9: Databases

> Article 10.2 Computer Programs and Compilations of Data
>
> 2. Compilations 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 without prejudice to any copyright subsisting in the data or material itself.

1. Introduction: terminology, definition and scope

A database may be defined simply as a collection of data. For the purpose of determining whether a collection of data qualifies for copyright protection, other elements are incorporated into this definition. The Berne Convention does not use the word "database", but instead specifies in Article 2(5) that "collections" of literary and artistic works which "by reason of the selection and arrangement of their contents constitute intellectual creations shall be protected as such."

Thus, a collection of short stories, or anthologies, or a collection of scholarly works, would be eligible for copyright protection under the Berne Convention, independent of the copyright status in the stories or scholarly works, so long as the "selection and arrangement" of the contents reflect some intellectual creativity. This is, in essence, a requirement for originality.

TRIPS Article 10.2 broadens the concept of a database. It provides that "compilations 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 without prejudice to any copyright subsisting in the data or material itself." Consequently, under TRIPS, compilations of copyrightable and non-copyrightable material should be protected so long as the requisite level of originality in the selection *or* arrangement is satisfied.[101]

[101] It is important to specify the difference in requirements under TRIPS and Berne. TRIPS Article 10.2 requires originality in either the selection or arrangement of the material. The Berne Convention requires originality in the selection "and" arrangement. In effect, the TRIPS Agreement relaxes the Berne Convention standard for originality. This interpretation is consistent with

The incorporation of fundamental copyright requirements, such as originality, suggests that the rights granted to authors of databases should correspond to those granted to other copyright works. The protection of moral rights is, however, not required under TRIPS.[102]

2. History of the provision

2.1 Situation pre-TRIPS

Article 2*bis*(3) of the Berne Convention requires that authors be granted the exclusive right to make collections of their works. Thus, all Parties to the Berne Convention were required to recognize protection for collections, and to vest in authors the right to make such collections of their own works. Collections or compilations of merely factual material, however, were susceptible to little or no protection in several countries for reasons that centred primarily on a failure to satisfy the originality requirement.[103] The originality requirement, combined with the Berne Convention's own exclusion of news of the day and "miscellaneous facts" from copyright protection served to reinforce policy decisions not to extend protection to works that, although reflective of economic and labour-intensive investment, lack the requisite creative element.

2.2 Negotiating history

2.2.1 The Anell Draft

"2. Protectable Subject Matter

2.1 PARTIES shall provide protection to computer programs [, as literary works for the purposes of point 1 above,] [and to databases]. Such protection shall not extend to ideas, procedures, methods [, algorithms] or systems."[104]

The brief reference to databases indicates that delegations at this stage of the negotiations had not yet focused on the specific issue of databases, but rather on the conditions of protection to be accorded to computer programs. This changed radically with the Brussels Draft, providing a detailed proposal on databases, which was separated from the draft provision on computer programs.

2.2.2 The Brussels Draft

"2. Compilations of data or other material, whether in machine readable or other form, which by reason of the selection and arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which

the broad language employed by TRIPS Article 10 that defines the subject of a compilation as "data" and "other material" in any form.

[102] TRIPS, Article 9.1. Of course, countries that choose to grant moral rights to authors may do so under TRIPS. The point is that moral rights are not mandated by TRIPS.

[103] See U.S. Supreme Court decision in *Feist*, 499 U.S. 340, and the Canadian decision of *Tele-Direct* that followed the principles enunciated in *Feist*. See also the discussion on originality in Chapter 7.

[104] The above quotation is limited to the part of the draft referring to databases.

shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself."

This proposal is identical to the current Article 10.2 of TRIPS, with one exception: contrary to Article 10.2, TRIPS, the draft required both the selection *and* the arrangement of the data compilations to constitute intellectual creations (see above, Section 1). It thereby reproduced the similar provision of the Berne Convention (i.e. Article 2(5) on collections of literary and artistic works),[105] which equally refers to the originality of both the selection and the arrangement.

3. Possible interpretations

Article 10.2 extends the Berne Convention notion of compilations (Article 2(5)) to include databases as well as "other material". In other words, as long as the originality requirement is met, TRIPS requires protection for works that are compilations of any material, not just literary and artistic works.[106] This material does not have to constitute a database or data, as is made clear by the reference to "data or other material". However, Article 10.2 still requires that the compilation of data or other material satisfy the standard of originality. As a consequence, qualifying compilations shall be protected as "intellectual creations". The protection to be accorded is thus similar to the one provided for computer programs.

With regards to literary or artistic works, there is no internationally uniform standard of originality. Thus, Members are free to determine, according to their domestic policy preferences, the criteria to be met for a data compilation to qualify as an "intellectual creation". As a general rule in the case of compilations, reference may be made, for example, to the "Feist" decision of the U.S. Supreme Court[107] and the "Tele-Direct" judgment of the Canadian Court of Appeal,[108] according to which the arrangement of information in a compilation has to imply more than just the exercise of a minimal degree of skill, judgment or labour.

The extensive membership of the Berne Convention meant that many countries already accorded protection to collection as defined by the Berne Convention. However, given the expansive definition of "compilations" in Article 10.2, it is likely that the scope of protection afforded will now be significantly broadened. This observation is even more important in view of the provisions of the WCT on the protection of databases that are addressed below.

Finally, the database creator needs authorization from copyright owners whose works are reproduced in the database.

[105] This Article provides that: "(5) Collections of literary or artistic works such as encyclopedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections."

[106] Gervais (p. 82, para. 2.61) refers to the view expressed by the WIPO secretariat and some commentators that even the protection under the Berne Convention is not limited to collections of literary and artistic works. This view is based on a conjunctive reading of paragraphs 1 and 5 of Article 2 of the Berne Convention.

[107] *Feist Publ'ns Inc. v. Rural Tel. Serv. Co.*, 449 U.S. 340 (1991).

[108] *Tele-Direct (Publ'ns) Inc. v. American Bus. Infor. Inc.* 76 C.P.R. 3d 296 (1997).

4. WTO jurisprudence

There is no panel decision on this subject.

5. Relationship with other international instruments

5.1 WTO Agreements

5.2 Other international instruments

5.2.1 The Berne Convention

Article 2(5) of the Berne Convention provides for the protection of collections of "literary or artistic works" in a similar way as Article 10.2 of TRIPS with respect to compilations of "data or other material". The common aspect of the two provisions is that the collection for which protection is sought has to constitute an intellectual creation.[109] The first difference between the two is that the Berne Convention requires originality in both the selection and arrangement of the collection, whereas under TRIPS, it is either the selection or the arrangement of the compilation that has to be original.[110]

The second difference is that protection under the Berne Convention is limited to collections of "literary or artistic works". In other words, the elements making up the collection have to be eligible as copyrightable materials themselves (in the sense of Article 2(1) of the Berne Convention). As opposed to that, TRIPS refers to "data or other material", which do not necessarily benefit from copyright protection.[111] Consequently, the elements making up the compilation are not required to constitute copyrightable subject matter themselves. TRIPS in comparison with the Berne Convention thus enlarges the scope of protection for compilations of works.

6. New developments

6.1 National laws

6.2 International instruments

6.2.1 The WCT

WCT Article 5 is substantially similar to the provisions of TRIPS Article 10.2. It provides that "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

[109] See the *Feist* decision by the U.S. Supreme Court (above), according to which works based on factual material without incorporating a sufficient degree of creativity do not qualify for copyrightable subject matter.

[110] See above, Section 1 (Introduction).

[111] Recall that Articles 9 TRIPS and 2 of the Berne Convention leave WTO Members considerable flexibility with respect to the creativity requirement in copyright protection (see Chapter 7). Members are thus not required to afford copyright protection to data, when they consider that the latter do not meet a sufficient standard of creativity. Nevertheless, they would have to grant protection to collections of such data, provided the conditions of Article 10.2 are met.

itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation." Like TRIPS, the WCT extends protection to "data" broadly defined to include both copyrightable and non-copyrightable material. Further, like Article 10.2, the WCT premises such protection on the presence of some intellectual creativity or originality as manifested in the author's selection of the materials or in their arrangement. The WCT, by closely tracking the language in TRIPS, effectively relaxed the standard for originality in the Berne Convention as suggested earlier.

6.3 Regional contexts: The EC Database Directive

The protection of compilations is not, in itself, a recent or revolutionary development in the copyright laws of most countries. What is clear from both TRIPS and the WCT is that the concept of "compilations" has been expanded to include data of any type. But by reserving copyright protection only to the selection or arrangement of the data compiled, and not to the underlying data, copyright protection for compilations is limited to the results of the creative effort exerted by the author.

Recently, however, databases have been the subject of a different *sui generis* form of protection. One model for database protection is the EC Directive on the Legal Protection of Databases ("EC Database Directive")[112]. This model is distinguishable from the copyright model for compilations in some very important ways. First, copyright protection is based on creative input (originality) in the selection or arrangement of pre-existing works. The EC Database Directive is intended, instead, to protect investments made in creating the database, what has been called the "sweat of the brow" in the United States.[113] In essence, this model of protection is not intended to stimulate intellectual creativity in creating new works, but to encourage and protect economic investments in the development of a database. Article 1(2) of the EC Database Directive defines 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." This definition includes "hard copy" or paper databases, but specifically excludes computer programs used to make or operate a database.[114]

Under the EC Database Directive, a database that satisfies the creativity requirement of copyright must be protected by copyright.[115] Owners of qualifying databases are granted specific and exclusive copyright rights. These rights are: the right to make or to authorize temporary or permanent reproductions; translations, adaptations, arrangements and any other alteration; the right to make any form of distribution to the public of the database or of copies thereof; the right to make any communication, display or performance to the public; and the right to any reproduction distribution, communication, display or performance to the public of the results of any translation, adaptation, arrangement or other alteration of

[112] See Directive 96/9/EC of the European Parliament and of the Council of March 11, 1996 on the Legal Protection of Databases, 1996 O.J. (L77) 20.

[113] See Feist, 499 U.S. 340.

[114] See Database Directive, Article 1(3).

[115] See Database Directive, Article 3.

the database.[116] There is, however, no mention of a moral right for the author of a database.

In addition to the copyright scheme, the EC Database Directive also created a new *sui generis* right to prevent the unauthorized extraction or re-utilization of the contents of the database.[117] This right gives the author of the database absolute control over any use of the information contained in the database. According to Article 7(4) of the Directive, this right is granted in addition to the copyright protection required by Article 3;[118] the exclusive right to extract/re-utilize the contents of the database is granted in addition to, but independent of, copyright protection. This means, in effect, that the conceptual approach of the EC Database Directive is one of a strong property rights regime which recognizes few if any exceptions to the exclusive rights that it grants the author of a database. The objective of rewarding economic investment rather than intellectual creativity is reflected in the conditions for protection under the EC Database Directive. For example, Article 7(1) of the Directive provides that the *sui generis* right must be granted to the maker of a database "which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents."

The EC Database Directive provides a few exceptions to the database right. These exceptions are: exceptions for the use of non-electronic databases for private purposes; extraction for purposes of illustration and teaching so long as the source is indicated and the use is justified by a non-commercial purpose; and extraction or re-utilization that occurs for the purposes of public security or an administrative or judicial procedure.[119] Finally, the *sui generis* database protection will be extended internationally on a reciprocal basis.

In reaction to the EC Database Directive, private industry in the United States also began to express interests in a *sui generis* right similar to what the EC provided. Of particular concern was the fact that the EU would not protect American database producers in Europe, unless the United States offered reciprocal protection for European database owners. (Such denial of national treatment does not infringe Article 3, TRIPS, if databases under the Database Directive are not considered "intellectual property" in the sense of Article 1.2, TRIPS. See Chapter 4, Section 6.3.1.) The strong property rights approach adopted by the EU has, however, generated significant public concern in the United States. While there has been recognition of the need to encourage the creation of databases, public

[116] *Id*. See Article 5.

[117] See EC Database Directive, Article 7(1).

[118] Article 7(4) provides that the *sui generis* right "shall apply irrespective of the eligibility of the database for protection by copyright or other rights. Moreover, it shall apply irrespective of eligibility of the contents of that database for protection by copyright or by other rights. Protection of databases under the right provided for . . . shall be without prejudice to rights existing in respect of their contents." The difference of this concept *vis-à-vis* the scheme for the protection of collected works under the Berne Convention, the TRIPS Agreement and the WCT is reflected in the first sentence of the quoted provision: all three of those international instruments require a creative element in the arrangement or/and the selection of the compilation. The EC Directive waives this requirement, because it is not meant to further creativity, but to protect investment in databases.

[119] See Database Directive, Article 9.

interest groups including educational institutions, research institutions and libraries, have protested the property rights model in the initial proposals considered by Congress. Concerns that were expressed included how to determine the appropriate term of protection for the database right, the perceived need for a fair use provision to facilitate research, the fear of high transaction costs for data use, free speech implications of the property model and concerns about potential anti-competitive effects of such a strong right in the use of data.

Some opponents to the strong property rights approach have instead advocated a misappropriation/unfair competition model as an alternative approach to the property model.[120] Such an approach would condition liability for unauthorized data use on a notion of substantial harm to the actual or neighbouring market of the database owner. Thus far, a law protecting solely economic or laborious investment in creating a database is yet to be passed in the United States.

7. Comments, including economic and social implications

Copyright protection for compilations of data has different economic and social implications to the *sui generis* right currently in place in the European Union, and under consideration in the United States. Like the copyright model for the protection of compilations in TRIPS and in the WCT, a *sui generis* model for databases is designed to protect a particular kind of investment (i.e., primarily economic) with a view to encouraging optimal levels of production of databases. The difference is that a *sui generis* model is limited to such protection, whereas the mentioned copyright schemes also seek to protect creative activity.

As mentioned above, with regard to computer programs, rights might encourage increased levels of production of these works, provided the market and technological conditions are present. However, the level of protection offered in law must be counterbalanced with limitations or exceptions to ensure that there is adequate competition in database production. An important consideration is that a *sui generis* right extends to material that is not protected by copyright law. Consequently, what has been considered a deliberate "leak" in the copyright system – one intended to give second generation innovators "raw materials" to work with – will be plugged by a database protection model like that of the EC. The potentially high costs to the public of obtaining information under this type of system, and the effects on competition, must be balanced with the goal of protection for databases. A database protection system should attempt to balance the competing interests at stake to ensure that economic welfare goals are maximized.[121]

[120] See J.H. Reichman and P. Samuelson, *Intellectual Property Right and Data?*, 50 Vanderbilt Law Review, 51 (1997).

[121] The IPR Commission has even gone so far as to recommend that developing countries should not establish a *sui generis* system similar to the EC Database Directive. See IPR Commission report, p. 109 (quoted in Chapter 8, Section 7).