[18] 1998 PTO Database Conference Report at 15.

[19] *Ibid.*

[20] *Id.* at 16.

Technology Association of America (ITAA), the Online Banking Association, and the Digital Future Coalition (DFC).[21]

The three major modifications in H.R. 354 in comparison to the bills in the 105th Congress are apparently intended to address at least some of the concerns of the opponents of past database bills. Preliminary indications are that the changes in H.R. 354 are not sufficient to remove the objections of the higher education, scientific, and library interests to new database protection. These interests apparently prefer no new database legislation, for the reasons discussed below. If any database legislation is necessary, these groups apparently prefer the approach of the third discussion bill (short title — "Database Fair Competition and Research Promotion Act of 1999") placed in the Congressional Record by Senator Hatch on January 19,1999.[22]

The major arguments against protection for noncreative databases are the following: 1) this new protection will have a negative impact on science and basic research; 2) the proposed legislation would contribute to the spiraling costs of access to online databases; and 3) the proposals are anti-competitive and overbroad.

Negative impact on science and basic research. Opponents argue that the proposals for new protection for noncreative databases threaten the "open information environment [that] is critically important to the progress of research and development efforts in the public and private sectors." [23] It is argued that the basic paradigm of data exchange is put in jeopardy "by providing unprecedented new legal protection for information. Under [H.R. 2652 in the 105th Congress]..., anyone who collects information (whether self-generated or generated by others) may be entitled to assert rights against others for the unauthorized 'extraction' or 'use' of the collection's contents."[24]

This negative impact on science and basic research, according to opponents of the bill, is in marked contrast to the current copyright law, which has a positive effect on scientific research. The Digital Future Coalition argued last year as follows —

> Under current copyright doctrine, decisions about what information to include in a collection or how to arrange that information may be protected — no one can copy the manner in which a particular compilation is presented. Importantly, the data which make up contents of compilations are not subject to protection. Instead, they remain available for all to use. The current state of the law has been a positive one for scientific research. As it now stands, that law provides researchers with no incentive to withhold information in order to create conditions

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[21] Digital Future Coalition position paper entitled "H.R. 2652: New Property Rights in Databases — Disappointing Action in the House — Attention Turns to the Senate," online at <www.dfc.org/>.

[22] Telephone calls with Max Frankel of the American Association for the Advancement of Science and Dr. James Neal of the Milton Eisenhower Library of Johns Hopkins University on March 15, 1999. The text of the third discussion bill appears at 145 CONG. REC. (daily edition) at S320-S322.

[23] *Id. at 1.*

[24] *Ibid.*

> of scarcity. Rather, it encourages every researcher to make his or her factual findings available, by means of publication, as part of a common pool of knowledge from which all those working in the field are free to draw. . . . H.R. 2652 [in the 105th Congress] now threatens this basic paradigm of data exchange....[25]

Opponents of new database protection argued that the exceptions in the bill for nonprofit educational, scientific or research uses are "circular and hollow. ...since the primary market for many databases is the nonprofit sector...."[26] Although the exception for scientific research was expanded somewhat in Title V of H.R. 2281 as passed by the House on August 4, 1998 and H.R. 354 contains a new exception for "individual uses," apparently these changes do not satisfy the opponents of protection for noncreative databases. They successfully argued for elimination of the "Collections of Information Antipiracy Act" from H.R. 2281 at the end of the 105th Congress and apparently will oppose enactment of H.R. 354 in this Congress.

Increased access costs. Opponents of protection for noncreative databases argue that this new legal protection will contribute significantly to increased costs for access to commercial databases. Data will tend to be licensed rather than shared, it is asserted.

> The new level of protection is likely to create a kind of economic 'chain reaction' within the research community, for every set of research results which is made available pursuant to license, other researchers will experience new costs of data acquisition, leading them (in turn) to consider what additional revenues they may be able to derive from the licensing of their own findings. Ominously, it is precisely the data which have the greatest immediately scientific, medical, or social importance, and on which others depend more heavily, which are most likely to be subjected to this treatment.[27]

The educational and scientific research communities argue that new legal protection for noncreative databases may require a researcher to obtain a license to analyze or manipulate the data to reach research conclusions. They argue that the prohibitions in the bill exceed unfair competition protection and would apply in noncompetitive, research contexts. This added layer of licensing would, according to the Digital Future Coalition, "stifle innovations in research."[28]

The educational and scientific communities have not been persuaded by the counter arguments of the bill's supporters that the bill requires use "in commerce," of all or a substantial part of the database and (in the latest version of the bill) proof of direct harm to the actual market, in order to prohibit use by a nonprofit researcher.

The database proposals are anti-competitive and overbroad. Opponents argue that most databases are already protected by copyright on the basis of creative

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[25] *Ibid.*

[26] *Id.* at *2.*

[27] *Id. at 2.*

[28] *Ibid.*

selection, arrangement, or coordination of the data, and that any gaps in protection are filled through contract law, trade secrecy law, and misappropriation law. Copyright-protected databases will also receive the protection afforded by the database bill. Opponents of the bill argue that the legislation "can be viewed as a windfall enabling tighter control and higher prices and creating an even stronger tendency toward monopolization in information publishing and services."[29]

Opponents also argue that the database bill "prohibits transformative uses of information, that is, reuse of information to create a different product. This prohibition on transformative uses will have a negative impact on U.S. businesses."[30]

Among the asserted anti-competitive effects of the database bill are: publishers of pre-existing databases will be able to drive value-added publishers out the market; business costs will increase since additional licenses will be required; recompilation or use of data solely for internal business purposes could be actionable since it may harm the potential market for the database; and companies that employ scientists to engage in basic research will be negatively affected by the perceived disincentive to share data.[31]

As an alternative to the pending database bill, if any database legislation is necessary, many in the educational and scientific communities urge enactment of a bill that would essentially codify the decision of the Second Circuit Court of Appeals in *NBA v. Motorola*.[32] Based on the *Motorola* case, the legislation would prohibit unauthorized uses of the database that compete in commerce and that threaten the existence or quality of legitimate uses of the database. Opponents of H.R. 354 argue that the negative effects on scientific research and value-added database publishers could be avoided by adopting a true misappropriation approach to database protection, which focuses on regulation of unfair competitive practices by commercial firms in providing data to consumers.[33]

Conclusion

Copyright law protects works of authorship that exhibit original, creative expression, including creativity in the selection, arrangement, or coordination both of traditional and automated databases. Noncreative databases are not subject to copyright protection, although some protection is available through a combination of contract law, trade secrecy law, and misappropriation doctrines of state law.

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[29] *Ibid.*

[30] Digital Future Coalition position paper entitled "S. 2291/H.R. 2652 Will Harm U.S. Businesses," available online at <www.dfc.org/>.

[31] *Ibid.*

[32] 105 F. 3d 841 (2d Cir. 1997).

[33] Digital Future Coalition position paper entitled, "S. 2291/Title V of H.R. 2281 (was H.R. 2652) — The Collections of Information Antipiracy Act Is Overbroad and Would Harm Both Commercial and Nonprofit Activities," available online at <www.dfc.org/>.

Database producers seek new federal protection against piracy of collections of information that result from the investment of substantial amounts of money, time, or other resources. The protection they seek would be based on industrious effort rather than on creativity.

H.R. 354 and H.R. 1858 represent efforts to date to craft legislative approaches to protect a noncreative database owner's propriety interest. H.R. 354 encompasses the approach favored by database owners, while H.R. 1858 has among its supporters groups traditionally aligned with database users.