AN ECONOMIC ANALYSIS OF THE CONTRACTUAL PROTECTION OF DATABASES

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I. INTRODUCTION

This Article deals with the contractual protection of databases that are made publicly available by their producers, addressing the issue in both the European Union and the United States. It is useful to analyze database protection1 in this manner, especially for the United States, where the primary form of legal protection is contractual. The Article first concentrates on the issue in the European Union2 and then extrapolates the reasoning to the situation in the United States.

This Article attempts to answer two questions in the E.U. context. First, can and should a database producer use contract to obtain additional protection for its database that is protected by the sui generis right?3 In other words, the question is whether a database producer can, and, if so, should be allowed to, override the limits of the sui generis right by contract. Second, this Article considers whether a database not protected by the sui generis right—either because it was protected but now has fallen into the public domain or because it does not meet the requirements for protection by the sui generis right—can and, if so, should, be protected by contract.4 Similar questions arise in the

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1. Unless otherwise stated, “database protection” or “protection of databases” will be used to refer exclusively to the protection of the investment required to gather, verify, or present the contents of a database, rather than the protection of its structure.

2. The terms “Europe,” “European Community,” “Community,” and “European Union” will be used interchangeably.

3. In Europe, a sui generis intellectual property right protects databases. See infra Part II; see also infra Part IV.A.

4. See infra Part IV.B.
United States. Although no specific intellectual property right protects databases in the United States, the economic rationale behind protecting databases contractually is the same.

The central issue underlying these two questions is whether such use of contracts overprotects databases. Overprotection, or protection over and above what is economically efficient, reduces social welfare. Accordingly, to determine the extent of any such overprotection, an economic analysis follows. Where necessary, the human rights to information and privacy are also taken into consideration. Before analyzing database protection from an economic point of view, however, a brief overview of the protection of database contents in Europe and the United States is given.

There have been no studies on the central issue that this Article addresses: whether overriding the limits of the sui generis right overprotects a database producer’s investment in making a database. An essentially legal study of this problem has recently been made in the field of copyright, however, albeit restricted to copyright’s exceptions and limitations. Whenever that study is relevant to the analysis here, it will be used. In addition, this Article deals only with databases that producers decide to make available to the public without relying on trade secret protection, also known as the law of confidence or confidential information. Thus, the protection of databases by trade secret also lies outside the scope of this Article.

II. AN OVERVIEW OF THE EUROPEAN DATABASE SUI GENERIS RIGHT AND THE PROTECTION OF DATABASES IN THE UNITED STATES

Before discussing the contractual protection of databases in Europe and the United States, a brief discussion of the legal protection of investment in database creation in both legal systems is in order. In Europe, investment in database creation is protected by a specific intellectual property right: the database sui generis right. A 1996 E.U. Directive (the Database Directive), which required implementation by member states by January 1, 1998, created this right. The sui generis right is very close to the U.K. “sweat of the brow”
copyright, which existed in the United Kingdom for databases before the implementation of the Database Directive. The Database Directive replaced the U.K. “sweat of the brow” copyright with “creativity copyright.”

Upon implementation of the Database Directive in E.U. member states, this copyright protects only a database’s original structure and not its contents. Conversely, the sui generis right protects investments in database creation, and thereby the database contents, rather than the structure of the database. As long as the database producer proves that it made a substantial investment in obtaining (collecting), verifying, or presenting the data contained in the database, it will receive sui generis protection for fifteen years. This protection enables a database producer to prevent others from extracting and reutilizing (i.e., making available to the public) a substantial part of the contents of the database. Implicitly, this means that extracting or reutilizing insubstantial parts of the database does not infringe. However, the taking of insubstantial parts that collectively amount to a substantial part of the contents of the database infringes the database-producer’s sui generis right.

Some limitations to the scope of the right apply. For example, it is not an infringement to extract a substantial part of a non-electronic database for private purposes, to extract a substantial part for the purposes of illustration for teaching or scientific research, or to extract or reutilize a substantial part for the purposes of public security or an administrative or judicial procedure. These exceptions, however, are optional, as E.U. member states are not obliged to implement them in their national laws. Additionally, like with other intellectual property rights, once the database producer puts copies of the database on the market, the sui generis right is exhausted approximately fifteen years after the database was made public. The database producer cannot further control the subsequent sales of copies of the database that it put on the market after the sui generis right is exhausted. Also, the sui generis right is an anti-copying right, like a copyright; therefore, anyone can collect the same data and make the exact same database independently (i.e., without copying from the previous identical database). In sum, limits to the sui generis right include non-protection of insubstantial parts, certain exceptions to the right, the exhaustion principle, and the term.

In the United States, the problem of database protection did not arise until fairly recently, as most courts protected the “sweat of the brow” expended in creating them. In a landmark 1991 decision concerning a white pages
directory, the Supreme Court in *Feist Publications, Inc. v. Rural Telephone Service Co.* reversed this line of precedent and ruled that the criterion of originality was a “modicum of creativity” and not mere labor.23 *Feist* thus left investment in making databases without effective protection. The 1996 enactment of the Database Directive in Europe triggered a reaction in the United States. Bills more or less comparable to the Community’s sui generis right scheme were drafted and presented in Congress to allow American database producers to receive protection in Europe.24 Such legislative attempts lasted approximately eight years, but no bill ever passed. As a result, U.S. database producers rely mainly on contract to protect the content of their databases.25

III. ECONOMIC ANALYSIS OF INVESTMENT IN DATABASE CREATION

Databases are information goods. Traditionally, they have been classified as literary works and protected in many countries by copyright. Depending on the country, only the structure or the contents are protected by copyright. Therefore, an economic analysis of copyright can apply, with some adjustments, to databases. Part III.A will explain the basic economics of information goods.26 Then, Part III.B extends such analysis to copyright law in particular. Finally, Part III.C extrapolates and adapts the economic analysis of copyright law to investment in database creation.

A. Economics of Information Goods

Information goods are public goods. This means they are both non-rivalrous and non-excludable.27 Non-excludability is the inability to prevent the consumption of the good by others, regardless of desire to pay.28 Thus, the

25. Database producers also use self-help measures (including technological measures) to prevent access or copying of databases. The misappropriation tort also is an option but is restricted to time-sensitive databases. In addition, the misappropriation tort is unreliable as it exists only in a few states and may very well be preempted (the Supreme Court has not ruled on this issue yet).
26. I choose to follow the Chicago School of Economics. For an explanation, see Alain Strowel, Droit d’auteur et copyright 192 (1993).
good benefits everyone. Since exclusion is impossible, the price system cannot be used because consumers have no incentive to pay. Consequently, if not enough consumers pay, the good will not be produced because the producer cannot recoup the investment in making the good. Because public goods are non-excludable, private companies either will not produce public goods or will under-produce them (i.e., produce them in sub-optimal quantities).

A good is non-rivalrous when its consumption by one individual does not diminish that which remains available for others. Television or radio transmission, and any performance in front of an audience (e.g., fireworks, film, ballet, theatre, etc.), are typical non-rivalrous goods; having one more viewer does not involve an additional cost, even if the presence of an additional viewer means there is additional consumption taking place. Because “the socially optimal price of a non-rival[rous] good or service is equal to the marginal cost of consumption—e.g., zero—private supply of the good is likely to be unprofitable.” Therefore, even though it is possible to produce non-rivalrous goods, private companies will produce sub-optimal quantities.

Thus, the production and consumption of public goods is characterized by underproduction (i.e., production below the socially optimal level) and overconsumption (free riding). This leads to an inefficient allocation of resources, also called market failure. Market failure may justify intervention by government or, if possible, by producers of the good themselves to achieve optimal supply of public goods. There are several approaches to such remedial action. First, production of information goods can be given to public authorities, which can finance such production through taxes. However, this solution is not adopted (at least not generally) because in a democratic society works must be made outside of the state’s control: “[F]reedom from state control is essential lest freedom of expression be curtailed by fear of governmental reprisal.” Another way to cure market failure is to use technical devices to render the goods private. With digital technology, it is easier to control access to works so that information goods can become more private than public. However, as recent decisions have shown, technological protection devices are not infallible and can be cracked, suggesting that the

29. Id.
30. Id.
31. Id.
32. Id.
33. Id. at 13–14.
34. LÉVÊQUE & MÉNIÈRE, supra note 27, at 4.
35. GUIBAULT, supra note 9, at 14.
36. Id.
37. Id.
38. Id.
39. MANKIW, supra note 27, at 11, 154.
40. Gordon, supra note 27, at 1611–12.
41. Id.
42. STROWEL, supra note 26, at 204–05.
efforts of intellectual property rights holders to privatize their information goods are not perfect. Therefore, state intervention through law (intellectual property law and the legal protection of technical devices that protect intellectual property-protected material) is still necessary to penalize infringing uses. So far, enacting intellectual property rights such as patent, copyright, or the database sui generis right has proved the best mechanism for enabling creators to appropriate the fruits of their labor (by, for example, making information goods excludable) and for enhancing social welfare through more optimal private production of information goods.

B. Economics of Copyright Law

In a landmark article, Landes and Posner employ this general economic analysis of intellectual property rights to analyze copyright law and to try to determine its optimal scope. Although Landes and Posner do not explain the effect of contracting out of copyright limits, they do explain why those limits make sense economically and what effects there are when those limits do not exist. Landes and Posner explain why, without limits to copyright, social welfare decreases. The conclusions of their analysis can be summarized as follows.

The first limit is the non-protection of ideas. Monopolies on ideas create welfare loss. If every new author must come up with an original idea of his own because he cannot use the ideas of others, it takes more time and effort to create a work; hence, the number of works is reduced. This reduces social welfare. Therefore, it is economically efficient to protect only the expression of ideas.

A second source of limits to copyright comprises exceptions to

43. See, e.g., Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001) (involving a suit by several motion picture studios against a defendant for posting on the Internet a computer program that decrypted digitally encrypted movies).
46. Id.
47. Id. at 347.
48. Id. at 348.
49. Id.; see also Ejan Mackaay, An Economic View of Information Law, in INFORMATION LAW TOWARDS THE 21ST CENTURY, supra note 44, at 43, 56–57; van den Bergh, supra note 27, at 26–27 (“The higher the degree of protection, the higher the cost of new works. Above a certain point copyright can become counterproductive, because of this increased cost. By copyrighting only the expression and not the underlying idea, the above-mentioned problem can be contained.”).
50. Landes and Posner think that this, rather than an increase in price, is what happens; in traditional monopolies, both effects (reduction in the number of goods and increase in price) occur. Landes & Posner, supra note 44, at 348. They note that in a more complex model, the price of works would rise if ideas were protected. Id.
copyright’s scope.\textsuperscript{51} In general, if any borrowing of the expression of a work is completely forbidden, the number of works will decrease.\textsuperscript{52} Thus, certain borrowings or uses of expression are economically efficient. For instance, book reviews quoting brief passages of a work should be allowed.\textsuperscript{53} Even if publishers would be better off if they could act against unfavorable reviews, this would be to the detriment of book consumers.\textsuperscript{54} Landes and Posner also distinguish between productive and reproductive uses.\textsuperscript{55} On the one hand, a productive use lowers the costs of expression and thus reduces the cost of creating new works, thereby increasing the total number of works.\textsuperscript{56} On the other hand, a reproductive use reduces the demand for the protected work, “simply increas[ing] the number of ‘copies’ of a given work, reduc[ing] the gross profits of the author, and reduc[ing] the incentives to create works.”\textsuperscript{57} For instance, if a parody reduces the demand for the original work, then it should be infringing and not fair use.\textsuperscript{58} Although it is uncertain whether the law has struck the right balance, it at least recognizes the problem, since ideas are not legally protectable and “substantial” rather than “simple” similarity is required for infringement.\textsuperscript{59}

A third limit to copyright’s scope is its term.\textsuperscript{60} The economic rationale for limiting the duration of copyright is to reduce, on the one hand, monopoly profits and, on the other hand, tracing costs.\textsuperscript{61} As Landes and Posner observe, “The longer the term, the fewer the number of works that are in the public domain, and therefore the higher . . . the cost of expression . . . will be.”\textsuperscript{62} Accordingly, fewer works would be produced. Again, social welfare is not enhanced.

At the end of Landes and Posner’s analysis, it is clear that only expressions (and not ideas) should be protected, that only productive uses should be allowed, and that although we do not know what the exact length of copyright should be, it should not be too long and must be limited.\textsuperscript{63} Which

\textsuperscript{51} Id. at 357–60.
\textsuperscript{52} Id. at 360.
\textsuperscript{53} Id. at 358–59.
\textsuperscript{54} Id. at 359.
\textsuperscript{55} Id. at 360.
\textsuperscript{56} Id. The costs of expression can be contrasted with the costs of production. The former include the cost of creating the work (the author’s time and effort) “plus the cost of the publisher of soliciting and editing the manuscript and setting it in type.” Id. at 327. The costs of production are the costs of printing, binding, and distributing individual copies. Id.
\textsuperscript{57} Id. at 360.
\textsuperscript{58} Id.
\textsuperscript{59} Id. at 361.
\textsuperscript{60} Id.
\textsuperscript{61} Id.
\textsuperscript{62} Id. at 362. In a more recent article, Landes and Posner changed their views and proposed an initially limited term that was indefinitely renewable upon payment of an initial and then renewed registration fees. William M. Landes & Richard A. Posner, Indefinitely Renewable Copyright, 70 U. Chi. L. Rev. 471, 517–18 (2003). For many reasons (and by their own admission), the authors’ more recent article is much less strongly argued, and the model therein less economically efficient, than An Economic Analysis of Copyright Law. It is not the purpose of this Article to criticize the authors’ more recent views; suffice it to say, I prefer their initial reasoning on the term’s length and adopt it here.
\textsuperscript{63} See Landes & Posner, supra note 44, at 347–63.
productive uses are allowed under the economic analysis of copyright law? Productive uses include (brief) quotation and, to some extent, criticism, as is shown in Landes and Posner’s example concerning book reviews. Such exceptions to copyright are economically efficient. In the same vein, parodies should be allowed, but not burlesques. Incidentally, those three uses allow freedom of speech. What might be reproductive uses? Some examples might include burlesques (because they reproduce the work and decrease the number of the original work created) and copying for news reporting, educational, and private uses. In these cases, either the copyright owner can refuse the use or make the user pay for it. This conclusion also is economically rational.

However, this conclusion does not fully take into account several superior interests that exist in a democratic society, to which the right of the creator must bend. News reporting, educational use, and private copying can be said to be reproductive uses, and thus under an economic analysis, must remain infringing uses. However, to respect freedom of speech (which includes the right to impart and receive information) and the right to privacy, both of which underlie these limitations and are constitutionally recognized in Europe and the United States, such uses must be allowed. If not, the copyright or sui generis right simply is illegal, as it does not respect human rights. The human rights dimension, therefore, complements the economic analysis. Human rights are as important as normative economic analysis, which insures an efficient allocation of resources. The same analysis can be made and the same solution envisaged for other important interests that deserve protection in a democratic society, such as the dissemination of knowledge or facilitation of

64. *Id.* at 358–59.
65. *Id.* at 360.
66. Under an analysis of exceptions based on high transaction costs and market failure, private copying could be allowed. *See id.* at 357. However, these uses can sometimes be paid for under a licensing scheme and this can be economically efficient. *Id.* at 358. In addition, once transaction costs and the market failure disappear, these uses become marketable and, because they are reproductive, these uses should be bought. *See id.* at 357–58.
67. *Id.* at 353–54. For example, a burlesque is a derivative work and the owner of the underlying work has exclusive right over such derivatives. *Id.* at 360.
69. ECHR, *supra* note 68, art. 8. In the United States, the right to privacy is both a tort and a constitutional right. The right has been implied from the “penumbra” of other fundamental rights that protect privacy interests. *See U.S. Const.* amend s. I, III, IV, V, IX; Whalen v. Roe, 429 U.S. 589, 598–99 n.23 (1977); Griswold v. Connecticut, 381 U.S. 479, 483 (1965).
70. Most certainly, the exceptions for reporting current events and criticism or review are grounded in promoting the free flow of information. *See Fiona Macmillan Patfield, Towards a Reconciliation of Free Speech and Copyright, in Yearbook of Media and Entertainment Law 213* (Eric Barendt et al. eds., 1996). The right to private copying is grounded in the right to privacy. *See Rochelle Cooper Dreyfuss, TRIPS-Round II: Should Users Strike Back?, 71 U. Chi. L. Rev. 21, 31* (2004).
public access to information and culture. Some reproductive uses that embody those interests are allowed in copyright legislation (e.g., uses by libraries, archives, museums, and persons suffering from a handicap, as well as uses for the needs of justice and of the state) but would be seen as inefficient under an economic analysis of copyright. However, such reproductive uses must be allowed in order to respect these superior interests because those uses aim to disseminate knowledge. As some have mentioned:

[W]orks are not only goods whose creation and circulation must be facilitated by law, but also elements of the discourse of a collective society and of the constitution of a public space. The dissemination of works and the collective wealth they generate are not reduced to the sole transactions visible on the market.

Creation of works allows persons to benefit from them without always entering into a contract with the author. Some American authors now include ethical or justice considerations inside the economic analysis of law, which is sometimes seen as too rigid.

The intrusion of human rights and superior interests does not mean that reproductions can always be made for free, without compensating the right holder. In fact, economic analysis surely would have such uses be subject to compensation if they cannot be restrained by the copyright holder. Several ways exist to respect free speech, privacy, and other superior interests. For instance, lawmakers can provide a compulsory license or a statutory license. In the first case, the user has no right to make use of the work without the prior authorization of the right holder, who is obliged to contract with the user (because of a duty to grant a license to those users who request one), and the price is determined through negotiations. If the negotiations break down, a third party resolves the issue. Under a statutory license, the user is free to use the work without authorization provided he pays a price generally predetermined in the statute (e.g., a tax on recording media or Internet connections for private copying). However, whether such uses should be allowed at a price or for free is a question beyond the scope of this Article. This Article is only concerned with the question of whether the limits to database protection can be overridden by contract.

72. See Vinje, supra note 71, at 192–93.
73. See id. at 193.
76. Guibault, supra note 9, at 25.
77. Id. at 22–23.
C. Economics of Investment in Database Creation

From an economic point of view, investment in database creation is broadly similar to creation of copyright works. If someone creates a database at a cost (investment), this person ought to be protected against copying of the contents of the database (information). If not, because the contents of the database (information) are a public good, underproduction of databases will result. Thus, the economic analysis of copyright law can be applied to investment in database creation. First, in order to obtain protection, there must be an investment. If there is no cost in producing the database, there is nothing to protect. As with copyright, productive use of the data constituting the database should be allowed while reproductive uses should be forbidden, except those that protect freedom of speech, privacy, and other superior interests (e.g., private copying, educational use, use by libraries, archives, museums, persons suffering from a handicap, and uses for the needs of justice and of the state). Finally, since protection must be temporary to avoid the negative effects of monopolies in static situations, protection must be limited in time. Besides, after a period of time, the investment normally is recouped, and there is no reason to continue protecting the result of the investment as reflected in the database contents; no incentive is granted anymore, but rent-seeking is promoted.

The sui generis right presents, however, major differences with copyright depending on the type of database protected. First, let us look at copyright. Copyright protects only original expression. By definition, original expression is unique because it is created by man. Every novel, music, film, or other such work will have its own unique original expression. It is extremely difficult, if not impossible, for another to come up with an identical song or story independently. In other words, it will be an uphill struggle for a second creator whose work is identical or very similar to the first-created work to prove that the work he created was made independently if the first-created work previously was accessible to the public. Thus, every copyright holder holds an economic monopoly on its creation because every original expression is, by definition, created by man and not preexisting. With this monopoly, a copyright holder can prevent others from copying its original expression but not the ideas or the unoriginal expressions behind its work. This monopoly is not very powerful since it does not protect ideas, information, facts, or unoriginal expressions. Despite such limits, the copyright monopoly exists and can lead to abuse. Such potential abuses, therefore, must be prevented. Solutions have been proposed by Guibault, some of which I will consider

78. Cf. discussion supra Part III.B. This would include using the data for criticism and parody and using insubstantial parts of the data for quotation purposes.
79. Rent-seeking is “the excessive search by certain economic agents for monopoly-related profits (economic rents).” Van den Bergh, supra note 27, at 26.
80. Of course, the legal monopoly granted by copyright facilitates the realization of this economic monopoly.
How does protecting investment in database creation differ from copyright? As noted above, copyright creates only one situation: economic monopoly. With the sui generis right, two different situations resulting from two different types of databases can be distinguished: multiple-source databases and sole-source databases. Let us first look at multiple-source databases. A multiple-source database is a database made of preexisting public domain data that the database producer collects. The database producer has no economic monopoly. Anyone can make the exact same database independently by collecting the exact same elements in the public domain, and it would be easy for a second database producer to prove that it had invested in making its database without copying; the second database producer just needs to keep records of its investments in collecting, verifying, or presenting the data. In this case, the situation is thus totally different from the situation in copyright law, and the reasoning and solutions found for copyright cannot be applied in their entirety. Under Landes and Posner’s analysis, ideas must not be monopolized because such monopolization reduces social welfare. Although they do not make the same reasoning for raw information or facts, it safely can be said by analogy that granting a monopoly on information or facts also reduces social welfare. In the case of sui generis protection of multiple-source databases, however, the intellectual property protection does not grant a monopoly on information or facts. Thus, no problem of welfare loss exists. Therefore, protection should be granted to producers of multiple-source databases under the same conditions as for copyright.

The situation is quite different with sole-source databases. In this case, the database is made of created data. This data are not preexisting but are produced by the database producer itself. Sole-source information, like ideas, exists only if a created piece of information is unique, as when a singular idea is created by an individual. In this case, the database producer has a de facto economic monopoly on all the information contained in its database. Since granting a monopoly on information or facts reduces social welfare, an intellectual property right in single pieces of information should not be granted. Consider, however, a collection of several pieces of information. There is a tension between market failure and welfare loss. In some cases, it may be important to grant a right on a database for a short period and under tight conditions in order to induce production of information. Some protection seems necessary to induce the production of collections of information. The intellectual property right (legal monopoly or exclusive right) can be granted if there has been investment in making the database, but it must be tightly regulated since it creates a de facto economic monopoly. Access to information must not be prevented; thus, refusals to grant access, access under abusive conditions, and abusive prices must be prohibited. With the results of this analysis in mind, we can examine whether and under which conditions

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81. See infra Part IV.A.2.
82. Landes & Posner, supra note 44, at 348.
database producers can protect their databases’ contents by contract over and above the legal protection granted by the database sui generis right.

IV. THE EUROPEAN UNION

A. Contractual Protection of Databases Protected by the Sui Generis Right

Article 13 of the Database Directive provides that the holder of the sui generis right on a database may protect its database additionally by contract. However, the Database Directive offers no more detail than this. The question that remains is whether the database maker can obtain more protection by contract than the protection granted by the sui generis right. Parties to a contract have complete freedom as to their contract’s content so long as the contract is not abusive and does not breach competition law, the law on unfair contract terms, or constitutional rights. Therefore, provided that a database producer meets those tests, the database producer can, in order to gain more protection than the sui generis right, restrict or eliminate the limits of the protection, i.e., broaden the term or restrict or eliminate the free extraction or reutilization of insubstantial parts, the principle of exhaustion, or all or some of the exceptions. Database producers can accomplish this by standard-form contract or by a fully negotiated contract.

However, the analysis does not end there. When a contract is fully negotiated, the two parties have equal bargaining power and contracting parties will agree to restrictions on their rights only if they receive an advantageous counterpart. The case of adhesion contracts is different. First, such contracts generally are drafted unilaterally by producers and destined to a weaker party, such as the consumer or end-user of a product. They are take-it-or-leave-it contracts in the sense that the consumer has no choice but to accept the conditions of the contract or else not adhere. In addition, such contracts often contain clauses binding subsequent users of the product, i.e., not just the original acquirer. Therefore, rights created by these contracts are

84. In its entirety, Article 13 provides: Continued application of other legal provisions: This Directive shall be without prejudice to provisions concerning in particular copyright, rights related to copyright or any other rights or obligations subsisting in the data, works or other materials incorporated into a database, patent rights, trade marks, design rights, the protection of national treasures, laws on restrictive practices and unfair competition, trade secrets, security, confidentiality, data protection and privacy, access to public documents, and the law of contract. Id. (emphasis added).
85. See GUIBAULT, supra note 9, at 114 (explaining this principle).
86. Id. at 194–96.
87. Id. at 112–20.
88. Id. at 198–99.
89. Id. at 120.
90. Id.
extremely similar if not identical to rights against the world and can be said to constitute private legislation.\footnote{92}{See id. at 103–04 (“In fact, a contract may be formed whenever the potential licensee acts in a way defined as an acceptance by the offeror (the master of the offer). If that method of acceptance is defined by ProCD to be the use of the software, then any stranger who finds the CD-ROM in the street and uses it would become a party to the license agreement. In other words, if the standard of assent necessary to form contractual relationships is minimal, then no unlicensed access to works will be possible. The outcome will be very similar to the effect of a right in rem.”); Garry L. Founds, \textit{Shrinkwrap and Clickwrap Agreements: 2B or Not 2B?}, 52 FED. COMM. L.J. 99, 116 (1999); Jane C. Ginsburg, \textit{Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad}, 66 U. CIN. L. REV. 151, 167 (1997); Dennis S. Karjala, \textit{Federal Preemption of Shrinkwrap and On-Line Licenses}, 22 U. DAYTON L. REV. 511, 540 (1997); Mark A. Lemley, \textit{Intellectual Property and Shrinkwrap Licenses}, 68 S. CAL. L. REV. 1239, 1274 n.158 (1995) [hereinafter Lemley, \textit{IP and Shrinkwrap Licenses}]; Mark A. Lemley, \textit{Shrinkwraps in Cyberspace}, 35 JURIMETRICS J. 311, 319–20 (1995) [hereinafter Lemley, \textit{Shrinkwraps in Cyberspace}]; David Nimmer et al., \textit{The Metamorphosis of Contract into Expand}, 87 CAL. L. REV. 19, 60 (1999).} Intellectual products, regardless of whether intellectual property rights also protect them, increasingly are sold in this manner. Such contracts commonly appear as shrink-wrap licenses for offline products or click-wrap or click-through licenses for online products. Not only have such contracts become widespread, but they often look very similar, thereby restricting potential choice for the consumer.\footnote{93}{Lemley, \textit{Shrinkwraps in Cyberspace}, supra note 92, at 319.} Therefore, such contracts can be said to be as efficient as intellectual property rights, and even more so if they override the limits of intellectual property rights. Thus, a distinction must be drawn between traditional contracts and these latter types of contract.

Article 15 of the Database Directive partially addresses whether holders of the sui generis right can use contract to obtain protection beyond the scope of that right.\footnote{94}{Database Directive, \textit{supra} note 11, art. 15.} Article 15 provides that “[a]ny contractual provision contrary to Articles 6(1) and 8 shall be null and void.”\footnote{95}{Id.} Article 15 thus renders imperative Article 8, which sets forth the rights of lawful users to extract and reutilize insubstantial parts of a publicly available database.\footnote{96}{Id. art. 8} This means that the database producer cannot override Article 8 by contract, regardless of the contract type. In other words, the database producer cannot prevent a lawful user from extracting or reutilizing insubstantial parts of the database. Only when the lawful user extracts or reutilizes insubstantial parts that collectively amount to a substantial part or the entire database may the database producer exercise its right. In sum, Article 15 makes it absolutely impossible for the maker of any type of database to prevent, at least as to lawful users, extraction or reutilization of insubstantial parts of the database, so long as the sum of insubstantial parts (if several are taken) does not amount to a substantial part. The question, then, would appear to be whether this legal provision is economically efficient. This question is addressed below for both multiple-source and sole-source databases.\footnote{97}{See infra Part IV.A.1–.2.}

Consider, though, that Article 15 impliedly permits contract to override the optional exceptions and other limits (exhaustion and term), as neither
Article 15 nor any other article of the Database Directive renders such exceptions or limits imperative. Therefore, the question is whether this overprotects the database producer’s investment in making the database. Since the economic situation is different for multiple-source and sole-source databases, this question is again addressed for each separately.98

1. Multiple-Source Databases

If the database is not sole-source, by definition the data in it are in the public domain, and anyone can make a database out of that data independently.99 The first database producer to make such a database will face competition. Knowing it will face competition, the database producer will not include terms in its contracts that unduly restrict access to data. Similarly, the database producer will not charge a price above the cost of its investment and a reasonable return or profit, which amounts to the same investment and profit that anyone needs to make to market the same database. A different approach will subject the database producer to market entry and competition. That it may be an advantage, and thus give market power, to be the first database producer on the specific market does not take away the fact that the “credible threat of a new market entrant is a powerful constraint on the ability of firms to exercise their market power.”100 For example, if the database producer provides that substantial parts of the database cannot be reused at all forever, the user will not enter into the license agreement but will enter a license agreement with another database producer who does not prevent the use of insubstantial parts and only prevents the reutilization of substantial parts of the database only for the fifteen-year term. If there is no competitor, the potential database user will seek the data in the public domain. Similarly, if the database producer does not allow the extraction of a substantial part of the database for private purposes, the user will look elsewhere. This is true whether the user is a professional or a private party; people are used to shopping around. In the case of analog databases, e.g., dictionaries, a range of similar databases can be found in the same place in a bookshop, and it will be easy to compare prices and conditions. With online databases, it is also easy for a user to find the best deal. Some Web sites now devote themselves entirely to price comparisons (and this could include comparison of terms of use) between products, thereby helping users to decide what is best for them.101 Of course, competition itself does not prevent the use of restrictive clauses. If a user wishes only to use the database’s contents for some restricted purpose and agrees, for example, not to criticize the data or even not to reuse

98. See infra Part IV.B.1–2.
100. Id. sec. 4.1
insubstantial parts in order to get the data for a cheaper price, this is not a problem. Since competition exists, it leaves open the possibility for other users to get the data at a reasonable price with the guarantee that the limits of the sui generis right are respected. As long as the consumer has the choice, competition is preserved.

Thus, if the database is not sole-source, competition exists, at least potentially. This means that users potentially can have access to other similar or identical databases. If there is only one database on the market, it can be assumed that the price and conditions of use are competitive since the database maker knows it will face competition if it makes its price and conditions objectionable to the user. In this scenario, then, prices should be low and conditions of access reasonable. Therefore, contractual protection of multiple-source databases already protected by the sui generis right does not overprotect databases. This is true whatever the type of contract (fully negotiated or adhesion) because there is competition in the market. Article 15 of the Database Directive, then, is economically efficient albeit unnecessary. A legal provision prohibiting the overriding of limits to the sui generis right is not necessary because the market is itself efficient (i.e., there is no market failure and no state intervention is needed). A user is free to accept a contract that overrides some limits if the user so wishes. In this case, the user generally will request an advantage (e.g., a lower price) in exchange for any such restriction. However, Article 15 makes this impossible for insubstantial parts. This is unnecessary and overly restrictive of parties’ contractual freedom.

There remains, however, a potential competition problem that needs to be briefly addressed. Several database producers of similar databases may agree between themselves to fix prices or conditions. For this, there already exists a remedy: Article 81 of the European Community Treaty (EC Treaty).\footnote{102} This provision of competition law prohibits agreements and concerted practices between undertakings that may affect trade between member states, the object or effect of which is to prevent or distort competition in the European Union.\footnote{103} Such agreements and practices include the fixing of prices or other trading conditions.\footnote{104} Article 81 renders such agreements and practices automatically void.\footnote{105}

2. **Sole-Source Databases**

For sole-source databases, there is both a legal and an economic monopoly. The user has no real choice; unable to get the information elsewhere, the user must deal with the single database producer and either accept the price and conditions or have no access to the information. In the case of such a monopoly on data, the situation is at once similar and dissimilar

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103. Id.
104. Id.
105. Id.
to copyright: similar in that an economic monopoly exists, and dissimilar in that the object of the monopoly is different. Copyright’s monopoly is on original expression, whereas the sui generis right monopoly is on information. If a work (e.g., a book on copyright law) is protected by copyright, the legal monopoly protects only the original expression, and anyone can create another book on copyright law using a different original expression. Such a monopoly is not as great as a monopoly on raw information, as under the sui generis right. The user who finds a copyright textbook too expensive could buy a similar textbook for a lower price; because there is some substitutability between works, there is some competition (monopolistic competition). Such substitutability does not exist in the case of a sole-source database protected by the sui generis right. Thus, the solution in this case must be at least identical or even more radical than under copyright law.

Let us look at each limit. With regard to the limit of the non-protection of insubstantial parts, the imperativeness of this limit provided in Article 15 is economically efficient and, in this case, both useful and necessary. This is true for fully negotiated and adhesion contracts, as the user has no choice in either case due to the monopoly. Any user, be it a professional or a private party, has weak bargaining power since, by definition, there is no competition in the market. Thus, any contract, including contracts at arm’s length, will be take-it-or-leave-it, potentially taking away even the rights of the user provided by the sui generis right law.

With regard to the exceptions to the sui generis right, Guibault’s analysis of contractual overridability of exceptions to the copyright holder’s exclusive rights is useful. The analysis developed in her thesis shows that neither copyright itself nor any other external laws that can regulate it (e.g., civil law (abuse of rights), consumer protection law, competition law, and constitutional law) provides an adequate means to ensure that a copyright holder that overrides copyright limitations will respect copyright goals. Although the sui generis right is too recent to be envisaged in those laws, this conclusion similarly can be drawn a fortiori for the sui generis right. Guibault explains that contracts that restrict copyright limitations upset the balance struck by every copyright regime, between creators’ and users’ rights. This applies for the sui generis right as well. Guibault then distinguishes between adhesion contracts and fully negotiated contracts that restrict copyright exceptions. As argued above, because there is no competition in the case of a monopoly on information, this distinction is not valid; all contracts are take-it-or-leave-it. Thus, only Guibault’s analysis concerning adhesion contracts is applicable for our purposes.

Guibault proposes two solutions to the problem of restrictive adhesion contracts. One solution is to render imperative the most important limitations

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106. See generally GUIBAULT, supra note 9.
107. Id. at 302–03.
108. Id. at 194–96.
109. Id. at 198–213.
to copyright, i.e., those that preserve free competition and the user’s freedom of expression. 110  Those limitations include the right to make reproductions for criticism, review, research, and parody. 111  Another solution would be to “extend the regulations concerning unfair consumer contract terms to cover copyright matters.” 112  In this second solution, terms in a standard form contract would be presumed unfair if they departed from provisions of the relevant copyright law. 113  This second solution, however, seems less certain, legally speaking. A provision making some limits imperative, as in Guibault’s first solution, is clear-cut: in every case, the contract term would be illegal. Thus, legal certainty is increased, and there is no need for litigation; a defendant who is sure to lose will not engage in proceedings. If the second solution is followed, however, litigation may be necessary, as it will likely be the duty of the judge to decide if the term presumed unfair is indeed unfair in each case. This solution might be better suited to copyright than to the sui generis right. In the case of sole-source databases protected by the sui generis right, we are dealing with monopolies on information, and such monopolies give much more power than a monopoly on original expression. Therefore, the first solution (imperativeness of limitations) seems preferable.

Applying Guibault’s second solution—the presumption of unfairness—to contract terms that govern the use of sole-source databases (which also are protected by the sui generis right) but depart from the relevant copyright law at first entails making the exception for research and teaching imperative. In addition, an exception for private purposes arguably should be made imperative, out of respect for the human right to privacy. The third exception, allowing extraction and reutilization for public security or an administrative or judicial procedure, also should be made imperative because it protects superior interests of the state. This has been done, however, in only one E.U. member state, Belgium, and applies to all databases (i.e., the provision does not distinguish between multiple-source and sole-source databases). 114  Additionally, the Database Directive should be revised to include exceptions both for criticism or review and for news reporting, to respect the human right of freedom of speech. To ensure that this right is protected, the exceptions should be made imperative in the case of sole-source databases. This imperativeness means that the producer of a sole-source database cannot refuse access to a substantial part of the contents of the database when the exceptions apply, but it does not mean that in every case the data must be available for free. The desirability of asking a price is more economically justified when the use is reproductive rather than productive. Because economic analysis cannot
yet provide a more precise answer to this question, it will remain a matter of choice for the lawmaker.

The above analysis answers the question with regard to the exceptions to the sui generis right where the database producer is a monopolist. Because copyright commentators have limited their analyses to exceptions to copyright rights,\(^ \text{115}\) there is no detailed examination so far with regard to other limits (i.e., exhaustion and term). It is submitted that the economic analysis of copyright law provides an answer to whether these other limits to copyright, which also exist in sui generis right law, can be overridden. This argument based on the economics of copyright can be applied by analogy to the sui generis right.

As for the term, the producer of a sole-source database protected by the sui generis right should not be able to extend the term of protection by contract. It would not be economically efficient to do so. This holds true for both an extension limited in time (e.g., fifty years instead of fifteen years) and an extension unlimited in time (perpetual protection). In addition, in copyright law, the term can also be said to be based on the right to free speech, and thus, should not be capable of being overridden. This rationale is the same for the sui generis right. Therefore, the limit of the sui generis right term should be made imperative in the case of sole-source databases.

What about the exhaustion principle? Landes and Posner did not analyze the question of exhaustion. However, it can be said that to restrict or eliminate transfers would block trade and be economically inefficient. Preventing application of the exhaustion principle through contracts would mean economic standstill. If persons were barred from transferring copies, the freedom of commerce would be deeply affected. It would mean the end of second-hand bookshops, a prohibition on making gifts, and, in some cases, even the end of commercial deals (just think of the markets for sculptures and paintings). In any case, it seems that it is illegal to override this intellectual property principle in at least two ways. First, some national courts have held that it was illegal to override it. Twice, for example, the Dutch Supreme Court has ruled that a restriction preventing redistribution of a work in contradiction with the exhaustion principle was ineffective.\(^ \text{116}\) German courts have handed down similar decisions on the basis of a higher principle established in the federal constitution.\(^ \text{117}\) Second, it seems that restrictions concerning

\(^{115}\) See GUIBAULT, supra note 9, at 6; Buydens & Dusollier, supra note 71, at 13; Vinje, supra note 71, at 192–94.

\(^{116}\) Stemra/Free Record Shop B.V., Hoge Raad der Nederlanden [HR] [Supreme Court of the Netherlands], 20 november 1987, NJ 1988, 280 (ann. LWH) (Neth.); N.V. Drukkerij "de Spaarnestad"/Leesinrichting "Favoriet," Hoge Raad der Nederlanden [HR] [Supreme Court of the Netherlands], 25 januari 1952, NJ 1952, 95 (ann. DJV) (Neth.); see GUIBAULT, supra note 9, 222–23.

\(^{117}\) Landgericht München [LG München] [Munich Trial Court] June 9, 1983, 85 Gewerblicher Rechtsschutz und Urheberrecht [GRUR] 763, 1983 (F.R.G.). Later courts confirmed this decision, which concerned a notice preventing persons from renting a sound recording. Id. at (763). The court of first instance ruled that the copyright owner cannot prevent the renting of a work put on the market by that owner. Id. at (764). Under Article 27(1) of the German copyright law, however, rights holders are entitled to receive remuneration for the rental. Id. The federal supreme court opined that if a rights holder were able to prevent the further distribution of the works, it would impede the free circulation of goods in an unacceptable manner. Id. The explanatory memorandum to the German copyright law bill of 1965 stated that the legislature did not
exhaustion of any intellectual property right would run afoul of the principle of free movement of goods and services as established in Articles 28 and 29 of the EC Treaty.118

In conclusion, the producer of a sole-source database should not be able to extend the term of sui generis protection or eliminate or restrict the principle of exhaustion. Those limits need to be made imperative in legislation, and the Database Directive should be revised to this effect.

B. Contractual Protection of Databases Not Protected by the Sui Generis Right

The second question this Article attempts to answer is whether it is economically efficient, and therefore not overprotective, that a database maker be allowed to contractually protect a database that is not protected by the sui generis right, either because it was protected but has now fallen in the public domain, or because it does not meet the requirements to be protected by the sui generis right. The same distinction between multiple-source and sole-source databases must be made.

1. Multiple-Source Databases

A database producer protecting a multiple-source database by any type of contract will face competition because the data remains freely available. The situation will be exactly the same for databases that have fallen into the public domain and those that cannot be protected by the sui generis right. Competition will drive prices down, and conditions will be reasonable. Again, there may be collusions between producers of similar databases to fix prices or conditions, but this is regulated by Article 81 of the EC Treaty.119 There will be no overprotection.

2. Sole-Source Databases

If a sole-source database once was protected but now has fallen into the public domain, it is, by definition, available to anyone, and the situation is similar to that of a multiple-source database described above. But if the sole-source database cannot be protected by the sui generis right, the database producer is a monopolist. Two situations can be identified. First, a database may have required some investment but not enough to trigger the sui generis right. This situation will be rare, but not impossible, since the requisite level of investment is rather low.120 Second, the database may not have required any investment. This is

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118. EC Treaty, supra note 102, arts. 28–29.
119. Id. art. 81.
120. For a discussion, see Estelle Derclaye, Database Sui Generis Right: What Is a Substantial
the case of most spin-off databases that are by-products of a principal activity. Well-known examples of such databases include football and horse-racing fixtures like those in the Fixtures Marketing and British Horseracing Board cases. Other examples include television listings, event schedules, and train and plane timetables. In those cases, a distinction must be made between fully negotiated and adhesion contracts. With a fully negotiated contract, the sole-source database producer does not bind third parties, so it is not adequately protected. Anyone can reproduce the information except the contracting party, and thus no fear of overprotection exists. Using an adhesion contract, however, will amount to private legislation as strong as an intellectual property right. Therefore, if such a contract overrides the limits of the sui generis right, it will be overprotective.

It should be noted, however, that it seems contrary to the economics of information goods combined with the human rights approach to allow producers of databases that have not required any investment to get protection similar to intellectual property rights through adhesion contracts. Because the database producer has not invested, it does not deserve protection as an incentive to create a database. The database is a mere by-product of an activity for which the producer receives compensation. For instance, a television company’s aim is to organize programs, i.e., to decide which program is shown at which time. Program listings are a result of this activity. The television company receives financial compensation for showing programs through, for example, television licenses and advertising. Thus, its investment is recouped. Allowing such database producers to get sui generis right protection for their data is rewarding them for an effort they have not made. It is overprotecting them and prevents the public from having access to these data. This conclusion is in line with the economic analysis of information goods and the Database Directive, the aim of which is to promote and protect investment. If a sole-source database has not required an investment, it does not deserve protection, be it by intellectual property right or by contractual protection amounting, in effect, to such a right.


122. Of course, this leaves intact contractual protection by confidence (or trade secret protection as it is called in the United States).
V. THE UNITED STATES

As introduced earlier, American producers of uncopyrightable databases can and often do use contracts to secure protection of their compilation efforts. Parties to a contract have complete freedom as to their contract’s content, so long as it does not breach competition law, the law on unfair contract terms, or constitutional rights and is not abusive. Therefore, provided (as is assumed here) that American database producers do not breach any of those laws, they can secure absolute protection of their database. For example, producers can protect a database that has not required any investment; prohibit the use of insubstantial parts; prohibit the use of substantial parts for teaching, research, or other purposes; prohibit further transfers of the database; or secure indefinite protection. Contracts providing for such protections can be called restrictive since they bypass the limits of a hypothetical American intellectual property right comparable to the European sui generis right. The question is whether such restrictive contracts overprotect American database producers. The same distinction made in Part IV between fully negotiated and adhesion contracts must be made here.

A. Fully Negotiated Contracts

Fully negotiated contracts, even if they are restrictive, will never be overprotective. In fact, they always will be underprotective. Because of the privity principle, such contracts do not bind third parties. Unlike intellectual property rights, they lack *erga omnes* power. Since such contracts do not bind subsequent users, they underprotect the database producer because they do not allow producers to act against third parties who reproduce or make available the whole or substantial parts of the protected database. This is valid for both sole-source and multiple-source databases.

B. Adhesion Contracts

As observed in Part IV.A, adhesion contracts are extremely close, if not identical, to rights against the world and can be said to constitute private legislation similar to state law. Therefore, they can be said to be as efficient as intellectual property rights and more so if they override the limits of intellectual property rights. So long as database producers do not override the limits of a potential right similar to the sui generis right in their adhesion contracts, such contracts can, at this stage, be seen as a good alternative to specific database legislation.

A distinction must now be made between producers of sole-source and

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123. Guibault, supra note 9, at 194–96.

multiple-source databases. In the case of a multiple-source database, by
definition there will be competition in the market, and the adhesion contract
will not override the limits of adequate database protection. But in the case of
a sole-source database, chances are high that the contract will override those
limits. Database producers in monopoly positions know that end-users have no
choice but to accept conditions because they lack substitute products. In this
case, contractual protection will be overprotective.

In either case, though, adhesion contracts that provide database protection
equivalent to copyright and, a fortiori, those that provide even more protection
may be preempted by § 301 of the Copyright Act. Courts are split on this
issue, \(^{125}\) which makes the availability of contract law as a means to protect
databases very unreliable. In addition, even if such contracts survive
preemption by § 301, they still must survive preemption by the Supremacy
Clause. \(^{126}\) Until the Supreme Court rules on these issues, the law is
uncertain. \(^{127}\)

Thus, fully negotiated contracts underprotect databases while most
adhesion contracts overprotect databases, though the federal and constitutional
validity of adhesion contacts overriding copyright limits in the United States
remains uncertain.

VI. CONCLUSION
Because competition (potentially) will exist in markets for preexisting
data, there will be no overprotection problems with databases protected or not
protected by the sui generis right (or a potential equivalent right in the United
States), the data of which are preexisting. This is because such data are
available to anyone, and anyone can make a database from them. Thus, the
law need not specifically provide that limits to the sui generis right must be
made imperative for multiple-source databases. The market will regulate

\(^{125}\) There are two main conflicting precedents. *Compare* Vault Corp. v. Quaid Software Ltd., 847 F.2d
255 (5th Cir. 1988) (holding that state law overriding copyright limits and shrink-wrap license based on it was
preempted), *with* ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (holding that shrink-wrap license
protecting uncopyrightable database by restricting use of the database to noncommercial purposes was not
preempted because contracts grant rights different from rights granted by the Copyright Act), and Bowers, 320
F.3d at 1337 (shrink-wrap license prohibiting reverse engineering of copyrighted software not preempted).
*See also* Lemley, *IP and Shrinkwrap Licenses*, *supra* note 92, at 1256.

\(^{126}\) In *ProCD*, the court did not analyze the issue. If the analysis in *Vault* were applied to *ProCD*’s
facts, the license may well have been preempted under the Supremacy Clause. *Guihault*, *supra* note 9, at 235
(citing Nimmer et al., *supra* note 92, at 63; Karjala, *supra* note 92, at 540). This is because ProCD was
restricting the use of facts that both the Supreme Court (in the *Feist* case) and Congress (in the Copyright Act)
decided to leave unprotected. *Id.*

\(^{127}\) *ProCD* influenced the drafting of the Uniform Computer Information Transactions Act (UCITA).
*Guihault*, *supra* note 9, at 233. This proposed uniform law allowed enforceability as a matter of contract law
for adhesion contracts, including shrink-wrap licenses like the one used by ProCD. As far as the issue of
preemption is concerned, § 105(a) of the UCITA merely provided that “a provision of this Act which is pre-
empted by federal law is unenforceable to the extent of the pre-emption” and thus left it to the courts to
regulate the issue of preemption of breach of contract claims dealing with intellectual property rights. *Id.* at
233. Only two states enacted the UCITA, which its sponsors subsequently abandoned. A new proposal is
under consideration, but the issue of preemption is also unclear. *See* Peter B. Maggs, *The Effect of Proposed
itself. Accordingly, Article 15 of the Database Directive should be revised to apply only to sole-source databases protected by the sui generis right. A similarly worded provision should be included in any future American bill on database protection.

As for sole-source databases, three situations must be distinguished. If the database has fallen into the public domain, no problem of overprotection may occur since there will be competition in the market. If the sui generis right protects the database, it should be made unlawful for any contract to override the limits of that right. In this case, therefore, the Database Directive must be revised to render all such limits imperative. Similarly, any potential U.S. bill on database protection should render the same limits imperative. If the database cannot be protected by the sui generis right (or a potential equivalent right in the United States), either because the investment is not substantial or because there is no investment, only adhesion contracts overriding the limits of the sui generis right will be overprotective. As such, the Database Directive and any potential U.S. bill on database protection should include a provision to avoid this scenario.

128. Such limits also include the additional exceptions of news reporting and criticism or review, which the Database Directive also should be revised to include. See supra Part III.B.