

THE PROTECTION OF DATABASES

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I. THE PROTECTION OF DATABASES IN INTERNATIONAL NORMS	1111
A. <i>The Berne Convention</i>	1111
1. Collections	1112
2. Originality	1113
B. <i>The TRIPS Agreement</i>	1115
C. <i>The WIPO Copyright Treaty</i>	1117
D. <i>A WIPO Treaty on the Legal Protection of Databases</i>	1118
II. THE PROTECTION OF DATABASES IN NATIONAL AND REGIONAL NORMS	1119
A. <i>Europe</i>	1119
1. The European Union Directive	1119
a. <i>Directive Basics</i>	1119
b. <i>Infringement</i>	1123
c. <i>Exceptions</i>	1124
d. <i>Applicability to Foreign Databases</i>	1125
e. <i>British Horseracing and the Spin-off Theory</i>	1126
2. EU Member States	1128
a. <i>Britain</i>	1128
b. <i>Germany</i>	1130
c. <i>Italy</i>	1131
d. <i>Netherlands</i>	1131
B. <i>United States</i>	1133
1. <i>Feist</i>	1133
2. <i>Life After Feist</i>	1134
3. <i>Misappropriation</i>	1137
a. <i>INS and Its Progeny</i>	1137
b. <i>Congressional Efforts</i>	1139

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4. Constitutional Issues	1143
5. Other Forms of Protection	1148
<i>C. Australia</i>	1149
<i>D. Canada</i>	1150
<i>E. China</i>	1154
<i>F. Nigeria</i>	1155
<i>G. Russian Federation</i>	1156
<i>H. Singapore</i>	1157
III. CRITICISMS	1157

“That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density in any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, in nature, be a subject of property. Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of the society, without claim or complaint from anybody.”

—Thomas Jefferson, Letter to Isaac McPherson (Aug. 13, 1813)**

“Information Wants To Be Free. Information also wants to be expensive. . . . That tension will not go away.”

—Stewart Brand, *The Media Lab: Inventing the Future at MIT*

INTRODUCTION

A shouting match was overheard in the corridors of a small building overlooking the Berlymont in Brussels’s “European Quarter” circa 1995. “I have a right to this information,” said a woman. A man answered, “I have a right in this information.” Prepositional vagaries notwithstanding (after all, this was Eurospeak), the exchange illustrates the irreconcilable differences at play. Scientists, consumers, students, and many others believe that information should be “free” because the building blocks of pro-

** This is of course a “top 20” quote in IP-related articles. However, the quote is usually limited to the first two sentences. The third sentence is also relevant.

gress and knowledge are made of pre-existing knowledge. Looking at them from across the ring, database producers want a return on their investment in making that information available to them and to prevent its use in a manner that would compete with the producers' service.

The protection of databases is a fascinating topic in international intellectual property law for at least three reasons. First, it illustrates the "flexibilities" of international norms, in particular the TRIPS Agreement,¹ resulting from the absence of (explicit) definitions of fundamental notions such as originality. Second, it is a good example of the perils of establishing *sui generis* rights, which necessarily implies, from a policy perspective, unknowns such as the impact on existing forms of protection (in this case, copyright) and other unintended effects. Third, the protection of "facts" by intellectual property is a powerful argument for those who criticize the overreach of intellectual property, especially on the Internet. In this paper, I will consider the first and second issues.

The paper is divided into three parts. The first presents the current status of database protection in international norms contained in the Berne Convention,² the TRIPS Agreement, and the World Intellectual Property Organization ("WIPO")³ Copyright Treaty.⁴ Part II surveys national and regional legal systems, namely the European Union and some of its member States, the United States, Australia, Canada, China, Korea, Nigeria, Russia, and Singapore. The third part discusses the critiques leveled at database protection. The conclusion looks at the future of *sui generis* and copyright protection of databases.

I. THE PROTECTION OF DATABASES IN INTERNATIONAL NORMS

A. *The Berne Convention*

There is no explicit protection of collections of data in the Berne Convention, nor does it contain a definition of the notion of originality. Still, much can be reaped from what the Convention drafters sowed, both in the

1. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994) [hereinafter TRIPS Agreement].

2. Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, as revised at Paris, July 24, 1971, S. TREATY DOC. NO. 99-27, 116 U.N.T.S. 3 [hereinafter Berne Convention].

3. See World Intellectual Property Organization, <http://www.wipo.int> (last visited Mar. 25, 2007).

4. World Intellectual Property Organization Copyright Treaty, Dec. 20, 1996, S. TREATY DOC. NO. 105-17, 36 I.L.M. 65 (1997) [hereinafter WCT].

text of the Convention and in the records of the Diplomatic Conferences at which the Convention was updated and amended.

1. Collections

Article 2(5) of the Berne Convention states that “collections of literary or artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations” are protected “as such.”⁵ This article could be interpreted according to the *expressio unius est exclusio alterius* rule as not imposing on member States an obligation to protect collections of subject matter other than copyright works. However, the Convention imposes minimum obligations on States, and the application of the above rule would thus seem inapplicable, as it would result in the imposition of ceilings, as well as a normative floor. As Professors Ginsburg and Ricketson commented, “[A]rticle 2(5) would require [collections consisting of both copyright and non-copyright subject matter] to be protected under the Convention insofar as the selection and arrangement of the literary or artistic works included in the collection constituted an intellectual creation.”⁶

The application of the Convention to collections consisting solely of non-copyrightable subject matter requires an additional interpretive step. Article 2(1) of the Convention establishes a general “principle of protection” for literary and artistic works.⁷ Because Article 2(1) uses an enumerative approach, commentators, based on the work of the drafters, have concluded that *any* subject matter resulting from “intellectual” (in this context, non-mechanical, non-trivial) selection or arrangement would be protectable under the Convention. This interpretation is compatible with the rule that collections of works no longer protected by copyright are protectable.⁸ It thus views Article 2(5) as a statement of coverage for collections of works (rather than the works themselves).⁹

While there remains some disagreement as to whether the Convention should be interpreted¹⁰ as imposing an obligation to protect collections of

5. Berne Convention, *supra* note 2, art. 2(5).

6. 1 SAM RICKETSON & JANE C. GINSBURG, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND § 8.88, at 489 (2d ed. 2006).

7. Berne Convention, *supra* note 2, art. 2(1).

8. *See* 1 RICKETSON & GINSBURG, *supra* note 6, § 8.89, at 489–90; PAUL GOLDSTEIN, INTERNATIONAL COPYRIGHT: PRINCIPLES, LAW, AND PRACTICE 175 (2001).

9. *See* 1 RICKETSON & GINSBURG, *supra* note 6, § 8.90, at 490.

10. One could think here of the potential role of a WTO dispute-settlement panel applying Article 9(1) of TRIPS, which incorporated by reference most of the substantive content of the Berne Convention into TRIPS. However, as we will see below, TRIPS explicitly added protection for collections (compilations) of data.

non-copyright subject matter, it seems fairly clear that protection of such collections is compatible with the Convention.

2. Originality

As just noted, there is no explicit definition of the concept of “originality” in international copyright treaties. In fact, the requirement that a work be “original” is not mentioned either. There are, however, several statements in records of Diplomatic Conferences¹¹ and Committees of Experts, meeting under the aegis of the World Intellectual Property Organization, that confirm the requirement that originality be present as the only applicable criteria, to the exclusion of, for example, artistic merit or purpose.¹²

There is also a strongly-held view that the Convention in fact does contain, indirectly, a definition of the concept of originality. This view is compatible with the Continental origins of the Convention, which led to a number of “obvious” things being left out of the text. For example, the most basic copyright right, the right of reproduction, was only added to the Convention at its sixth revision in 1967.¹³ As mentioned above, collections¹⁴ protected under Berne (whether or not one accepts the extension of the protection to collections of subject matter other than works) are only protected if, “by reason of the selection and arrangement of their contents,”

11. While international meetings of this nature are not normative in nature, their findings are relevant as doctrinal input and in certain cases may reflect an existing international custom. *See* Statute of the International Court of Justice, June 26, 1945, art. 38(1)(b), 59 Stat. 1055, 1060, 3 Bevens 1179, 1187. The history of the Convention was also used extensively by a WTO dispute-settlement panel to interpret provisions of the Convention that were incorporated by reference into the TRIPS Agreement. *See* Panel Report, *United States—Section 110(5) of the U.S. Copyright Act*, ¶¶ 6.43–46, WT/DS160/R (June 15, 2000) [hereinafter Section 110(5) Panel Report].

12. The first statement on originality was made during the Revision Conference of the Berne Convention held at Rome from May 7 to June 2, 1928. The Acts of this conference were originally published only in French, but WIPO published an English translation of the records of all Berne revision conferences on the occasion of the centenary of the Berne Convention. *See* WORLD INTELLECTUAL PROP. ORG., 1886–1986: BERNE CONVENTION CENTENARY (Arpad Bogsch ed., 1986). In the General Report, rapporteur Edoardo Piola Caselli wrote,

The protection enjoyed by other works of art should be reserved for cinematographic productions which meet the requirements of originality laid down in paragraph (2) [of Article 14]. In order to show clearly that the only requirement concerned here is that of the originality with which every work of the mind must be endowed

Id. at 174.

13. *See* CLAUDE MASOUE, GUIDE DE LA CONVENTION DE BERNE POUR LA PROTECTION DES OEUVRES LITTÉRAIRES ET ARTISTIQUES [GUIDE TO THE BERNE CONVENTION FOR THE PROTECTION OF LITERARY AND ARTISTIC WORKS] 54 (1978).

14. The term “collections” is the official translation of the French “*recueils*.” *See* Berne Convention, *supra* note 2, art. 37(1)(c) (“In case of differences of opinion on the interpretation of the various [linguistic versions], the French text shall prevail.”). Interestingly, that article was not incorporated by reference into TRIPS. As Ricketson and Ginsburg note, another translation of “*recueils*” would be “compilations.” 1 RICKETSON & GINSBURG, *supra* note 6, § 8.86, at 485–86.

they “constitute intellectual creations.”¹⁵ It is certainly permissible to argue, therefore, that if the criteria of selection and arrangement and their link to the notion of “intellectual creation” are only mentioned in respect of collections, it may very well be because “it was only thought necessary to make this explicit in the case of collections, because the authorship inherent in the collection, as opposed to that in the works collected, may not be as readily discernible.”¹⁶

This interpretation is supported by the Convention’s negotiating history, as the three following illustrations will show. First, the General Report of the Berne Convention Revision Conference held in Brussels in 1948, which stated,

You have not considered it necessary to specify that those works constitute intellectual creations because . . . if we are speaking of literary and artistic works, we are already using a term which means that we are talking about personal creation or about an intellectual creation within the sphere of letters and the arts.¹⁷

Second, a WIPO Committee of Experts concluded that the term “work” was synonymous with “intellectual creation,” noting also that an intellectual creation should contain “an original structure of ideas or impressions.”¹⁸ In its Memorandum for the meeting of the Committee of Experts, the International Bureau of WIPO explained,

Although this is not stated explicitly in Article 2(1) of the Berne Convention, the context in which the words “work” and “author” are used in the Convention—closely related to each other—indicates that only those productions are considered works which are *intellectual creations* (and, consequently, only those persons are considered authors whose intellectual creative activity brings such works into existence). This is the first basic element of the notion of literary and artistic works.

The records of various diplomatic conferences adopting and revising the Berne Convention reflect that the reason why Article 2(1) of the Convention does not state explicitly that works are intellectual creations

15. Berne Convention, *supra* note 2, art. 2(5).

16. 1 RICKETSON & GINSBURG, *supra* note 6, § 8.87, at 488.

17. BERNE CONVENTION CENTENARY, *supra* note 12, at 179.

18. *Report of Committee of Experts on Model Provisions for Legislation in the Field of Copyright, First Session*, ¶ 78, WIPO Doc. CE/MPC/I/3 (Mar. 3, 1989). The Committee Report also states, [O]riginality [is] part of the definition of “work” and . . . a reference to it should be included in Section 2(1) The idea of providing a definition of the concept of “work” was, however, opposed by a number of participants; it was felt that that question should rather be left to national legislation and/or to the courts.

Id.; see also DANIEL GERVAIS, LA NOTION D’OEUVRE DANS LA CONVENTION DE BERNE ET EN DROIT COMPARÉ 45–49 (1998).

is that that element of the notion of works was considered to be evident.¹⁹

Third, in the early work on what would become the WIPO Copyright Treaty, the WIPO Secretariat wrote,

It is not stated explicitly in Article 2(1) of the Berne Convention, but the records of the various diplomatic conferences adopting and revising the Berne Convention—and, in respect of collections, also the text (Article 2(5)) of the Convention itself—indicate that the “productions” considered works are those which constitute original intellectual creations.²⁰

It thus seems justified to conclude that the concept of intellectual creation “is an implicit requirement as regards other works protected under article 2,”²¹ and that it applies to all copyright works. The Convention also tells us that selection *or*²² arrangement generates originality. Selection “would cover the choice of works” while “arrangement” involves “the delicate task of deciding how to present the collection.”²³ In both cases, then, originality stems from choices made by the author. To constitute a creation, one could infer that the choices should be more than trivial, banal, or mechanical in nature.

As we will see when discussing the WIPO Copyright Treaty below,²⁴ those conclusions were reaffirmed on several occasions in more recent WIPO work.

B. The TRIPS Agreement

Article 10(2) of the TRIPS Agreement states that

[c]ompilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be

19. Int'l Bureau of the World Intellectual Prop. Org., *Comments on the Draft Model Provisions for Legislation in the Field of Copyright*, ¶¶ 51–52, WIPO Doc. CE/MPC/1/2-III (Oct. 20, 1988).

20. Int'l Bureau of the World Intellectual Prop. Org., *Questions Concerning a Possible Protocol to the Berne Convention*, ¶ M22, WIPO Doc. BCP/CE/III/2-II (Mar. 12, 1993). As Dr. Ficsor noted, At the first session of the Committee [of experts working on a possible protocol to the Berne Convention—which would become the WCT], the majority of experts agreed that collections of mere data or other unprotected material should be protected by copyright in the same way as collections of literary and artistic works, provided there was originality in the selection, coordination or arrangement of the data or materials.

MIHÁLY FICSOR, *THE LAW OF COPYRIGHT AND THE INTERNET: THE 1996 WIPO TREATIES, THEIR INTERPRETATION AND IMPLEMENTATION* § C5.01, at 480 (2002).

21. See 1 RICKETSON & GINSBURG, *supra* note 6, § 8.87, at 488.

22. The French text, which applies in case of a discrepancy among versions, see *supra* note 14, uses “*ou*” not “*et*.”

23. 1 RICKETSON & GINSBURG, *supra* note 6, at § 8.87, at 488.

24. See *infra* Part I.C.

without prejudice to any copyright subsisting in the data or material itself.²⁵

Article 10(2) thus confirms the interpretation of the Berne Convention, discussed above, according to which copyright protects original compilations of factual and other databases.

The TRIPS language is similar to that of Article 2(5) of the Berne Convention, which should serve as a basis for its interpretation. In other words, TRIPS should be interpreted as having imported the originality standard of Berne.²⁶ That being said, the TRIPS provision is broader in scope than Article 2(5) of the Berne Convention, which applies strictly to collections of literary and artistic works.

In light of the dominant interpretation of the Berne Convention, which sees Article 2(5) as explaining or clarifying the principle of protection established in Article 2(1),²⁷ the criteria used in Article 10(2) of TRIPS may be said to codify existing copyright protection.²⁸ It simply makes clear that *any* original compilation is protected by copyright. Neither the nature of the material compiled nor the form (electronic or not) matters.²⁹

It must be borne in mind that the protection of collections is *extrinsic* in nature, in that it applies to the intellectual effort in the choice or the structure (arrangement) of the data or other subject matter. Article 10(2) states the usual rule in this connection (also found, for example, in Articles 14 and 2(5) of the Berne Convention) that copyright in pre-existing material is not affected by inclusion in a database. In other words, where such material is reproduced in a database, authorization of the rightholder will be required (unless a valid exception applies).

Finally, the phrase in Article 10(2), “which . . . constitute intellectual creations shall be protected as such”—taken from Article 2(5) of the Berne Convention—may be explained as stating simply that compilations passing

25. TRIPS Agreement, *supra* note 1, art. 10(2).

26. As noted by a dispute-settlement panel, the incorporation by reference of Articles 1 to 21 of Berne into TRIPS (except moral rights) means that the Berne *acquis*—its history and records of Berne diplomatic conferences—also form part of TRIPS. See Section 110(5) Panel Report, *supra* note 11, ¶ 6.63 (concluding “that, in the absence of any express exclusion in Article 9.1 of the TRIPS Agreement, the incorporation of Articles 11 and 11bis of the Berne Convention (1971) into the Agreement includes the entire *acquis* of these provisions, including the possibility of providing minor exceptions to the respective exclusive rights”).

27. See *supra* notes 7–9 and accompanying text.

28. See MICHAEL BLAKENEY, TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS: A CONCISE GUIDE TO THE TRIPS AGREEMENT 50 (1996); Elina Mangassarian, *Technological Trends and the Changing Face of International Intellectual Property Law*, 11 INT’L LEGAL PERSP. 125, 131 (1999–2001).

29. See FICSOR, *supra* note 20, at § C5.03, at 481 (“[This provision] is not restricted by any reference to the use of computers for the creation and/or operation of databases, it extends to both ‘electronic’ and ‘traditional’ collections and compilations . . .”).

the test are protected as literary and artistic works, since the expression “intellectual creation” may be deemed to be synonymous with “literary and artistic works.”³⁰

There was thus no significant departure in TRIPS from the dominant interpretation of the Berne Convention with respect to compilations of material other than copyright works, which Article 10 of TRIPS essentially codified in international copyright law.

C. *The WIPO Copyright Treaty*

Article 5 of the WIPO Copyright Treaty (“WCT”) states, Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation.³¹

This article is accompanied by an “Agreed Statement” adopted by the Diplomatic Conference that reads as follows: “The scope of protection for compilations of data (databases) under Article 5 of this Treaty, read with Article 2, is consistent with Article 2 of the Berne Convention and on a par with the relevant provisions of the TRIPS Agreement.”³²

The filiation of the WCT provision is clear. The drafters did not want to depart radically from either the Berne text or its TRIPS cousin. They did, however, use the WCT to “clarify” the extant norms. In fact, when work began on a possible protocol to the Berne Convention in the early 1990s,³³

it was found [by the WIPO Committee of Experts] that compilations of works were already protected as collections under Article 2(5) of the Berne Convention, while those compilations of data or other unprotected material that due to their selections, coordination or arrangement are original should be protected as literary or artistic works under Article 2(1) (which includes a *non-exclusive* list of protected works, under which all original productions in the literary and artistic domain should be protected).³⁴

30. See *supra* note 20 and accompanying text.

31. WCT, *supra* note 4, art. 5.

32. *Id.* art. 5 n.4.

33. The protocol became a separate treaty, known as the WIPO Copyright Treaty. A main reason that WIPO member States opted for a separate instrument rather than an amendment or revision of Berne itself is the rule contained in article 27(3) of the Convention, which requires unanimity of votes cast at a revision conference. See Berne Convention, *supra* note 2, art. 27(3). With over 90 member States at the time (there were 162 as of May 30, 2006, according to WIPO’s website, see *supra* note 3) unanimity on any topic is unlikely to be achieved.

34. FICSOR, *supra* note 20, at § C5.01, at 480.

After the initial meetings on the possible protocol, during which the above view was “agreed” by a majority, the TRIPS Agreement was adopted. The Committee then had to measure the impact of its new Article 10(2). It decided that, in harmony with the adoption of TRIPS in 1994, the protocol should include a provision to “make clear that compilations of data or other material, including data bases, whether in machine-readable or other form, which, by reason of the selection or arrangement of their contents constitute intellectual creations, are protected under copyright as works.”³⁵ As Dr Ficsor noted, this went beyond what had been originally envisaged for the possible protocol.³⁶

The language of Article 5 of the WCT is not identical to Article 10(2) of TRIPS. The phrase, “in machine-readable and other form,” which has a certain antiquated feel, was replaced by the simpler “in any form.” That difference does not seem to imply a different interpretation, however. Another difference is while TRIPS states that original compilations “shall be” protected, the WCT declares simply that they “are.” Dr Ficsor prefers the WCT language (not entirely surprisingly) because it makes clear that no *new* obligation is involved. This could, in theory, impact pre-TRIPS databases, but it seems that by now the issue is largely moot.

In summary, international norms now impose on most countries³⁷ an obligation to protect original compilations, whether of copyright works or other subject matter. The protection is predicated on the presence of non-trivial, non-mechanical choices made by the compiler/author in selecting or arranging the compilation’s contents. This protection is without prejudice to any pre-existing copyright in the contents and does not include an obligation to create a right in non-original databases.³⁸

D. A WIPO Treaty on the Legal Protection of Databases

In 1996 a WIPO Diplomatic Conference was convened to consider the adoption of an international *sui generis* regime for database protection. The Preamble to the draft treaty had the following as one of its aims:

35. Int’l Bureau of the World Intellectual Prop. Org., *Questions Concerning a Possible Protocol to the Berne Convention*, ¶ 27, WIPO Doc. BCP/CE/IV/2 (Oct. 5, 1994).

36. See FICSOR, *supra* note 20, at § C5.03, at 481 (“The scope of this provision is much broader than what was originally intended to be covered at the beginning of the preparatory work in the Berne Protocol Committee.”). Dr Ficsor also notes that because the Berne Convention was interpreted—by combining Articles 2(1) and 2(5)—as already protecting original collections of subject matter other than strictly copyright works, TRIPS contains a certain element of redundancy. *Id.*

37. That is, those that are parties to the Berne Convention (and the WCT) and/or members of the World Trade Organization.

38. See FICSOR, *supra* note 20, at § C5.05, at 482.

[T]o establish a new form of protection for databases by granting rights adequate to enable the makers of databases to recover the investment they have made in their databases and by providing international protection in a manner as effective and uniform as possible.³⁹

The proposal protected databases irrespective of form or medium when a quantitatively or qualitatively substantial investment of human, financial, technical, or other resources was made to collect, assemble, verify, organize, or present the contents of a database. The maker of a protected database would have been granted a right against extraction and utilization of the contents, where utilization was defined as the making available to the public of all or a substantial part of the database.⁴⁰ The term of protection would have been either 15 or 25 years.⁴¹

The draft was the subject of harsh criticism, from pleas against the commodification of information to fears about proprietary control over scientific information.⁴² The draft treaty was not adopted and remains in limbo.

II. THE PROTECTION OF DATABASES IN NATIONAL AND REGIONAL NORMS

A. *Europe*

1. The European Union Directive

a. *Directive Basics*

The Head of the unit in the Directorate-General responsible for copyright policy at the time of the preparation of the European Union Directive

39. See WIPO Committee of Experts, *Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases to be Considered by the Diplomatic Conference*, pmbl., WIPO Doc. CRNR/DC/6 (Aug. 30, 1996) [hereinafter WIPO Database Proposal].

40. See *id.* art. 2(vi). The idea of allowing States party to an intellectual property treaty to choose a form of protection from a “menu” is not new. See Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms, art. 3, Oct. 29, 1971, 25 U.S.T. 309, 326, 866 U.N.T.S. 67.

The means by which this Convention is implemented shall be a matter for the domestic law of each Contracting State and shall include one or more of the following: protection by means of the grant of a copyright or other specific right, protection by means of the law relating to unfair competition, protection by means of penal sanctions.

41. See WIPO Database Proposal, *supra* note 39, art. 8.

42. See Taiwo A. Oriola, *Electronic Database Protection and the Limits of Copyright: What Options for Developing Countries?*, 7 J. WORLD INTELL. PROP. 201, 226–27 (2004). Further criticisms of the *sui generis* right will be discussed in Part II.

on the legal protection of databases⁴³ apparently decided to introduce a *sui generis* right in the draft after reading *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*⁴⁴ In fact, one commentator compared the Directive to an “antidote” to *Feist*.⁴⁵ Whatever view one may take on this topic, it seems undeniable that the introduction of a *sui generis* right in databases is an attempt to go beyond (some might say, circumvent) the limited reach of copyright caused by the originality/creativity requirement: if labor alone will not suffice to generate copyright protection, to protect the substantial time and money invested in the creation and maintenance of a large database *erga omnes* inevitably leads to “thinking outside the copyright box.”⁴⁶

The Directive essentially does two things: it confirms the application of copyright to compilations of data and creates a non-copyright, *sui generis* right in databases to protect the investment of the database maker.⁴⁷

In what could be read as confirming the interpretation proposed above that the Berne Convention’s provision on collections of works is but an explanation of a principle of protection that applies to all collections/compilations, whether of works or other material (including “data”),⁴⁸ the Directive begins by defining a database as a “collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.”⁴⁹ So, three criteria must be fulfilled: (a) the existence of a collection of independent mate-

43. Council Directive 96/9/EC, 1996 O.J. (L 77) 20 [hereinafter Directive].

44. 499 U.S. 340 (1991); see also Julie Wald, Note, *Legislating the Golden Rule: Achieving Comparable Protection Under the European Union Database Directive*, 25 FORDHAM INT’L L.J. 987, 1028 n.186 (2002); *infra* Part II.B.1.

45. See Mark Powell, *The European Union’s Database Directive: An International Antidote to the Side Effects of Feist?*, 20 FORDHAM INT’L L.J. 1215 (1997).

46. Of course, as will be discussed below in Part III, this does not mean that the empirical data to support the need for such a right exists beyond a reasonable policy doubt.

47. The grant of an intellectual property right on the basis of pure investment is not new. The related right of phonogram producers comes to mind. It has allowed producers to collect remuneration from broadcasters. If a natural right basis seems harder to argue (though it could apply to certain performances), it can be seen as a right based on fairness. Others might argue against such a claim on the basis of the free advertising that producers get when their music is played (a view confirmed by the payola system). The producer’s right may be more properly characterized as a policy decision to transfer money from the broadcasting industry to the recording industry, with a view to increasing the production of music.

48. See *supra* Part I.A.1.

49. See Directive, *supra* note 43, art. 1(2); see also Estelle Derclaye, *What Is a Database? A Critical Analysis of the Definition of a Database in the European Database Directive and Suggestions for an International Definition*, 5 J. WORLD INTELL. PROP. 981, 982 (2002) (“An appropriate definition of a database must take into account three interests: the producers’ interests; the users’ interests; and the general public interest as a whole. This rationale is at the basis of copyright law, and of intellectual property in general.”).

rials,⁵⁰ (b) the materials must be arranged in a systematic or methodical way, and (c) the materials must be individually accessible.⁵¹ There is no requirement that the database be in “electronic form.”⁵²

In an acknowledgement of the concept of intellectual creation that undergirds the Berne Convention,⁵³ the Directive defines authorship criterion as the result of personal intellectual creativity.⁵⁴ The concept is probably new in certain common law jurisdictions and seems to indicate that comprehensiveness of a database will not suffice to obtain copyright protection.⁵⁵ In fact, the exact opposite (i.e., selection) may be required. This is why “more than copyright” was required. As Professor Grosheide explains, “[W]hat the database producers are really seeking is protection of the raw information. However, a generally accepted principle of copyright law dictates that data and information have free reign.”⁵⁶

The second part of the Directive defines a *sui generis* right against extraction or reutilization of the contents of the database.⁵⁷ The right can be layered over copyright protection in the same database.⁵⁸ It lasts for fifteen

50. See Derclaye, *supra* note 49, at 986.

Working from [the Directive’s] Recital 17’s own words, one can see at least two reasons that require that the constitutive elements of a database be independent. . . . First, a database’s aim is to enable users to search the database in many different ways, it is not meant to be “read”, i.e. used in a linear way. There is no end or beginning to a database. There is no mandatory chronological sequence of elements. Second, databases are flexible, stretchable; it is easy and frequent to add to or withdraw elements from them. Additionally, these withdrawals or additions will not alter or change a database’s coherence. With these two characteristics in mind, it is possible to perceive that “independent” materials can only be materials which are valuable on their own, because of the information they carry; information which is considered in some way to be “complete” information. Put in other terms, “independent” means that an element makes sense by itself; its meaning does not depend on another element or another piece of information. It would not be information if it did not make sense by itself.

51. See Antoine Masson, *Creation of Database or Creation of Data: Crucial Choices in the Matter of Database Protection*, 28 EUR. INTEL. PROP. REV. 261, 263 (2006).

52. See Derclaye, *supra* note 49, at 984.

[T]he inclusion in the definition of all-form databases is of extreme importance for another reason. If analog databases were left unprotected, it would perhaps accelerate the rush for “exclusively-digital databases”. A situation in which information is only available in digital format should not be sought regardless of price. The cost of digitized material is generally higher and access is generally, and increasingly, more restricted. Also, certain consumers may remain interested in accessing databases in paper form.

53. See Berne Convention, *supra* note 2, art. 2(5).

54. See Directive, *supra* note 43, art. 3(1).

55. See WILLIAM CORNISH & DAVID LLEWELYN, *INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS, AND ALLIED RIGHTS* § 19-37 (5th ed. 2003); Jacqueline Lipton, *Mixed Metaphors in Cyberspace: Property in Information and Information Systems*, 35 LOY. U. CHI. L.J. 235, 261 (2003).

56. F.W. Grosheide, *Database Protection—The European Way*, 8 WASH. U. J.L. & POL’Y 39, 43 (2002).

57. Directive, *supra* note 43, art. 7(1).

58. See Grosheide, *supra* note 56, at 48 (noting that the original draft of the Directive contained a “noncumulation clause” but that the adopted version sees the *sui generis* right as an “extra ‘layer of protection’”). The problem may be exacerbated by terminological parallelism as well. See Jacqueline

years from either completion of the database or from the date the database first becomes available to the public,⁵⁹ and is independent of copyright protection.⁶⁰ It focuses on the contents of the database rather than its organizational structure,⁶¹ by prohibiting taking a substantial part of the database.⁶² While copyright originally belongs to the author, the *sui generis* right belongs to the “maker” of the database, defined as “the person who takes the initiative and the risk of investing.”⁶³

This definition of the rightholder provides a clear illustration of the Directive’s purpose, that is, to protect the *investment* (including in most cases “sweat of the brow”) necessary to make/update a database.⁶⁴ The underlying objective is to “promote the growth of the European database industry.”⁶⁵ To be protected, a database must be the product of qualitatively

Lipton, *Databases as Intellectual Property: New Legal Approaches*, 25 EUR. INTELL. PROP. REV. 139, 141 (2003) (“Because the whole ‘database protection’ debate grew originally out of the failings of copyright law to protect database contents as opposed to ‘original selection or arrangement’ of those contents, models for *sui generis* protection, such as the EU Database Directive, resemble copyright law somewhat in structure.”).

In the British part of the case that would later go to the European Court of Justice, *see infra* note 92 and accompanying text, Justice Laddie (as he then was) noted,

The fact that database right and copyright in databases can exist side by side and that the former is described as *sui generis* is important. Although it is apparent that there are some features of the database right which are similar to features of copyright, it must not be assumed that the former is based upon or is to be construed as a mere continuation or development of the latter and, in particular, that it is a mere variation of United Kingdom copyright law. There may be a natural tendency, particularly for those familiar with copyright, to look at database through copyright eyes, but there are significant differences between the two rights. They may have concepts in common, but, if so, that is only because those concepts happen to fit both, not because database is a species of copyright.

British Horseracing Bd. Ltd. v. William Hill Org. Ltd., [2001] 2 C.M.L.R. 12, [23], *rev’d*, [2005] EWCA (Civ) 863, 2005 All E.R. 149 (C.A. Eng.).

59. Directive, *supra* note 43, art. 10. The terms can be sequential. The fifteen year term from the date of making available can “commence at any time as long as the term of art. 10(1) [that is, fifteen years from completion] has not yet expired.” CONCISE EUROPEAN COPYRIGHT LAW 335 (Thomas Dreier & P. Bernt Hugenholtz eds., 2006). These authors also note that one could argue that the fifteen year term from completion does not require that the database be “complete,” only that it satisfy the definition of a database and that it be the result of a substantial investment. *Id.*

60. *See* Directive, *supra* note 43, recitals 38–40, 45–46.

61. Because the arrangement of the data is protected by copyright, the focus of the *sui generis* right is on non-copyrightable elements. *See* Michael Freno, *Database Protection: Resolving the U.S. Database Dilemma with an Eye Toward International Protection*, 34 CORNELL INT’L L.J. 165, 182 (2001); Grosheide, *supra* note 56, at 54.

62. *See* Directive, *supra* note 43, recital 38; *see also* CORNISH & LLEWELYN, *supra* note 55, at § 19-38; Grosheide, *supra* note 56, at 54.

63. Directive, *supra* note 43, recital 41.

64. *See id.* recitals 39–40.

65. Xuqiong (Joanna) Wu, *E.C. Database Directive*, 17 BERKELEY TECH. L.J. 571, 571 (2002); *see also* J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 73–74 (1997). As Professors Reichman and Samuelson explain,

Starting in the 1990s, the Commission of the European Communities . . . found that European database producers had to overcome several comparative disadvantages in order to expand their share of the world market and to catch up with the U.S. industry, which dominated

or quantitatively substantial investment in making the database⁶⁶ and not, as we will see below, the data.

b. Infringement

Infringement of the *sui generis* right takes place when a qualitatively or quantitatively substantial part of the database is (a) extracted or (b) reutilized.⁶⁷ The intent is to protect the maker of a database against the production of a database of (all or partly) similar content without copyright infringement.⁶⁸

Extraction refers to the “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.”⁶⁹ Extraction has been compared to the “Access-right” discussed in digital copyright debates.⁷⁰

Reutilization is defined as “any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission.”⁷¹ The right to control resale is, however, exhausted by the first sale⁷² of hard copies of a database within the European Community. The Directive also excludes public lending from the definitions of extraction and reutilization.⁷³

A separate instance of infringement provides that 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.”⁷⁴ Substantiality is apparently jettisoned and replaced by a loose version of the effects-focused three-step test.⁷⁵ Not so, says the European Court of Justice, which

the market and was growing at a faster rate than its European counterpart. To overcome these disadvantages, the Commission stressed the need for a single, integrated market, undistorted by differing regulatory approaches, and for higher levels of intellectual property protection, tailored to the needs of potential investors in database production, which might stimulate additional investment in this sector.

66. Directive, *supra* note 43, art. 7(1).

67. *Id.*

68. *Id.* recital 38.

69. *Id.* art. 7(2)(a).

70. See Laurence Kaye, *The Proposed EU Directive for the Legal Protection of Databases: A Cornerstone of the Information Society?*, 17 EUR. INTELL. PROP. REV. 583, 585–86 (1995).

71. Directive, *supra* note 43, art. 7(2)(b).

72. Sales, and not other forms of transfer.

73. One author has said that the prohibition against extraction “covers any act of appropriation and making available.” Masson, *supra* note 51, at 265.

74. Directive, *supra* note 43, art. 7(5).

75. See *infra* note 83 and accompanying text.

found that the intent behind this provision was to prevent the “reconstitution of the database as a whole or, at the very least, of a substantial part of it.”⁷⁶

Because of its lower protection threshold and broader infringement doctrines, the *sui generis* right is thus stronger than the copyright, “a rather bizarre situation given that the criteria of protection seems to be less onerous than for copyright.”⁷⁷ The right is, however, shorter in duration: the *sui generis* right lasts initially for 15 years. However, the term may be extended where there is a “substantial change . . . to the contents,” itself the result of a new substantial investment.⁷⁸ A substantial investment triggering a new term “might be nothing more than a thorough verification of its contents.”⁷⁹

c. Exceptions

Exceptions to the *sui generis* right include certain fair uses. Article 9 provides in part that member States may stipulate three exceptions:

- (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 re-utilization for the purposes of public security or an administrative or judicial procedure.⁸⁰

Article 8 provides in part that 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.”⁸¹ However, the lawful user may not “perform acts which conflict with normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker of the database,”⁸² language reminiscent of the Berne three-step test.⁸³

76. Case C-203/02, *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, 2004 E.C.R. I-10415, ¶ 87. This case is discussed in the next section.

77. LIONEL BENTLY & BRAD SHERMAN, *INTELLECTUAL PROPERTY LAW* 299 (2001).

78. See Directive, *supra* note 43, art. 10.

79. Mark J. Davison & P. Bernt Hugenholtz, *Football Fixtures, Horseraces and Spin-offs: The ECJ Domesticates the Database Right*, 27 EUR. INTELL. PROP. REV. 113, 118 (2005).

80. See Directive, *supra* note 43, art. 9 (emphasis added).

81. *Id.* art. 8(1).

82. *Id.* art. 8(2).

83. See 1 RICKETSON & GINSBURG, *supra* note 6, at §§ 13.10–26, at 763–76; Daniel J. Gervais, *Towards a New Core International Copyright Norm: The Reverse Three-Step Test*, 9 MARQ. INTELL. PROP. L. REV. 1, 13–19 (2005).

d. *Applicability to Foreign Databases*

The *sui generis* right is applied on a reciprocity basis.⁸⁴ It has been said, interestingly in light of debates in the United States since 1996,⁸⁵ that the *sui generis* right was necessary because of the absence of uniform misappropriation/unfair competition laws in the various European Union member States.⁸⁶ The purpose of granting only reciprocal (as opposed to full national treatment) protection was to extend a solution that may make sense in the European context, but not necessarily elsewhere, for example in jurisdictions that offer broad protection to low authorship works.⁸⁷ Additionally, the fact that the *sui generis* right is accorded to nationals of non-EC countries on a reciprocity basis may thus be harder to justify because unfair competition is part of the Paris Convention (Article 10*bis*)⁸⁸ and thus subject to both Paris Convention and TRIPS Agreement national treatment provisions.⁸⁹ The argument against providing automatic national treatment as compulsory under international rules is generally based on a description

84. See Directive, *supra* note 43, art. 11(3).

85. See Lipton, *supra* note 58, at 142.

86. See Directive, *supra* note 43, recital 6; see also CORNISH & LLEWELLYN, *supra* note 55, at § 19-39, at 786. Unfair competition was the basis for the initial draft. See Grosheide, *supra* note 56, at 47-48; Reichman & Samuelson, *supra* note 65, at 81.

87. Including in Europe, where the national laws of certain countries did protect those works, including alphanumerical writings in the Netherlands and the Nordic right in compilations. On the first point, see P.B. Hugenholtz, Protection of and vis-à-vis Databases: Report on the Netherlands (June 7, 1996), in COPYRIGHT IN CYBERSPACE: COPYRIGHT AND THE GLOBAL INFORMATION INFRASTRUCTURE 491 (Marcel Dellebeke ed., 1997). On the second point, see Gunnar W.G. Karnell, *The Nordic Catalogue Rule*, in PROTECTING WORKS OF FACT: COPYRIGHT, FREEDOM OF EXPRESSION AND INFORMATION LAW 67 (Egbert J. Dommering & P. Bernt Hugenholtz eds., 1991). It has been said that the Directive “copied” the protection of catalogs and non-original compilations in Nordic copyright laws, which has been in place since 1960 in Sweden, Lag om upphovsrätt till litterära och konstnärliga verk § 49 (Svensk författningssamling [SFS] 1960:729), and in Finland, 404/1961 Tekijänoikeuslaki § 49. See Hellenic Centre for Marine Research, Library Info, Copyright Permissions, http://www.hcmr.gr/english_site/library/copyright_permissions/index.html (last visited Mar. 25, 2007). This would also have been the case in the United States prior to *Feist*. See Jane C. Ginsburg, *Creation and Commercial Value: Copyright Protection of Works of Information*, 90 COLUM. L. REV. 1865 (1990).

88. Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, as revised at Stockholm, July 14, 1967, art. 10*bis*, 21 U.S.T. 1583, 828 U.N.T.S. 305.

89. See G.H.C. BODENHAUSEN, GUIDE TO THE APPLICATION OF THE PARIS CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY AS REVISED AT STOCKHOLM IN 1967, at 142-43 (1968); DANIEL GERVAIS, THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS §§ 2.40-2.44 (2d ed. 2003); see also Guido Westkamp, *TRIPS Principles, Reciprocity and the Creation of Sui-Generis-Type Intellectual Property Rights for New Forms of Technology*, 6 J. WORLD INTELL. PROP. 827, 834 (2003).

The introduction of a right via the transformation from a relative right into some proprietary form could thus violate obligations under Article 2.1 TRIPS, and thus Article 10*bis* of the Paris Convention. The issue is closely intertwined with the question of whether unfair competition principles—i.e. a specific form of protection against free-riding—exist on a global basis as *acquis* under TRIPS.

Id.

of the *sui generis* right as property-like, rather than based on unfair competition.⁹⁰

e. British Horseracing and the Spin-off Theory

The *sui generis* right applies to a substantial investment in “obtaining, verification or presentation” of the contents of the database.⁹¹ In a quartet of decisions issued on November 9, 2004,⁹² the European Court of Justice (“ECJ”) clarified the nature of the investment necessary to give rise to the *sui generis* right. Three of the cases were brought by Fixtures Marketing Ltd., and dealt with the use of lists of football fixtures (games) by betting companies in Sweden, Greece, and Finland. The other case, *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.* (“BHB”), focused on the use by a betting company in Britain (William Hill) of data provided by BHB to one of its licensees. William Hill used the dates, times, and places of horse races together with the names and numbers of horses taking part in each race to allow betting.

The ECJ clarified the meaning of key terms used in the Directive. “Presentation,” it said, refers to the “systematic or methodical arrangement of the materials . . . and the organisation of their individual accessibility.”⁹³ While the simple conversion of analog material to digital format is likely to be considered insufficient to constitute a “substantial investment,” conversion accompanied by updating and verification might very well be sufficient.⁹⁴ However, the most portentous element in the ECJ’s decisions was the separation of the investment made to *create* the data from the investment needed to *obtain, verify, or present* it. In the decision concerning the Finnish case, the ECJ stated in that connection that

[f]inding and collecting the data which make up a football fixture list do not require any particular effort on the part of the professional leagues. Those activities are indivisibly linked to the creation of those data, in which the leagues participate directly as those responsible for the organisation of football league fixtures. Obtaining the contents of a football fix-

90. See Jens L. Gaster, *The EU Council of Ministers’ Common Position Concerning the Legal Protection of Databases: A First Comment*, 6 ENT. L.R. 258 (1995) (U.K.).

91. Directive, *supra* note 43, art. 7(1).

92. Case C-444/02, *Fixtures Mktg. Ltd. v. Organismos Prognostikon Agonon Podosfairou AE*, 2004 E.C.R. I-10549; Case C-338/02, *Fixtures Mktg. Ltd. v. Svenska Spel AB*, 2004 E.C.R. I-10497; Case C-203/02, *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, 2004 E.C.R. I-10415; Case C-46/02, *Fixtures Mktg. Ltd. v. Oy Veikkaus Ab*, 2004 E.C.R. I-10365.

93. *Oy Veikkaus*, 2004 E.C.J. I-10365, para. 37.

94. See Amar A. Hasan, *Sweating in Europe: The European Database Directive*, 9 COMPUTER L. REV. & TECH. J. 479, 493–94 (2005).

ture list thus does not require any investment independent of that required for the creation of the data contained in that list.⁹⁵

Essentially, the ECJ found that the investment necessary to benefit from the *sui generis* right must be in obtaining, presenting, or verifying *pre-existing* data.⁹⁶ This has been referred to as the “spin-off” doctrine, which had already been accepted by a number of Dutch courts.⁹⁷ According to Professors Davison and Hugenholtz,

The doctrine is premised on the “incentive” rationale of the *sui generis* right. Recitals 10–12 preceding the Directive illustrate that the principal reason for introducing the *sui generis* right was to promote investment in the (then emerging) European database sector. Judging from these Recitals, the database right is not a right of intellectual property rooted in notions of natural justice, but a right based on utilitarian (instrumentalist) reasoning. In the light of this incentive rationale there would appear to be no reason to grant protection to data compilations that are generated *quasi* “automatically” as by-products of other activities.⁹⁸

The ECJ stressed that the substantiality threshold (for an investment to qualify) was separate from the intrinsic value of the data.⁹⁹ This substantiality should be measured both in quantitative and qualitative terms. A quantitative analysis is easier; it focuses on quantifiable resources.¹⁰⁰ The ECJ noted that a “quantitatively negligible part of the contents of a database may in fact represent, in terms of obtaining, verification or presentation, significant human, technical or financial investment.”¹⁰¹ While this is understandable when determining whether an investment qualifies,¹⁰² it is less clear how it should be applied to an infringement analysis, especially if the database user is unaware and/or unable to determine the amount of time or money investment used to obtain, verify, and/or present the data he or she is accessing.¹⁰³

95. *Oy Veikkaus*, 2004 E.C.J. I-10365, para. 44.

96. See Davison & Hugenholtz, *supra* note 79, at 114.

97. See *id.*

98. *Id. Contra* Laase Laaksonen, *Database Rights: EU—Scope of Protection and Infringement*, 27 EUR. INTEL. PROP. REV. N-32, N-33 (2005) (noting that “[t]he judgments do seem to be in line with the underlying purpose of the Directive to promote investments made to process existing information rather than investments to create materials capable of being collected in a database”).

99. Quite logically, since the *sui generis* right was interpreted not in generating the data but obtaining, verifying, or presenting it. See Case C-203/02, *British Horseracing Bd. Ltd. v. William Hill Org. Ltd.*, 2004 E.C.J. I-10415, para. 78; see also *infra* Part II.A.2.d.

100. See *Oy Veikkaus*, 2004 E.C.J. I-10365, para. 38.

101. *British Horseracing Bd.*, 2004 E.C.J. I-10415, para. 71.

102. In fact, it seems logical to link the protection to the “sweat equity” involved. As Jane Ginsburg has noted, “We do not want to permit the database producer to bootstrap non-sweaty components of the database.” Jane Ginsburg, *Commentary on Database Protection*, in 6 INTERNATIONAL INTELLECTUAL PROPERTY LAW & POLICY 75-1, 75-2 (Hugh C. Hansen ed., 2001).

103. See Davison & Hugenholtz, *supra* note 79, at 117.

As we saw above, the ECJ also introduced the substantiality test for infringement, including for repeated extraction or reutilization of an insubstantial part.¹⁰⁴ In correlating the substantiality criterion for both protection and infringement of the *sui generis* right, the ECJ may have overlaid a certain degree of coherence which, some would say, may not have been so clearly present in the mind of the drafters.¹⁰⁵ By the same token, it may have forced European courts to use a substantiality yardstick that will prove harder to apply.

2. EU Member States¹⁰⁶

a. Britain

British copyright law has had a long love affair with sweat of the brow. Cases such as *Kelly v. Morris*¹⁰⁷ and *Morris v. Ashbee*¹⁰⁸ are still part of any analysis of the originality in compilations in UK copyright law. Both cases dealt with (what else?) directories, in this case lists of various traders with their street addresses, arranged by type of trade. In *Kelly*, the information had been copied to produce a different directory. The second directory faithfully reproduced all the mistakes made in the plaintiff's compilation.

The rationale for both cases seems to rest on a mixture of an unfair competition analysis and a prohibition against copying (in this case, information). In *Ashbee*, Vice-Chancellor Sir G.M. Giffard, referring to *Kelly*, stated,

Now it is plain that it could not be lawful for the Defendants simply to cut the slips which they have cut from the Plaintiff's directory and insert them in theirs. Can it then be lawful to do so because in addition to doing this, they sent persons with the slips to ascertain their correctness? I say, clearly not. Then, again, would their acts be rendered lawful because they got payment and authority for the insertion of the names from each individual whose name appeared in the slips? And to this I again answer,

104. See *supra* notes 74–76 and accompanying text.

105. See Davison & Hugenholtz, *supra* note 79, at 116–17.

106. This section is not intended as an exhaustive presentation of legislative implementations and case law pertaining to the Directive in the twenty-five EU member States. That would require an entire book. The intent is to provide only an overview of the most important issues and cases. There is less emphasis on countries where there have not been decisions rendered after the ECJ's "quartet." Interested readers may consult the website of the University of Amsterdam's Institute for Information Law at <http://www.ivir.nl>. Also, for a more thorough analysis of this topic up to 2001, see P. Bernt Hugenholtz, *The New Database Right: Early Case Law from Europe*, in 7 INTERNATIONAL INTELLECTUAL PROPERTY LAW & POLICY 70-1 (Hugh C. Hansen ed., 2002).

107. (1866) 1 L.R.Eq 697.

108. (1868) 7 L.R.Eq. 34.

clearly not. The simple upshot of the whole case is, that the Plaintiff's directory was the source from which they compiled very material parts of theirs, and they had no right so to resort to that source. They had no right to make the results arrived at by the Plaintiff the foundation of their work or any material part of it, and this they have done.¹⁰⁹

Kelly and Ashbee were cited with approval by the Australian Federal Court of Appeal fairly recently,¹¹⁰ and they may still have currency in Britain. For example in *Waterlow Directories Ltd. v. Reed Information Services Ltd.*, the High Court (Chancery Division) issued an injunction to prevent the defendant from copying names it found in the plaintiff's legal directory to solicit business for its own legal directory.¹¹¹ The names, the Court said, had been cut and pasted with a word processor onto letters to the solicitors listed in the plaintiff's directory who were not listed in the defendant's. The names were therefore "copied."¹¹²

At bottom, what distinguishes the originality standard applied to "industrious collections" in the UK from the *Feist*ian modicum of creativity is that under the former both the quality and quantity of the author's labor are taken into account.¹¹³ One wonders, however, whether this approach, which has been used in cases involving tables and compilations such as maps, guidebooks, street directories, and dictionaries,¹¹⁴ is compatible with the 1998 amendments¹¹⁵ to the Copyright, Designs and Patents Act ("CDPA")¹¹⁶ added to comply with the European Directive, which defined originality in respect to databases as the result of a personal "intellectual creation."¹¹⁷ The situation may indeed have changed. Section 3(1)(a) of the

109. *Id.* at 41.

110. *See infra* Part II.C.

111. [1992] F.S.R. 409, 419–20 (Ch.).

112. *Id.* at 415 ("[T]he principle enunciated is, I believe, clear, that a person may not copy entries from a directory and use that information to compile his own directory.").

113. *See BENTLY & SHERMAN, supra* note 77, at 91–92.

More controversially, originality can also arise through the application of a sufficient amount of routine labour

. . . .

The position in the UK where the exercise of non-creative labour can give rise to an original work can be contrasted with the position in other jurisdictions such as Germany . . . and France The UK position is also at odds with the position in the USA where, as the Supreme Court pointed out in the *Feist* decision, a work must have at least a minimal degree of creativity to be protected.

114. *See id.* at 94.

115. The Copyright and Rights in Databases Regulations, 1997, S.I. 1997/3032, paras. 5–6.

116. Copyright Designs and Patent Act ("CPDA"), 1988, c. 48, § 3.

117. *See* Directive, *supra* note 43, art. 3(1). Bently and Sherman suggest that this new standard ought to apply only to databases. *See BENTLY & SHERMAN, supra* note 77, at 94 & n.80. They also posit that it will be difficult to argue that quantity of labor alone will be sufficient to generate originality in a database. *Id.* at 95 ("Where all an author has done is to exert a considerable amount of effort in the creation of a database, it is difficult to see how this, on its own, could be seen as an 'intellectual creation.'"); *see also* CORNISH & LLEWELYN, *supra* note 55, at § 10-10, at 392.

CDPA now states that literary works include compilations other than databases, but “literary work” includes databases.¹¹⁸ Professors Bently and Sherman explain that the “reason why databases were placed in a separate category was to enable the 1988 Act to impose a different requirement of originality on databases from that applied to tables and compilations.”¹¹⁹ They also note that “it is possible [as a result of the amendments] that most if not all of the subject matter previously protected as compilations would now be protected as databases.”¹²⁰

b. Germany

Germany was the first EU member State to implement the Directive, by the adoption of the so-called Multimedia Act.¹²¹ There have been several interesting cases since then on the scope of the *sui generis* right.¹²² The following is intended only to provide a “flavor” of four of the most important decisions.

One of the first decisions to apply the new provisions¹²³ found that the use of the search engine was held to amount to repeated and systematic extraction of insubstantial parts of the database that unreasonably damaged the lawful interests of the owner of the database right. The website owner was deemed to have incurred losses because the search engine systematically bypassed the advertisements on the [plaintiff’s] site.¹²⁴

In another case,¹²⁵ a Berlin trial court found that a company that was digitizing real estate ads from a major Berlin daily newspaper, verifying and occasionally updating them to make them available online was pro-

The British approach, pragmatic and practical, is regarded by advocates of authors’ rights as a hostage to fortune. . . . It might undermine the superiority of copyright over industrial property and so set in train the argument that copyright terms should be shortened, rather than lengthened. In consequence, there has been a campaign within the EC to scotch the “de-based” common law test of originality in favour of a threshold that all works be the author’s “own personal creation.”

Id.

118. CDPA § 3(1)(a).

119. BENTLY & SHERMAN, *supra* note 77, at 56.

120. *Id.* at 56–57.

121. Gesetz zur Regelung der Rahmenbedingungen für Informations- und Kommunikationsdienste [Information and Communication Services (Multimedia) Act], Aug. 1, 1997, BGBl. I at 1870, art. 7 (F.R.G.). The Multimedia Act transposes the Directive into the German Copyright Act, Urheberrechtsgesetz, Sept. 9, 1965, BGBl. I at 1273 (F.R.G.).

122. The website of the Institute for Information Law lists thirty-one. P. Bernt Hugenholtz, Institute for Information Law, The Database Right File, <http://www.ivir.nl/files/database> (last visited Apr. 7, 2007).

123. Landgericht [LG] [Trial Court] (Berlin), Sept. 29, 1998 [hereinafter *SZ-Online*].

124. See Hugenholtz, *supra* note 122 (abstracting *SZ-Online*).

125. Landgericht [LG] [Trial Court] (Berlin), Oct. 8, 1998, [1999] Computer und Recht 388.

tected under the *sui generis* right because of a substantial investment. The case, however, predates the four ECJ decisions discussed above.¹²⁶

In a third decision,¹²⁷ the court imposed a much stricter test and required evidence of a long-term investment, a prominent place in the market and a solid reputation.

Finally, in 2005 the Berlin district court, in a case involving online auction house eBay,¹²⁸ found that the Defendant had violated the *sui generis* right by copying the data from both eBay databases, that is, the (not publicly available) database of information about suppliers, reviews, advertisement, name suppliers, etc., and the (publicly available) database containing information about the items for sale. It makes no difference, the court found, whether the database is publicly accessible because the database right is not meant to protect secrecy but rather investment.¹²⁹

c. Italy

In Italy, where the Directive was transposed in 1999,¹³⁰ a recent court decision held that it is lawful to repeatedly extract and reutilize non-substantial parts of a database (under Article 7(5) of the Directive),

even though this leads to acquiring the whole or a substantial part or [sic] of the database, on condition that these operations are carried out in the course of normal consultation of the database, and without unreasonable prejudice to its producer. These operations are infringing only if they exceed the operational limits of the data collection, or if they cause damage to the producer of the database, as in the case of repeated extraction and re-utilization for commercial uses and for the purpose of unfairly competing with the producer's products.¹³¹

d. Netherlands

There has been a substantial amount of judicial and policy activity concerning the *sui generis* right in Holland, where the Directive was implemented in 1999.¹³²

126. See *supra* Part II.A.1.e.

127. Landgericht [LG] [Trial Court] (Frankfurt), Feb. 19, 1997, [1997] Computer und Recht 740. The case is also discussed by Grosheide, *supra* note 56, at 63.

128. Landgericht [LG] [Trial Court] (Berlin), Oct. 27, 2005 [hereinafter *eBay Int'l*].

129. See Hugenholtz, *supra* note 122 (abstracting *eBay Int'l*).

130. Decreto Legislativo [Legislative Decree] No. 169, 6 magg. [May] 1999, Gazz. Uff. No. 138, 15 giugno [June] 1999 (It.).

131. See Hugenholtz, *supra* note 122 (abstracting Trib. (Milan), 9 ag. [Aug.] 2004, n.5407).

132. Wet van 8 juli 1999 [Database Act], Stb. 1999, 303, available at <http://www.ivir.nl/legislation/nl/databaseact.html>.

In the famous Telegraaf case,¹³³ a newspaper operator of a website located at www.elcheapo.nl was sued by the Dutch real estate brokers association NVM. The website searched ads on NVM's website and made the results available on its own website. The case made its way to the Dutch Supreme Court, which rejected the spin-off theory adopted by the Court of Appeal. It found for NVM by conflating the investment to produce the ads and to make them available online. The case obviously predates the ECJ "quartet."

In another well-known case, a number of Dutch newspapers sued an aggregator who operated websites listing the titles of articles published in the newspapers and deep-linked to the articles.¹³⁴ A Dutch court determined that the investment in the articles was irrelevant (being an investment in data creation, not obtaining), and that the investment in selecting which articles the newspapers would upload to their site and the seven employees who maintained the website were not substantial, adding that this was "numerically negligible compared to the number of people that work for a newspaper."¹³⁵ Lastly, in a recent case, the investment to make real estate ads available was similarly judged insubstantial.¹³⁶

B. United States

1. Feist

Much has been written¹³⁷ on the landmark Supreme Court decision in *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*¹³⁸ *Feist* ended

133. NVM/De Telegraaf, Hoge Raad der Nederlanden [HR] [Supreme Court of the Netherlands], 22 maart 2002, KG 949 (Neth.). The case is discussed also by Judica Krikke, *Database Rights: Netherlands—Substantial Investment*, 24 EUR. INTELL. PROP. REV. N148–49 (2002).

134. Algemeen Dagblad B.V./Eureka Internetdiensten, Arrondissemntsrechtbank [Rb.] [President District Court], Rotterdam, 22 augustus 2000, KG 139609 (Neth.), available at <http://www.ivir.nl/rechtspraak/kranten.com-english.html> (unofficial English translation by Lars Huisman, Stibee Simont Monahan Duhot).

135. *Id.* para. 4.8 (unofficial translation). It is unclear, under the terms of the Directive at least, why the investment of seven employees had to be measured against the investment to produce a newspaper.

136. Zoekallehuizen.nl/NVM, Gerechtshof [Hof] [Court of Appeal], Arnhem, 4 juli 2006, KG 416 (Neth.). This case is discussed also by Judica Krikke, *Netherlands: Database Rights—Substantial Investment*, 29 EUR. INTELL. PROP. REV. N73 (2007).

137. Including by this author. See Daniel J. Gervais, *Feist Goes Global: A Comparative Analysis of the Notion of Originality in Copyright Law*, 49 J. COPYRIGHT SOC'Y U.S.A. 949 (2002); see also Daniel A. Davis, *Feist Publications, Inc. v. Rural Telephone Service Co.: Opening the Door to Information Pirates?*, 36 ST. LOUIS U. L.J. 439, 440 (1991); Alan L. Durham, *Speaking of the World: Fact, Opinion and the Originality Standard of Copyright*, 33 ARIZ. ST. L.J. 791, 794–95 (2001); Victoria Smith Ekstrand, *Drawing Swords After Feist: Efforts to Legislate the Database Pirate*, 7 COMM. L. & POL'Y 317 (2002); Jane C. Ginsburg, *No "Sweat"? Copyright and Other Protection of Works of Information After Feist v. Rural Telephone*, 92 COLUM. L. REV. 338 (1992); Marci A. Hamilton, *Justice O'Connor's Opinion in Feist Publications, Inc. v. Rural Telephone Service Co.: An Uncommon Though Characteristic Approach*, 38 J. COPYRIGHT SOC'Y U.S.A. 83 (1990); Joseph P. Hart, *From Facts to*

a definitional tension among the federal courts of appeals. Prior to *Feist*, only the Second, Fifth, Ninth, and Eleventh Circuits had clearly espoused a “creative selection” theory, which required an author to show a small amount of creativity in order to receive copyright protection.¹³⁹ It also “dropped a bomb.”¹⁴⁰

The *Feist* Court found that *creative choices* in the selection and arrangement of the data were necessary to generate sufficient originality to warrant copyright protection.¹⁴¹ This reasoning echoed earlier Supreme Court cases dealing with photographs.¹⁴² For example, in *Burrow-Giles Lithographic Co. v. Sarony*, the Court had to decide whether a photograph of Oscar Wilde was original. The Court concluded in the affirmative, noting the creative choices made by the photographer, including pose, costume, lighting, accessories, and the set itself.¹⁴³

istic Approach, 38 J. COPYRIGHT SOC'Y U.S.A. 83 (1990); Joseph P. Hart, *From Facts to Form: Extension and Application of the Feist “Practical Inevitability” Test and Creativity Standard*, 22 GOLDEN GATE U. L. REV. 549, 553 (1992); Justin Hughes, *The Personality Interest of Artists and Inventors in Intellectual Property*, 16 CARDOZO ARTS & ENT. L.J. 81, 99–100 (1998); Stacey H. King, *Are We Ready to Answer the Question?: Baker v. Selden, the Post-Feist Era, and Database Protections*, 41 IDEA 65 (2001); Jessica Litman, *After Feist*, 17 U. DAYTON L. REV. 607, 608 (1992); Tracy Lea Meade, *Ex-Post Feist: Applications of a Landmark Copyright Decision*, 2 J. INTELL. PROP. L. 245 (1994); Denise R. Polivy, *Feist Applied: Imagination Protects, But Perspiration Persists—The Bases of Copyright Protection for Factual Compilations*, 8 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 773 (1998); Paul T. Sheils & Robert Penchina, *What’s All the Fuss About Feist? The Sky Is Not Falling on the Intellectual Property Rights of Online Database Proprietors*, 17 U. DAYTON L. REV. 563 (1992); Jason R. Boyarski, Note, *The Heist of Feist: Protection for Collections of Information and the Possible Federalization of “Hot News,”* 21 CARDOZO L. REV. 871 (1999); Jennifer R. Dowd, Note, *A Selective View of History: Feist Publications, Inc. v. Rural Telephone Service Co.*, 34 B.C. L. REV. 137, 138–39 (1992).

138. 499 U.S. 340 (1991).

139. See Meade, *supra* note 137, at 247.

140. The quote is attributed to the then-Register of Copyrights. See Jane C. Ginsburg, *Statement on H.R. 2652: The Collections of Information Antipiracy Act* (Dec. 2, 1998), available at <http://www.hyperlaw.com/ginsburg.htm>.

141. *Feist*, 499 U.S. at 348.

The compilation author typically chooses which facts to include, in what order to place them, and how to arrange the collected data so that they may be used effectively by readers. These choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws.

142. See *Bleistein v. Donaldson Lithographic Co.*, 188 U.S. 239, 250–51 (1903); *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 60 (1884); see also *The Trade-Mark Cases*, 100 U.S. 82, 94 (1879) (“[I]t is only such as are *original*, and are founded in the creative powers of the mind. The writings which are to be protected are *the fruits of intellectual labor*, embodied in the form of books, prints, engravings, and the like.”). The legislative history of the 1976 Copyright Act shows that originality is required but involves something other than ingenious and novel material. See H.R. REP. NO. 94-1476, at 51 (1976), as reprinted in 1976 U.S.C.C.A.N. 5659, 5664. The Act does not define originality, and this omission was apparently deliberate. See William Patry, *Copyright in Collections of Facts: A Reply*, COMM. & L., Oct. 1984, at 11, 18.

143. *Burrow-Giles*, 111 U.S. at 60.

The main reason why the circuits were split between the two main doctrines prior to *Feist* is that there are two principal justifications—and, therefore, bases—for copyright protection: either it is a reward/incentive for the effort or investment made, or it is a reward/incentive for adding to the pool of creative works available to the public. The question before the Supreme Court, therefore, was what should be rewarded: mere work (and, perhaps, investment) or creativity. The Court clearly found that creativity was required by the Copyright and Patent Clause¹⁴⁴ and that it was the (only) appropriate basis for copyright protection.¹⁴⁵ In doing so the Court removed the copyright protection that was available in a number of circuits for so-called “low authorship works.”¹⁴⁶ The Court brought compilations on the same footing as other categories of copyrighted works¹⁴⁷ and clarified the delineation between copyright (and its underlying policy objectives, namely a reward for the sake of incentivizing creation)¹⁴⁸ and misappropriation, which tends to protect investment unduly appropriated, a related topic to which I return below.

2. Life After *Feist*

Did the imposition of a minimal creativity standard exclude databases and other compilations from protection? In fact, a majority of post-*Feist* cases dealing with factual compilations found the compilation to be protected.¹⁴⁹ The protection, however, is narrow.¹⁵⁰

144. U.S. CONST. art. I, § 8, cl. 8.

145. *Feist*, 499 U.S. at 347–51.

146. See Ginsburg, *supra* note 87, at 1870.

147. See Ginsburg, *supra* note 137, at 339.

148. See Jessica Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19, 28–29 (1996).

149. For appellate cases where a factual compilation was found to be copyrightable, see *Assessment Techs. of WI, LLC v. WIREdata, Inc.*, 350 F.3d 640 (7th Cir. 2003); *TransWestern Publ'g Co. LP v. Multimedia Mktg. Assocs., Inc.*, 133 F.3d 773 (10th Cir. 1998); *Lipton v. Nature Co.*, 71 F.3d 464 (2d Cir. 1995); *Warren Publ'g, Inc. v. Microdos Data Corp.*, 52 F.3d 950 (11th Cir. 1995), *vacated*, 67 F.3d 276 (11th Cir. 1995) (granting rehearing en banc); *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.*, 44 F.3d 61 (2d Cir. 1994); *Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc.*, 945 F.2d 509 (2d Cir. 1991); *Kregos v. Associated Press*, 937 F.2d 700 (2d Cir. 1991); *U.S. Payphone, Inc. v. Executives Unlimited of Durham, Inc.*, 18 U.S.P.Q.2d (BNA) 2049 (4th Cir. 1991). For a comment on the *WIREdata* case, see Jordan M. Blanke, *Assessment Technologies of WI, LLC v. WIREdata, Inc.: Seventh Circuit Decision Reinforces the Noncopyrightability of Facts in a Database*, 20 SANTA CLARA COMPUTER & HIGH TECH. L.J. 755 (2004); John M. Carson & Brian C. Leubitz, *Copyright: United States—Protection of Databases*, 26 EUR. INTEL. PROP. REV. N74 (2004). One could also mention *FutureSource LLC v. Reuters Ltd.*, 312 F.3d 281 (7th Cir. 2002), though the issue was essentially dictum. In the *U.S. Payphone* case, however, the basis for protection seems to be still the “sweat of the brow” of the compiler. See 18 U.S.P.Q.2d at 2050 (“The Guide . . . is the result of hundreds of hours of reviewing, analyzing and interpreting [the data].”).

For cases where protection was refused, see *Southco, Inc. v. Kanebridge Corp.*, 390 F.3d 276 (3d Cir. 2004); *BellSouth Adver. & Publ'g Corp. v. Donnelley Info. Publ'g, Inc.*, 999 F.2d 1436 (11th

The fact that some factual compilations are not protected by copyright does not mean that copyright is bad for databases (and thus somehow must be changed); it means that factual databases are bad for copyright.¹⁵¹ The *Feist* test puts the creative efforts of authors at the core of copyright and refuses to protect factual compilations simply because the making of the compilation required skill, time, or a substantial investment. Copyright is not the proper vehicle to protect these non-creative, non-original compilations. Protection of informational works that do not pass the *Feist* “minimal creativity” threshold can be protected in a variety of ways, including contracts and torts (especially misappropriation).¹⁵²

Many appellate cases since *Feist* have tried to pinpoint the location of the creativity threshold articulated in *Feist*. A good example is afforded by the Second Circuit’s decision in *CCC Information Services, Inc. v. Maclean Hunter Market Reports, Inc.* In dealing with the question whether the “Red Book” (a compendium of used car valuations) was protected by copyright, the court wrote,

The thrust of the Supreme Court’s ruling in *Feist* was not to erect a high barrier of originality requirement. It was rather to specify, rejecting the strain of lower court rulings that sought to base protection on the “sweat of the brow,” that *some* originality is essential to protection of authorship, and that the protection afforded extends only to those original elements. Because the protection is so limited, there is no reason under the policies of the copyright law to demand a high degree of originality. To the contrary, such a requirement would be counterproductive. The policy embodied into law is to encourage authors to publish innovations for the common good—not to threaten them with loss of their livelihood if their works of authorship are found insufficiently imaginative.¹⁵³

Cir. 1993); *Sem-Torq, Inc. v. Kmart Corp.*, 936 F.2d 851 (6th Cir. 1991); *Victor Lalli Enters, Inc. v. Big Red Apple, Inc.*, 936 F.2d 671 (2d Cir. 1991); *Mid Am. Title Co. v. Kirk*, 867 F. Supp. 673 (N.D. Ill. 1994), *aff’d*, 59 F.3d 719 (7th Cir. 1995). One could also mention *Sparaco v. Lawler, Matusky, Skelly, Engineers LLP*, 303 F.3d 460 (2d Cir. 2002); *see also* Charles C. Huse, *Database Protection in Theory and Practice: Three Recent Cases*, 20 BERKELEY TECH. L.J. 23 (2005).

150. *See* Wald, *supra* note 44, at 1011–16. According to Wald,

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 to prevent a competitor from taking substantial amounts of factual material from copyrighted collections of information and using it in a competing product.

Id. at 1016–17 (footnotes omitted).

151. In fact, trying to bring a database under the copyright umbrella might mean making a database less exhaustive due to increased selection or harder to use due to non-standard arrangement of the data. *See* Ginsburg, *supra* note 137, at 347; Polivy, *supra* note 137, at 796–802.

152. We return below to efforts in Congress to create a federal tort of misappropriation in respect of databases.

153. *CCC Info. Servs.*, 44 F.3d at 66.

This seems to accurately reflect the *Feist* doctrine, which requires minimal originality. Some works, such as factual compilations, usually hover around and sometimes inch past the threshold. Clearly, other more “artistic” works will be a mile above the threshold. But there is a single originality threshold, and it is a constitutional requirement to obtain copyright protection.¹⁵⁴

One could also mention *Southco, Inc. v. Kanebridge Corp.*, a case dealing with numbers given to various objects in a catalogue, such as screws and fasteners.¹⁵⁵ Justice Alito wrote the opinion of the Court. He made interesting comments on what is, in this author’s view, the notion of creative choices:

[T]he Court [in *Burrow-Giles*] noted a set of findings to the effect that the photograph reflected the plaintiff’s “own original mental conception, to which he gave visible form” by posing Oscar Wilde, “suggesting and evoking the desired expression,” selecting and arranging “the costume, draperies, and other various accessories,” and “arranging and disposing the light and shade.”

....

... The *Burrow-Giles* defendant basically contended that a photographer does not create a picture (as a painter or engraver does) but simply uses a machine to capture a bit of reality that existed at a particular place and time. In other words, while a painting or engraving is an expression of ideas in the artist’s mind, a photograph is a bit of objective reality. . . .

If this view of photography were correct, photography could be analogized to the operation of the Southco numbering system, which objectively captures a few functional characteristics of products like screws. But the *Burrow-Giles* defendant’s description of photography is plainly inaccurate

The Southco numbers are purely functional; the portrait of Oscar Wilde, whatever its artistic merit, was indisputably a work of art. The Southco numbers convey information about a few objective characteristics of mundane products—for example, that a particular screw is one-eighth of an inch in length. A photographic portrait, by contrast, does not simply convey information about a few objective characteristics of the subject but may also convey more complex and indeterminate ideas. . . .

There is also no merit to the analogy suggested at oral argument between the Southco numbers and a painting that an artist creates by causing paint to drop onto a canvass. An aleatoric painting (or other work of aleatoric art) does not result from the rigid application of a system of pre-set rules. On the contrary, the randomness that is employed expresses the artist’s “mental conception.”¹⁵⁶

154. See *Suntrust Bank v. Houghton Mifflin Co.*, 268 F.3d 1257, 1260–61 (11th Cir. 2001).

155. See 390 F.3d. 276, 278 (3d Cir. 2004).

156. *Id.* at 284 (citations omitted).

If *Feist* is indeed here to stay, then the protection of the contents of databases (as opposed to selection and arrangement of such contents where it passes the originality test) must be sought elsewhere.

3. Misappropriation

As Charles Huse has noted,

The strongest argument for database protection is the prevention of copying by a competitor seeking to compete head-to-head with the original compiler. Compiling a database is an expensive, time-consuming proposition; copying a database is cheap, particularly when digital technology can automate the copying. The copyist therefore does not share the original compiler's development costs and can undercut the original compiler's price.¹⁵⁷

There is a sense that if a database that was expensive to create is copied in a commercial context, an element of free-riding is present, thus triggering a possible claim of misappropriation.

a. *INS and Its Progeny*

An analysis of the misappropriation of factual information in United States law probably should start by examining the Supreme Court decision in *International News Service v. Associated Press* ("*INS*").¹⁵⁸ In that case, AP had filed suit against a competitor news service that "pirated" news from the AP service. Because copyright was subject to registration and in light of the large amount of material, the factual nature of the material, and the rapid pace of a news service, typically the news stories were not protected.¹⁵⁹

The Court was facing a difficult situation. While it favored the dissemination of information, it was apparently convinced that *INS*'s practice was unfair and should be enjoined. It wanted to protect AP's right to make a profit.¹⁶⁰ In the end, "hot news" was declared "quasi-property" so that the defendant could not "reap where it has not sown," "appropriating to itself the harvest" of the plaintiff's labor.¹⁶¹ To constitute misappropriation, five elements had to be present: cost or expense in generating the information;

157. Huse, *supra* note 149, at 33.

158. See 248 U.S. 215 (1918).

159. At least under the federal Copyright Act. The question whether some state copyright protection might have applied will not be examined here.

160. 248 U.S. at 235.

161. *Id.* at 239-40; see also *Triangle Publ'ns v. Knight-Ridder Newspapers, Inc.*, 626 F.2d 1171, 1174 (5th Cir. 1980); *Wainwright Sec., Inc. v. Wall Street Transcript Corp.*, 558 F.2d. 91, 96 (2d Cir. 1977). Courts regularly display concern for protecting the original creator's substantial investment of time, money, and labor.

high time-sensitiveness of the information; free-riding by the defendant; direct competition between the parties; and reduction of the incentive to the plaintiff to produce the information product or service as a result of the free-riding.¹⁶² While the *INS* holding probably did not directly survive the abolition of federal common law,¹⁶³ it is still useful to interpret common law misappropriation under state law.¹⁶⁴

INS was sharply criticized. Some commentators have suggested that it should be restricted to its facts.¹⁶⁵ Others opined that, while *INS* was not expressly jettisoned by the Supreme Court in *Feist*, the rejection of “sweat of the brow” copyright should lead to a rejection of “hot news” protection under federal law.¹⁶⁶ This, however, has not been the approach taken by other courts.

The landscape was indeed altered in 1997 with the Second Circuit decision in *National Basketball Association v. Motorola, Inc.* (“*NBA*”)¹⁶⁷ The *NBA* was trying to prevent Motorola from transmitting scores of professional basketball games on hand-held pagers. The scores were provided by people watching the games on television or listening to radio broadcasts. The case was based in part on *INS* and misappropriation under state (New York) common law. Having decided that state misappropriation was not

162. *Int'l News Serv.*, 248 U.S. at 239–40.

163. *See Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938).

164. The House Report on the 1976 Revision of the U.S. Copyright Act provides as follows:

“Misappropriation” is not necessarily synonymous with copyright infringement, and thus a cause of action labeled as “misappropriation” is not preempted if it is in fact based neither on a right within the general scope of copyright as specified by section 106 nor on a right equivalent thereto. For example, state law should have the flexibility to afford a remedy (under traditional principles of equity) against a consistent pattern of unauthorized appropriation by a competitor of the facts (i.e., not the literary expression) constituting “hot” news, whether in the traditional mold of *International News Service v. Associated Press* . . . or in the newer form of data updates from scientific, business, or financial data bases.

H.R. REP. NO. 94-1476, at 132, *as reprinted in* 1976 U.S.C.C.A.N 5659, 5748 (citation and footnote omitted).

165. *See* Malla Pollack, *The Right To Know?: Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause, and the First Amendment*, 17 CARDOZO ARTS & ENT. L.J. 47, 75–76 (1999). As Sarah Duran noted,

In *National Basketball Ass'n v. Motorola, Inc.*, the court pointed out that Judge Learned Hand was “notably hostile to a broad reading of the case.” 105 F.3d 841, 852 n.7 (2d Cir. 1997). The *Restatement (Third) of Unfair Competition* similarly states that “[t]he facts of the *INS* decision are unusual and may serve, in part, to limit its rationale.” RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 cmt. c (1995). Douglas A. Baird points out that the few cases where courts have used the misappropriation claim in *INS* involved situations where the facts were similar. Douglas A. Baird, *Common Law Intellectual Property and the Legacy of International News Services v. Associated Press*, 50 U. CHI. L. REV. 411, 421–22 (1983).

Sarah Duran, “A Species of Mutant Copyright Law”: An Argument Against Using the Commerce Clause to Protect Databases, 8 TUL. J. TECH. & INTELL. PROP. 87, 98 n.84 (2006).

166. *See* Pollack, *supra* note 165, at 76.

167. 105 F.3d 841 (2d Cir. 1997).

pre-empted by federal copyright law,¹⁶⁸ the court rejected the claim because of the absence of direct competition between the parties and the cost incurred by the defendants in collecting and transmitting the data.¹⁶⁹ The court did, however, recognize that misappropriation was a valid cause of action under New York law.¹⁷⁰ It seems that a narrow but nonetheless real scope of protection for “hot news” remains under the *INS* doctrine, one which is not subject to pre-emption.¹⁷¹

b. Congressional Efforts

In part as a reaction to the Supreme Court decision in *Feist* (and, for the most recent ones, the Second Circuit’s in *NBA*), bills were introduced in the 104th, 105th, 106th, and 107th Congresses to protect databases independently of whether they pass the constitutional test of the originality/modicum of creativity required to obtain protection under the Copyright Act.¹⁷² Some bills, such as H.R. 354 of 1999,¹⁷³ seem closer to the classic

168. *See id.* at 850–52 (“Our conclusion, therefore, is that only a narrow ‘hot-news’ misappropriation claim survives preemption for actions concerning material within the realm of copyright.”). However, the court did distinguish claims based on breach of fiduciary duty or trade secret law. *Id.* at 852 n.6; *see also* *Computer Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693, 716 (2d Cir. 1992); *Fin. Info., Inc. v. Moody’s Investors Serv.*, 808 F.2d 204 (2d Cir.1986).

169. *Nat’l Basketball Ass’n*, 105 F.3d at 853–54.

170. *Id.* at 844.

171. *See id.* at 852.

172. It may be helpful for non-U.S. readers to read the history from the House Report on a bill introduced in the 108th Congress (2004).

104th Congress. Former Representative Carlos Moorhead, then Chairman of the Committee on the Judiciary’s Subcommittee on Courts and Intellectual Property, introduced H.R. 3531, the “Database Investment and Intellectual Property Antipiracy Act.” No action was taken on the bill.

105th Congress. Representative Howard Coble, then Chairman of the Subcommittee on Courts and Intellectual Property, introduced H.R. 2652, the “Collections of Information Antipiracy Act.” H.R. 2652 passed the House twice, once as a stand-alone bill and once as part of the Digital Millennium Copyright Act (DMCA) The final version of the DMCA that became law did not include the database provision.

106th Congress. Representative Coble introduced H.R. 354, the “Collections of Information Antipiracy Act.” H.R. 354 was approved by the Committee on the Judiciary and was sequentially referred to the Committee on Commerce. Representative Tom Bliley, Chairman of the Commerce Committee, introduced H.R. 1858, the “Consumer and Investor Access to Information Act.” H.R. 1858 was approved by the Committee on Commerce and was sequentially referred to the Committee on the Judiciary. No further action was taken on either bill.

107th Congress. In an effort to avoid the stalemate of the 106th Congress, Representative F. James Sensenbrenner, Jr., Chairman of the Judiciary Committee, and Representative W.J. (Billy) Tauzin, Chairman of the Commerce Committee, agreed to participate in deliberations that would produce a consensus bill. The process included stakeholder discussions and negotiations followed by closed-door negotiations between the staffs of the two Committees. At the conclusion of the 107th Congress, the staffs made progress but did not reach an agreement on the final text of a bill. As a result, Chairman Sensenbrenner and Chairman Tauzin sent a letter to the Speaker, requesting that negotiations continue apace until April 15, 2003.

copyright model and purport to give database owners a quasi-property *sui generis* right.¹⁷⁴

Two bills were also introduced in the 108th Congress. H.R. 3261,¹⁷⁵ which would have created a federal tort of misappropriation of a “substantial part” of a database. It delineated the proposed tort as follows:

Any person who makes available in commerce to others a quantitatively substantial part of the information in a database generated, gathered, or maintained by another person, knowing that such making available in commerce is without the authorization of that other person . . . or that other person’s licensee, when acting within the scope of its license¹⁷⁶

As introduced by Representative Coble on October 8, 2003, H.R. 3261 constitutes the final negotiation product as contemplated by Chairman Sensenbrenner and Chairman Tauzin in advance of Subcommittee and Committee markup.

H.R. REP. NO. 108-421, pt. 1., at 9–10 (2004) (footnotes omitted); *see, e.g.*, H.R. 3531, 104th Cong. (1996). For a discussion of the various bills, see Samuel E. Trosow, *Sui Generis Database Legislation: A Critical Analysis*, 7 YALE J. L. & TECH. 535, 573–625 (2005), available at http://research.yale.edu/lawmeme/yjolt/files/20042005Issue/4_Trosow_052005.pdf (online edition). For a separate discussion of the initial proposals, see Reichman & Samuelson, *supra* note 65, at 72–112. For a separate discussion of H.R. 354 and H.R. 1858 introduced in 1999, see YiJun Tian, *Reform of Existing Database Legislation and Future Database Legislation Strategies: Towards a Better Balance in the Database Law*, 31 RUTGERS COMPUTER & TECH. L.J. 347, 376–85 (2005); *see also* Duran, *supra* note 165, at 89–93; Ginsburg, *supra* note 140. To see the status of the latest federal bills, see Association of Research Libraries, Copyright & Intellectual Property Policies, <http://www.arl.org/pp/ppcopyright> (last visited Mar. 25, 2007). Some state bills were also debated, including the proposed Georgia Database Protection and Economic Development Act of 2001. S.B. 214, 213th Gen. Assem., Reg. Sess. (Ga. 2001). For a description of the various bills, see Barbara Simons, Database Treaties and Bills, <http://forum.stanford.edu/events/archive/database-workshop/DB02-Speaker-Slides/Barbara-Simons.ppt> (last visited Mar. 25, 2007).

173. H.R. 354, 106th Cong. (as reported by H.R. Comm. on the Judiciary, Oct. 8, 1999). There are two versions of this bill, namely the original bill as introduced in the House, dated January 19, 1999, and a revised bill as reported in the House (Union Calendar No. 212), dated October 8, 1999.

174. *Id.* § 1402(b).

Any person who extracts all or a substantial part of a collection of information gathered, organized, or maintained by another person through the investment of substantial monetary or other resources, so as to cause material harm to the primary market of that other person, or a successor in interest of that other person, for a product or service that incorporates that collection of information and is offered or intended to be offered in commerce by that other 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.

Professor McManis commented as follows:

Though labeled an “antipiracy” act and containing features, such as the “material harm” requirement, suggestive of a bill designed merely to prevent unfair competition, H.R. 354 nevertheless extends protection to both the primary market of a database producer and to any related market, and defines a “related market” sufficiently broadly that a database producer would be able control [sic] a wide range of non-competitive uses of data and reserve those potential markets for itself.

Charles R. McManis, *Database Protection in the Digital Information Age*, 7 ROGER WILLIAMS U. L. REV. 7, 9–10 (2001).

175. H.R. 3261, 108th Cong. (as reported by H. Comm. on Energy & Commerce, Mar. 11, 2004).

176. *Id.* § 3(a).

Three requirements must be met to qualify for protection: first, the database must be “generated, gathered, or maintained through a substantial expenditure of financial resources or time;” second, the defendant’s act of making the database available in commerce must occur “in a time sensitive manner and inflict[] injury on the database or a product or service offering access to multiple databases;” third, the ability to “free ride” on the database owner’s efforts must “so reduce the incentive to produce or make available the database or the product or service that its existence or quality would be substantially threatened.”¹⁷⁷

A second bill, H.R. 3872, would have made it an unfair or deceptive practice in commerce to misappropriate a database, thus opening the door for remedies under the Federal Trade Commission Act,¹⁷⁸ including civil penalties and injunctions.¹⁷⁹ Under this bill, misappropriation of a database would be present when

- (1) a person (referred to in this section as the “first person”) generates or collects the information in the database at some cost or expense;
- (2) the value of the information is highly time-sensitive;
- (3) another person’s (referred to in this section as the “other person”) use of the information constitutes free-riding on the first person’s costly efforts to generate or collect it;
- (4) the other person’s use of the information is in direct competition with a product or service offered by the first person; and
- (5) the ability of other parties to free-ride on the efforts of the first person would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened.¹⁸⁰

The two bills are thus quite different. Apart from the already-mentioned difference in the remedies made available, one bill (H.R. 3872) only applies to the unauthorized redistribution of highly time-sensitive information (“hot news”), while the other (H.R. 3261) applies to an unauthorized redistribution conducted “in a time sensitive manner.” As Jonathan Band noted,

Whether the redistribution is conducted in a time-sensitive manner turns on the ambiguous “temporal value of the information in the database, within the context of the industry sector involved.” Given that H.R. 3261 applies to databases in existence at the time of enactment, and the definition of the term “database” includes works such as periodical issues, anthologies and encyclopedias, the drafters of H.R. 3261 clearly intend to provide protection for a much longer period than the hot news window

177. *Id.* § 3(a)(1)–(3).

178. 15 U.S.C. § 45 (2000).

179. H.R. 3872, 108th Cong. § 2(a) (2004).

180. *Id.* § 2(b)(1)–(5).

recognised by the hot news misappropriation cases. Moreover, because H.R. 3261 protects the investment in the maintenance of a database, a database that is routinely updated could receive perpetual protection.¹⁸¹

Another fundamental difference is that under H.R. 3261 the parties do not even have to be competitors, whereas this requirement is clearly stated as the last condition in H.R. 3872.

The vagueness of the two bills on key concepts is a cause for concern, especially with respect to the amount of investment required to trigger the application of remedies. That being said, the notion of substantial investment¹⁸² in a database is especially difficult to delineate in a particular case, and it has caused some difficulties to national and regional tribunals in Europe.¹⁸³

Both bills introduced in the 108th Congress died like those in the four previous Congresses, due to the peculiar nature and power of Congressional Committees and the divergent views and interests they represent.¹⁸⁴ Still, they raised at least as many questions as they attempted to answer, notably concerning the extent of the overlap with copyright and the scope of exceptions, two issues that remain highly contentious.¹⁸⁵

4. Constitutional Issues

There was and is a debate about the constitutionality of Congress's attempts to protect databases beyond copyright law—and, since *Feist*, its constitutionally mandated originality requirement. A number of commentators¹⁸⁶ have argued that those attempts are unconstitutional on the basis that protection beyond copyright would alter the balance between protection and public access/competition embodied in the Copyright and Patent Clause.¹⁸⁷ This need for “balance” was mentioned in a number of Supreme

181. Jonathan Band, *The Database Debate in the 108th U.S. Congress: The Saga Continues*, 27 EUR. INTELL. PROP. REV. 205, 211 (2005).

182. That is, the test of “substantial expenditure” in § 3(a)(1) of H.R. 3261 or the notion of “some cost or expense” in § 2(b)(1) of H.R. 3872.

183. See *supra* Part II.A.2.

184. For a blow-by-blow account of the failure to adopt a bill in the last two (107th and 108th) Congresses, see Band, *supra* note 181.

185. For example H.R. 3261 stated that a database does not include a “work of authorship, other than a compilation or a collective work.” H.R. 3261, § 2(4)(B)(i). If double coverage applies, should exceptions such as fair use be aligned to match? See Jane C. Ginsburg, *US Initiatives to Protect Works of Low Authorship*, in EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 55, 74–76 (Rochelle Cooper Dreyfuss et al. eds., 2001); Trosow, *supra* note 172, at 614–15.

186. See, e.g., Duran, *supra* note 165.

187. See U.S. CONST. art. I, § 8, cl. 8 (giving Congress power “[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”).

Court decisions in which the Court decided that a state could not extend the effect of an expired patent, noting that the Copyright and Patent Clause balanced the objectives of promoting invention and preserving free competition¹⁸⁸ and that the public should be able to copy what copyright and patent laws placed in the public domain.¹⁸⁹

Justin Hughes has commented that the attempt to constitutionalize intellectual property has “produced meaty theoretical ideas with practical implications, but failed to capture the judicial imagination and largely ran aground on the *Eldred v. Ashcroft* and *MGM Studios Inc. v. Grokster, Ltd.* decisions.”¹⁹⁰ True, perhaps, but then one must exclude *Feist*.

More recently in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*,¹⁹¹ the Supreme Court considered that a Florida statute which had been invoked to protect a process not protected by a patent was pre-empted by federal patent law, noting once again that federal law reflected a balance between what should be protected and what the public should be free to use.¹⁹²

In several other cases, the Supreme Court has refused to apply unfair competition rules (of which misappropriation forms part) to subject matter not protected under federal intellectual property statutes. In the well-known case of *Kellogg Co. v. National Biscuit Co.* (which dealt with “Shredded Wheat” cereal on which the patent had expired), the Court declined to make a finding of “passing off” based on the defendant’s use of the shape and name of the plaintiff’s cereal.¹⁹³ The case was referred to by Professor Dinwoodie as perhaps the “Supreme Court’s most versatile and influential trademark decision.”¹⁹⁴ He also noted the following:

188. See *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230–31 (1964).

189. See *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234, 237 (1964).

190. Justin Hughes, *Copyright and Incomplete Historiographies: Of Piracy, Proterization, and Thomas Jefferson*, 79 S. CAL. L. REV. 993, 994–95 (2006) (footnotes omitted).

191. 489 U.S. 141 (1989).

192. *Id.* at 151–58. The Court added,

The Florida scheme blurs this clear federal demarcation between public and private property. One of the fundamental purposes behind the Patent and Copyright Clauses of the Constitution was to promote national uniformity in the realm of intellectual property. See The Federalist No. 43, p. 309 (B. Wright ed. 1961). Since the Patent Act of 1800, Congress has lodged exclusive jurisdiction of actions “arising under” the patent laws in the federal courts, thus allowing for the development of a uniform body of law in resolving the constant tension between private right and public access.

Id. at 162.

193. 305 U.S. 111, 116–120 (1938).

194. Graeme Dinwoodie, *The Story of Kellogg Co. v. National Biscuit Co.: Breakfast with Brandeis*, in *INTELLECTUAL PROPERTY STORIES* 220 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006).

The *Kellogg* Court clearly recognized that the defendant's right to copy emanates from the expiry of the patent. But the dedication of an invention to the public upon patent expiry might be grounded in a "patent bargain" theory, in concerns about the integrity of the patent system, or in the concern that the trademark protection for once-patented product designs might impair the competitive climate. Each theory might generate a different answer to the question "what of the patented invention is dedicated to the public?"¹⁹⁵

The choice of theory matters, in other words, because it directly impacts the scope of the "right to copy." While in *Kellogg* the Court seemed to accept the patent bargain theory, in *Qualitex Co. v. Jacobson Products Co., Inc.* it reverted to a "right to copy" based on a similar functionality doctrine anchored in competitiveness considerations.¹⁹⁶ It had another chance to clarify its approach in *TrafFix Devices, Inc. v. Marketing Displays, Inc.*¹⁹⁷ but again failed to do so.¹⁹⁸

*Dastar Corp. v. Twentieth Century Fox Film Corp.*¹⁹⁹ could also be mentioned in this context. The case involved a television series produced by Twentieth Century Fox that had fallen into the public domain (due to a failure to renew the copyright).²⁰⁰ Fox bought the exclusive right to distribute the series. Dastar was able to obtain the original negatives of the series. It repackaged and sold them to the public without acknowledging Fox. Fox sued, claiming a violation of the Lanham Act²⁰¹ for failure to acknowledge the source of the product (i.e., it claimed, Fox). The Court basically held

195. *Id.* at 246–47 (footnote omitted).

196. *See* 514 U.S. 159, 164–65 (1995).

197. 532 U.S. 23 (2001).

198. *See* Dinwoodie, *supra* note 194, at 248–50. Professor Dinwoodie also suggests that Justice Brandeis, who dissented in *INS*, but wrote the Court's opinion in *Kellogg*, was unwilling to accept intellectual property rights not based in explicit legislative instruction and rooted unfair competition in misrepresentation, not misappropriation. *Id.* at 252.

199. 539 U.S. 23 (2003).

200. *Id.* at 25–26.

201. 15 U.S.C. § 1125 (2000). Section (a)(1) provides that

(1) Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which—

(A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or

(B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities,

shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

that the Lanham Act did not prevent unaccredited copying of a work no longer protected by copyright.²⁰²

The idea of balance was also central in *Eldred v. Ashcroft*,²⁰³ in which the Court took pains to explain the calibration effected by Congress:

First, 17 U.S.C. § 102(b), which makes only expression, not ideas, eligible for copyright protection, strikes a definitional balance between the First Amendment and copyright law by permitting free communication of facts while still protecting an author's expression. Second, the "fair use" defense codified at § 107 allows the public to use not only facts and ideas contained in a copyrighted work, but also expression itself for limited purposes. "Fair use" thereby affords considerable latitude for scholarship and comment, and even for parody. The CTEA [Copyright Term Extension Act of 1998] itself supplements these traditional First Amendment safeguards in two prescriptions: The first allows libraries and similar institutions to reproduce and distribute copies of certain published works for scholarly purposes during the last 20 years of any copyright term, if the work is not already being exploited commercially and further copies are unavailable at a reasonable price, § 108(h); the second exempts small businesses from having to pay performance royalties on music played from licensed radio, television, and similar facilities, § 110(5)(B).²⁰⁴

There are a number of appellate cases that would deserve mention here,²⁰⁵ but one which cannot escape our scrutiny is, of course, the Seventh Circuit's decision in *Assessment Technologies of WI, LLC v. WIREdata, Inc.* in which the owner of a piece of software used to compile and store real estate tax assessment data asserted an infringement claim against a company seeking access to data for use by real estate brokers.²⁰⁶ The data was collected by government employees but stored on the plaintiff's computers. The defendant was seeking access to data from plaintiff's licensees for use by real estate brokers, but without making a copy of the plaintiff's computer program (which was a separate copyrighted work). The Court

202. *Dastar*, 539 U.S. at 33–35. The decision is of particular interest to scholars interested in the moral right, but that is clearly beyond the scope of this paper. See David Nimmer, *The Moral Imperative Against Academic Plagiarism (Without a Moral Right Against Reverse Passing Off)*, 54 DEPAUL L. REV. 1 (2004) (concluding that compliance with the Berne Convention does not require the U.S. to recognize reverse passing off).

203. 537 U.S. 186 (2003).

204. *Id.* at 190–91 (citations omitted).

205. See, e.g., *MyWebGrocer, LLC v. HomeTown Info, Inc.*, 375 F.3d 190, 191 (2d Cir. 2004) (affirming the district court's refusal to grant a preliminary injunction against the copying of information about grocery products, because it was unclear whether MyWebGrocer would succeed on the merits in establishing minimal creativity in the descriptions). For a discussion of a number of interesting district court decisions, see Richard Keck & Damon Goode, *Of Misappropriated Manure Heaps, Rude Robots and Broken Promises: The (D)evolving Law of Database Protection*, 57 BUS. LAW. 513, 525–33 (2001).

206. See 350 F.3d 640, 641–43 (7th Cir. 2003).

held that the plaintiff had no copyrightable interest in the underlying tax data and thus could not claim contributory infringement by the defendant.²⁰⁷ It added that if the data could only be copied by copying part of the computer program, the copying would be permissible under the Ninth Circuit's fair use determination concerning "intermediate copying."²⁰⁸

Based on the above, it remains unclear whether a federal misappropriation tort for databases would necessarily be wholly unconstitutional. It seems undeniable that, in cases concerning the Copyright and Patent Clause, the Supreme Court has insisted on the need to balance protection against public access and competition. A database right would, however, not be anchored in the Copyright and Patent Clause but rather in the Commerce Clause.²⁰⁹ Would the Supreme Court consider that the same need for "balance" in intellectual property applies? If so, would that mean that *any* protection, even if calibrated along the lines of *INS* and *NBA*, is necessarily invalid? Answering with any degree of certainty is perilous. There are, in addition, uncontrollable political forces at play. Clearly, however, the tension between the constitutional objective of progress of science and useful arts on the one hand, and protection beyond copyright on the other, is undeniable.²¹⁰ Yet, it seems probable that Congress could validly adopt a narrowly constructed bill.²¹¹

It has also been suggested that Congress should act if the United States is to lead international harmonization efforts, rather than follow the lead of others.²¹² Whether it would serve a useful purpose supported by empirical data showing the need for such protection²¹³ is an entirely different matter, to which we alluded when discussing the European Directive.²¹⁴

207. *Id.* at 644.

208. *See id.* at 644-45; *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1518-19 (9th Cir 1992).

209. *See* U.S. CONST. art. I, § 8, cl. 3 (giving Congress the power "[t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes").

210. *See* Ginsburg, *supra* note 185, at 73.

211. *See* Jane C. Ginsburg, *Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 170 (1997) ("A preemption analysis that removes the incentive to produce mass-market information products does not serve the overall goal of promoting knowledge.").

212. *See* Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, 18 BERKELEY TECH L.J. 773, 831 (2003). A further constitutional argument supporting the case for federal jurisdiction in that context is the Treaty Clause, U.S. CONST. art. II, § 2, cl. 2. Who might flock to the argument that digital data can be compared to migratory birds (I am referring of course to *Missouri v. Holland*, 252 U.S. 416 (1920)) is a different matter. As the Court noted in *Holland*, "a national interest of very nearly the first magnitude is involved. It can be protected only by national action in concert with that of another power. The subject matter is only transitorily within the State and has no permanent habitat therein." *Id.* at 435.

213. Robert O'Neil's research seems to indicate that the number of files available in electronic databases has grown three-fold between 1991 and 1997. *See* Robert M. O'Neil, *Campus Database*

The link with the Directive also raises another question: would a federal misappropriation bill be sufficient to obtain (permanent) protection under the Directive's reciprocal *sui generis* provision?²¹⁵ Clearly, the existence of that provision in the Directive—reminiscent of the U.S.'s efforts in the mid-1980s to protect computer semiconductor chips under a similar reciprocal regime²¹⁶—puts pressure on U.S. lawmakers.²¹⁷ For example, in a typical congressional flight of oratory, it was said that the provision was a “license to steal” precious private, constitutionally protected property from United States database producers.²¹⁸

Some of the problems that commentators had with previous U.S. bills included the lack of a reciprocal clause (forcing countries to legislate an equivalent right in order to benefit from a new U.S. database right) and discrepancies in contract-override possibilities between the U.S. proposed models and the Directive.²¹⁹ A commentator also observed that, in light of the restrictive approach taken by the European Court of Justice,²²⁰ the passion to adopt *sui generis* or misappropriation legislation in the United States was somewhat less inflamed.²²¹

Issues, 27 J.C. & U.L. 109, 109 (2000). During the same period, the percentage of databases provided by governments and other non-profit sources declined from almost 80% to approximately 20%. *Id.*

214. See *supra* Part II.A.1.

215. Article 11(3) of the Directive provides (in part) that agreements extending the *sui generis* right to databases made in third countries may be concluded by the European Council acting on a proposal from the Commission. Directive, *supra* note 43, art. 11(3); see also Jonathan Band & Makoto Kono, *The Database Protection Debate in the 106th Congress*, 62 OHIO ST. L.J. 869, 876–77 (2001).

216. See Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§ 901–914 (2000); see also Robert W. Kastenmeier & Michael J. Remington, *The Semiconductor Chip Protection Act of 1984: A Swamp or Firm Ground?*, 70 MINN. L. REV. 417 (1985).

217. See Graeme B. Dinwoodie, *Essay: The Integration of International and Domestic Intellectual Property Lawmaking*, 23 COLUM.-VLA J.L. & ARTS 307, 315 & n.34 (2000). This begs the empiricist's question why there are substantially more databases in the United States but no *sui generis* or equivalent right.

218. See Boyarski, *supra* note 137, at 907–08 (quoting the then-General Counsel of The Nasdaq Market, Inc. testifying at *Electronic Intellectual Property Protection: Hearing on H.R. 2652 Before the Subcomm. on Intell. Prop. & the Courts*, 105th Cong. (1998)).

219. See Ginsburg, *supra* note 185, at 69; Wald, *supra* note 44, at 1035–37.

220. See *supra* Part II.A.1.e.

221. See Band, *supra* note 181, at 211–12.

Further diminishing the likelihood of database legislation in the United States are the recent database decisions of the European Court of Justice—*British Horseracing Board Ltd v William Hill Organization* and the three *Fixtures* cases. According to the Court, investment in creating the data compiled in a database does not count as legally relevant investment. Rather, the publisher must make a substantial investment in collecting and organizing the data in order to receive protection. The decisions imply that many sole-source databases, such as television programme schedules, airline schedules, stock market data, box scores, real estate listings, results of scientific experiments and perhaps online auction listings, cannot receive protection under the Database Directive, unless some substantial *additional* effort is made to convert the created data into a database.

5. Other Forms of Protection

Databases may also be protected in the United States through contract law (licensing) if an enforceable contract is formed with the user,²²² or under a theory of trespass to chattels, which may prevent access to a computer system resulting in interference with the possession of a computer and injury to the owner.²²³ It is less useful to discuss those two possible causes of action here, owing to important differences among the online contract law of various countries²²⁴ and the less-than-universal appeal of the tort of trespass to chattels in the online environment. It is worth noting also that both approaches are subject to the pre-emption analysis outlined above.

C. Australia

Australia produced a very interesting case in 2001 that, like *Feist*, dealt with telephone directories.²²⁵ This decision of the Federal Court of Appeal provided a thorough analysis of British cases concerning the copyrightability of factual compilations, and then studied *Feist* and the Canadian *Tele-Direct* case.²²⁶ The court found there were cogent policy arguments both for and against following *Feist*²²⁷ but decided against it—

222. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996).

223. See *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000); *Register.com, Inc. v. Verio, Inc.*, 126 F. Supp. 2d 238 (S.D.N.Y. 2000); Ian C. Ballon, *Bots, Screen Scraping, Content Aggregation and the Evolving Doctrine of Database Trespass*, CYBERSPACE LAW, May 2001, at 15, 21.

On balance, liability is most likely to be assessed where a plaintiff can establish: (1) either unauthorized access that burdens a server or circumvention; (2) followed by unauthorized use. Courts are likely to recognize claims in cases where a content aggregator (or other party) uses IP spoofing or other techniques to circumvent a site owner's legitimate attempts to restrict access to their sites, or where a third party uses fraudulent or dishonest means to gain access. Repeated access—by people or bots—that burdens a server or network or drains resources likewise may be found actionable. Even a *de minimis* intrusion, however, may support a finding of liability if the intrusion was made for the purpose of subsequent unauthorized use (other than merely unauthorized copying, which, absent additional elements, would likely be preempted).

Id.

224. Professor Ginsburg has also suggested that the “classic distinction between a contract right *inter partes* and a property right *erga omnes* dissolves when all users must become the information provider's co-contractants.” Ginsburg, *supra* note 211, at 167.

225. *Desktop Mktg. Sys. Pty. Ltd. v. Telstra Corp. Ltd.*, (2001) 119 F.C.R. 491 (Austl.).

226. *Id.*; see also *Tele-Direct (Publ'ns) Inc. v. Am. Bus. Info., Inc.*, [1998] 2 F.C. 22 (Can.).

227. *Telstra*, (119) F.C.R. ¶ 424, at 597.

Doubtless there would be good reasons to follow *Feist* in Australia if, from a policy perspective, its approach offers clear advantages over one which protects industrious compilations. The policy question essentially revolves around the means of resolving the tension between providing incentives to produce potentially useful works and encouraging free access to information or “raw facts”.

based on a detailed analysis of Australian²²⁸ and British²²⁹ precedents dealing with “industrious collections”—and suggested that the underlying policy question was best left for Parliament.²³⁰

The current wave of copyright reform in Australia, which focuses on new exceptions and format shifting, does not include a *sui generis* right for databases.²³¹ Nor was the *sui generis* right part of the rather controversial discussions on the United States-Australia Free Trade Agreement.²³²

D. Canada

In Canada the selection and arrangement of materials in a database is protected by copyright if it meets the originality requirement. However, such protection only applies to the reproduction of a substantial part of what is protected, that is, not the data but rather the selection or arrangement. Additionally, Canada’s notion of originality was used to deny copyright protection to telephone directories.²³³

The debate concerning originality is interesting. While the *Tele-Direct* decision was informed by the perceived need to harmonize Canadian law with *Feist*,²³⁴ other cases have hung on the *University of London Press*,

228. Including *Sands & McDougall Proprietary, Ltd. v. Robinson*, (1917) 23 C.L.R. 49, 53–54 (Austl.).

229. Including *Morris v. Ashbee*, (1868) 7 L.R.Eq. 34 (Eng.), and *Kelly v. Morris*, (1866) 1 L.R.Eq. 697 (Eng.). See *supra* Part II.A.2.a.

230. *Telstra*, (119) F.C.R. ¶ 429, at 598.

A court is ill-equipped to undertake the inquiries and make the policy assessments necessary to resolve these issues. The questions are for Parliament to consider. In the meantime, Australian law recognises copyright in so-called industrious compilations, even in the case of whole of universe compilations prepared by monopolists.

231. See Media Release 088/2006, Attorney Gen. of the Commonwealth of Austl., Major Copyright Reforms Strike Balance (May 14, 2006), available at http://www.ag.gov.au/agd/WWW/MinisterRudockHome.nsf/Page/Media_Releases_2006_Second_Quarter_14_May_2006_-_Major_Copyright_Reforms_Strike_Balace_-_0882006 (last visited Mar. 25, 2007).

232. See United States-Australia Free Trade Agreement, U.S.-Austl., May 18, 2004, 43 I.L.M. 1248 [hereinafter U.S.-Austl. FTA], available at http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Australia_FTA/Final_Text/asset_upload_file148_5168.pdf. President George W. Bush signed the United States-Australia Free Trade Agreement Implementation Act into law on August 3, 2004. Pub. L. No. 108-286, 118 Stat. 919. The FTA came into force on January 1, 2005. The protection of Digital Rights Management, U.S.-Austl. FTA, *supra*, art. 17.4.7, was the source of significant controversy. See AUSTL. H.R. STANDING COMM. ON LEGAL AND CONSTITUTIONAL AFFAIRS, REVIEW OF TECHNOLOGICAL PROTECTION MEASURES EXCEPTIONS (2006), available at <http://www.aph.gov.au/house/committee/laca/protection/report.htm>.

233. See *Édutile Inc. v. Auto. Prot. Ass’n*, [2000] 4 F.C. 195 (Can.); *Tele-Direct (Publ’ns) Inc. v. Am. Bus. Info., Inc.*, [1998] 2 F.C. 22 (Can.).

234. See Rina Elster Pantalony, *Canada’s Database Decision: An American Import Takes Hold*, 2 J. WORLD INTELL. PROP. 209, 215 (1999).

Article 1705(l)(b) of the NAFTA provides that each country shall protect compilations of data or other material, which by reason of the selection or arrangement of their contents constitute intellectual creations. Furthermore, Article 1705(l)(b) states that such protection

Ltd. v. University Tutorial Press, Ltd. (“ULP”)²³⁵ notion of originality. In *ULP* a work was original if the author was the originator of the work.²³⁶ According to that case, as it is interpreted in Canadian jurisprudence, it is sufficient to show that the author’s work was not copied and was the result of some degree of labor.²³⁷

However, in 2004, in a landmark, unanimous decision penned by the Chief Justice,²³⁸ the Supreme Court of Canada “redefined” originality.²³⁹ *CCH Canadian Ltd. v. Law Society of Upper Canada* dealt with copies of edited judicial decisions and other material by the law library of the Ontario Bar. In reversing the Federal Court of Appeal, the Court ostensibly opted for a third, middle path for the standard of originality.²⁴⁰ The Court declared that it preferred not to follow American jurisprudence, including *Feist*.²⁴¹ A first, quick reading of *CCH* shows that the “Canadian” notion of originality is the following: one starts with the “test” of effort and labor (that is, the work originates from the author without “copying”), but a second requirement is added, namely that the effort and labor must be neither mechanical²⁴² nor trivial.²⁴³ At first glance, therefore, it seems that Canada is now situated between the two standards of sweat of the brow and creativity. However, upon further analysis, the Supreme Court chose a “middle path” only in appearance. Operationally, Canada instead has taken on a standard essentially identical to *Feist*’s modicum of creativity. To put it a different way: what makes it so that the effort and labor are neither mechanical nor trivial? The answer is precisely the presence of a modicum of creativity.

The “new” Canadian standard of originality is a test that, like *Feist*, is both easy to use and objective. It consists of an assessment by the court of the *creative choices* of the author, defined as those that were dictated to the

does not extend to the underlying data or prejudice any copyright subsisting in that data or material. . . .

. . . The Court expressed the view that by signing NAFTA, the Canadian government agreed to alter its legislation and long-standing [British] doctrine governing the threshold determining what is copyrightable.

235. (1916) 2 Ch. 601.

236. *Id.* at 609.

237. See ELIZABETH F. JUDGE & DANIEL GERVAIS, *INTELLECTUAL PROPERTY: THE LAW IN CANADA* 16–18 (2005).

238. *CCH Canadian Ltd. v. Law Soc’y of Upper Can.*, [2004] 1 S.C.R. 339, 2004 SCC 13 (Can.).

239. See Daniel J. Gervais, *Canadian Copyright Law Post-CCH*, 18 *INTELL. PROP. J.* 131 (2004).

240. *CCH*, [2004] 1 S.C.R. para. 16.

241. *Id.* para. 22.

242. *Id.* para. 16 (“This exercise of skill and judgment will necessarily involve intellectual effort. The exercise of skill and judgment required to produce the work must not be so trivial that it could be characterized as a purely mechanical exercise.”).

243. *Id.* para. 88.

author not by the eventual function of the work nor by the technique used nor, in cases where the work is more technical in nature, by the applicable standards or practices. A simple way of conceiving of this “test” is as follows: would another author likely have created substantially the same “work” in the same context? If the answer is yes, the work is of a mechanical or manual nature and there is no originality in the sense of copyright because there is no room for creative choices. If the answer is no, that is, if it is likely that another author would have reached a substantially different result, it is because there was a creative “space,” a possibility to make choices—conscious or not, rational or not—that the first author would not have made, or at least not in the same manner. This is close to what was said in *Feist*:

Feist

“Factual compilations . . . may possess the requisite originality. The compilation author typically chooses which facts to include, in what order to place them, and how to arrange the collected data so that they may be used effectively by readers. These choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws.”²⁴⁴

CCH

“Although headnotes are inspired in large part by the judgment which they summarize and refer to, they are clearly not an identical copy of the reasons. The authors must select specific elements of the decision and can arrange them in numerous different ways. Making these decisions requires the exercise of skill and judgment. The authors must use their knowledge about the law and developed ability to determine legal *ratios* to produce the headnotes. They must also use their capacity for discernment to decide which parts of the judgment warrant inclusion in the headnotes. This process is more than just a mechanical exercise.”²⁴⁵

“Even if the summary often contains the same language as the ju-

244. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340, 348 (1991).

245. *CCH*, [2004] 1 S.C.R. para. 30.

dicial reasons, the act of choosing which portions to extract and how to arrange them in the summary requires an exercise of skill and judgment.”²⁴⁶

The notion is also fairly similar to the test used by the French Supreme Court²⁴⁷ in cases in which a search for the presence of the author’s personality (the traditional test of originality under French law)²⁴⁸ became illusory or impossible. Finally, it is also the definition of originality that emerges from work related to the Berne Convention.²⁴⁹

Canada does not protect databases under a separate (*sui generis*) regime. However, in a report issued in October 2002 under the authority of Section 92 of the Copyright Act²⁵⁰ entitled *Supporting Culture and Innovation: Report on the Provisions and Operation of the Copyright Act*, Canadian Heritage and Industry Canada, the two governmental departments jointly responsible for the operation of the Act, commented on this issue as follows:

Issue: Whether the Act should be amended to provide for some form of protection for non-original databases.

A database is a collection of digitized information, facts, works or other material that has been arranged in such a way that a user can retrieve items having certain characteristics or meeting certain criteria. Organizations, such as publishers, commercial enterprises, hospitals, educational institutions, libraries and archives, expend considerable resources in developing and maintaining databases, whether for commercial or non-commercial, internal or external use. Providing appropriate legal protection for databases can therefore provide important incentives to invest in their creation and use.

A work that results from the selection or arrangement of works or data may itself be protected as a “compilation” as defined in the *Copyright Act*. From this definition, many databases receive copyright protection with its attendant rights, exceptions and term of protection. Exactly which databases benefit from copyright protection remains unclear, however. Recent court decisions suggest that the selection and arrangement of the underlying works or data must be sufficiently “original” to qualify for protection. The fact that considerable effort or money was in-

246. *Id.* para. 31.

247. See Gervais *supra* note 137, at 968–70.

248. See Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 DEPAUL L. REV. 1063, 1072 (2003).

249. See *supra* Part I.A.2.

250. Copyright Act, R.S.C., ch. C-42, § 92 (1985) (providing for a review of the operation of the Act every five years).

vested in the creation of the database may be irrelevant. A broader issue is whether copyright protection, with its particular rights, exceptions and term of protection, is the most appropriate way to protect databases.²⁵¹

Debates on the protection of databases in Canada have paralleled those in a number of other jurisdictions. It was said, for instance, that protecting databases through a *sui generis* regime would retard progress and prevent access to scientific data,²⁵² and that a “simplistic” proprietary analysis simply would not do:

[E]ven [a] cursory review of the literature and the positions advanced by interested parties makes it clear that such questions of public interest exemptions from liability for scientific research cannot be determined through abstract questions of the public good by non-interested parties, no matter how well-meaning, and are complicated by the automatic entitlements that flow necessarily from a proprietary approach. In practice, the reliance on proprietary protection, which is an all-or-nothing equation absent a specific permission or defense to cover the specific use, encourages the tendency to shape originality doctrine to produce a desired consequence. This author suggests that a more meaningful approach would be one oriented to asking the more difficult questions (when to protect databases, on what basis, and to what degree), which does not fit well within an exclusively proprietary approach.²⁵³

In the current political situation (a minority party holding the reins of power), the government is likely to avoid unnecessarily risky battles in Parliament. It thus seems improbable that a database bill would proceed quickly. The delay in adopting a bill in the U.S. Congress adds ammunition to those who prefer the current “wait and see” approach, hoping that clearer data will continue to emerge from the European application of its *sui*

251. INDUSTRY CANADA & CANADIAN HERITAGE, SUPPORTING CULTURE AND INNOVATION: REPORT ON THE PROVISIONS AND OPERATION OF THE COPYRIGHT ACT 16 (2002), available at <http://strategis.ic.gc.ca/epic/internet/incrp-prda.nsf/en/tp00863e.html>.

252. See C.D. Freedman, *Should Canada Enact a New Sui Generis Database Right?*, 13 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 35, 44–45 (2002); see also Paul A. David, *A Tragedy of the Public Knowledge ‘Commons’?: Global Science, Intellectual Property and the Digital Technology Boomerang 2–3* (Sept. 10, 2000), available at <http://www.oiprc.ox.ac.uk/EJWP0400.pdf>.

The problem is not so much intellectual property rights mechanism itself, which although imperfect, has been found to work well enough when it comes to stimulating private investment in the exploitation of commercial opportunities based upon existing bodies of scientific and engineering knowledge. What is more problematic for the long run, however, is that an unchecked bias towards expanding of the domain of information-goods within which private property institutions and market mechanisms flourish, is steadily encroaching upon the domain of public information. In doing so, it has tended to weaken, and may in the end seriously undermine those non-market institutions which historically have proved themselves to be especially effective in sustaining rapid growth in the scientific and technological knowledge base that is available to be exploited.

Id.

253. Freedman, *supra* note 252, at 48–49.

generis right, its myriad intended and unintended affects, and unexpected interpretations.²⁵⁴

E. China

Under the original Chinese Copyright Law of 1990,²⁵⁵ only compilations of pre-existing works were protected, but the 2001 amendments²⁵⁶ extended protection to all original compilations.²⁵⁷ Interestingly, until 2001 the protection of compilations containing material other than pre-existing works was only available to foreign rightholders.²⁵⁸

Following the example of several other countries, the Chinese legislature did not define “originality.” How did Chinese judges rate the conceptual fight between sweat and creativity? “Most Chinese courts appear to . . . endorse that original works of authorship dictate a modicum of creativity.”²⁵⁹ In a case involving a Chinese all-time favorite song known as “Wahaha,” a Shanghai court held²⁶⁰ that the word (phrase) “wahaha” was uncopyrightable as non-original, in spite of its enormous commercial significance.

In another controversial 1994 decision, a court in Liouzhou found²⁶¹ that, while television guides were uncopyrightable, they could be protected under a general principle of unfair competition in tort law. The case is important because it was followed in two subsequent decisions by higher courts in cases involving electronic databases.²⁶² In a recent case, the sim-

254. See *supra* Part II.A.1.e.

255. See Copyright Law (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 7, 1990, effective June 1, 1991) CHINALAWINFO (last visited Mar. 25, 2007) (P.R.C.).

256. See Decision on the Revision of the Copyright Law (promulgated by the Standing Comm. Nat'l People's Cong., Oct. 27, 2001, effective Oct. 27, 2001). An English translation of China's amended Copyright Law is available at http://www.wipo.int/clea/docs_new/pdf/en/cn/cn001en.pdf (last visited Mar. 25, 2007).

257. See *id.* art. 14 (“A collection of preexisting works or passages therefrom, or of data or other material which does not constitute a work, if manifesting the originality of a work by reason of the selection or arrangement of its contents, is a compilation.”).

258. The situation lasted from the date of a bilateral treaty with the United States in 1992 until the 2001 amendments. See Jiarui Liu, *Preserving Originality in Cyberspace: What China Can Learn from the United States and the European Union About Database Protection*, 6 J. WORLD INTELL. PROP. 593, 599 (2003).

259. *Id.* at 600.

260. Guo Shifu v. HangZhou Wahaha Ltd. (Shanghai 2d Interm. People's Court, Nov. 15, 1998). “Wahaha” means (somewhat unsurprisingly to a western ear) “kids' laughter.” See Liu, *supra* note 258, at 600 n.50.

261. Guangxin Broad. & Television Post v. Guangxin Coal Miners Post (Liouzhou Interm. People's Court, 1994). For a discussion of the *Guangxin Broadcasting* case, see ZHENG CHENGSI, INTELLECTUAL PROPERTY ENFORCEMENT IN CHINA: LEADING CASES AND COMMENTARY 34–42 (1997).

262. See Liu, *supra* note 258, at 601–02.

ple fact of hyper-linking was found to constitute unfair competition.²⁶³ As a result of those recent rulings, even if copyright protection of databases is limited by the application of a *Feistian* originality standard, China has one of the most protective misappropriation regimes of the countries studied in the preparation of this article, informed, it seems, by the belief that “one should be entitled to the full return of one’s labour and investment.”²⁶⁴

F. Nigeria

Nigeria applied the UK Copyright Acts of 1842²⁶⁵ and 1911²⁶⁶ until it enacted its own legislation in 1970.²⁶⁷ The present Copyright Act defines “literary work” as including “written tables and compilations.”²⁶⁸ In a 1977 case, the Federal High Court decided that telephone directories were not “original” and thus could not be protected under the Act.²⁶⁹

It has also been suggested that that if a *sui generis* regime were developed in Nigeria, it should be for traditional knowledge not databases,²⁷⁰ and that costs of introducing a *sui generis* regime for databases in developing countries might outweigh the potential benefits.²⁷¹

263. Beijing Fin. City Network Ltd. v. Chengdu Caizi Software Ltd. (Beijing 2d Interm. People’s Court, No. 122, 2000); see also Liu, *supra* note 258, at 602–03.

264. Liu, *supra* note 258, at 604.

265. Copyright Act, 1842, 5 & 6 Vict., c. 45 (Eng.), reprinted in CATHERINE SEVILLE, LITERARY COPYRIGHT REFORM IN EARLY VICTORIAN ENGLAND: THE FRAMING OF THE 1842 COPYRIGHT ACT app. III (1999).

266. Copyright Act, 1911, 1 & 2 Geo. 5, c. 46 (Eng.).

267. Egerton Uvieghara, *Copyright Protection in Nigeria—New Trends and Prospects*, in NIGERIA’S FOREIGN INVESTMENT LAWS AND INTELLECTUAL PROPERTY RIGHTS 158, 158 (Bankole Sodipo & Bunmi Fagbemi eds., 1994).

268. Copyright Act, (1990) Cap. 68, § 39 (Nigeria), available at <http://www.nigeria-law.org/CopyrightAct.htm>. The 1990 Act has been amended twice since its adoption. See Copyright (Amendment) Decree No. 98 (1992); Copyright (Amendment) Decree No. 42 (1999).

269. See I.C.I.C. (Directory Publishers) Ltd. v. Ekko Delta Ltd, [1977] 3 F.H.C.N.L.R. 346 (Nigeria).

270. See Oriola, *supra* note 42, at 225–26 (“It should be noted that a *sui generis* database protection regime for Nigeria and other developing countries could be beneficial were they to employ it to protect their ‘traditional knowledge’, for which there is no legal protection at present.”); see also Daniel Gervais, *Traditional Knowledge & Intellectual Property: A TRIPS-Compatible Approach*, 2005 MICH. ST. L. REV. 137. Australia has debated a possible *sui generis* regime in this area since at least 1981. See Joseph Wambugu Githaiga, Current Development, *Intellectual Property Law and the Protection of Indigenous Folklore and Knowledge*, MURDOCH U. ELECTRONIC J.L., June 1998, at ¶ 65, <http://www.murdoch.edu.au/elaw/issues/v5n2/githaiga52.txt> (last visited Mar. 25, 2007).

271. See Oriola, *supra* note 42, at 226.

Although there are no readily available statistics, it is beyond a doubt that the output of commercial databases and investments in this area in the western hemisphere far outstrips those of developing countries. There is, therefore, very little incentive from an economic perspective for developing countries such as Nigeria to have a *sui generis* law for database protection.

G. Russian Federation

Russia has taken a somewhat different path. Databases were protected until recently through myriad statutes and legal doctrines instead of a *sui generis* right comparable to the one found in the EU Directive. In fact, a 2000 survey of applicable legislation found eleven potentially applicable statutes.²⁷² Limiting our analysis of those statutes to copyright and related rights, the Copyright Law²⁷³ protects “collections,” but excludes ideas, methods, processes, systems, concepts, principles, discoveries, and facts.²⁷⁴ Interestingly, the Law on the Legal Protection of Computer Programs and Databases²⁷⁵ did not include a *sui generis* right protecting the contents of a database.²⁷⁶

Amended in 2004, the Copyright Law now defines a database as “an objective form for the presentation and arrangement of data aggregates (articles, calculations, and the like) put together in a system allowing these data to be found and processed by means of electronic computer.”²⁷⁷ The new law exempts “databases or substantive parts thereof” from the personal use exception (that is, an authorization is required)²⁷⁸ and limits copies that would infringe the three-step test.²⁷⁹ The new law does not, however, contain a *sui generis* or misappropriation right.

Significant changes are expected to be made to both unfair competition and copyright norms due to bilateral pressure from the United States.²⁸⁰

272. Oxana Iatsyk, Note, *Information Technology and Law in Russia: Protecting Information under Russian Law*, 3 J. WORLD INTELL. PROP. 51 (2000). Those laws include Law on Information, Informatization and Protection of Information (1995); Law on Participation in the International Information Exchange (1995); Law on Mass Media (1991); Fundamentals on the Archival Fund (1993); Law on State Secrets (1993); Law on Compulsory Document Samples (1994); Law on Communication (1995); Law on Authors' Rights and Neighboring Rights (1993); Patent Law (1992); Law on the Legal Protection of Software and Databases (1992); Law on the Legal Protection of Integral Circuit Topologies (1992). See *id.* at 52.

273. Law on Copyright and Neighboring Rights, Law No. 5351-1, July 9, 1993, as amended by Law No. 72-FL, July 20, 2004 (Russ.), translation available at http://www.cipr.org/legal_reference/countries/russia/index.htm.

274. *Id.* arts. 6 & 7.

275. See Law No. 3523-1, Sept. 23, 1992, as amended by Law No. 177-FL, Dec. 24, 2002 (Russ.), translation available at http://www.fips.ru/ruptoen2/law/pr_db.html.

276. See Iatsyk, *supra* note 272, at 62.

277. Law on Copyright and Neighboring Rights, art. 4.

278. *Id.* art. 18(1).

279. See *id.* art. 26. On the three-step test see *supra* note 83.

280. As the Coalition for Intellectual Property Rights noted on its website,

On 2 May 2005, the Presidential Administration passed an Order to establish a working group to draft part four of the Civil Code before the end of the year, which will establish new, unified provisions on industrial property and copyright laws. The working group has met twice weekly since 6 September and includes some of Russia's most prominent legal experts.

H. Singapore

In Singapore databases are protected as copyright works. This remains possible for many databases because of a very low originality threshold. Essentially, “original” in Singaporean copyright law means that the work “originated from” the author (that is, was not copied) and that skill and judgment were expended by the author.²⁸¹ When Parliament debated amendments to the Copyright Act²⁸² in 1999,²⁸³ the possibility of a *sui generis* right was discussed and rejected because Singapore’s “policy was to build on the existing copyright regime as it has proven that it worked well for the other forms of intellectual works and, to provide consistency and certainty in the laws, copyright principles will continue to play a major role in shaping the laws in cyberspace.”²⁸⁴

III. CRITICISMS

The Internet was built with information. Information on the Internet has value not because it is scarce, a model which applied in traditional microeconomics to goods (including informational goods such as books), but because those who value it (most) are able to find it.²⁸⁵ Unsurprisingly, those who control access and can guide Internet users to the information they seek are now the largest players on the Internet (based on market capitalization).²⁸⁶ Any restriction on the use of databases should be the result of a careful analysis. This delicate equation must balance the incentive to create new databases against the network effects of reducing information flows. In fact, some forms of restriction sought by database owners almost as knee-jerk attachment to “property” may not, in the end, be in their own interest.²⁸⁷

Coalition for Intellectual Property Rights, Legislative and Regulatory Initiatives, <http://www.cipr.org/activities/advocacy/US-Russia/index.htm> (last visited Mar. 25, 2007).

281. See Susanna H.S. Leong, *Legal Protection of Factual Compilations and Databases: Re-thinking the Copyright Protection Model in Singapore*, 5 J. WORLD INTELL. PROP. 1047, 1048 (2002).

282. Copyright Act, Cap. 63, Apr. 10, 1987, as last amended Aug. 15, 2005 (Sing.).

283. Leong, *supra* note 281, at 1058.

284. *Id.* (summarizing comments made by Professor S. Jayakumar, Minister for Law and Foreign Affairs).

285. See Daniel J. Gervais, *The Price of Social Norms: Towards a Liability Regime for File-Sharing*, 12 J. INTELL. PROP. L. 39, 55–57 (2004).

286. Google’s capitalization surpassed IBM’s in December 2005. At the time of its IPO in August 2004, it was already worth approximately \$50 billion. See Initial Public Offering by Google, Inc., <http://www.ipogoogle.org/> (last visited Mar. 25, 2007).

287. See Rebecca Lubens, *Survey of Developments in European Database Protection*, 18 BERKELEY TECH. L.J. 447, 466 (2003) (“Normative questions also arise about the extent to which the free linking ethos of the Internet’s founders and first users should be reflected in the laws governing its use by commercial interests.”).

And yet there are cases that seem to twitch our Lockean gene or perhaps our equity moral fiber. When five years of David Brooks's work to build a website devoted to Vincent van Gogh were taken by a Dutch site, including digitized copies of rare van Gogh works, without any authorization or compensation, many felt a pang of unfairness.²⁸⁸ But is the Directive's *sui generis* right the best/only way forward? While wholesale duplication may indeed be "unfair" and actionable either under a *sui generis* regime or another cause of action (e.g., tort law), it is in cases in which less than the whole, indeed only a relatively small part, is taken that the true regulatory and policy difficulties emerge. Unfortunately, a vast majority of cases fit that description.

By definition, because *sui generis* means precisely "of its own kind," a number of *sui generis* regimes and models are theoretically possible. Indeed, proposals for new forms of protection better aligned with economic imperatives have been made.²⁸⁹ This includes the debates about a federal misappropriation doctrine in the United States.

Was the Directive the "right" solution? It has been termed a "leap in the dark,"²⁹⁰ and seen as the product of adroit lobbying more than hard

288. See Nancy Matsumoto, *When the Art's Public, Is the Site Fair Game?*, N.Y. TIMES, May 17, 2001, at G6; see also Jordan M. Blanke, *Vincent Van Gogh, "Sweat of the Brow," and Database Protection*, 39 AM. BUS. L.J. 645, 645-46 (2002).

289. Though in a different area, Professor Reichman's effort is certainly worth mentioning here. See J.H. Reichman, *Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation*, 53 VAND. L. REV. 1743 (2000); see also J.H. Reichman, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432 (1994). Professor Reichman and Keith Maskus also commented,

The drive to stamp out free-riding practices thus tends to obscure serious problems engendered by the radical transformation of IP policies that has occurred in developed countries. This transformation constitutes a prolonged effort to strengthen the protection of investors in cutting-edge technologies, especially computer programs and biogenetically engineered products, which fit imperfectly within the classical patent and copyright paradigms.

Keith E. Maskus & Jerome H. Reichman, *The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods*, 7 J. INT'L ECON. L. 279, 295-96 (2004). They go on to note a risk of participating in "harmonization exercises," namely that "certain new initiatives—such as the European database protection right—could radically subvert the classical intellectual property tradition built around patents and copyrights, with unintended consequences that could elevate the costs of research and development across the entire knowledge economy." *Id.* at 302.

290. See J.H. Reichman, *Mondialisation et Propriété Intellectuelle*, 16 REVUE INTERNATIONALE DE DROIT ÉCONOMIQUE [R.I.D.E.] 455, 463-64 (2002) (Fr.), translation available at http://www.cairn.info/load_pdf.php?ID_REVUE=RIDE&ID_NUMPUBLIE=RIDE_162&ID_ARTICLE=RIDE_162_0455. According to Reichman,

One looks in vain for empirical or economic studies to determine the size and nature of the problem to be solved, and one finds little or no academic literature evaluating the Commission's moves, let alone contesting or disputing them. On the contrary, there is a strange and disquieting silence in which what we know derives essentially from the self-serving legislative memorials that the Commission and its henchmen promulgate at various stages of the legislative process.

economic evidence. Yet one undeniable benefit of the Directive—though one that is difficult to measure—is the positive effect of harmonization in a single market. Beyond that, however, did the Directive achieve its aims? A potent argument has been made that the *sui generis* right has been ineffective. After an initial “boom,” the level of databases in countries where the Directive had been implemented returned to pre-Directive levels rather rapidly.²⁹¹ After all, database operators should *want* extraction and utilization of their data. The European Commission itself acknowledged that available empirical datasets are at best contradictory and somewhat inconclusive.²⁹² In a January 2006 newsletter, the Commission wrote,

The evaluation [of the Directive] finds that the economic impact of the “*sui generis*” right on database production is unproven. The GDD shows that EU database production in 2004 fell to pre-Directive levels: the number of EU-based database “entries” into the GDD was 3,095 in 2004, compared to 3,092 entries in 1998 and 4,085 entries in 2001.

While the empirical evidence, at this stage, cast doubts on the usefulness of the new right, the European publishing industry argued that “*sui generis*” protection was crucial to the continued success of their activities.²⁹³

As I have argued elsewhere,²⁹⁴ the value of information on the Internet does not depend on its scarcity but on the ability of those who value it most to find it in a timely fashion. Perhaps, then, introducing this *sui*

These memorials make little mention of the economic and political forces lobbying for protection behind the scenes or the countervailing interests that were likely to suffer according to the different solutions under consideration.

Id.

291. See Stephen M. Maurer et al., *Europe’s Database Experiment*, 294 SCI. 789, 790 (2001).

292. DG Internal Market & Services, First Evaluation of Directive 96/9/EC on the Legal Protection of Databases 18–19 (Dec. 12, 2005) (European Comm’n Working Paper), available at http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf.

293. *Evaluation of the 1996 Database Directive Raises Questions*, SINGLE MARKET NEWS (European Comm’n/DG Internal Mkt. & Servs., Brussels, Belg.), Jan. 2006, at 19, 19, available at http://ec.europa.eu/internal_market/smn/smn40/docs/database-dir_en.pdf. A similar conclusion was reached in a U.S. study. See Matt Block, *The Empirical Basis for Statutory Database Protection After the European Database Directive* 11–12, <http://www.law.duke.edu/cspd/papers/empirical.doc> (last visited Mar. 25, 2007).

The situation in Europe is not as happy, despite the strong database protection that exists as a result of the European Database Directive. Database growth has been moderate, at best, and not much better if better at all than it was before the Directive. Moreover, despite the assertions of proponents of strong protection, even database producers are unhappy with many unforeseen aspects of the Directive and its effects.

That said, it would be premature to conclude from the evidence that database protection simply does not work to spur new production. Other explanations cannot be ruled out, including the simplest that complex database protection schemes will take a long time to have any appreciable effect. Thus, if there is a problem then database protection might be a way to solve it.

Id.

294. See Gervais, *supra* note 285.

generis right was like giving the dentistry industry a right against pulling teeth.

It seems fair to impose a minimal burden of proof on those who seek to protect databases *erga omnes* (beyond copyright) to show a probable causal link between protection and the supply of databases and information, without imposing transaction or social costs that outweigh the benefits of having the new databases.²⁹⁵

To avoid developing a system such as the Directive, which, to some observers at least, appears unfocused and asymmetrical,²⁹⁶ more input from non-legal perspectives would no doubt be helpful. This suggestion (that more analysis is required) was also heard after the tabling of a report (apparently commissioned by publishers Reed-Elsevier and Thomson Corporation)²⁹⁷ prepared by two well-known experts in favor of H.R. 2652.²⁹⁸ The report noted that “[b]ecause technology has expanded the potential applications of databases to myriad research, educational, medical, and business uses, the lack of adequate legal protections for the efforts of database providers poses a serious public policy challenge with widespread implications.”²⁹⁹ It went on to present “the economic rationale for statutory protection of databases, building on the general economic concepts of private property rights.”³⁰⁰

The report acknowledges,

The public policy challenge is to find the appropriate legal means to balance the interests of database producers—who are concerned that without adequate legal protection they will not be able to earn an adequate return on the substantial costs of developing and maintaining their information products—and database users—who are concerned that

295. See Hongwei Zhu & Stuart Madnick, *Reutilization and Legal Protection of Non-Copyrightable Database Contents* 4–5 (MIT Sloan Sch. Mgmt., Working Paper No. 4622, 2006), available at <http://ssrn.com/abstract=926609>.

296. See Freedman, *supra* note 252, at 100–01.

It is a good idea gone wrong. What is required . . . is far greater certainty in specifying the justification for protection, the level of investment required to attract and maintain protection, and the term of the right. These are primarily economic matters and the empirical studies by leading international economists should be of great help in constructing a better system along the same broad lines as created in the Database Directive. Rather than obscured and artificial reasoning tied to either authorial creativity alone or as an element of a general test of “labor, skill or judgment,” revised models should feature transparent economic criteria capable of more certain application.

297. See Laura D’Andrea Tyson & Edward F. Sherry, *Statutory Protection for Databases: Economic & Public Policy Issues* (1997) (unpublished report, Info. Indus. Ass’n), available at <http://judiciary.house.gov/legacy/41118.htm>. Tyson was the former National Economic Advisor to President Clinton and former Chair of the White House Counsel of Economic Advisors. She is currently the Dean of the Haas School of Business at the University of California, Berkeley.

298. *Collections of Information Antipiracy Act*, H.R. 2652, 105th Cong. (1997).

299. Tyson & Sherry, *supra* note 297, § 1.

300. *Id.*

statutory protection will impede the flow of information by restricting its availability and raising its price. In the end, both producers and users are seeking to ensure that there is information available to support education, scientific progress, and economic growth. An appropriately crafted law providing statutory protection can meet this challenge to the benefit of both producers and users.³⁰¹

The report also emphasized the impact of *Feist* in altering the notion of originality and the need to protect databases under a non-copyright regime in order to benefit from reciprocity under the EU Directive.³⁰²

The report was criticized by a number of commentators.³⁰³ For example, Professor Samuelson observed that “[t]he U.S. should approach database legislation in a measured and balanced way incorporating our historical preference for the free exchange of ideas and information while recognizing a need to correct market inefficiencies where they can be shown to exist.”³⁰⁴

One of the main concerns about introducing a database right in the United States has clearly been the impact of access to scientific materials and research.³⁰⁵ Many of those concerns were expressed in the National Research Council’s 1999 Proceedings. They include remarks by Professor Reichman, who noted that “the possibilities for a strong database right to interfere with the scientific community’s ability to recombine data in complex new databases would wreak even more havoc than we had previously predicted,”³⁰⁶ and Myra Williams, CEO of a Molecular Applications Group, who concluded her statement as follows: “Science builds upon science, with one discovery becoming the basis for another.”³⁰⁷ Some com-

301. *Id.*

302. *Id.*

303. For an overview of the debate, see Trosow, *supra* note 172, at 558–60.

304. Letter from Pamela Samuelson, Professor of law, to Representative Howard Coble, U.S. House of Representatives 6 (Oct. 23, 1997), available at <http://www.arl.org/arldocs/ppppcopyright/copyresources/dbaseleg/105congress/psamlet.pdf>.

305. COMM. FOR A STUDY ON PROMOTING ACCESS TO SCI. & TECH. DATA FOR THE PUB. INTEREST, NAT’L RESEARCH COUNCIL, A QUESTION OF BALANCE: PRIVATE RIGHTS AND THE PUBLIC INTEREST IN SCIENTIFIC AND TECHNICAL DATABASES 1 (1999), available at <http://www.nap.edu/books/0309068258/html>. The Report was based on a Workshop held in Washington, D.C., on January 14–15, 1999. See NAT’L RESEARCH COUNCIL, PROCEEDINGS OF THE WORKSHOP ON PROMOTING ACCESS TO SCIENTIFIC AND TECHNICAL DATA FOR THE PUBLIC INTEREST: AN ASSESSMENT OF POLICY OPTIONS, at v (1999) [hereinafter NRC 1999 PROCEEDINGS], <http://books.nap.edu/books/NI000903/html> (last visited Mar. 25, 2007).

306. NRC 1999 Proceedings, *supra* note 305, at 307.

307. *Id.* at 47; see also Reichman & Samuelson, *supra* note 65, at 94. Commenting on the first set of bills in the U.S. Congress, Reichman and Samuelson noted,

[U]nder the E.C. Directive, the most borderline and suspect of all the objects of protection ever to enter the universe of intellectual property discourse—raw data, scientific or otherwise—paradoxically obtains the strongest scope of protection available from any intellectual property regime except, perhaps, for the classical patent paradigm itself.

mentators were even suggesting (in fictional pieces) that cancer-research scientists would be imprisoned under a new database right for accessing material in public libraries.³⁰⁸ The protection of the contents of sole-source databases for scientific and medical journals raises similar concerns.³⁰⁹

Professor Trosow's analysis is helpful to understand the issues at stake.³¹⁰ Referring to work by Michael Buckland,³¹¹ Trosow noted,

Proprietary database legislation would not merely create inconveniences for researchers, or marginally increase the cost of research activities. . . . [T]he changes brought about by *sui generis* database legislation would not simply be quantitative or marginal; they would represent a qualitative shift in how the scientific and research enterprises would function.

. . . The drive towards *sui generis* database legislation is a component of a broader strategy to develop an information policy regime that construes information and information technology in a manner compatible with the logic of commodification. The proponents of *sui generis* database legislation adopt an approach to the construction of information that emphasizes the quantifiable aspect of data. The user of information

According to Reichman and Uhler, the same is true under the U.S. database proposals. J.H. Reichman & Paul F. Uhler, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793, 811 (1999).

308. See John Edwards, Note, *Has the Dreaded Data Doomsday Arrived?: Past, Present, and Future Effects of the European Union's Database Directive on Database and Information Availability in the European Union*, 39 GA. L. REV. 215, 215–16 (2004).

309. In a 576-page report on the Directive commissioned by the European Commission's Internal Market Directorate-General and prepared by consultants NautaDutilh in September 2002, the following was noted:

The scientific community recalled that the Information Society had benefited enormously from the products of scientific research like the World Wide Web which had then been made freely available. A leading American academic took the view that search engines and hyperlinking should be allowed. Yet newspaper publishers complained about the detrimental effect of deep-linking on their business.

. . . . The convergence of information suppliers and the number of mergers and take-overs among publishers could not have been foreseen by the European Commission in 1996, e.g. the AOL-Time Warner and Reed Elsevier-Harcourt mergers. An increasing number of journals, particularly in the scientific, technical and medical (STM) fields, were only available electronically, i.e. as databases, and publishers were increasingly holding the archives. Thus, libraries were now buying access to electronic content via licences. Libraries in the future could be empty because they would not have unrestricted access to the archives and soon would not be able to afford access to them. They would have to return to the publisher each time for access and may only get this on payment of a fee. Libraries could not negotiate on fair terms with powerful, dominant monopoly rightholders and needed a mechanism to protect them against abuse of a dominant position.

NautaDutilh, *The Implementation and Application of Directive 96/9/EC on the Legal Protection of Databases*, Study—Contract ETD/2001/B5-3001/E/72, at 554 [hereinafter NautaDutilh Study], available at http://ec.europa.eu/internal_market/copyright/docs/databases/etd2001b53001e72_en.pdf.

310. See Trosow, *supra* note 172.

311. See Michael K. Buckland, *Information as Thing*, 42 J. AMER. SOC'Y INFO. SCI. 351 (1991) (distinguishing among "information-as-process"; "information-as-knowledge"; and "information-as-thing").

resources becomes a passive consumer, no longer able to interact with the data, change it, add to it, or to engage in any number of transformative activities with it. The qualitative aspects of the utilization of data, that is how the data interacts with other information resources and people in the process of producing new knowledge, is marginalized.³¹²

The absence of clear limits on the reach of the *sui generis* right, such as fair use/fair dealing and the idea/expression dichotomy,³¹³ have also been mentioned as leading to potential abuses.³¹⁴ To quote Professors Reichman and Samuelson again,

[T]he database law contains no such distinction. This means that, in the universe of data generators, there is no evolving public domain substratum from which either research workers or second comers are progressively entitled to withdraw previously generated data without seeking licenses that may or may not be granted.

. . . [E]very independent generation of data, however mundane or commonplace, will obtain protection if it costs money, and every regeneration or reutilization of the same data in updates, additions, and extensions that cost money will extend that protection without limit as to time.³¹⁵

A related strand of critique concerns the protection of bioinformatics databases, in particular databases used for storage of genomic information.³¹⁶ Because of their frequent updating, *sui generis* protection may be permanent, meaning that genomic data would never enter the public domain.³¹⁷ Additionally, the proprietary nature of the data may lead to “commercial dominance that will breed monopoly.”³¹⁸

312. Trosow, *supra* note 172, at 636–37.

313. Perhaps, but an idea/fact dichotomy may still apply. See *infra* note 322 and accompanying text.

314. See Edwards, *supra* note 308, at 229–30.

315. Reichman & Samuelson, *supra* note 65, at 88 (footnote omitted).

316. See Mahesh Madhavan, *Copyright Versus Database Right of Protection in the UK: The Bioinformatics Bone of Contention*, 9 J. WORLD INTELL. PROP. 61 (2006).

317. See *id.* at 79–80.

Bioinformatics databases are updated daily. Substantial changes resulting in substantially new investments in these databases can be in the form of extension, deletion or amendment of the sequences. Each time any of these changes occurs, a new version of the chronological arrangement is created. It follows necessarily from this that even the addition of small strands will be substantial investments in relation to the arrangement that clearly alters the value of the arrangement to its user and adds value to the database. Accordingly, the scope of protection will have to extend to the entirety of the renewed database, irrespective of the age of its individual parts. . . . From this analysis, it can be inferred that extension or re-utilization of strands that, in principle, are more than 15 years old but gain protection indirectly from the addition of new strands, will be an infringement.

Id. (footnotes omitted).

318. *Id.* at 81. Professor Cornish, among others, has warned that “[v]irtually no consideration was given [during the preparation of the European Directive] to the position of major scientific databases, such as the biobanks and genebanks, which are crucial to progress in genetics. Restrictions on access to some of them may prove to be a serious impediment to science.” CORNISH & LLEWELYN, *supra* note 55, at § 19-43, at 789.

Answers to many of these criticisms focus on the possibility for anyone to recreate a database from scratch,³¹⁹ which may not be easy when the data is available from a sole-source provider, such as television or telephone listings and sporting event information.³²⁰ However, limits on the right imposed by the ECJ (essentially by excluding from the investment analysis the investment in data origination) seem to limit significantly the risk involved.³²¹ It has also been said that the risks were greatly diminished outside Europe because most data in databases tends to be local.³²²

Another criticism directed at the Directive is the uncertainty created by the notion of qualitatively substantial investment and the related notion of extraction or reutilization of a qualitatively substantial part of a database post-*BHB*.³²³ It has been suggested that this should be the focus of the ongoing re-evaluation of the Directive.³²⁴

Supporters of the *sui generis* right suggest that there is no incentive in the absence of *sui generis* protection to make available pre-modern or other public domain texts.³²⁵ However, even a *sui generis* right à la the Directive (as interpreted in *BHB*) may “force” publishers to avoid putting out plain vanilla versions and generate unnecessary investments in presentation or artificial efforts to select and arrange the texts to generate copyright protec-

319. See Reichman & Samuelson, *supra* note 65, at 89.

320. A real risk, in theory at least, because the majority of commercial databases are composed of synthetic or sole-source data. See Edwards, *supra* note 308, at 240.

321. See Davison & Hugenholtz, *supra* note 79, at 115.

By restricting the ambit of the database right to collections of pre-existing data, by way of a strict interpretation of “obtaining”, the ECJ effectively denies protection to collections of untreated sole-source data, thereby reducing the need for compulsory licensing. In its result, this distinction between creation and obtaining is somewhat similar to the so-called idea/expression dichotomy in copyright

Davison and Hugenholtz mention the risk that sole-source providers could use technological measures to restrict access to the data, and suggest that there should be an obligation to make the data available under fair and non-discriminatory terms. See *id.*

322. See Maurer et. al., *supra* note 291, at 790.

323. See *supra* note 103 and accompanying text.

324. See Maurer et. al., *supra* note 291, at 790; Directive, *supra* note 43, art. 16(3).

325. See Brad Bedingfield, *Copyrighting Medieval Literature: Editing and Publishing the Pre-Modern Public Domain*, 28 COLUM. J.L. & ARTS 213, 247 (2005).

Insofar as American courts apply such a test [of creativity-based originality], editors of pre-modern texts will surely be protected, to the extent that they have added something substantial, derived from professional judgment, to their editions. Insofar as American courts seek to impose more stringent creativity standards—denying copyright regardless of judgment applied where the range of choices is deemed by the court to be too small, or where the alterations in the resulting product are seen as “merely trivial”—protection of works derived from professional judgment may be undermined. Such standards create artificial, unnecessary and undesirable tensions between fidelity to source material and original “creative” contributions. These tensions hurt both editors, who must seek excuses to make unusual choices where more conventional choices might be preferable in their professional judgment, and users, for whom the value of the edition as an accurate reflection of source material may suffer accordingly.

tion. The criticism is interesting but reminds one of older debates about the value of typographical copyright.

Clearly, there are definitional issues with the current text of the Directive. Brandeis's conclusion (in his famous *INS* dissent) is relevant in this context:

[T]he creation or recognition by courts of a new private right may work serious injury to the general public, unless the boundaries of the right are definitely established and wisely guarded. In order to reconcile the new private right with the public interest, it may be necessary to prescribe limitations and rules for its enjoyment; and also to provide administrative machinery for enforcing the rules. It is largely for this reason that, in the effort to meet the many new demands for justice incident to a rapidly changing civilization, resort to legislation has latterly been had with increasing frequency.³²⁶

CONCLUSION

It seems that the matter of the protection of databases has barely begun to jell. Perhaps because of the fast pace at which business models evolve on the Internet and because of the somewhat counterintuitive finding that information has value on the Internet not because of its scarcity (a principle which applies to objects in the material world) but because it is found by those for whom it has value,³²⁷ the need to propertize information remains unproven and the scope of misappropriation limited. This has prompted calls for a different protection, including a proposal based on the type of database and accompanied by mandatory registration.³²⁸ Any such proposal should ideally be solidly anchored in an empirical analysis demonstrating a need, perhaps based on differences among national markets reflecting the impact of different levels of protection. To quote Professor Cornish,

Industrial and commercial developments in competitive economies have always turned in large measure upon the borrowing of ideas. Intellectual property, including rights of unfair competition, should be restricted to cases where the borrowing is unacceptably parasitic. It should not be allowed to become a blocking mechanism lurking in every crevice of endeavour.³²⁹

Surely—the *sui generis* right being a purely economic right—it seems fair to suggest that a cost-benefit analysis should be relevant, perhaps even

326. *Int'l News Serv. v. Associated Press*, 248 U.S. 215, 262–63 (1918) (Brandeis, J., dissenting).

327. See Gervais, *supra* note 285, at 56.

328. See Lipton, *supra* note 212, at 833–37.

329. CORNISH & LLEWELYN, *supra* note 55, at 789.

govern policy decisions.³³⁰ The problem of course, say a number of economists, is that “there is little or no evidence that lack of protection has impeded the creation of new databases.”³³¹

In addition, as with any new policy, the unintended effects are only starting to emerge and may lead to a reconsideration of steps already taken, with the possible effect of delaying action in countries where no legislative measures are in place.

What does the future hold?

With respect to copyright, the application in Europe and North America of an originality standard based on creativity, as well as in many other parts of the world, will limit the protection of many databases that lack originality resulting from selection or arrangement of their contents. In addition, copyright protection applies to such selection or arrangement, but not to the contents (which may of course be protected as separate works). The lower standard of originality applied in the UK to “industrious collections” no longer applies to databases (though it does continue to apply to compilations other than databases) since the implementation of the EU Directive, which imposes a standard based on the “personal intellectual creation of the author.”

The future of database protection beyond copyright can basically take one of three paths. First option: in the wake of WIPO’s failure to move to a worldwide *sui generis* right, the push for such a system may continue and eventually succeed, though one senses a somewhat less passionate degree of advocacy and disappearance from the rhetoric of eschatological metaphors. This is no doubt due in large part to the ongoing review within the European Commission and continuing questions in the U.S. Congress about the appropriateness and constitutionality of federal misappropriation standards. In fact, the issue does not appear in the latest review of intellectual property protection deficiencies under Section 301 of the Trade Act.³³²

330. Whereas a strict economic analysis of copyright is certainly useful, *see, e.g.*, William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325 (1989), it is insufficient to formulate a comprehensive, coherent policy. *See* Wendy J. Gordon, *An Inquiry into the Merits of Copyright: The Challenges of Consistency, Consent, and Encouragement Theory*, 41 STAN L. REV. 1343 (1989).

331. SUZANNE SCOTCHMER, INNOVATION AND INCENTIVES 82 (2004).

332. The Special 301 report for 2006 is available at http://www.ustr.gov/Document_Library/Reports_Publications/2006/2006_Special_301_Review/Section_Index.html. Pursuant to Section 182 of the Trade Act of 1974—as amended by the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, 102 Stat. 1107—under Special 301 provisions, the U.S. Trade Representative must identify those countries that “deny adequate and effective protection of intellectual property rights” or “deny fair and equitable market access to United States persons that rely upon intellectual property protection.” Trade Act of 1974 § 182, 19 U.S.C. § 2242. For a description, see Robert C. Bird, *Defending Intellectual Property Rights in the BRIC Economies*, 43 AM. BUS. L.J. 317 (2006).

Countries around the world are watching two policy games from the sidelines: one within the United States, to see whether the pro-protection lobby(ies) will ultimately get an exclusive right; and the other at the international level, between the EU and the U.S., to see what child the marriage of the soon-to-be revised *sui generis* right and the federal misappropriation tort might produce. Naturally, ongoing debates do not preclude a multinational solution. As the now defunct WIPO Database Treaty shows, a “right” could be crafted in a treaty as an “obligation to protect” a substantial investment without specifying the form of such protection.³³³ An example of this normative elasticity is the 1961 Rome Convention,³³⁴ which protects music performers against bootlegging in very loose terms, in order to allow different types of national implementations, from a full blown neighboring right to the creation of a criminal offence (that is, subject to policing, prosecutorial discretion, etc.).

Second option: Europe adopts minimalist revisions to the *sui generis* right centered on definitions and exceptions (for example, for scientific research),³³⁵ and leaves the new and improved European solution (which remains mandatory for the twenty-seven member States and perhaps others via accession agreements) as a possible guide for third countries. There should be little appetite for overruling the ECJ’s somewhat restrictive interpretation of key terms in the Directive, because the Court based its quartet of decisions³³⁶ on principles expressed in recitals. In other words, overruling the ECJ legislatively could lead to a risky, profound re-examination of the purposes of the Directive.

Third and final option: the Directive comes to be seen as an interesting “experiment,” a term used by Professor Hugenholtz in this context.³³⁷ Even if it may not have produced the expected long-term benefits for the Euro-

333. See WIPO Database Proposal, *supra* note 39.

334. See International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, Oct. 26, 1961, 496 U.N.T.S. 43; WORLD INTELL. PROP. ORG., GUIDE TO THE ROME CONVENTION AND TO THE PHONOGRAMS CONVENTION 34 (1981).

The reason for the wording in this paragraph [Article 7 of the Convention uses the language “possibility of preventing” in respect of performers’ rights] is to leave complete freedom of choice as to the means used to implement the Convention, and to choose those which member countries think most appropriate and best. They may be based on any one or more of a number of legal theories: law of employment, of personality, of unfair competition or unjust enrichment, etc.—and of course, if they wish, an exclusive right. The important thing is that those means achieve the purpose of this Article

Id.

335. Several possible changes and amendments are discussed in the NautaDutilh Study, *supra* note 309. It has also been suggested that the Recitals could be revisited because of their treatment of contentious issues. See George Koumantos, *Les Bases de Données dans la Directive Communautaire*, 171 REVUE INTERNATIONALE DU DROIT D’AUTEUR [R.I.D.A.] 78, 88 (1997).

336. See *supra* Part II.A.1.e.

337. See Maurer et al., *supra* note 291, at 789.

pean database industry,³³⁸ the experiment will still have been useful to understand the incentive factor and the impact of introducing *sui generis* molecules in the complex and at times unstable system known as intellectual property.

338. *See supra* notes 290–93 and accompanying text.