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Abstract

This Note examines the types of protection given to databases in both the United States and Europe. Part I discusses the reasons for providing databases protection. Part I also provides background information on the EU Database Directive, and examines the history of copyright protection of databases in the United States in light of a landmark Supreme Court decision and then analyzes the approach to database protection arising under the Collections of Information Antipiracy Act, a proposed law in the U.S. Congress. Part II balances sui generis protection in the EU Database Directive with misappropriation in H.R. 354. Part II also discusses the issues involved in providing reciprocal protection, and examines H.R. 354 as a response to the EU Database Directive. Part II then provides a comparison of U.S. and E.U. database protections through an analysis of the UK Regulations implementing the Database Directive. Part III argues that H.R. 354 was sufficient to satisfy the comparable protection standard in the EU Database Directive. Part III further asserts that in light of H.R. 354’s failure to pass through Congress, U.S. lawmakers should pass a statute that meets the comparable protection standard and suggests issues for lawmakers to address in a new database protection bill.
NOTE

LEGISLATING THE GOLDEN RULE:
ACHIEVING COMPARABLE PROTECTION
UNDER THE EUROPEAN UNION
DATABASE DIRECTIVE

Julie Wald*

INTRODUCTION

The American soldiers serving in Operation Desert Storm sat in their tents in Kuwait, anticipating an attack by thousands of heavily armed Iraqi soldiers.¹ The soldiers had not anticipated sand vipers² seeking shelter indoors, inside the soldiers’ tents.³ Fortunately for the soldiers, U.S. expeditionary forces

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1. See Reuters, War in the Gulf: Pentagon Statement: Cheney’s Remarks After Start of Ground War, N.Y. TIMES, Feb. 23, 1991, at A19 (defining Operation Desert Storm as large scale American ground operation against Iraqi military forces inside Kuwait). Operation Desert Storm was part of a combined air, land, and sea campaign that was carefully planned to force Iraq out of Kuwait with the fewest possible casualties to American allied forces. Id.; War in the Gulf: The General; ‘A Fire of Determination’, N.Y. TIMES, Jan. 17, 1991, at A17 (describing mission of Operation Desert Storm). Desert Storm was an offensive campaign intended to enforce the United Nations resolutions that Iraq must cease its abuse of Kuwait and withdraw its forces from Kuwait. Id.; Andrew Rosenthal, War in the Gulf: The Overview—U.S. and Allies Open Air War on Iraq; Bomb Baghdad and Kuwaiti Targets; ‘No Choice’ But Force, Bush Declares; No Ground Fighting Yet; Call to Arms by Hussein, N.Y. TIMES, Jan. 17, 1991, at A1 (relaying statement of President Bush).


had Poisindex. Poisindex is a system designed to allow medical personnel to quickly identify their patient’s problem and appropriate treatment. Armed with Poisindex’s portable system, field hospitals in Desert Storm were able to treat viper bites sustained by military medical personnel.

Now suppose that the data listed in Poisindex was copied and posted on the Internet. Commentators opine that there would be no legal liability if the pirated version of Poisindex,

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4. See Menezes, supra note 3, at 10A (describing Poisindex as poison identifying system originally available only on Microfiche but now portable). Poisindex is a database that links drug or poison descriptions to treatment. Id. Poisindex is manufactured by Micromedex Inc., a producer of interactive information systems. Id.

5. See id. (noting that before Poisindex, reference materials related to poison treatments were extremely limited). The previous materials were available only as hard-copy publications that were not frequently updated. Id.; Joann Scelsa, Ready for Anything: Niagara County Builds on Head Start Thwarting Terrorism, BUFF. NEWS, Oct. 14, 2001, at NCI (reporting that Poisindex can identify ingredients in hundreds of thousands of commercial, pharmaceutical, and biological substances and their symptoms, effects, and treatment); Jill M. Singer, For Poison Victims, Help Is Close at Hand, Wash. Post, Nov. 6, 1980, at DC7 (emphasizing that Poisindex enables national poison center to tell physicians what antidotes to administer); see generally Beverly Beyette, A Statewide Hot Line Answers the Call on Toxic Hazards, L.A. TIMES, Aug. 17, 1986, at V1 (discussing incident where poison control center used Poisindex to reassure caller that particular lizard bite was not toxic).

6. See Menezes, supra note 3, at 38A (explaining that Poisindex helped soldiers in Desert Storm identify and treat patients’ medical problems).

7. See Anne E. Kornblut, Database Compilers Fight for Copyright Protection, BOSTON GLOBE, Sept. 21, 1999, at A1 (explaining that while Poisindex has not been copied, it is often cited as example of database that if copied, would have tangible consequences); see also Bob Dart, Researchers Wary of Extending Electronic Database Protection, COX NEWS SERV., Oct. 23, 1997 (commenting that Internet accelerates information age and makes compilations of data like Poisindex even more valuable and vulnerable to piracy); Michael Freno, Database Protection: Resolving the U.S. Database Dilemma with an Eye Toward International Protection, 34 CORNELL INT’L L.J. 165, 167 (2001) (positing that putting Micromedex’s Poisindex on Internet may stop Micromedex from further investment in databases and cause slippery slope of private investors avoiding investments in database development); David Mirchin, Putting an End to Database Piracy, BOSTON GLOBE, June 2, 1998, at C4 (reporting that competitors can copy Poisindex and sell it without legal consequences). The lack of database protection leaves publishers with no incentive to update their research. Id.
published without updates, revisions, or accurate instructions, provided outdated medical advice. In this type of situation, experts discuss that there would be no incentive for Poisindex’s creators to improve upon the original database. Experts further note that databases are expensive to create and condoning database piracy results in minimal incentive for corporations to invest in their creation. Advances in technology make database

8. See Freno, supra note 7, at 167 (explaining that there is little database producers can do to stop unauthorized copying of databases onto Internet). This reduces the incentive for business to invest in database production. Id.; Kornblut, supra note 7, at A1 (noting that placing unauthorized copies of databases on Internet removes all types of legal recourse for incorrect information).

9. See Kornblut, supra note 7, at A1 (stating that putting unauthorized copies of databases on Internet reduces incentive for database creators to invest in database improvements); see also CRAIG JOYCE ET AL., COPYRIGHT LAW 268-69 (5th ed. 2001) (explaining that term “database” encompasses many kinds of collections of information); see also Barry R. Furrow, Broadcasting Clinical Guidelines on the Internet: Will Physicians Tune In?, 25 AM. J. L. & MED. 403, 420 (presenting examples of databases). One example is MDConsult, a user-friendly commercial database that can only be accessed by subscription. Id. MDConsult houses hundreds of medical textbooks and treatises and provides easy access to clinical practice guidelines. Id.; Brian L. Beiker et al., Warm with Sunny Skies: Disclosure Statement Forecasts, 73 AM. BANKR. L.J. 809, 816 n.37 (1999) (discussing Compustat as example of historical database produced and sold by Standard and Poor’s). Compustat consists of financial, statistical, and market information that covers both industrial and non-industrial public corporations. Id. The Compustat database is one of the most commonly used databases in financial economics. Id. The Compustat database is widely recognized and acclaimed for its correctness. Id.; Dennis Cline, Comment, Copyright Protection of Software in the EEC: The Competing Policies Underlying Community and National Law and the Case for Harmonization, 75 CALIF. L. REV. 633, 664 n.150 (1987) (noting other examples of licensed access databases to include Lexis and Westlaw, multiple listing services for real estate and library search systems); George A. Cooke, Jr. et al., Before UCITA: Licensing, Selling, & Using Information Under the Proposal Formerly Known as U.C.C. Article 2B and Federal Database Protection Legislation, 18 CARDOZO ARTS & ENT. L.J. 615, 621 (2000) (positing institutions that have valuable data and that collect data regularly as American Medical Association and NASDAQ).

10. See Joseph A. Saltiel, Note, With Nowhere Else to Hide Can the First Amendment Protect Databases?, 2001 J.L. TECH & POL’Y 163, 163 (equating information with economic power). Data is so valuable that many business make significant investments to build and maintain databases. Id. The value of a database can be diminished when competitors are able to access unauthorized copies of a database. Id. Without the ability to restrict access to a database, businesses are discouraged from investing in databases. Id.; Pamela Samuelson, Intellectual Property and Contract Law for the Information Age: The Impact of Article 2B of the Uniform Commercial Code on the Future of Information and Commerce, 87 CALIF. L. REV. 1, 9-10 (1999) (explaining that by denying database makers legal protection, there will be fewer quality databases available to users); see also World Intellectual Property Organization, Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference, CRNR/DC/6, 6 (Aug. 30, 1996) (addressing expense involved in database creation). The World Intellectual Property Organization (“WIPO”) Database Treaty’s preamble asserts that the contracting parties:


piracy much simpler by facilitating both reproduction and unauthorized access to the contents of the database itself.\textsuperscript{11}

Recently, the European Union ("EU") attempted to alleviate this problem by implementing a "golden rule" for database protection.\textsuperscript{12} Directive 96/9/EC of the European Parliament and of the Council of March 11, 1996 on the Legal Protection of Databases ("Database Directive" or "Directive")\textsuperscript{13} requires non-Member States to provide "comparable protection" for databases in order to receive protection for databases in the EU.\textsuperscript{14} Under
the Database Directive, the EU provides foreign database makers with comparable protection to that afforded to EU produced databases by foreign nations.\textsuperscript{15}

This Note examines the types of protection given to databases in both the United States and Europe. Part I discusses the reasons for providing databases protection. Part I also provides background information on the EU Database Directive, and examines the history of copyright protection of databases in the United States in light of a landmark Supreme Court decision\textsuperscript{16} and then analyzes the approach to database protection arising under the Collections of Information Antipiracy Act ("H.R. 354" or "Act"), a proposed law in the U.S. Congress.\textsuperscript{17}
Part II balances *sui generis* protection in the EU Database Directive with misappropriation in H.R. 354. Part II also discusses

18. See Database Directive, *supra* note 13, art. 7(1) (describing *sui generis* protection). Article 7 states:

Object of protection
1. Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.

2. For the purposes of this Chapter:
   (a) 'extraction' shall mean the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form;
   (b) 're-utilization' shall mean any form making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission. The first sale of a copy of a database within the Community by the rightholder or with his consent shall exhaust the right to control resale of the copy within the Community;
   Public lending is not an act of extraction or re-utilization.

3. The right referred to in paragraph 1 may be transferred, assigned or granted under contractual licence.

4. The right provided for in paragraph 1 shall apply irrespective of the eligibility of that database for protection by copyright or by other rights. Moreover, it shall apply irrespective of eligibility of the contents of that database for protection by copyright or by other rights. Protection of databases under the right provided for in paragraph 1 shall be without prejudice to rights existing in respect of their contents.

5. The repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted.

*Id.; see also Freno, supra note 7, at 182-83* (explaining scope of *sui generis* right as protection which applies to collection of independent works or data, which database maker qualitatively or quantitatively made substantial investment in acquiring, substantiating, or presenting contents); Jane C. Ginsburg, *Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 171 (1997) (noting that *sui generis* right encompasses substantial investment made by database producers).

19. See Katherine F. Horvath, Case Comment, NBA v. Motorola: *A Case For Federal Preemption of Misappropriation?*, 73 NOTRE DAME L. REV. 461, 479 (1998) (defining misappropriation as unfair appropriation of factual information); James E. Hudson, III, *A Survey of the Texas Unfair-Competition Tort of Common Law Misappropriation*, 50 BAYLOR L. REV. 921, 923 (1998) (describing misappropriation as appropriation and use by defendant who is in competition with plaintiff). A misappropriation must utilize a unique pecuniary interest created by the plaintiff through labor, skill, and money. *Id.* Misappropriation is a common law tort and can safeguard intellectual property that is not otherwise protected by federal copyright laws. *Id.; see also* David Djavaherian, Comment, *Hot News and No Cold Facts: NBA v. Motorola and the Protection of Database Contents,*
the issues involved in providing reciprocal protection, and examines H.R. 354 as a response to the EU Database Directive. Part II then provides a comparison of U.S. and EU database protections through an analysis of the UK Regulations implementing the Database Directive. Part III argues that H.R. 354 was sufficient to satisfy the comparable protection standard in the EU Database Directive. Part III further asserts that in light of H.R. 354's failure to pass through Congress, U.S. lawmakers should pass a statute that meets the comparable protection standard and suggests issues for lawmakers to address in a new database protection bill.

I. PLAYING FAIR: DATABASE PROTECTION STANDARDS IN THE EU AND THE UNITED STATES

Commentators maintain that databases require protection from misappropriations of their author's work. The EU requires comparable database protection from non-Member States in order to receive protection under its Database Directive. U.S. Act H.R. 354 attempted to provide reciprocal protection for


21. See Thomas Hoeren, EU Leads World Towards Database Protection, Intell. Prop. Worldwide, July, 1997 (explaining that Database Directive grants protection to non-Member States only on reciprocal basis). Due to the fact that the United States does not provide comparable protection to EU companies, U.S. companies cannot receive reciprocal protection in the EU. Id.; see also IIA Praises Introduction, supra note 20, at 12 (asserting that unless United States adopts database protection measure that provides comparable protection, U.S. database producers will be at disadvantage in international database market).
U.S. databases in Europe under the Database Directive.22

A. Protecting Databases

Commentators opine that databases require protection from destructive appropriations within the market.23 As a result, database providers that make the contents of their database publicly available risk misappropriations of their work.24 Accordingly, this availability reduces the incentive for providers to continue maintaining and providing their existing databases and similarly limits motivation regarding investing in and creating new ones.25 Modern technology increases this risk, because it is now possible for people to copy substantial amounts of material

22. See Doug Isenberg, The Database Debate; Will States Regulate Where the Feds Have Feared to Tread?, INTERNET WORLD, Apr. 15, 2001, Policy Watch (noting that bills including H.R. 354 were introduced in U.S. Congress to provide legal safeguards comparable to those in Database Directive); Louis Jacobson, Duelling Over Data, NAT’L J., Jan. 10, 1998 (asserting that H.R. 354 would trigger reciprocal protection under Database Directive).

23. See Eric A. Prager, Protecting Data and Databases, 644 PRAC. L. INST. PAT., COPYRIGHTS, TRADEMARKS, AND LITERARY PROP. COURSE HANDBOOK SERIES 597, 599 (2001) (detailing historic importance of databases to economy and discussing incentive/dissemination theory). The theory of incentive/dissemination suggests that protection was appropriate under the “sweat of the brow” doctrine. Id.; Mitchell, supra note 17, at 915 (1999) (evaluating level of protection databases have received in recent years). The “sweat of the brow” doctrine is a theory used to justify the protection of factual compilations. Id. See also Feist Pub’l’n, Inc. v. Rural Tel. Serv., 499 U.S. 340, 352 (1991) (holding underlying notion behind “sweat of the brow” doctrine to be that copyright is reward for hard work that goes into compiling facts); but see A Burning Issue For Online Copiers: Intellectual Property: Copyright is Going Digital. But in Rush to Keep Up with Technology, New Laws Threaten to Squeeze Consumer Rights, FIN. TIMES (LONDON), Jan. 31, 2002, (Inside Track), at 16 (alleging that giving people property rights in facts poses serious problems). Allowing property rights in facts shifts the balance of power from the consumer to the content owner. Id. This limits database users’ rights to exercise fair dealing rights, which allow consumers to use portions of copyrighted text without the permission of the copyright owner. Id.

24. See Prager, supra note 23, at 599 (noting that federal copyright law alone provides insufficient protection from harmful competitive misappropriation); John F. Hayden, Recent Development: Copyright Protection of Computer Databases After Feist, 5 HARV. J. LAW & TECH. 215, 240 (1991) (arguing that federal copyright law fails to protect databases from being copied by competitors without risk of liability).

using only their home computers. Proponents of increased legal protection for databases argue that there are at least three assumptions that encourage society to protect databases. First, databases are socially useful and therefore, society should support their production. Second, investment and development of databases can be advanced through legal protection. Third, legal protection should not allow a monopoly in database contents because information should be built upon in the public domain rather than impeding as a public good. Id. Without economic incentive, database makers are left with little incentive to create databases that add to the public good. Id.

26. See Mitchell, supra note 17, at 915 (noting simplicity of clicking computer mouse and thereby pirating database); Hayden, supra note 1, at 216 (addressing how database development requires considerable effort and cost while database copying is simple and inexpensive). Effective development of a database involves participation by a variety of experts. Id. First, marketing experts have to identify a market niche and potential customers. Id. These experts must assess user characteristics and locate and analyze potential sources of information. Id. The developer then carefully picks data from accessible sources and compiles his findings into a reasoned whole. Id. When a comprehensive set of data is finally put together, other experts must turn it into a computer friendly format. Id. In addition to the costs of collecting and organizing data, database developers may incur additional costs in obtaining access to proprietary data sources. Id. Despite the level of resources required to create a database, a database can be copied quickly with little effort. Id.

27. See Paula Baron, Back to the Future: Learning from the Past in the Database Debate, 62 OHIO ST. L.J. 879, 885 (2001) (describing three arguments for protecting databases); Rebecca Tushnet, Copyright as a Model for Free Speech Law: What Copyright Has in Common with Anti-Pornography Laws, Campaign Finance Reform, and Telecommunications Regulation, 42 B.C. L. Rev. 1, 2 n.1 (2000) (articulating argument for protecting databases). The copyright system encourages the development of information and its dissemination by providing financial incentives for compilation. Id.; Christian H. Nadan, Comment, A Proposal to Recognize Component Works: How a Teddy Bears on the Competing Ends of Copyright Law, 78 CALIF. L. REV. 1633, 1635-36 (1990) (specifying goals of copyright protection for databases). Copyright protection aims to protect authors and therefore give them an incentive to create new works. Id. Copyright law also strives to promote public access to information and knowledge. Id. This dichotomy is handled by a limited period of copyright protection and in the decision of what is copyrightable. Id.

28. See Baron, supra note 27, at 884 (noting that numerous commentators recognize importance of databases to our economic, cultural, scientific, and technical progress); see also Hayden, supra note 1, at 215 (asserting that sophistication of computer databases makes them invaluable tools in today's economy). Financial information databases provide investors, regulators, and participants in all financial markets with new tools for analysis. Id. at 243 n.4. Large database systems are the basis for hundreds of thousands of daily business decisions while demographic databases influence the decisions of companies involved in marketing, fundraising, and planning decisions. Id. Students and researchers rely on bibliographic databases. Id. Industrial databases provide a springboard for important decisions made by corporations and governments. Id.

29. See Prager, supra note 23, at 601-04 (discussing value of data and databases in relation to current protections in United States and EU).
the free flow of information.  

B. Protection of Databases in the EU

On March 11, 1996, the EU passed the Database Directive. Generally, EU directives seek to unify national laws of Member States in order to ensure the free movement of goods. The EU obtains uniformity by requiring national laws to comply with directives. The Recitals of the Directive ("Recitals") offer several justifications for harmonizing EU database laws. The Council found Member State legislation protecting databases insufficient and inconsistent. Experts note that these differences

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30. See Robert A. Kreiss, Accessibility and Commercialization in Copyright Theory, 43 UCLA L. Rev. 1, 2 (1995) (maintaining that fundamental goal of copyright law is to benefit public by encouraging creation and distribution of new copyrighted works). In order to accomplish this, the newly created works must be accessible to the public. Id.

31. See Database Directive, supra note 13; see also Freno, supra note 7, at 225 n.120 (describing motives behind Collections of Information Antipiracy Act ("Database Directive" or "Directive") and discussing its goal to provide copyright-like protection to databases).

32. See Treaty establishing the European Community, O.J. C 340/3 (1997) [hereinafter EC Treaty], incorporating changes made by Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts, Oct. 2, 1997, O.J. C 340/1, art. 249 (ex. art. 189) (defining effect of directive as "binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods"); see also George A. Bermann et al., Cases and Materials on European Community Law 75 (1993) (describing directive as instrument which calls upon Member States to take legislative and/or administrative action needed to implement directive's purposes); Mark Schneider, The European Union Database Directive, 13 Berkeley Tech. L.J. 551, 552 (1998) (explaining that Database Directive was passed to provide uniform protection for databases in all EU Member States); Jeffrey B. Ritter et al., Emerging Trends in International Privacy Law, 13 Emory Int'l L. Rev. 87, 94-95 (2001) (focusing on how directives pursue harmonization among Member States by defining minimum standards to guide Member States in enacting enabling legislation); Emma Tucker, Protection Plan For Databases, Fin. Times (London), Feb. 27, 1996, at 2 (indicating that Database Directive is geared to harmonize widely different legal systems throughout Europe).

33. See, e.g., Bermann et al., supra note 32, at 74-75 (explaining that Member States harmonize national laws to comply with directives because directives are "binding" even though they may not be "directly applicable").


35. See Database Directive, supra note 13, recitals; Schneider, supra note 32, at 551 n.13 (defining Recitals as official comments accompanying Directive and explaining that Recitals are often useful for determining legislative intent).

36. See Database Directive, supra note 13, recital 1 (discussing reasons for harmo-
frustrated the functioning of the internal European market by hindering efforts to provide on-line database goods and services throughout the EU.37 The Recitals also articulate that these inconsistencies could become more pronounced through the independent legislative acts of Member States.38 The Directive views unharmonized intellectual property rights with respect to differences in scope and conditions of protection as a barrier to the free movement of goods and services within the community.39

recognizing EU database laws). Recital 1 asserts that "[w]hereas databases are at present not sufficiently protected in all Member States by existing legislation; whereas such protection, where it exists, has different attributes." Id.; see also Matthew Wayman, International Database Protection: A Multilateral Treaty Solution to the United States Dilemma, 37 SANTA CLARA L. REV. 427, 439-40 (1997) (giving example of United Kingdom's protection of raw data and United Kingdom's tendency to grant fifty-year copyright protection for works such as printed directories or database printouts while most other countries in Europe offered no comparable protection); John Adams, "Small Earthquake in Venezuela" The Database Regulations 1997, [1997] EUR. INTELL. PROP. REV. 129, 129 (noting that Database Directive was designed to address differing originality requirements among EU Member States). Even where Member State legislation existed to protect databases, it was extremely dissimilar. Id. For example, the United Kingdom and Ireland had very weak originality requirements while the rest of Europe had stronger author's rights protections. Id.

37. See Adams, supra note 36, at 129 (explaining that EU tried to correct these disparities by raising copyright threshold to equal protection in both United Kingdom and Ireland); Schneider, supra note 32, at 552-53 (commenting that EU accomplished uniform database protection by requiring Member States to enact national laws implementing Database Directive). This eliminated inequalities for database protection among Member States. Id.

38. See Database Directive, supra note 13, recital 2 (expressing concern for varying Member State laws regarding databases). Recital 2 states:

Whereas such differences in the legal protection of databases offered by the legislation of the Member States have direct negative effects on the functioning of the internal market as regards databases and in particular on the freedom of natural and legal persons to provide on-line database goods and services on the basis of harmonized legal arrangements throughout the Community; whereas such differences could well become more pronounced as Member States introduce new legislation in this field, which is now taking on an increasingly international dimension.

Id.

39. See Database Directive, supra note 13, recital 3 (noting that differences within internal market hindered EU from being free from trade barriers). Recital 3 states:

Whereas existing differences distorting the functioning of the internal market need to be removed and new ones prevented from arising, while differences not adversely affecting the functioning of the internal market or the development of an information market within the Community need not be removed or prevented from arising.

Id.
The European Commission ("Commission") also drafted the Directive with an eye towards greater protection for the capital investment required for database production and towards continued profit incentive for the database producers.\footnote{See Adams, \textit{ supra} note 36, at 129 (discussing Database Directive in context of European Common Market); G.M. Hunsucker, \textit{The European Database Directive: Regional Stepping Stone to an International Model?}, \textit{7 FORDHAM INTELL. PROP. MEDIA \\& ENT. L.J.} 697, 726-27 (1997) (asserting Database Directive protects investment of labor and capital made by diligent database compilers); Schneider, \textit{ supra} note 32, at 552 (suggesting Commission passed Database Directive to give greater protection to database investors). This leaves a profit incentive for database investors to continue to produce databases. \textit{Id.}} The Commission's design reflects a desire to encourage investment in database compilation.\footnote{See Alan Cane, \textit{One Step Forward and Two Back}, \textit{FIN. TIMES} (London), June 16, 1992, at 17 (asserting rationale behind Database Directive is that without protection for databases, producers would refrain from investing in these databases); see also Durdik, \textit{ supra} note 34, at 153 (arguing that Commission proceedings indicate EU's need to improve its global position in information industry); Tucker, \textit{ supra} note 32, at 2 (remarking that Database Directive is geared towards ensuring attractive environment for investment in databases).} The European Council of Ministers ("Council") also recognized that databases are an increasingly valuable and profitable product as a result of advances in digital technology.\footnote{See Database Directive, \textit{ supra} note 13, recitals 7-12, 38-40 (asserting value of databases).} Advances in computer technology, however, make

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(7) Whereas the making of databases requires the investment of considerable human, technical and financial resources while such databases can be copied or accessed at a fraction of the cost needed to design them independently;
(8) Whereas the unauthorized extraction and/or reutilization of the contents of a database constitute acts which can have serious economic and technical consequences;
(9) Whereas databases are a vital tool in the development of an information market within the Community; whereas this tool will also be of use in many other fields;
(10) Whereas the exponential growth, in the Community and worldwide, in the amount of information generated and processed annually in all sectors of commerce and industry calls for investment in all the Member States in advanced information processing systems;
(11) Whereas there is at present a very great imbalance in the level of investment in the database sector both as between the Member States and between the Community and the world's largest database-producing third countries;
(12) Whereas such an investment in modern information storage and processing systems will not take place within the Community unless a stable and uniform legal protection regime is introduced for the protection of the rights of makers of databases;
(38) Whereas the increasing use of digital recording technology exposes the
\end{verbatim}
electronicallystored data collections increasingly susceptible to piracy. Commentators discuss that the Database Directive grew out of the demand for a form of protection that would counteract the effects of increases in piracy and provide an incentive for investing in the creation of databases.

The Directive defines a database as set of works, data, or other stand-alone materials arranged in an ordered way. The database maker to the risk that the contents of his database may be copied and rearranged electronically, without his authorization, to produce a database of identical content which, however, does not infringe any copyright in the arrangement of his database;

(39) Whereas, in addition to aiming to protect the copyright in the original selection or arrangement of the contents of a database, this Directive seeks to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment made in obtaining and collection the contents by protecting the whole or substantial parts of a database against certain acts by a user or competitor;

(40) Whereas the object of this sui generis right is to ensure protection of any investment in obtaining, verifying or presenting the contents of a database for the limited duration of the right; whereas such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy;

Id.; see also Schneider, supra note 32, at 553 (noting that electronic information industry was one of fastest growing sectors of EU economy and one that necessitated protection against free riders).

43. See J.H. Reichman & Paula Samuelson, Intellectual Property Rights in Data?, 50 VAND. L. REV. 51, 66 (1997) (illustrating how low cost and simplicity of copying data allowed easy exploitation of efforts of original data by free riding competitors); Hayden, supra note 1, at 215-16 (positing that while computers have increased demand for databases, computers have also made pirating databases much simpler).

44. See Schneider, supra note 32, at 554 (asserting that Database Directive was drafted in response to expense, labor, and time investments involved in compilation of databases); Jasper A. Bovenberg, Should Genomics Companies Set Up Database in Europe? The E.U. Database Protection Directive Revisited, [2001] EUR. INTELL. PROP. REV. 361, 362 (pinpointing predominant objective of Database Directive as fostering European database industry). The European Commission acknowledged that databases are expensive to create but inexpensive to copy and decided that creators of databases should be afforded adequate legal protection to ensure they receive a return on their investment in building the database. Id.

45. See Database Directive, supra note 13, art. 1(2) (defining database). Article 1 states:

SCOPE
1. This Directive concerns the legal protection of databases in any form.
2. For the purposes of this Directive, ‘database’ shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.
3. Protection under this Directive shall not apply to computer programs used in the making or operation of databases accessible by electronic means.

Id.
database must be individually accessible in order to obtain protection under the Directive. Scholars explain that this is a broad definition drafted with the intent to include electronic databases in addition to more traditional hard copy databases.

1. Copyright Protection Under the Database Directive

Copyright for databases under the Directive is protected by a form of author’s right. This protects the original selection or arrangement of contents, but not the contents themselves. The term of copyright protection extends seventy years after the death of the author.

46. See id. art. 1(2).
48. See Database Directive, supra note 13, art. 3(1) (stating which databases are eligible for copyright protection). Article 3 provides:

Object of protection

1. In accordance with this Directive, databases which, by reason of the selection or arrangement of their contents, constitute the author’s own intellectual creation shall be protected as such by copyright. No other criteria shall be applied to determine their eligibility for that protection.
2. The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves.

Id.; see also Kevin Paul Martin, Comment, *Legislative Developments: Database Protection*, 3 COLUM. J. EUR. L. 158, 159 (1997) (remarking that database author has legal rights to that database). The author may be either a natural person or a cluster of natural persons. Id. In a commercial context, rights to the database may accrue to either the employer or the employee-author of the database. Id. The decision of who receives this right falls on the national authorities of the individual Member States. Id.

49. See Database Directive, supra note 13, art. 3(2); see also Univ. of London Press v. Univ. Tutorial Press, 2 Ch. 601, 608-09 (Eng. 1916) (discussing originality). In *University of London Press*, the court stated:

The word “original” does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought, and, in the case of “literary work”, with the expression of thought in print or writing. The originality which is required relates to the expression of thought. But the Act does not require that the expression must be in an original or novel form, but that the work must not be copied from another work—that it should originate from the author.

Id.

Copyright protection under the Directive depends on whether the structure of the database is the author's original intellectual work, with no qualitative criteria being applied.\footnote{Copyright protection under the Directive depends on whether the structure of the database is the author's original intellectual work, with no qualitative criteria being applied.} Experts agree that most collections of factual data, especially those arranged in a predictable or ordinary manner, lack the requisite originality to earn copyright protection.\footnote{Experts agree that most collections of factual data, especially those arranged in a predictable or ordinary manner, lack the requisite originality to earn copyright protection.} However, if a database qualifies for copyright protection by virtue of its selection or arrangement, its copyright protects it for the same term as for any other literary work.\footnote{However, if a database qualifies for copyright protection by virtue of its selection or arrangement, its copyright protects it for the same term as for any other literary work.}


53. See Database Directive, supra note 13, art. 9(1) (explaining \textit{sui generis} protection). Article 9 states:

Exceptions to the \textit{sui generis} right

Member States may stipulate that lawful users of a database which is made available to the public in whatever manner may, without the authorization of its maker, extract or re-utilize a substantial part of its contents:

(a) in the case of extraction for private purposes of the contents of a non-electronic database;

(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;

(c) in the case of extraction and/or reutilization for the purposes of public security or an administrative or judicial procedure.

\textit{Id.}; see also Database Directive, supra note 12, recitals 15, 16 (addressing originality requirement). Recitals 15 and 16 state:

(15) Whereas the criteria used to determine whether a database should be protected by copyright should be defined to the fact that the selection or the arrangement of the contents of the database is the author's own in-
The Directive harmonizes and eliminates existing differences in the copyright law within the EU. The Directive uses a traditional copyright standard for the level of creativity necessary to merit copyright protection. The Directive requires a "modicum of creativity" and leaves to the Member State legislatures and the European Court of Justice, the further development of the creativity standards.

2. Sui Generis Protection Under the Database Directive

Experts discuss how the sui generis right provided by the Database Directive creates a right that exceeds the protection provided by the copyright law of most nations. Member States must provide a new sui generis right to the maker of a database when the maker can show a "substantial investment" in obtaining, verifying, or presenting the database's contents. The

* intellectual creation; whereas such protection should cover the structure of the database;

(16) Whereas no criterion other than originality in the sense of the author's intellectual creation should be applied to determine the eligibility of the database for copyright protection, and in particular no aesthetic or qualitative criteria should be applied[]


54. See Martin, supra note 48, at 158 (commenting that Database Directive harmonizes copyright protection among Member States of EU); Schneider, supra note 32, at 557 (discussing how Database Directive derogates "sweat of the brow" copyright regime in United Kingdom and Ireland). The approach taken by the United Kingdom and Ireland protected the effort incurred in the creation of a work rather than the creative value of its content. Id. Consequently, the United Kingdom required a lower standard of eligibility for protection than that traditionally required in the rest of Europe, where the emphasis has been on the creative input of the author. Id.

55. See Joyce et al., supra note 9, at 91 (explaining traditional copyright standard for originality as independent creation by author and modest quantum of creativity).

56. See Database Directive, supra note 13, art. 7(5); see generally Hunsucker, supra note 40 at 726-27 (explaining how Database Directive purposely left definition of "substantial part" to European Court of Justice).


58. See Database Directive, supra note 13, recital 39 & art. 7(4) (articulating goal to safeguard database producers from misappropriations of their work through sui generis right); see also Mary Maureen Brown et. al., Database Protection in a Digital World, 6 Rich. J.L. & Tech. 2, 80 (1999), at http://www.richmond.edu/JOLT/vbi/conley.html (defining maker of database as individual or business who takes initiative in constructing
sui generis right also grants to the maker a bundle of exclusive rights capable of being transferred, assigned, or granted under contractual license. However, the sui generis right may not prejudice other rights in the contents of the database. The sui generis right protects qualifying databases from the moment of completion and provides for an additional fifteen years of protection if the creator makes a "substantial new investment" in the database. The sui generis right bans substantial extraction or reutilization of a database's contents by all unauthorized users.

There are several exceptions to the sui generis right. The database and who assumes pecuniary risk. The maker may be different than the author of the database. Id. This allows different persons or companies to hold the copyright and sui generis right in a particular database. Id.

59. See Database Directive, supra note 13, art. 7(3) (allowing transfer, assignment, or grant of sui generis right by contract); see also Gaster, supra note 1, at 1145 (explaining how Database Directive consists of bundle of rights that are transferable, can be licensed, and can be cumulated with other rights); Martin, supra note 48, at 159 (indicating that sui generis protection is granted in recognition of substantial efforts and funds required to make database).

60. See Simon Chalton, The Effect of the EC Database Directive on United Kingdom Copyright Law in Relation to Databases: A Comparison of Features, [1997] EUR. INTLL. PROP. REV. 279, 289 (1997) (asserting that it is immaterial whether database is or is not protected by copyright under Database Directive). It is also immaterial whether the database is or is not a product of human creativity. Id. Rather, the investment criteria requires that there has been a qualitative or quantitative substantial investment in obtaining, verifying, or presenting the contents. Id.; see also Robert Shaposka, Note, A Criticism of the E.U. Directive Protecting Computer Software, 3 BUFF. J. INT'L. L. 519, 537-38 (1997) (discussing terms of protection under Berne Convention and sui generis approaches and examining what constitutes "substantial" investment). Substantial investment is not explicitly defined in the Directive and it remains unclear when copyright's fair use defense may be applied. Id. at 537.

61. Database Directive, supra note 13, art. 7(1); see Bastian, supra note 57, at 442-43 (noting if database maker can prove substantial investment in obtaining, verifying, or presenting database contents, database is eligible for sui generis protection); Gaster, supra note 1, at 1147 (explaining that burden of proof for substantial new investment lies with maker of database). Database makers are advised to take sufficient measures to secure evidence of substantial new investment. Id. In certain cases, marking the date that changes were added to the database may be helpful to prove substantial new investment. Id.

62. See 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, 803 (1999) (discussing basic substantive principles of sui generis right); Bastian, supra note 57, at 442 (defining "extraction" as "a transfer of the database contents to another medium by any means or in any form including temporary transfers such as on-screen display" and defining "re-utilization" as "making the database contents available to the public whether by distribution of copies or some form of transmission").

63. See Database Directive, supra note 13, art. 9 (outlining exceptions to sui generis right).
first exception is for "public lending," which is specifically exempted from the definitions of extraction and re-utilization.\textsuperscript{64} In addition, a creator of a database may not prevent in any way a lawful user of the database from extracting or re-utilizing insubstantial parts of the contents of the database.\textsuperscript{65}

In addition to these mandatory exemptions, Member States are given the option to limit the \textit{sui generis} right.\textsuperscript{66} Member States may allow unauthorized users to extract or re-utilize a substantial part of the contents of a database, provided these extractions are for private purposes and are taken from a non-electronic database.\textsuperscript{67} Member States may also allow unauthorized extractions for teaching or scientific research, and for public se-

\textsuperscript{64} See Database Directive, \textit{supra} note 12, art. 7(2)(b) (stating "[p]ublic lending is not an act of extraction or re-utilization"); see also Gaster, \textit{supra} note 1, at 1146-47 (asserting that excluding reutilization is appropriate because reutilization is predominantly commercial activity).

\textsuperscript{65} See Database Directive, \textit{supra} note 13, art. 8(1), recital 49 (articulating exceptions to \textit{sui generis} right). Article 8(1) provides:

\begin{quote}
The maker of a database which is made available to the public in whatever manner may not prevent a lawful user of the database from extracting and/or re-utilizing insubstantial parts of its contents, evaluated qualitatively and/or quantitatively, for any purposes whatsoever. Where the lawful user is authorized to extract and/or re-utilize only part of the database, this paragraph shall apply only to that part.
\end{quote}

\textit{Id.} Recital 49 provides:

\begin{quote}
Whereas, notwithstanding the right to prevent extraction and/or reutilization of all or a substantial part of a database, it should be laid down that the maker of a database or rightholder may not prevent a lawful user of the database from extracting and re-utilizing insubstantial parts; whereas, however, that user may not unreasonably prejudice either the legitimate interests of the holder of the \textit{sui generis} right or the holder of copyright or a related right in respect of the works or subject matter contained in the database.
\end{quote}

\textit{Id.; see also} Bastian, \textit{supra} note 57, at 442 (noting exceptions from definitions of extraction and re-utilization).

\textsuperscript{66} See Database Directive, \textit{supra} note 13, art. 9 (providing optional exceptions to \textit{sui generis} right); see also Bastian, \textit{supra} note 57, at 443 (explaining that in addition to mandatory exceptions to \textit{sui generis} right, Member States have the option of limiting \textit{sui generis} right in specific circumstances).

\textsuperscript{67} See Database Directive, \textit{supra} note 13, recital 50, art. 9(a)-(c) (articulating optional limitations on \textit{sui generis} right). Recital 50 states:

\begin{quote}
Whereas the Member States should be given the option of providing for exceptions to the right to prevent the unauthorized extraction and/or re-utilization of a substantial part of the contents of a database in the case of extraction for private purposes, for the purposes of illustration for teaching or scientific research, or where extraction and/or re-utilization are/is carried out in the interests of public security or for the purposes of an administrative or judicial procedure; whereas such operations must not prejudice the exclusive rights of the maker to exploit the database and their purpose must not be commercial.
\end{quote}
curity or an administrative or judicial procedure.\(^{68}\)

3. Comparable Protection of EU Non-Member Databases

The *sui generis* right is available to databases made by corporations or persons in the EU Member Nations.\(^{69}\) The Database Directive does not extend to individuals and entities outside the EU unless they reside in or were incorporated or formed in a jurisdiction which provides comparable protection for EU databases.\(^{70}\) Commentators note that because current U.S. law does not reciprocate protection, and most database producers are not established in Europe, the Directive places U.S. companies in a difficult position within the European market.\(^{71}\)

\(^{68}\) See Database Directive, *supra* note 13, recital 50, art. 9(a)-(c) (providing Member States with optional limitations on *sui generis* right); see also Bastian, *supra* note 57, at 442 (asserting extraction is reasonable for purpose of teaching or scientific research as long as source is given credit, or extraction and/or re-utilization is for purpose of public security or administrative or judicial procedure).

\(^{69}\) See Database Directive, *supra* note 13, art. 11. Article 11 states:

1. The right provided for in Article 7 shall apply to database whose makers or rightholders are nationals of a Member State or who have their habitual residence in the territory of the Community.

2. Paragraph 1 shall also apply to companies and firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community; however, where such a company or firm has only its registered office in the territory of the Community, its operations must be genuinely linked on an ongoing basis with the economy of a Member State.

\(^{70}\) See Database Directive, *supra* note 13, recital 56. Recital 56 states:

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

The European Council of Ministers acting upon a proposal from the European Commission decides whether a non-EU nation provides legal protection comparable to that of the Directive. Some legal commentators note that the comparable protection provision of the Database Directive provides the EU with leverage in negotiations with its trading partners. Other legal commentators posit that the Berne Convention prohibits the EU from denying the protections afforded by the Database Directive’s *sui generis* right to signatories, including the United States, regardless of whether these States provide comparable protection.

The U.S. Congress has not passed a bill that satisfies the comparable protection standard. At least one commentator notes that the Commission is silent regarding the possibility of U.S. reciprocity but hopes that the United States will implement legislation that will satisfy the comparable protection standard. In order to achieve this goal, the Commission refrained from

Since the United States produces the majority of the world’s databases, the comparable protection provision can be interpreted as permission to steal for unethical overseas competitors. *Id.*; Grame B. Dinwoodie, *The Integration of International and Domestic Intellectual Property Lawmaking*, 23 COLUM.-VLA J.L. & ARTS 307, 315 n.34 (2000) (arguing Database Directive placed international pressure for enactment of U.S. database law); Schneider, *supra* note 32, at 562 (commenting that Database Directive’s reciprocity requirement exerted pressure on United States to adopt *sui generis* protection).


74. See Bastian, *supra* note 57, at 446 (arguing that Berne Convention requires minimum set of standards of protection for authors and mandates “national treatment” of authors of signatory States). As a result, any application of material reciprocity that denies an author “national treatment” is a violation of the Berne Convention, even if rights granted to an author are far greater than the minimums imposed by the Berne Convention. *Id.*; Peter Burger, *The Berne Convention: Its History and Its Key Role in the Future*, 9 J.L. & TECH. 1, 16-17 (1988) (asserting fundamental principle of Berne is national treatment). Under national treatment, Berne signatories must grant authors who are nationals of other Berne countries the same protection they give to their own nationals. *Id.*; see, e.g., Berne Convention, *supra* note 50, art. 5(1), (2).

75. See Freno, *supra* note 7, at 197 (discussing how House Bill 1858 would have failed to provide reciprocal *sui generis* protection to EU Member Nations).

issuing statements that would lead the U.S. Congress to believe a U.S. law would necessarily fail to meet the comparable protection standard.

C. Protection of Databases in the United States

Copyright is the customary form of database protection in the United States. Historically, common law protected databases under the "sweat of the brow" doctrine until the landmark U.S. Supreme Court decision in *Feist v. Rural Telephone Service*. After the *Feist* decision, database protection was tenuous at best. Recently, the U.S. House of Representatives proposed H.R. 354, a database protection bill that, if passed, would provide protection for database makers against misappropriations of their work.

77. See id. (explaining how European Commission has not made statements to disparage United States database efforts in hopes of gaining U.S. reciprocal protection).

78. See Hoeren, *supra* note 21, at 64 (indicating United States currently uses copyright to protect databases). Existing copyright law, however, is not sufficient to protect databases. *Id.*; Stacey King, *Are We Ready to Answer the Question? Baker v. Selden, The Post-Feist Era, and Database Protections*, 41 J.L. & TECH. 65 (2001) (arguing that tradition of copyright protection for databases began after patent protection was denied to databases in late 1800s); Mitchell, *supra* note 17, at 901 (remarking that beginning in eighteenth century, copyright law protected authorship of databases).

79. See 499 U.S. 340, 345 (1991) (holding sufficient originality in selection or arrangement of facts in database is necessary for copyright protection); see also Bastian, *supra* note 57, at 447-48 (explaining that before *Feist*, expenditure of labor and capital was enough to allow copyright in database); Freno, *supra* note 7, at 168 (articulating that before *Feist*, protection was granted to databases if author showed sufficient effort and expense in creating database).

80. See Baron, *supra* note 27, at 899-900 (claiming *Feist* left databases with minimal protection). *Feist* left database producers with no protection in the marketplace against piracy from competitors and users. *Id.*; Freno, *supra* note 7, at 169 (arguing database protection since *Feist* is negligible); Amy C. Sullivan, *The Creative is the Enemy of the True: Database Protection in the U.S. and Abroad*, 29 AIPLA QUARTERLY J. 317, 365 (2001) (noting that concern over database vulnerability began after U.S. Supreme Court's decision in *Feist*).

1. Common Law Protection

U.S. law traditionally uses copyright protection to protect databases.\(^82\) Before the landmark U.S. Supreme Court decision in *Feist v. Rural Telephone Service*,\(^83\) U.S. courts granted protection to databases by examining the effort and investment of the database maker.\(^84\) After the *Feist* Court held effort and investment to be insufficient grounds for granting database protection, databases have been more difficult to protect.\(^85\) Experts discuss that H.R. 354 would reinstate the grant of protection to databases based on the effort and investment of the database maker.\(^86\)

a. Pre-*Feist*: "Sweat of The Brow" Doctrine

U.S. copyright law traditionally protected only expressions, not facts or ideas.\(^87\) Historically, courts extended copyright law

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82. See Hoeren, *supra* note 21, at 64 (stating United States uses traditional copyright law to protect databases). Copyright protection needs to be revised and augmented in order to adequately protect databases. *Id.*; Mitchell, *supra* note 17, at 901 (noting that copyright has been used to protect producers of databases since 1700s).

83. 499 U.S. 340, 345 (1991) (holding that to qualify for copyright protection, work must comprise original work of author); see Chalton, *supra* note 60, at 278 (noting that U.S. Supreme Court in *Feist* held that originality was necessary prerequisite for any literary work to qualify for protection under U.S. copyright law).


85. See Hayden, *supra* note 1, at 227 (indicating that U.S. courts now require database compiler to make subjective decisions in order to pass *Feist* creativity standard); King, *supra* note 78, at 65 (articulating that *Feist* did not solve problem of deciding which databases to protect); Mitchell, *supra* note 17, at 902 (explaining that following *Feist*, it is harder to protect databases against misappropriations).

86. See Freno, *supra* note 7, at 174 (articulating that H.R. 354 grants protection to factual databases that are created and maintained by substantial monetary investment or other resources used in commerce); Mitchell, *supra* note 17, at 916 (commenting that H.R. 354 attempts to restore to database makers same protection they had before *Feist*).

87. See 17 U.S.C.S. § 102(b) (2001) (stating "[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated or embodied in such work"); Holmes v. Hurst, 174 U.S. 82, 90 (1899) (holding ideas are not copyrightable); Kalem Co. v. Harper Bros., 222 U.S. 55 (1911) (holding copyright only protects expression of ideas); Dymow v. Bolton, 11 F.2d 690, (2d Cir. 1926) (holding idea for plot in play is not copyrightable); Nichols v. Universal Pictures Corp., 45 F.2d 119, 123 (2d Cir. 1930) (holding original expressions, but not ideas, are copyrightable); Dellar v. Samuel Goldwyn, Inc., 150 F.2d
to cover some factual databases under the judicially-created "sweat of the brow" doctrine. Under this doctrine, protection was possible for factual compilations if the author demonstrated sufficient effort and expense in formulating the final result. The "sweat of the brow" doctrine afforded the owner of a database exclusive reproduction rights in his or her work.

612, 612 (2d Cir. 1945) (holding monopoly applies only to expression of copyrighted work). The theme, plot, and ideas may always be freely borrowed from a copyrighted work. Id.; Gaye v. Gillis, 167 F. Supp. 416, 418 (D. Mass. 1958) (holding copyright does not extend to system of doing business but only to particular mode of expression of idea in copyrighted material); see also Melville B. Nimmer, Nimmer on Copyright § 16.01 (2001) (discussing limitations of copyright to protection of ideas).

88. See Jeweler's Circular Pub. Co. v. Keystone Pub. Co., 281 F. 83, 92 (2d Cir. 1922) (holding copyright law requires subsequent compilers to invest same labor and expense that first compiler invested); Hartfield v. Peterson, 91 F.2d 998, 1000 (2d Cir. 1937) (indicating that compilations are copyrightable because of originality of combination); Leon v. Pacific Tel. & Tel. Co., 91 F.2d 484 (9th Cir. 1937) (illustrating principle that one should not freely benefit from industry of another in finding factual information or other public domain material). The plaintiff in Leon compiled a telephone directory with the names and telephone numbers listed in alphabetical order. Id. at 484-85. Defendant copied the names and numbers from plaintiff's directory, arranging them in numerical order. Id. While defendant did not copy plaintiff's arrangement, copying the names and numbers was sufficient to constitute infringement. Id. at 485-86. The decision protected the industriousness of the researcher. Id. at 486; Banks v. McDivitt, 2 F. Cas. 759 (C.C.S.D. N.Y. 1875) (No. 961) (holding copyrighted compilations may not be freely copied); Amplex Mfg. Co. v. ABC Plastic Fabricators, Inc., 184 F. Supp. 285, 287-88 (E.D. Pa. 1960) (holding extensive effort in producing compilation is sufficient to obtain copyright protection); Monogram Models, Inc. v. Indestro Motive Corp., 492 F.2d 1281, 1286 (6th Cir. 1974) (noting infringement of compilation occurs when reasonable person cannot differentiate between two works); see also Nimmer, supra note 87, § 3.04[B][1] (2001) (discussing evolution of "sweat of the brow" doctrine).

89. See Freno, supra note 7, at 168 (discussing U.S. copyright protection of databases before 1991). Copyright protection applied to factual compilations that were created at sufficient labor and expense to the compiler of the database. Id.; Jane C. Ginsburg, No "Sweat"? Copyright and Other Protection of Works of Information After Feist v. Rural Telephone, 92 Colum. L. Rev. 338, 339 (1992) (recognizing that before Feist, directories and other compilations were able to secure copyright protection).

90. See generally 17 U.S.C. § 106 (enumerating exclusive rights of copyright owner). Section 106 provides in pertinent part:

[T]he owner of a copyright under this title has the exclusive rights to do and to authorize the following:

1. to reproduce the copyrighted work in copies or phonorecords;
2. to prepare derivative works based upon the copyrighted work;
3. to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
4. in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual work, to perform the copyrighted work publicly; and
5. in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individ-
b. The Originality Requirement

In 1991, in the *Feist* case, the U.S. Supreme Court abolished the "sweat of the brow" doctrine by instituting an originality requirement on every copyrightable work. Rural Telephone Company ("Rural") published a white pages phone book for the local area it serviced. Feist Publications ("Feist") published a directory covering multiple service areas, including Rural's. After Rural refused to give Feist a license to use Rural's directory, Feist copied the directory without permission. While Feist was

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91. 499 U.S. 340, 347 (1991) (defining originality as work independently created by author and possessing modicum of creativity); see also Chalton, supra note 60, at 278 (remarking that United States faced direct challenge to "sweat of the brow" doctrine in *Feist*). The U.S. Supreme Court in *Feist* held that originality was a necessary prerequisite for any literary work to qualify for protection under U.S. copyright law. *Id.*

92. See *Feist*, 499 U.S. at 342 (indicating that Rural Telephone Company ("Rural") is certified public utility that provides telephone service to many communities in northwest Kansas). Rural Telephone Company ("Rural") is subject to a state regulation that requires all telephone companies doing business in Kansas to publish annually a telephone directory consisting of white pages and yellow pages. *Id.* The white pages list in alphabetical order the names of Rural's subscribers, while the yellow pages list Rural's business subscribers alphabetically by category. *Id.* Rural distributes its directory at no cost to its subscribers. *Id.* Rural makes a profit on the directory by selling yellow page advertisements. *Id.*

93. See *id.* at 342-43 (noting that Feist Publications ("Feist") is publishing company with specialization in area-wide telephone directories). Feist Publication's ("Feist") directory differs from typical directories in that Feist's directory covers a much larger geographical area. *Id.* at 342. This reduces the need to call directory assistance or check with several directories. *Id.* at 343. The Feist subject directory covers eleven different telephone service areas in 15 counties and contains 46,878 white page listings. *Id.* Rural's directory, in contrast, contains approximately 7,700 listings. *Id.* Feist's directory, like Rural's, is distributed at no cost and includes both white and yellow pages. *Id.* Feist and Rural are direct competitors for yellow pages advertising. *Id.*

94. See *id.* at 343 (explaining that Feist is not telephone company and lacks independent access to subscriber information). Of the eleven telephone companies Feist solicited for subscriber information, only Rural refused to license its listings to Feist. *Id.* The absence of this information would have left Feist's directory with an information gap in its area-wide directory. *Id.* Potentially, Feist's directory may have been less lucrative to advertisers. *Id.* Feist then used Rural's listings without Rural's consent. *Id.* Feist removed several thousand listings that were outside the geographic range of its area-wide directory and then hired personnel to investigate the remaining listings and additional information. *Id.* As a result, Feist's directory included street listings that Rural's directory did not include. *Id.* at 344. Aside from these additions, 1,309 of the 46,878 listings in Feist's 1983 directory were identical to listings in Rural's 1982-1983 white
found liable in both the district and the circuit courts, the Supreme Court reversed. The Supreme Court rejected the "sweat of the brow" doctrine, holding that protection is possible only if the collection involves both a modicum of creativity and originality in its compilation.

c. Post-Feist Protection

At least one expert states that the Supreme Court's decision in *Feist* left two important questions unanswered: First, what constitutes originality or creativity in the selection, coordination, or arrangement of information? Second, if the selection, coordi-

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95. See *id.* at 344, 364 (holding that Rural's white pages lack requisite originality); Rural Tel. Service Co. v. Feist Publ'n, Inc., 663 F. Supp. 214, 220 (D. Kan. 1987) (holding Feist liable for copyright infringement); Rural Tel. Service Co. v. Feist Publ'n, 916 F.2d 718 (10th Cir. 1990) (affirmed without opinion). As a result, Feist's use of Rural's listings does not constitute infringement. *Feist*, 499 U.S. at 364. The "sweat of the brow" doctrine was rejected because it extended copyright protection in a compilation beyond the selection and arrangement of facts to the facts themselves. *Id.* at 354. The protection of facts counters one of the most important principles of copyright law, no one may copyright facts or ideas. *Id.*

96. See *id.* at 346 (concluding that originality required two components, "independent creation plus a modicum of creativity."). Facts are not created, but merely discovered. *Id.* at 347, 350; see also Yochai Benkler, Symposium, *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, 575-76 (2000) (arguing that while copyright law could not protect actual facts compiled, it could protect creative element of compilation including its organization or selectivity); cf. Terry M. Sanks, Comment, *Database Protection: National and International Attempts to Provide Legal Protection for Databases*, 25 FLA. ST. U.L. REV 991, 1001-03 (1998) (discussing current interpretations of originality requirement instituted in *Feist*). Even while following *Feist*, however, the Eleventh and Second Circuits have taken two different approaches to the originality requirement. *Id.* at 1000. The Eleventh Circuit assesses databases based on the selection and organization of information. *Id.* The Second Circuit evaluates databases by applying the merger doctrine selectively. *Id.*; *Joyce et al.*, *supra* note 9, at § 2.02 (defining "merger doctrine" used by Second Circuit to interpret originality requirement). The merger doctrine is defined as "the principle that, where there exist only a very limited number of ways of expressing an idea, none of those expressions should enjoy protection." *Id.* Allowing copyright in these expressions would result in a potential monopoly on the underlying idea itself, because it would be impossible to develop an independent expression of the idea that would be substantially different from the copyrighted expression. *Id.*; see, e.g., BellSouth Advertising & Publ'g Corp. v. Donnelly Info. Publ'g, Inc., 933 F.2d 952 (11th Cir. 1991).

97. See Mitchell, *supra* note 17, at 905 (pointing out that while Supreme Court's decision in *Feist* eliminated "sweat of the brow" doctrine for protecting factual information contained in databases, it left unanswered two critical questions relating to originality and creativity); but see Benkler, *supra* note 96 (arguing that it is not well settled
nation, or arrangement is adequately original to merit copyright protection, what type of copying does it prevent? After Feist, lower courts addressing these questions often provide little copyright protection for databases.

In Kregos v. Associated Press, Kregos brought suit alleging copyright infringement for the unauthorized copying of his baseball pitching form, which kept statistics about a pitcher's performance. Kregos registered his form with the Copyright Office and received a copyright for his form. In 1984, Associated Press ("AP") initiated the publication of a pitching form provided by Sports Features. The AP's 1984 form was nearly identical to Kregos' 1983 form. The AP created another form

that Feist abrogated "sweat of the brow" doctrine). Benkler argues that the Supreme Court only acknowledged and adopted the general trend among lower federal courts to deny protection to factual information at the constitutional level. Id.

98. See Hayden, supra note 1, at 227 (noting that Feist provides little guidance in answering questions it presents); Mitchell, supra note 1, at 905 (explaining that Feist eliminated "sweat of the brow" doctrine and left two unanswered questions in its place).

99. See Illinois Bell Tel. Co. v. Haines & Co., Inc., 932 F.2d 610, 611 (7th Cir. 1991) (holding white pages of telephone directory are not copyrightable); BellSouth Adver. & Publ'g Corp. v. Donnelly Info. Publ'g, Inc., 933 F.2d 952, 961 (11th Cir. 1991) (holding yellow pages are copyrightable); Key Publ'n, Inc. v. Chinatown Today Publ'g Enter., Inc., 945 F.2d 509, 514-15 (2d Cir. 1991) (holding yellow pages copyrightable because selection and arrangement of names was original); Narayanan, supra note 53, at 467-69 (examining different standards applied to copyright infringement by U.S. courts after Supreme Court's decision in Feist).

100. 937 F.2d 700 (2d Cir. 1991).

101. Id. at 701-02 (noting Kregos' form is distributed to newspapers). The pitching form displays information regarding past performances of the opposing pitchers scheduled to start each day's baseball games. Id. at 702; contra Kregos v. Associated Press, 731 F. Supp 113 (S.D.N.Y. 1990), affirmed in part and reversed in part, Kregos, 937 F.2d at 711 (granting defendant's motion for summary judgment, ruling as matter of law that defendant's pitching form displayed sufficient creativity to satisfy originality requirement for copyright protection).

102. See Kregos, 937 F.2d at 702 (explaining how Kregos' registered form is redesign of earlier form he developed during 1970s). Kregos distributed his form, listing four items of information about each day's baseball game, to subscribing newspapers with statistics. Id. at 703. The form lists the teams, the starting pitchers, the game time, and the betting odds, and then lists nine pieces of information about each pitcher's past performances, grouped into three categories. Id. The controversy in this case applies only to Kregos' selection of categories of statistics appearing on his form. Id.

103. Id. at 702.

104. See id. (noting that in 1986, Associated Press ("AP") and Sports Features changed their form so that it was no longer virtually identical). It was undisputed that before Kregos created his 1983 form, no one form had listed the same nine items. Id. at 705. Some items had never even appeared in other forms. Id. In the earlier forms, the few items that were in both the Associated Press ("AP") and Kregos' forms were grouped with different items. Id. For example, Siegel's 1978 form noted the won/lost
in 1986 that contained six of Kregos’ nine items, but also included four items that Kregos did not have.\textsuperscript{105}

The Second Circuit found that Kregos’ pitching form was likely sufficient in its selection to satisfy the originality requirement of copyright protection.\textsuperscript{106} However, this was followed by a finding that AP most likely did not infringe on Kregos’ copyright.\textsuperscript{107} The court held that Kregos only obtained a copyright by displaying the requisite creativity in selecting his statistics, and if another party should display the requisite creativity in a manner that is more than trivially different, there would be no infringement.\textsuperscript{108}

In Key Publications, Inc. v. Chinatown Today Publishing Enterprises, Inc.\textsuperscript{109} the plaintiff sued the defendants for infringing its copyright in a published telephone directory for the Chinese-American community. Key Publications, Inc. (“Key”) published an annual classified business directory for New York City’s Chinese-American community.\textsuperscript{110} Beginning in 1983, Key collected business cards from local businesses that frequently served the Chi-

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\textsuperscript{105} See id. at 709-10 (noting that Kregos can only prevail against other forms that copied his selection, which is not clear with AP’s 1986 form).

\textsuperscript{106} Id. at 702.

\textsuperscript{107} Id. at 710.

\textsuperscript{108} See id. (explaining that if Kregos makes decision to select, then competitor’s decision to select something else in that same category is not infringement). For example:

If his decision to select, in the category of performance against the opposing team, statistics for the pitcher’s current season at the site of today’s game displays, in combination with his other selections, enough creativity to merit copyright protection, then a competitor’s decision to select in that same category performance statistics for the pitcher’s season performance both home and away may well insulate the competitor from a claim of infringement.

\textsuperscript{109} 945 F.2d 509 (2d Cir. 1991) (holding defendants had not infringed plaintiff’s copyright because directory satisfied compilation test that qualified it for copyright protection, did not have many yellow page business categories in common with plaintiff’s similar directory, and had only minor overlap in listings).

\textsuperscript{110} See id. at 511 (explaining that each directory has white pages section and yellow pages section). The white pages are printed in both English and Chinese and have maps, articles, and information about government and private services. Id. The yellow
nese-American community and included these cards in its directory.\textsuperscript{111} In 1990, the defendant, Chinatown Today Publishing Enterprises, Inc. ("Chinatown Today") began publishing another classified directory for the New York Chinese-American community.\textsuperscript{112} About seventy-five percent of the businesses listed in Chinatown Today's directory were also listed in Key's directory.\textsuperscript{113}

The Second Circuit held that infringement required a substantial amount of copying of the copyrightable, not the public domain, elements of the directory.\textsuperscript{114} The Second Circuit found that the arrangement of the two directories were not remotely similar to one another since the Chinatown Today directory contained only twenty-eight different categories while the Key directory contained over 260 categories.\textsuperscript{115} According to the court, the two compilations were almost entirely dissimilar and the court held in favor of Chinatown Today.\textsuperscript{116}

Following the Supreme Court's decision in \textit{Feist}, the Eleventh Circuit granted even less protection to databases than the Second Circuit.\textsuperscript{117} In \textit{Bellsouth Advertising & Publishing Corp. v. Donnelley Information Publications, Inc.}, Bellsouth sued Donnelley for infringing its compilation copyright in a yellow pages di-

\textsuperscript{111} See id. (noting that "modest percentage" of listings in 1984 Key Directory were copied from another compilation).

\textsuperscript{112} See id. (noting that Chinatown Today's yellow pages contained approximately 2,000 listings divided into 28 different categories of businesses that would be of interest to Chinese-American community).

\textsuperscript{113} See id. (explaining that while many of duplicated listings are contained in similar categories in both directories, arrangement of categories can be distinguished because placing listings within categories is mechanical and does not warrant copyright protection).

\textsuperscript{114} See id. at 514 (noting that individual components of compilation are usually within public domain and are free to copy).

\textsuperscript{115} See id. at 515 (finding that "a facial examination thus readily reveals great dissimilarity"). Only three of the 28 categories appearing in the Chinatown Today Directory duplicated categories in the Key Directory. Id. at 514 (citing Kregos, 937 F.2d at 709).

\textsuperscript{116} See id.

\textsuperscript{117} See Mitchell, supra note 17, at 908 (explaining how, like Second Circuit, Eleventh Circuit found that copying substantial portions of database was not infringement because selection and arrangement of information was not sufficiently creative to warrant copyright protection).

\textsuperscript{118} 999 F.2d 1436 (11th Cir. 1993).
rectory.\textsuperscript{119} Both parties conceded that Bellsouth had a compilation copyright in the directory as a whole, and that the only elements of a database entitled to copyright protection are the selection, coordination, and arrangement of the information as they appear in the work as a unit.\textsuperscript{120} Donnelly also admitted that, for the purpose of creating a competing yellow pages, it entered into its computer the name, address, telephone number, and business type of each advertiser in Bellsouth's directory.\textsuperscript{121} On these facts, the district court found that Donnelly infringed upon Bellsouth's compilation.\textsuperscript{122}

On appeal, the Eleventh Circuit reversed the district court's decision.\textsuperscript{123} The court held that the selection, coordination, and arrangement of the plaintiff's directory did not meet the level of originality and creativity required by Feist.\textsuperscript{124} Bellsouth "se-

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{119} See id. at 1439 (stating Bellsouth Advertising and Publishing Corporation ("Bellsouth") sued Donnelley Information Publishing, Inc. ("Donnelley") for copyright infringement, trademark infringement, and unfair competition). Bellsouth Advertising and Publishing Corporation ("Bellsouth") publishes a yellow pages directory for Miami. Id. at 1438. The Bellsouth directory is organized into an alphabetical list of business classifications. Id. Each business telephone subscriber is listed in alphabetical order under one appropriate classification at no charge. Id. A subscriber may opt to purchase cross listings under different classifications or purchase advertisements in the directory. Id. After Bellsouth published its 1984 directory, Donnelley Information Publishing, Inc. ("Donnelley") began promoting and selling classified advertisements for a competing yellow pages directory. Id. Donnelley gave copies of Bellsouth's directory to a data entry company to generate a list of businesses to solicit for Donnelley's own directory. Id. at 1439. Donnelley relied on the information copied from the Bellsouth directory to compile its own directory for Miami. Id.

\item \textsuperscript{120} See id. at 1438 (explaining that parties agreed only elements entitled to copyright protection are "selection, arrangement, or coordination as they appear in the work as a whole"). Bellsouth and Donnelley did not agree on what elements of a yellow pages directory constitute the selection, arrangement, or coordination. Id.

\item \textsuperscript{121} See id. at 1439 (stating that Donnelley conceded it copied Bellsouth's directory into computer database). For each listing in the Bellsouth directory, Donnelley created a computer database with the name, address, and telephone number of the subscriber. Id. Donnelley also noted the business type and unit of advertising in the Bellsouth directory. Id.

\item \textsuperscript{122} See id. (noting district court denied Bellsouth's motion for preliminary injunction); Bellsouth Adver. & Pub'l'g Corp. v. Donnelley Info. Pub'l'g, 719 F. Supp. 1551, 1554 (S.D. Fla. 1988) (noting earlier refusal to issue preliminary injunction to Bellsouth). The district court later granted summary judgment to Bellsouth and denied Donnelley's motion for partial summary judgment. See id. at 1569 (ordering summary judgment for Bellsouth)

\item \textsuperscript{123} See Bellsouth, 999 F.2d at 1439 n.5 (positing that district court should have granted summary judgment to Donnelley).

\item \textsuperscript{124} See id. at 1444 (holding headings used by Bellsouth are not distinct and original to Bellsouth).
\end{itemize}
\end{footnotesize}
lected” its listings by requiring its subscribers to use a business telephone service. The court found this selection of facts was not sufficiently creative because it was not an act of authorship, but merely a technique used to gain facts. The court also noted that Bellsouth’s arrangement of facts was not sufficiently creative to warrant copyright protection because its alphabetical list of business types under normally used headings was essentially typical.

Following Feist, the U.S. appellate courts consistently demonstrated that copyright protection given to databases is extremely limited. Even in cases where courts found a database eligible for copyright protection, or where copyright was conceded by the defending party, the courts have nevertheless held that wholesale copying of information does not rise to the level of infringement. In the post-Feist era, it is increasingly difficult

125. See id. at 1441 (holding that selecting listings through subscriber list does not display requisite originality for copyright protection).

126. See id. (stating “[t]he protection of copyright must inhere in a creatively original selection of facts to be reported and not in the creative means used to discover those facts”).

127. See id. at 1442 (reversing district court’s ruling, stating that even though defendant took qualitatively substantial amount of material, defendant did not appropriate any original elements from plaintiff’s directory); but see U.S. Payphone, Inc. v. Executives Unlimited of Durham, Inc., 1991 U.S. App. LEXIS 7599, 8 (4th Cir. 1991) (holding that defendants infringed copyright of reference guidebook, by copying guidebook’s state tariff section verbatim because “the organization of the state tariff material was sufficiently subjective and original to make the Tariff Section copyrightable material and that therefore, [defendant’s] inadvertent copying constituted infringement”).

128. See Boyarski, supra note 71, at 903-04 (discussing how decision in Feist created lack of incentives for collectors of information); Mitchell, supra note 17, at 908 (arguing that proving sufficiency of selection and arrangement in databases is increasingly difficult after Feist).

129. See Kregos v. Associated Press, 937 F.2d 700, 710 (2d. Cir. 1991) (holding that although Kregos’ pitching form was likely sufficient in its selection and arrangement to be original and to be granted copyright, AP did not infringe Kregos’ copyright). Kregos obtained a copyright by the creativity he displayed in the selection of his statistics. Id. If another party is able to display the requisite creativity that differs in more than a trivial degree, there is no infringement. Id.; Key Publ’n, Inc. v. Chinatown Today Publ’g Enter., 945 F.2d 509, 513 (holding while plaintiff had valid copyright, defendant’s use of information contained in database did not infringe plaintiff’s copyright).

130. See Bellsouth Adver. & Publ’g Corp. v. Donnelley Info. Publ’g, Inc., 999 F.2d 1436, 1441 (11th Cir. 1993) (holding that even though both parties conceded Bellsouth had copyright in directory as whole, plaintiff’s selection of facts was not sufficiently creative). The Court held that even though the amount of material taken from the plaintiff was qualitatively substantial, the defendant did not infringe on the original elements of plaintiff’s directory. Id. at 1442; Warren Publ’g Inc. v. Microdos Data
to prevent a competitor from taking substantial amounts of factual material from copyrighted collections of information and using it in a competing product.\textsuperscript{131}

2. The Attempted Legislative Protection: Collections Of Information Anti-Piracy Act

On January 19, 1999, Chairman Coble\textsuperscript{132} of the U.S. House of Representatives introduced H.R. 354, which would amend the Copyright Act of 1976 by adding a new chapter.\textsuperscript{133} The U.S. government expressed that the professed goal of H.R. 354 was to stop the actual or threatened market injury resulting from the misappropriation of substantial parts of collections of information.\textsuperscript{134} H.R. 354 had seventy-six co-sponsors, including powerful senior representatives like John Conyers\textsuperscript{135} (D-MI) and Henry Hyde (R-IL).\textsuperscript{136} H.R. 354 protects databases by prohibit-
ing uses and extractions of information contained in qualifying databases that cause harm to either the primary or related market of the database owner.137

a. H.R. 354 Section 1402: Proscription
Against Misappropriation

Under section 1402 of H.R. 354, a misappropriation could occur from an unauthorized extraction or use in commerce of any substantial part of a database.138 Misappropriation can be measured either quantitatively or qualitatively to determine whether the extraction of information caused harm to the actual or potential market of the database creator.139 Using both a qualitative and quantitative analysis, a misappropriation could occur where a person takes a relatively small portion of the information contained in a database, if that information is fundamental to the database’s value.140 Similarly, a misappropriation

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137. See H.R. 354, supra note 17, § 1402 (setting out central prohibition of H.R. 354). Section 1402 states:

Any person who extracts, or uses in commerce, all or a substantial part, measured either quantitatively or qualitatively, of a collection of information gathered, organized, or maintained by another person through the investment of substantial monetary or other resources, so as to cause harm to the actual or potential market of that other person, or a successor in interest of that person, for a product or service that incorporates that collection of information and is offered or intended to be offered for sale or otherwise in commerce by that person, or a successor in interest of that person, shall be liable to that person or successor in interest for the remedies set forth in section 1406.

138. H.R. 354, supra note 17, § 1402.

139. See id (noting measure to determine misappropriation); see also Mitchell, supra note 17, at 911 (asserting that section 1402 aims to prohibit uses and extractions of information that cause harm to either primary or related market of database owner).

140. H.R. 354, supra note 17, § 1402; see Mitchell, supra note 17, at 911 (explaining that misappropriation of substantial part of database is not directly correlated with quantitative amount of information pirated); Paul J. Heald & Suzanna Sherry, Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress, 2000 U. ILL. L. REV. 1119, 1177 n.405 (2000) (remarking that H.R. 354 clarifies that quantitative measures refer to repeated extraction of individual pieces of data). Qualitative measures could be actionable even though they may be small in relation to the whole database. Id.
could transpire if a person copied a major portion of the information contained in a database, regardless of the information's importance.\footnote{141}{H.R. 354, \textit{supra} note 17, § 1402; see Mitchell, \textit{supra} note 17, at 911 (cautioning that definition of substantial part can include large extractions of information that are of little importance to database owner).}

To qualify for protection under section 1402, the information contained in the database must be gathered, organized, or maintained through the investment of substantial resources.\footnote{142}{See H.R. 354, \textit{supra} note 17, § 1402 (referring to both monetary and nonmonetary resources).} H.R. 354 protects any substantial investment, whether it is money, time, or effort.\footnote{143}{See id. (providing for protection of “the investment of substantial monetary or other resources”).} Experts explain that this provision seeks to revise the “sweat of the brow” doctrine that was historically used to prevent copying database information when that information was created through considerable effort.\footnote{144}{See \textit{Antipiracy Hearings}, \textit{supra} note 11 (statement of Marybeth Peters, Register of Copyrights); see also Mitchell, \textit{supra} note 17, at 911 (arguing that section 1402 seeks to revive “sweat of the brow” doctrine to prevent copying of information created through substantial investment).}

b. H.R. 354 Section 1403: Exceptions to the General Prohibition Against Misappropriation

Section 1403 of H.R. 354 provides a list of acts that are permitted uses or extractions of data despite the broad prohibitions of section 1402.\footnote{145}{See H.R. 354, \textit{supra} note 17, § 1403 (defining permitted uses or extractions of data). Section 1403 provides in pertinent part:

\begin{quote}
Permitted acts
\begin{enumerate}
\item Educational, Scientific, Research, and Additional Reasonable Uses.
\begin{enumerate}
\item Certain nonprofit educational, scientific, or research uses. Notwithstanding section 1402, no person shall be restricted from extracting or using information for nonprofit educational, scientific, or research purposes in a manner that does not harm directly the actual market for the product or service referred to in section 1402.
\end{enumerate}
\item Additional Reasonable Uses.
\begin{enumerate}
\item In General. Notwithstanding section 1402, an individual act of use or extraction of information done for the purpose of illustration, explanation, example, comment, criticism, teaching, research, or analysis, in an amount appropriate or customary for that purpose, is not a violation of this chapter, if it is reasonable under the circumstances. In determining whether such an act is reasonable under the circumstances, the following factors shall be considered:
\end{enumerate}
\end{enumerate}
\end{quote}
information contained in databases by certain nonprofit, educational, scientific, and research communities in specific situations.\textsuperscript{146} This exception to the prohibitions of section 1402 allows extraction or use of information by these groups if it does not significantly harm the primary market for the product or service protected in section 1402.\textsuperscript{147} At least one expert comments that this exception expressly limits liability for a misappropriation\textsuperscript{148} by one of these groups to when their extraction or use of information causes direct harm to the primary market of the database.\textsuperscript{149}

\begin{itemize}
  \item[(i)] The extent to which the use or extraction is commercial or nonprofit.
  \item[(ii)] The good faith of the person making the use or extraction.
  \item[(iii)] The extent to which and the manner in which the portion used or extracted is incorporated into an independent work or collection, and the degree of difference between the collection from which the use or extraction is made and the independent work or collection.
  \item[(iv)] Whether the collection from which the use or extraction is made is primarily developed for or marketed to persons engaged in the same field or business as the person making the use or extraction.

In no case shall a use or extraction be permitted under this paragraph if the used or extracted portion is offered or intended to be offered for sale or otherwise in commerce and is likely to serve as a market substitute for all or part of the collection from which the use or extraction is made.

\textit{Id.}; \textit{see also} Mitchell, \textit{supra} note 17, at 912 (explaining that while broad language is used in section 1402, section 1403 still provides list of allowable acts).

\textsuperscript{146} See Carol Noonan & Jeffery Raskin, \textit{Intellectual Property Crimes}, 38 Am. Crim. L. Rev. 971, 1000 (2001) (explaining H.R. 354 provides fair use protection for educational, research, and scientific uses); \textit{see also} Martin, \textit{supra} note 37, at 159 (commenting that Database Directive provides notable exception for Member States to allow significant unauthorized use of database for private, non-commercial purposes). Similar to H.R. 354, the Database Directive permits the unauthorized use of a database for illustration in teaching or research. \textit{Id.} An exception is also provided in furtherance of public security or administrative or judicial procedures. \textit{Id.}

\textsuperscript{147} H.R. 354, \textit{supra} note 17, § 1403; \textit{see} Mitchell, \textit{supra} note 17, at 912 (noting that these groups will only be legally responsible for misappropriation if their extraction or use of information causes direct injury to principal market of database).

\textsuperscript{148} See Hansen, \textit{supra} note 76, at 302 (observing that while H.R. 354 is categorized as "misappropriation bill," in reality, it grants \textit{sui generis} right). If the bill was truly a misappropriation bill, it would be appropriate to merely say "misappropriation law applies." \textit{Id.} Here, H.R. 354 gives definitions, rights, and remedies. \textit{Id.} This is the same treatment a \textit{sui generis} law would give. \textit{Id.}

\textsuperscript{149} See Mitchell, \textit{supra} note 17, at 911 (concluding that nonprofit scientific, library, or educational user will not be liable for use or extraction that only indirectly harms primary market or harms only related market).
Section 1403 also has a "reasonable use" provision that provides protection for certain individual acts of misappropriation. Subsection 1403(a) provides a possible defense to certain nonprofit, educational, scientific, or research users as long as their use does not directly harm the actual market for the product or service. The exception takes into account the good faith of the person making the use or extraction and the extent to which the portion used or extracted is incorporated into an independent work. Finally, section 1403 considers the degree of difference between the collection from which the extraction is made and the independent work.

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150. H.R. 354, supra note 17, § 1403(a)(2); see Martin, supra note 37, at 159 (indicating that permission is not required for nonprofit or educational use of database). Permission is required when making a temporary or permanent reproduction of a copyrighted database, translation, adaptation, arrangement, and any other alteration of a copyrighted database. Id.

151. See Antipiracy Hearings, supra note 11, at 4-5 (statement of Marybeth Peters, Register of Copyrights). Peters stated:

As initially drafted, the exception for nonprofit educational, scientific or research uses served a primarily symbolic value. While its inclusion in the bill constituted a legislative recognition of the value and importance of such uses, the exception was written in such a way as to simply restate in the affirmative that such uses were permitted as long as they did not cause market harm (which would not in any event have violated the prohibition). When H.R. 2652 was incorporated into H.R. 2281, this exception (now § 1403(a)(1)) was broadened to permit such uses as long as they did not directly harm the actual market—thus ruling out liability for indirect harm, or harm to a potential market.

The Copyright Office supports this change. In our view, it appropriately limits liability for nonprofit public interest uses to the only situations where such uses pose a serious and immediate threat to the producer's investment—i.e., where the user is a member of the market for which the database is produced, and utilizes it without permission or payment. While a producer may need protection against a commercial competitor's preemption of a potential market, such a broad field of application does not seem necessary for nonprofit scientists and scholars.

Id.

152. H.R. 354, supra note 17, § 1403(A)(2)-(3); see Mitchell, supra note 17, at 912 (remarking that section 1403's reasonable use provision is similar to fair use provision of section 107 of Copyright Act of 1976). Section 1403 extends protection for certain individual acts or misappropriations as long as they are reasonable under the circumstances. Id.

153. H.R. 354, supra note 17, § 1403(A)(4); see Mitchell, supra note 17, at 912 (maintaining that section 1403 provides exception for extractions of data that are insubstantial in nature).
c. H.R. 354 Section 1404: Exclusions for Government Collections and Computer Programs

Section 1404 of H.R. 354 rejects protection for federal, state, and local government databases, regardless of whether the database was produced by an employee or agent of the government or whether it was produced under an exclusive government license. Section 1404, however, does allow protection for databases produced by a government agent or licensee while not acting within the scope of his or her employment. Section 1404 also allows protection for any federal or state educational institutions that create databases in the course of education or scholarship.

Section 1404(b) rules out protection for computer programs. This section explains that while there is often a close relationship between a computer program and a database, computer programs are not protected under this Act. Notwithstanding this limitation, section 1404 mandates that a database is not ineligible for protection solely by virtue of its inclusion

154. See H.R. 354, supra note 17, § 1404(a)(1) (stating that protection does not apply to databases compiled by government). Subsection 1404(a) states in pertinent part:

(1) Exclusion. Protection under this chapter shall not extend to collections of information gathered, organized, or maintained by or for a government entity, whether Federal, State, or local, including any employee or agent of such entity, or any person exclusively licensed by such entity, within the scope of the employment, agency, or license. Nothing in this subsection shall preclude protection under this chapter for information gathered, organized or maintained by such an agent or licensee that is not within the scope of such agency or license, or by a Federal or State educational institution in the course of engaging in education or scholarship.

(2) Exception—The exclusion under paragraph (1) does not apply to any information required to be collected and disseminated.

Id.

155. Id.

156. Id.

157. See H.R. 354, supra note 17, § 1404(B). Section 1404(B) provides in pertinent part:

[P]rotection under this chapter shall not extend to computer programs, including, but not limited to, any computer program used in the manufacture, production, operation, or maintenance of a collection of information, or any element of a computer program necessary to its operation.

Id.

158. Id.; see Mitchell, supra note 17, at 913 (noting that protection does not extend to programs that are used in manufacture, production, operation, or maintenance of database, or that address, route, forward, transmit, or store, provide, or retrieve access to connections for digital online communications).
within a computer program.\textsuperscript{159}

d. H.R. 354 Section 1405: The Act's Relationship To Other Laws

Section 1405 of H.R. 354 specifically articulates that the Act does not affect any rights, limitations, or remedies with respect to copyright law.\textsuperscript{160} The section also has no effect on other federal laws, including antitrust, patent, trademark, and contract law.\textsuperscript{161} Finally, section 1405(b) preempts any state law that provides databases with rights that are equivalent to the prohibitions against misappropriation provided in section 1402 of the Act.\textsuperscript{162}

e. H.R. 354 Section 1406 & 1407: Civil and Criminal Remedies

Section 1406 addresses the civil remedies that are available to a database producer under H.R. 354.\textsuperscript{163} Under H.R. 354, any person who is injured by a violation of section 1402 can bring suit in any appropriate federal court.\textsuperscript{164} This section provides for both temporary and permanent injunctions, impoundment of all copies of contents of a misappropriated database, and monetary relief.\textsuperscript{165} Section 1407 mandates substantial criminal

\textsuperscript{159} See H.R. 354, \textit{supra} note 17, § 1404(B)(2) (stating that "[a] collection of information that is otherwise subject to protection under this chapter is not disqualified from such protection solely because it is incorporated into a computer program").

\textsuperscript{160} See H.R. 354, \textit{supra} note 17, § 1405(a) (stating that "nothing in this chapter shall affect rights, limitations, or remedies concerning copyright"); see also Mitchell, \textit{supra} note 17, at 913 (confirming that scope of copyright protection for databases or for works of authorship contained in database will not change).

\textsuperscript{161} See H.R. 354, \textit{supra} note 17, § 1405(f)-(g) (articulating that Act also has no effect on Communications Act of 1934 or Securities and Exchange Act of 1934).

\textsuperscript{162} See H.R. 354, \textit{supra} note 17, § 1405(b) (explaining further that state law with respect to trademark, design rights, antitrust, trade secrets, privacy, access to public documents, and contracts are not deemed to provide rights equivalent to section 1402).

\textsuperscript{163} See id. § 1406 (providing civil remedies for misappropriations to any person who is injured by section 1402, Prohibition Against Misappropriation).

\textsuperscript{164} See id. § 1406(a) (providing federal jurisdiction unless action is against state governmental entity, in which case, case may be brought in any court of proper jurisdiction).

\textsuperscript{165} See id. § 1406(c)-(h) (providing options for enforcement of civil misappropriations). Subsection 1406(e) protects certain nonprofit communities by instructing a court to reduce or remit any monetary relief entirely in cases where the defendant is an employee or agent of a nonprofit educational, scientific, library, or research institution and the defendant believed and had reasonable grounds for believing that his conduct was permissible under the Act. \textit{Id.} § 1406(e). Subsection (f) states that an injunction or impoundment shall not apply to any action against the United States Government.
f. H.R. 354 Sections 1408 and 1409: Limitations on Actions and Defenses to Claims

Sections 1408 and 1409 of H.R. 354 provide that the statute of limitations for both civil and criminal matters under this Act is three years from the time the cause of action arises or the claim accrues. Sections 1408 and 1409 also seeks to limit the protection provided to the information contained in the subject database to fifteen years from the time the information is first put into the stream of commerce. Section 1408 seeks to elimi-

Id. § 1406(f). Subsection (g) permits remedies in this section to be enforced against a state governmental entity. Id. § 1406(g). Finally, subsection (h) denies any relief under this section to Internet service providers unless the provider willfully violates section 1402. Id. § 1406(h).

166. See id. § 1407(a)(2) (excluding employees or agents of nonprofit educational, scientific, or research institutions, libraries, or archives, if agent or employee was acting within scope of his or her employment).

167. Id. § 1407(a)(1)(A)-(C).

168. See id. § 1408-09 (asserting statutes of limitations for civil and criminal acts).

Section 1409 provides in pertinent part:

(a) Criminal Proceedings. No criminal proceeding shall be maintained under this chapter unless it is commenced within three years after the cause of action arises.

(b) Civil Actions. No civil action shall be maintained under this chapter unless it is commenced within three years after the cause of action arises or claim accrues.

Id.

169. See id. § 1408(c) (defining statute of limitations on misappropriation claims).

Subsection 1408(a) provides:

Additional Limitation. No criminal or civil action shall be maintained under this chapter for the extraction or use of all or a substantial part of a collection of information 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 under this chapter. In no case shall any protection under this chapter resulting from a substantial investment of resources in maintaining a preexisting collection prevent any use or extraction of information from a copy of the preexisting collection after the 15 years have expired with respect to the portion of that preexisting collection that is so used or extracted and no liability under this chapter shall thereafter attach to such acts of use or extraction.

Id.
nate the possibility of perpetual protection of databases by excluding from protection the effort put into maintaining a preexisting database.170

II. GETTING WHAT YOU GIVE: EVALUATING U.S. EFFORTS TO MEET THE COMPARABLE PROTECTION STANDARD

The EU Database Directive requires comparable protection from non-Member States in order to receive reciprocal database protection.171 Comparable protection serves two functions.172 First, the reciprocity provision gives the EU an advantage in bilateral negotiations with its trading partners.173 Second, the reciprocity provision encourages database production within the borders of the EU.174

To date, no country has applied to the Commission for reciprocal protection.175 Commentators note that while the United States has not formally applied for comparable protection,

170. See Mitchell, supra note 17, at 914 (discussing how H.R. 354 aims to avoid problems associated with perpetual protection); Antipiracy Hearings, supra note 11, at 7 (statement of Marybeth Peters, Register of Copyrights) (remarking that efforts to maintain preexisting database by updating its content will not extend fifteen year protection period of protection for that preexisting database). Efforts to maintain a preexisting database will only provide protection for the new updated version. Id.

171. See Database Directive, supra note 13, art. 11, recital 56 (providing non-Member States will only be afforded rights granted in Directive if they offer comparable protection to databases produced by nationals of EU Member States).

172. See Powell, supra note 73, at 1245-46 (noting that EU kept reciprocity provision in Database Directive because it is useful bargaining chip in negotiations with non-EU nations); Bastian supra note 57, at 456 (asserting that current EU approach is not one of harmonization, but rather use of legal system as bargaining tool to obtain favorable trade relationships).

173. See Powell, supra note 73, at 1245-46 (explaining reluctance of EU to replace reciprocity with national treatment).

174. Database Directive, supra note 13, art. 11(1)-(2). See Hunsucker, supra note 40, at 730 (detailing how entities seeking sui generis right must have been formed in compliance with law of Member State and have their registered office, central administration, or principal place of business within Community). A company that has only a registered office in the Community must have business operations linked on a continuing basis with the economy of a Member State. Id.; John Tessensohn, The Devil’s in the Details: The Quest for Legal Protection of Computer Databases and the Collections of Information Act, H.R. 2652, 38 IDEA 439, 465-66 (1999) (commenting that large producers of databases may be able to avoid harm of not receiving protection under Database Directive by setting up commercial establishments within EU, but smaller producers may not be able to afford this option).

175. See Hansen, supra note 76, at 301-03 (arguing that while Commission has ultimate power over whether non-Member States receive comparable protection, no coun-
tion, if passed, H.R. 354 or a similar act would trigger the reciprocity provision.\textsuperscript{176} Other commentators argue, however, that the Database Directive and H.R. 354 are disparately dissimilar and thus H.R. 354 would not provide comparable protection.\textsuperscript{177}

A. Reciprocal Protection: Arguing the Sufficiency of H.R. 354

Many commentators argued in favor of granting reciprocal protection to U.S. database makers upon the passage of H.R. 354.\textsuperscript{178} This position conflicts directly with that of other commentators who argue that the types of protection granted in the Database Directive and H.R. 354 are so dissimilar that the U.S. Act does not provide comparable protection.\textsuperscript{179} Commentators have applied to EU for reciprocal protection). As a result, the comparable protection standard has yet to be quantified in practical terms. \textit{Id.}

176. See Jonathan Band & Makoto Kono, \textit{The Database Protection Debate in the 106th Congress}, 82 Ohio St. L.J. 869, 872 (2001) (suggesting goal of H.R. 354 was to protect investment in databases by restoring "sweat of the brow" doctrine and enacting bill that provides comparable protection); Freno, \textit{supra} note 7, at 225 (concluding that H.R. 354 would likely secure reciprocal international protection under EU Database Directive); Ritter et al., \textit{supra} note 32, at 141 n.50 (arguing H.R. 354 is comparable in scope to Database Directive).

177. See Mark J. Davison, \textit{Proposed U.S. Database Legislation: A Comparison with the U.K. Database Regulations}, 279 EUR. INTELL. PROP. REV. 279, 282-84 (opining that there are distinct and significant differences in rights and liabilities, permitted uses, relationship to contract, compulsory licenses, and duration of protection between H.R. 354 and UK Regulation implementing EU Database Directive); Amanda Perkins, \textit{United States Still No Closer to Database Legislation}, 366 EUR. INTELL. PROP. REV. 366, 369 (asserting that because H.R. 354 does not grant full property right to database producers it does not provide comparable protection).

178. See Freno, \textit{supra} note 7, at 225 (acknowledging that \textit{sui generis} right under H.R. 354 would most likely secure comparable protection under EU Database Directive); Hansen, \textit{supra} note 76, at 302 (expressing that misappropriation in H.R. 354 is identical to \textit{sui generis} protection in Database Directive and therefore meets EU's reciprocity requirement); Sullivan, \textit{supra} note 80, at 365 (naming supporters of granting comparable protection under H.R. 354). Supporters included the Software and Information Industry Association, a trade group that includes 1400 companies including McGraw-Hill Companies and Reed-Elsevier, Inc. \textit{Id.} at 365 n.232. Supporters of H.R. 354 also included the National Association of Realtors, the Register of Copyrights, the American Bar Association, the American Intellectual Property Law Association, and the securities and commodities markets. \textit{Id.} at 365. These groups support H.R. 354 because the current disparity in the legal protection of databases leaves U.S. databases vulnerable to misappropriation. \textit{Id.}; \textit{but see} Band & Kono, \textit{supra} note 176, at 869 (advocating for ignoring comparable protection standard in EU Database Directive and having United States independently decide what level of protection is appropriate for databases because substantive merits of comparability are insignificant factor in political process).

179. See Davison, \textit{supra} note 177, at 282 n.32 (commenting that United Kingdom Regulations implementing Database Directive confer exclusive right of extraction and
who argue in favor of granting reciprocal protection to the U.S. maintain that the Database Directive requires only that non-Member States provide "comparable protection," and argue that under the doctrine of comparable protection it is possible for nations to use different terms to elicit the same level of protection.  

1. Legislative Intent

H.R. 354 was a direct response to the Database Directive. Scholars opine that the act was drafted with an express intent to provide comparable protection. The U.S. House Report discussing H.R. 354 notes that the EU's Database Directive creates a *sui generis* right but denies this protection to collections of information originating in non-Member State countries unless that country offers "comparable protection" to collections produced in the EU. According to the U.S. House of Representatives, when the Database Directive is fully implemented, U.S. firms could be placed at a significant competitive disadvantage in the European market. While H.R. 354 rejects the idea that an ex-re-utilization). Re-utilization is broader than the American term "commercial use" because re-utilization includes "any making available to the public" and cannot be restricted to commercial activity. Id.; see also Perkins, supra note 177, at 367-72 (comparing and contrasting Database Directive with H.R. 354 and concluding that protection granted in each is very different).

180. See Hansen, supra note 76, at 302-03 (arguing that protection against misappropriation in H.R. 354 is comparable to *sui generis* protection in Database Directive regardless of the difference in names); Sullivan, supra note 80, at 356-58 (surmising that protection against misappropriation given in H.R. 354 is comparable to *sui generis* protection in Database Directive).


182. See id. at 10 (explaining how recent legal developments have threatened to slow U.S. database production by eliminating incentives for investment).

183. See id. at 10-11 (commenting on possible harmful effects of Database Directive on U.S. database producers). The House Report provides in pertinent part:

Among other things, the Directive creates a new *sui generis* right form of property right for the legal protection of databases to supplement copyright. However, it denies this new protection to collections of information originating in the United States or other countries unless the other country offers "comparable" protection to collections originating in the European Union. When fully implemented, the European Directive could place U.S. firms at an enormous competitive disadvantage throughout the entire European market.

184. See id. at 11 (explaining further that at WIPO, discussions are being held to
clusive *sui generis* property right is the only means to provide strong database protection, it offers comparable protection through the implementation of a copyright-related federal misappropriation statute.\(^{185}\)

2. *Sui Generis* and Misappropriation: Different Names, Similar Protection

Commentators agree that both the Database Directive and H.R. 354 are a response to the decision in *Feist v. Rural Telephone Service*.\(^ {186}\) At least one scholar notes that while the Database Directive refers to its protection as "*sui generis*" and H.R. 354 refers to its protection as "misappropriation," both confer the same right to database makers.\(^ {187}\) Legal experts assert that there is nothing that would be allowed under the misappropriation bill that would not be allowed under the Database Directive’s *sui generis* protection.\(^ {188}\) Legal experts also note that the European Commission is silent on the issue of U.S. reciprocity, possibly intending to lead the U.S. Congress into assuming that H.R. 354 or a similar law would meet the reciprocity requirement.\(^ {189}\)

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185. See id. (announcing that preventing producers from having to rely on various individual State laws is essential to success of U.S. database market).

186. See id. at 10 (emphasizing that Supreme Court in *Feist* established only minimal protection for commercially significant databases and legislation was needed to provide stronger protection); John N. Adams, *The Reporting Exception: Does It Still Exist?*, [1999] EUR. INT'LL PROP. REV. 383, 383 (stating that in drafting Article 3 of Database Directive, the Commission appears to have had *Feist* decision in mind); Hansen, *supra* note 76, at 277 (commenting that history of database regulation in Europe can be traced back to United States). In 1991, Jean Francois Verstrynge was teaching at Fordham University School of Law in the European Community Center. *Id.* Verstrynge was the head of copyright in the Commission of the EU. *Id.* While at Fordham, Verstrynge read the *Feist* decision. *Id.* Upon reading the decision, Verstrynge reportedly remarked "[u]h-oh, we've got to change our directive". *Id.* Thus, the Directive includes a *sui generis* law rather than just a copyright law. *Id.*


188. See id. (calling rights granted in H.R. 354 "a *sui generis* right in misappropriation clothing"); Freno, *supra* note 7, at 225 (arguing H.R. 354 would have secured reciprocal protection for U.S. databases in EU).

189. See Hansen, *supra* note 76, at 303 (suggesting EU is not officially commenting on issue of U.S. reciprocity because EU wants U.S. database bill). The EU wants the United States to pass a bill that meets with the comparable protection standard so the United States and the EU can jointly lobby WIPO for worldwide database protection treaty. *Id.*; Band & Kono, *supra* note 176, at 877-78 (commenting that database debate and discussion of reciprocal protection is more robust in United States than in EU).
Even opponents of H.R. 354 recognize that the act provides comparable protection under the EU Database Directive.\footnote{190} The \textit{sui generis} provisions of the Database Directive protect the contents of any non-copyrightable database that is the product of substantial investment.\footnote{191} The Member States must permit extraction or use of an insubstantial part of a protected database.\footnote{192} Commentators assert that H.R. 354 uses different language to accomplish essentially the same result.\footnote{193} H.R. 354 protects against use or extraction in commerce of all or a substantial part of a protected collection of information that is the result of substantial investment.\footnote{194}

B. \textit{Reciprocal Protection: Arguing the Insufficiency of H.R. 354}

While some commentators argue that H.R. 354 should trigger reciprocal protection for U.S. databases under the Database Directive, other commentators suggest the United States needs to pass a bill with more complete database protection in order to secure reciprocal protection under the Database Directive.\footnote{195} According to opponents of granting the United States reciprocal protection, the provisions of H.R. 354 are too weak to be comparable to \textit{sui generis} protection.\footnote{196} In practice, commentators on

\begin{footnotesize}
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    \item \footnote{190}{See Freno, \textit{supra} note 7, at 199-205 (commenting that while \textit{sui generis} protection is necessary for United States to avoid economic isolation, and H.R. 354 provides \textit{sui generis} protection under Database Directive, H.R. 354 is still defective because it offers too much protection to U.S. database makers); see also Reichman & Uhlir, \textit{supra} note 62, at 803-04 (opining that \textit{sui generis} model is unbalanced and H.R. 354 created U.S. version of that defective model).}
    \item \footnote{191}{See Database Directive, \textit{supra} note 13, art. 7(1) (articulating when Member States are required to provide protection for database producer).}
    \item \footnote{192}{See id. art. 8(1) (providing rights and obligations of lawful users).}
    \item \footnote{193}{See Reichman & Uhlir, \textit{supra} note 62, at 804 (stating that H.R. 354 was new version of H.R. 2281 with same basic result as Database Directive); Freno, \textit{supra} note 7, at 224 (opining that H.R. 354 would be sufficient to secure reciprocal protection under Database Directive).}
    \item \footnote{194}{See H.R. 354, \textit{supra} note 17, § 1402.}
    \item \footnote{195}{See Perkins, \textit{supra} note 177, at 367 (noting Database Directive was impetus for United States to pass database legislation, but bills were hastily introduced and inadequate).}
    \item \footnote{196}{See Davison, \textit{supra} note 177, at 284 (arguing protection afforded by H.R. 354 is insufficient to qualify for comparable protection under Database Directive). While the United States grants broad statutory rights in H.R. 354 with a long period of protection, this has less effect than the Database Directive. \textit{Id.} The operation of H.R. 354 is too easily limited by broad exceptions which may override contractual license. \textit{Id.} In order to provide comparable protection, the United States must grant narrow rights for database producers that can be augmented by strict contractual conditions. \textit{Id.}}
\end{itemize}
\end{footnotesize}
both sides of the comparable protection debate argue that the same database may receive different protection in Europe and the United States if H.R. 354 is enacted. 197

1. Comparison with the United Kingdom
Implementing Regulation

The Database Directive takes precedence over Member State national law. 198 Member State governments are required to implement the Database Directive fully and completely. 199 In August 1997, the Copyright Directorate of the United Kingdom Patent Office issued Draft Regulations ("UK Regulation") which implemented the Database Directive. 200 The UK Regulation is exemplary of how to implement the Database Directive. 201 Many...
commentators use the UK Regulation as a point of comparison between H.R. 354 and the Database Directive because the United Kingdom is the only Member State to have case law arising from its legislation implementing the Database Directive.\textsuperscript{2002}

While commentators against granting the United States reciprocity under H.R. 354 concede that there is a significant overlap between the definitions of collections of information and databases, they argue that the rights granted under these definitions vary significantly.\textsuperscript{2003} Unlike the UK Regulation, which expressly provides the database maker with a full property right, H.R. 354 uses unfair competition as a basis for protecting the database maker’s interests.\textsuperscript{2004} Proponents of denying the United States reciprocity under H.R. 354 argue that the rights granted under these definitions are distinct from one another.\textsuperscript{2005}

Opponents of granting the United States comparable protection under H.R. 354 note that H.R. 354 and the UK Regulations offer different provisions dealing with the duration of pro-


\textsuperscript{2004} See U.S. CONST. art. I, § 8 (providing “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”); see also Perkins, supra note 177, at 367-68 (opining that United States does not grant full property rights to facts and ideas because it would be fraught with constitutional difficulty). The intellectual property clause in the U.S. Constitution does not allow a property right to be created in facts and ideas without violating the First Amendment right to free speech. \textit{Id.}

\textsuperscript{2005} See Davison, supra note 177, at 282 (comparing H.R. 354 with UK Regulations implementing Database Directive). H.R. 354 prohibits extraction or use in commerce of a substantial part only when doing so causes harm to the actual or potential market of the collection owner. \textit{Id.} In contrast, the UK regulations are more clear cut and give greater protection to databases. \textit{Id.} They do not allow any extraction or re-utilization of a substantial part of the database regardless of the consequences, unless the extraction or re-utilization comes within the limited exceptions provided for in the regulations. \textit{Id.} Under the UK regulations there is no need to demonstrate any harm to either existing or potential markets. \textit{Id.}
tection. H.R. 354 protects data for fifteen years after it is first made commercially available. Under the UK Regulations, the fifteen year period is renewable for the entire database so long as substantial investment is made in adding to or altering the database. While these provisions are different in scope, even opponents of reciprocity concede that H.R. 354's preservation of contractual arrangement may have the same practical effect as the UK Regulations' provisions dealing with the duration of protection.

2. Implications of the Broad Contractual Rights of H.R. 354

At least one opponent of granting reciprocal protection to U.S. database makers reasons that there may be difficulties when harmonizing international laws concerning databases. Commentators discuss that the broad statutory rights H.R. 354 grants with extensive periods of protection are not as efficient at securing database protection as the rights granted by the UK Regulations. They argue that the protection provided by H.R. 354 is less effective because the rights granted by H.R. 354 can be narrowed by broad exceptions which override contractual li-

206. See id. at 281-82 (noting that different time spans of protection between H.R. 354 and Database Directive create facially different rights and liabilities).

207. See id. at 281 (explaining that once that period of time has expired, data no longer receives protection even though it may be part of collection of information that has been updated).

208. See UK Regulation, supra note 200, § 17(3) (stating renewal period for database protection); Davison, supra note 177, at 283 (noting database protection under UK Regulation is restricted to 15 years after it is first made commercially available).

209. See Simon Chalton, Database Right: Stronger Than It Looks, [2001] EUR. INTELL. PROP. REV 296, 297 (articulating that UK Regulation does not allow any contractual provision contrary to lawful user rights provisions); Davison, supra note 177, at 283 (explaining how owner of collection of information can contractually restrict use and dissemination of information that has been commercially available for more than 15 years).

210. See Davison, supra note 177, at 284 (giving example of problem of providing protection for various special interest groups, such as provision under H.R. 354 which grants protection for securities and commodities market).

211. See id. at 282-83 (surmising that UK Regulation has more limited exceptions than H.R. 354). Those exceptions, however, are of less practical relevance because the exceptions to the UK Regulations cannot be overridden by contract. Id.; Perkins, supra note 177, at 370 (noting that UK Regulations give database producers less opportunity for circumventing permitted acts than under H.R. 354). H.R. 354 does not override the freedom to contract. Id. As a result, contract can be used to override provisions of H.R. 354 but not in the U.K. Regulations, where contractual options are limited. Id.
Conversely, narrow rights can confer significant advantages when they are extended by strict contractual conditions.

Commentators who are opposed to granting the United States reciprocal protection posit that these substantive issues must be addressed and resolved before reciprocal protection can be finalized. These commentators believe other nations must be convinced of the overriding need for true sui generis database protection. Until there is an unambiguous international model for protection and a clearly definable objective in providing sui generis protection, critics of H.R. 354 will not support granting the United States comparable protection for databases.

III. EXTENDING THE GOLDEN RULE ACROSS THE ATLANTIC: SUGGESTIONS FOR ENSURING COMPARABLE PROTECTION BETWEEN THE EU AND THE UNITED STATES

In the age of computers and expanding technology, the

212. See Perkins, supra note 177, at 370 (noting that because H.R. 354 does not limit freedom to contract, contract could be used to override other exceptions provided for in H.R. 354); Davison, supra note 177, at 282-83 (expressing concern that H.R. 354 allows contract to prevent extraction of unsubstantial amounts of data while UK Regulation does not allow these rights to be prohibited or forbidden by agreement).

213. See Davison, supra note 177, at 283 (explaining that while these differences may appear facially trivial, they could potentially provide disparately different rights and liabilities).

214. See id. at 284 (arguing substantive differences between H.R. 354 and UK Regulations must be resolved before international treaty for database treaty can be enacted); Perkins, supra note 177, at 366 (opining that it will be long time before any consensus is achieved on harmonizing database protection).

215. See Davison, supra note 177, at 284 (arguing international database protection is necessary but unlikely at present time). Unless the United States and EU can enact similar database laws, it will be difficult to convince the rest of the world that databases need sui generis type protection. See Freno, supra note 7, at 224 (surmising international database protection is necessary to fully protect U.S. investment in databases). The only way to obtain broader international protection through treaties is to pass a law that provides comparable protection to the Database Directive. Id.

216. See Davison, supra note 177, at 284 (claiming differences in protection must be narrowed before negotiations for reciprocal protection under Database Directive or more far-reaching international treaty can take place); Perkins, supra note 177, at 972 (noting that international negotiations on database protection have been slow with no foreseeable end in sight).
need for database protection laws is growing stronger.\textsuperscript{217} As accessibility to databases outside one’s home country becomes easier, database makers need rights to reciprocal protection in these nations.\textsuperscript{218} Following the Database Directive, the United States realized a pressing need for \textit{sui generis} database protection.\textsuperscript{219} The United States will not be immune from State-sanctioned piracy until mechanisms like H.R. 354 are enacted through which EU database makers will be held accountable for their conduct.\textsuperscript{220} Thus, while there are slight recognizable differences between H.R. 354 and the Database Directive, the similarities between misappropriation and \textit{sui generis} protection far outweigh these differences.\textsuperscript{221}

\textbf{A. The Need for a U.S. Law That Meets the Comparable Protection Standard}

The \textit{sui generis} protection provided under the Database Directive is comparable to the protection against misappropriation granted in H.R. 354.\textsuperscript{222} It logically follows that because the provisions are comparable, the United States should be afforded reciprocal protection for databases in the EU.\textsuperscript{223} If H.R. 354 is passed, neither U.S. nor EU database makers will suffer a competitive disadvantage in the other’s market.\textsuperscript{224} By harmonizing database laws and granting reciprocal protection to the United States, the EU will help promote both the creation of new databases and investment in the database industry.\textsuperscript{225}

\textsuperscript{217} See supra note 27 and accompanying text (providing background information for why technology has increased need for database protection).

\textsuperscript{218} See supra notes 23-26 (explaining problem of database piracy and solutions to curtail unauthorized copying of databases).

\textsuperscript{219} See supra notes 181-85 and accompanying text (discussing intent of drafters of H.R. 354 to provide comparable protection under Database Directive so United States would not be placed at comparative disadvantage).

\textsuperscript{220} See supra note 71 and accompanying text (discussing how Database Directive put U.S. database makers at comparative disadvantage).

\textsuperscript{221} See supra note 62 and accompanying text (discussing how H.R. 354 is U.S. version of \textit{sui generis} right created by Database Directive).

\textsuperscript{222} See supra note 148 and accompanying text (explaining that misappropriation in H.R. 354 is comparable to \textit{sui generis} right in Database Directive).

\textsuperscript{223} See supra notes 178-80 and accompanying text (arguing that United States should be granted reciprocal protection under Database Directive).

\textsuperscript{224} See supra note 71 and accompanying text (describing disadvantage Database Directive creates for U.S. database producers).

\textsuperscript{225} See supra notes 44, 134 (noting intent of both Database Directive and H.R. 354 was to promote production of databases).
Copyright protection for databases in the United States, while essential, is extremely limited. American database makers will be less likely to produce new and innovative databases without reciprocal protection from the EU. Thus, U.S. lawmakers must ensure that a U.S. bill is passed that fulfills the comparable protection standard and is then approved by the European Commission.

When addressing database protection, the United States must stay within the bounds of the U.S. Constitution. Thus, U.S. lawmakers must use unfair competition as a basis for protecting the database maker’s interest rather than granting a full property right to the database maker. This will maintain the constitutionality of the law, while providing the same level of protection to database makers. Other concerns expressed by opponents of granting the United States reciprocal database protection relate to the differing rules regarding duration of protection. Thus, opponents argue that reciprocal protection should be denied until database laws are harmonized and the possibility of abuse of the more lenient U.S. duration of protection clauses is eliminated.

There are several arguments, however, against such a view. First, practically speaking, H.R. 354’s preservation of contractual arrangement will have the same effect as the Database Directive’s provisions dealing with duration of protection. Second, nam-
ing one right "misappropriation" and one right "sui generis" does not erase the fact that both provisions provide equal protection to database makers.\textsuperscript{235} Finally, granting the United States reciprocal protection under H.R. 354 is consistent with the goals of both H.R. 354 and the Database Directive.\textsuperscript{236} Most notable is the desire to promote the creation of databases and prevent significant unauthorized extractions of data.\textsuperscript{237} Thus, critics of H.R. 354 should be more concerned with protecting investments in data and expanding the protection against piracy to effectively promote database creation.

B. Specific Issues and Provisions to Address in a New Bill

In accordance with the ongoing efforts of U.S. lawmakers to obtain comparable protection for U.S. databases in the EU, a new database protection bill will likely be introduced in the 107th Congress. H.R. 354 has been introduced twice with slight variations; accordingly, it is likely that another form of this bill will be introduced.\textsuperscript{238} Certain provisions of H.R. 354 should be flagged for review and revision in order to provide the most comprehensive database bill possible and to ensure reciprocal protection will be granted.

First, the new bill should clearly articulate that its purpose is to provide comparable protection under the EU Database Directive. While the accompanying House Report to H.R. 354 contains a statement of intent, the bill itself is not clear as to what it intends to accomplish on an international scale.\textsuperscript{239} The lack of a statement espousing this intent may be a fatal flaw to the granting of comparable protection to U.S. databases by the EU.\textsuperscript{240} If the Commission shares the views of some legal commentators, there is always a small possibility of denying reciprocal protec-

\textsuperscript{235} See supra note 148 (discussing similarities between misappropriation and su\ generis\ database protection).
\textsuperscript{236} See supra notes 44, 134 (discussing main goals of Database Directive and H.R. 354 as prevention of unlawful copying of databases).
\textsuperscript{238} See supra notes 17, 132-37 and accompanying text (describing origins of H.R. 354).
\textsuperscript{239} See supra notes 181-85 (discussing House Report accompanying H.R. 354).
\textsuperscript{240} See supra notes 195-209 and accompanying text (explaining why H.R. 354 should be denied reciprocal protection under Database Directive).
tion to the United States. If the Commission takes the approach that misappropriation and sui generis protection are different, it may nevertheless be more lenient in granting reciprocal protection if the United States clearly states the intention of the bill to provide reciprocal protection under the Database Directive.

A second issue that a new database protection bill should address is the ability to contract rights granted in the bill. H.R. 354 allows contract to be used to override any exceptions, while the Database Directive gives specific examples of what contractual provisions may be overridden. If comparable protection is granted under these circumstances, it would be possible for a database producer to contract against scientific and educational uses under H.R. 354 but have to maintain them under the Database Directive. Thus, limits should be placed on what types of rights can and cannot be overridden by contractual agreement.

CONCLUSION

The United States should amend H.R. 354 to include its intention to provide reciprocal protection and to limit what types of rights can be overridden by contract. Clearly articulated restrictions on which rights can and cannot be altered by contract are necessary to ensure that the United States provides comparable protection to EU Databases. The United States should be granted reciprocity under the EU Database Directive if an amended version of H.R. 354 is passed. Misappropriation and sui generis regimes afford comparable protection to the producers of databases. If reciprocal protection is granted to the United States, U.S. investment in database production will increase. Furthermore, with comparable laws in the United States

241. See id.
242. See supra notes 210-16 and accompanying text (explaining why some commentators feel misappropriation and sui generis regimes provide different levels of database protection).
243. See supra notes 210-12 (noting differences in how provisions to contract are handled under H.R. 354 and Database Directive).
244. See supra note 17 (discussing section 1405(a)-(b), (c) of Database Directive).
245. See supra notes 210-13 and accompanying text (discussing differences in relationship to contract).
246. See id.
247. See id.
and the EU, it is far more likely that an international database protection treaty will be passed. Protection of databases is an important governmental goal, and it can be achieved on an international level if an amended version of H.R. 354 is adopted.