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Sui Generis Database Right: Ripe for Review?

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Abstract

In a digital era unoriginal collections of data, particularly those in electronic form, have new significance and value. Digital technology also renders such collections of information uniquely vulnerable to copying. The Directive on the legal protection of databases created a new sui generis right for databases in which there has been (qualitatively or quantitatively) substantial investment in obtaining, verifying or presenting the contents against unauthorised extraction or re-use of the whole or a substantial part.

However, over-protection of such databases may remove essential information from the public domain, particularly where it constitutes an exclusive source. Under protection may be equally damaging, if the incentive to collate information is undermined by free-riding competition. It is as necessary, therefore, to strike as careful a balance of protection for unoriginal databases as for other intellectual property rights.

The case of *British Horseracing Board Limited v William Hill Organisation* (2001) confirms infinitely extendable protection for dynamic databases, and their contents. The information at issue lay within the public domain, however the database maker constituted its only effective source. Fears of inhibiting information flow have contributed to debate over database protection in the United States, where copyright and unfair competition provide a lesser degree of support to database makers.

Consequently, whether the new right encourages investment in creating databases as well as allowing access to database-stored information, is questionable. The question is timely for the Directive is due for review. At the same time both WIPO and the US are debating new provisions, and the Court of Appeal has referred questions of interpretation of the Directive to the European Court of Justice. It is time to reconsider, in particular, the draft Directive's proposed compulsory licences for the sui generis right.

Alternatively, the exceptions to infringement could be better adapted to allow for private uses of information, or a better solution might lie in a form of unfair competition law restricted to parasitic conduct and unjust enrichment, without protection for the underlying information content.

Keywords: Databases, Sui Generis Right, Intellectual Property, Copyright, Unfair Competition Compulsory Licence.

1. Introduction

The digital revolution has rendered information and its collation an asset of increased significance and value. Collection, arrangement and presentation of information is indispensable to business and financial services, government, the scientific and educational communities, and to consumers. It is a new industry in itself. Digital technology has also greatly facilitated the collection, storage, presentation, dissemination and use of comprehensive collections of information in which the arrangement is less a

matter of collation and more of the search facility provided (Lloyd, 2000). This very value means that any granting of exclusive rights in must secure an effective balance between the interests of information consumers and information producers.

Protection for databases, or collections of information, whether made up of copyright works or other materials and data, has long lain in copyright for compilations[1]. Copyright protection only extends to original works. Before the Directive on the legal protection of databases, the standard of originality required in the United Kingdom was low and the effort put into selection and the arrangement of the contents of compilations was frequently sufficient[2].

Copyright protection for such comprehensive but unstructured databases was less assured within the European Union, where the higher standard of originality applied by some Member States, notably Germany, militated against protection. The decision of the US Supreme Court in *Feist Publications v Rural Telephone* (1991), holding that the 'white pages' of a telephone directory were not protected by copyright, also cast doubt on the extent of protection for comprehensive unstructured databases[3].

The Directive on the legal protection of databases 1996 (hereinafter the Database Directive) created a two-tier structure of intellectual property protection for original databases through copyright, and a new *sui generis* right for other unoriginal databases. The new right does not draw the clear distinction, made by database copyright, between the database itself and its contents[4]. The result may be protection for the underlying information contained in a database. Where a database is the sole source of the information thus protected the implications for access to information are obvious.

The first UK decision on the *sui generis* right, *British Horseracing Board Limited v William Hill Organisation* (2001), confirmed this protection for underlying information. The Commission's first draft for a directive on the legal protection of databases contained proposals for compulsory licences to be applied to the *sui generis* right in order to avoid the monopolistic dangers of protecting information[5]. These provisions were omitted from the Database Directive when it was adopted.

It is time to re-consider this removal of the proposed compulsory licences, or to consider other potential means of preserving access to information. The review provided for in Article 16(3) of the Database Directive is due in the year 2001 and should question whether an appropriate balance of protection and access to information within unoriginal databases is achieved under the current European legislation. Further afield, the World Intellectual Property Organisation (WIPO) considered a draft Treaty on Intellectual Property in Respect of Databases at its Diplomatic Conference in December 1996. It did not receive international support at the time, and further consideration has been delayed until an economic report commissioned by the Secretariat has been received[6]. In the United States there has been considerable debate concerning database protection and several bills have been presented to the House of Representatives[7]. The threat to information held within sole-source databases has been revealed. This article sets out the possible options for mitigating potential monopolies upon information, in the light of both the US debate and experience in Europe:

- A different model of protection, confined to unfair competition;
- Extending exceptions to the sui generis right to encompass private use;
- Reconsidering the rejection of compulsory licence provisions.

It may well be that it is only with the economic evidence being garnered by WIPO that an appropriate choice can be finally made.

2. Database Protection

The extent of database protection comprises both copyright and the new sui generis right. The new right was developed against a backdrop of existing copyright regimes and examination of the nature and extent of copyright protection can inform the debate over the proper ambit of any new rights. It may also provide appropriate analogies for reform.

2.1 Copyright

The collection of information is not a process confined to the digital era, and compilations were recognised as literary works for the subsistence of copyright before the Database Directive, both by virtue of Article 2(5), Berne Convention, and Section 3, Copyright, Designs and Patents Act 1988. An electronic format is no hindrance to the subsistence of copyright[8]. Ginsburg (1990) charts copyright protection for informational works in the United States. The fundamental threshold requirement for copyright in literary works is one of originality.

The Copyright, Designs and Patents Act 1988 does not define the term ‘original’[9]. United Kingdom courts traditionally adopted a low standard of originality, judged by authors’ ‘skill, labour and judgment’ in expressing their work. Applied to a compilation it was effort and judgment invested in its selection and arrangement that was significant, not the authors’ creativity in creating works[10]. The result was extensive protection for databases as compilations in the United Kingdom, but only to the extent that copyright protects expression.

However, the same was not true of other European states where civilian copyright law adopts ‘the author’s own intellectual creation’ as the standard of originality required for author’s rights, requiring something of the author’s own intellectual input[11]. Following the United States Supreme Court’s decision in the Feist Case (1991)[12], doubts emerged as to the common law’s generous approach to originality. Copyright in the ‘white pages’ of a telephone directory was refused, and the court rejected the so-called ‘sweat of the brow’ interpretation of originality. Ginsburg (1992) regarded the decision as implementing a policy favouring free access to information. Reiterating her conclusions in 1990 that works of ‘low authorship’ were deserving of, and needed, the encouragement of protection to secure the labour and resources invested in compilation of information, she continued to advocate the intervention of Congress to regulate the collection and

exploitation of informational products. Other common law countries are paying careful heed to Feist. Although the Federal Court of Australia has rejected Feist reasoning in the Telestra case[13], finding that copyright subsisted in white pages and yellow pages of directories, the decision is under appeal[14].

2.2 The Database Directive 1996

This uncertain and inconsistent European protection for databases gave rise to the harmonizing directive of 1996[15]. Two approaches were adopted: existing copyright protection was harmonised, and the new 'sui generis' right created for the European Union. This right[16] is unique, and it is the extent of protection it bestows upon data and information that is the subject of enquiry in this article.

'Database' is widely defined for both forms of protection 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'[17].

The result, should content fall within protection, is consequently one of very wide ambit.

Copyright remains, but at the Directive's standard of originality - 'the author's own intellectual creation'[18] as the Copyright and Rights in Databases Regulations 1997 adopted the Directive's wording[19]. This has led to arguments that in the United Kingdom a third tier of protection has been added to database protection: that of database copyright as provided for by the Directive, copyright in compilations at the lower United Kingdom standard of originality, and the sui generis right[20].

2.3 The Sui Generis Right

Article 7 of the Database Directive defines the sui generis right. Database makers may prevent extraction and/or re-utilisation of the whole or a substantial part of their databases, where it can be shown that, qualitatively and/or quantitatively, there has been a substantial investment in either obtaining, verifying or presenting the database's contents. It runs for fifteen years from 1 January of the year following the date of completion of its making, or the first making public of the database within the fifteen year period from its making[21]. Substantial changes resulting in the database being regarded as a substantial new investment qualify the renewed database for its own term of protection.

Recital 40 indicates that it is investment in deploying financial resources and/or the spending of time, effort and energy that is to be protected, and that the purpose of the right is specifically to protect such investment. It is damage to this investment, and not merely parasitical competition, that is being guarded against[22]. This was a significant factor in the interpretation of the Directive by Laddie J and the Court of Appeal in *British Horseracing Board Ltd v William Hill Organisation* (2001).

In turn, Recital 6 makes clear that the sui generis right is a response to the lack of harmonised unfair competition principles within the European Union[23] and underlines the purpose of the right. This raises the question whether a form of unfair competition remedy would have been a solution better adapted to the nature of the right's subject-matter. Cornish (1999) hints at such concerns:

‘Business developments in competitive economies have always turned in large measure upon the borrowing of ideas: intellectual property, including rights of unfair competition, must be restricted to those exceptional (author's emphasis) cases where the borrowing is unequivocally parasitical’.

Instead, the adoption of exclusive rights confers potential monopolistic power[24].

3. Intellectual Property - Balancing Protection against Access and Use

Accordingly, intellectual property is subject to varied provisions designed to achieve a balance between the granting of an exclusive right in order (primarily) to stimulate investment in creation of new products and ideas, and allowing for legitimate access to and use of the protected subject-matter. The means by which this balance is secured is vital to achieving the objectives of conferring protection[25]. This is equally true of the database right and useful examples may be drawn from other intellectual property regimes.

3.1 Patents

In the case of patents, the right, though a monopoly, is limited to a maximum of twenty years[26] and the underlying information, published even before the grant of the patent, is protected only to the extent that it is claimed in the patent specification[27]. Not only is the information published, but it is a requirement of application and grant that the information be presented in a manner ‘sufficiently clear and complete for the invention to be carried out by a person skilled in the art’[28]. Significantly, anti-competitive practices adopted by the monopolist patentee are countered by compulsory licence provisions[29].

3.2 Copyright

Copyright is most analogous to the sui generis database right. However, Laddie J notes in *British Horseracing Board Ltd v William Hill Organisation* (2001) that there is no link between copyright principles and the new right, despite the similarity of some features of these rights. It is still pertinent to note that copyright protects the expression of an idea, rather than the underlying idea itself[30]. That copyright may nevertheless protect information is posited by Chalton and Rees (1998) following the discussion by Laddie, Prescott and Vittoria[31] on the construction to be given to originality. Though copyright protection for a compilation is confined to the particular selection and arrangement of information - to reproduce the selection and arrangement will infringe either compilation or database copyright - it remains true that where information is recorded and expressed in a work qualifying for copyright protection in itself, the information may be used and

re-expressed, provided that the re-use does not amount to reproduction of a substantial part of that work[32]. To this extent, the underlying information in a copyright work remains in the public domain. The case of *Elanco Products v Mandops*[33], where repeated redrafting by a competitor did not serve to protect against copyright infringement, might be seen as being contradictory to this conclusion, but was much criticized as a result[34]. A similar result in *BBC and ITV v Time Out*[35] related to a compilation, and the sole-source monopoly over listing information was eventually only remedied by legislation[36]. But copyright is designed to protect the ‘originality’ or ‘skill, labour and judgment’ involved in the creation of a work and it is notable that in the *Elanco* case the defendants did not return to public sources but always drew their information from the plaintiffs’ instructions. Further access to copyright works is provided by the fair dealing defences and other permitted acts[37]. The TRIPS Agreement also applies the idea expression dichotomy to all copyright works, including factual compilations[38].

Digital format is, also however, posing considerable problems in relation to the traditional copyright balance. Legal protection given to technological digital rights management by Section 1201 Digital Millennium Copyright Act 1998 in the United States and the Information Society Directive[39] in the European Union has given rise to criticisms that the freedom of expression is jeopardized[40], as is the right of private copying. Information published in copy-protected form, without another source, is effectively monopolized. While, in the United States constitutional guarantees for freedom of expression may be invoked against this monopoly[41], the Information Society Directive merely places the onus to allow for private copying on Member States without any indication of how this may be done[42]. Consequently, copyright’s idea/expression dichotomy may prove an ineffective ‘balancing aid’ for databases.

3.3 The Sui Generis Database Right

Just as copyright is confined to expression, the Database Directive was not intended to create any new rights in underlying data, nor to extend copyright to data, as Recitals 45 and 46 state. This implies that it was intended to preserve the traditional copyright balance of access and protection in regard to information. Protection for investment in the collation of information allows competitors to recreate that collation.

Lawful users’ right to extract or re-utilise insubstantial parts of the contents for any purpose is preserved by Article 8, subject to any copyright subsisting in the contents themselves[43]. It is likely, though, that most uses will be regarded as substantial if they are of benefit to a user - *Laddie J* took into account *William Hill*’s interest in the information they extracted when determining substantiality.

Further access to, and use of, underlying information for specific purposes is provided for in Article 9. It is debatable whether either of these exceptions constitute a sufficient means of access to information[44]. They relate only to ‘lawful users’ of a database. This phrase is not defined by the Directive, nor by the Copyright and Rights in Databases Regulations 1997. These implement Article 9 by reference to fair dealing with a substantial part for the approved purposes[45]. *Chalton and Rees* (1998) point out that

careful drafting of licences may restrict a user to limited parts of a database and for limited uses. No general right of private use is given for electronic databases, even though Recital 50 does not distinguish between electronic and non-electronic databases. A substantial part of a database's contents may be extracted for teaching or scientific research, provided that this is non-commercial and that the source indicated[46]. Scientific research relates both to the natural and human sciences[47]. Additionally, Article 8(2) of the Directive provides that a 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’.

The result appears to confine access to information held in databases, particularly information whose sole source is the database[48], to those already licensed, possibly at a fee, and for a limited set of non-commercial purposes. The exception for scientific research and education has been termed a ‘kind of fool’s gold’[49], which apparently disregards the fact that the equivalent in the Berne Convention[50] applies to information already in the public domain, exempting only use of a particular expression of the information, whereas the raw database material may not lie in the public domain. Additionally, the exception only applies to extraction and not re-utilisation.

As Chalton and Rees (1998) discuss, competing software manufacturers, and makers of electronic systems in general, receive favourable treatment in relation to use of another’s protected product. The Software Directive and the Design Right (Semiconductor Topographies) Regulations 1989 allow for reproduction for the purpose of analyzing or evaluating the design or the embodied concepts, processes, systems or techniques. This latitude has not been extended to databases, so that commercial use is more limited than private and non-commercial use.

The end result is the strongest intellectual property protection other than a patent, and for subject matter (information) that carries none of the value-added originality nor novelty necessary for copyright or the grant of a patent[51], though there has been investment in its collation. While a competitor may re-create the database - if the raw data is available elsewhere - this would be economically inefficient. Additionally a monopoly situation deters from the production of secondary products and may encourage abuses of market power. Thakur (2001) argues that as a fair user can re-gather data and re-compile a database without infringing or by seeking a licence fair competition is not hindered. Because, she says, a non-proprietary database maker faces price competition from efficient second-comers there is an incentive to licence at a reasonable rate, and to price reasonably or face price competition from rivals with access to data in the public domain. These competitive pressures should provoke efficiency in data collection and prevent any monopolistic behaviour by database right holders. The argument avoids, however, the potential reality that recreation would be inefficient and uneconomic, thus conferring a de facto monopoly on database makers, and the fact that much data is not in the public domain. Not only this, but the sui generis right actively creates an incentive to keep data out of the public domain, as illustrated by Reichman and Samuelson (1997a), thus not only monopolizing the collection of information but its free flow thereafter. This Thakur (2001) acknowledges, proposing compulsory licences for sole-source data.

4. Protection for Information?

Thus the question arises whether judicial interpretation of the Directive will confirm this potential for protection of information per se. The first case on the sui generis database right in the United Kingdom was decided in the High Court on 9th February 2001, and by the Court of Appeal on 31st July.

4.1 British Horseracing Board Ltd v William Hill Organisation (2001)

The implications of the first instance judgment are significant for a number of reasons. Firstly, the case confirms that protection lies for underlying information contained in a database and is not confined to its characteristics as a database. Secondly, that protection is shown to be potentially eternal where the database is 'dynamic' - updated regularly - and that the renewed protection extends to the earlier versions preceding the renewed updating or verification. Thirdly, that copyright principles are not to be applied by analogy to the new right. And finally, that use of information derived from a protected database amounts to 'extraction' from that database.

The claimants established and maintained an extensive and comprehensive computerised collection of information relating to the United Kingdom horseracing industry (the BHB Database). The BHB Database represents a considerable investment in the collection of data, its selection and verification, as well as the design of the database and the insertion and arrangement of the data in the database. Laddie J cited the estimated total of 8000,000 new records or changes added to the database annually, and the annual cost of £4 million, approximately 25 per cent of the BHB's yearly expenditure.

Though the defendants were licensed users, both directly and indirectly, of the BHB Database, the action related to their use of it for a new venture - Internet betting services. The BHB alleged, successfully, that the defendants had infringed their database right by unlicensed use of information from the database via a sub-licence granted by Satellite Information Services Limited (SIS). By the time the data used by William Hill was published on its Internet service the information was available from other sources such as the press and teletext. Giving the Database Directive a purposive construction, Laddie J held that the information used amounted to the extraction of a substantial part of the database, as well as the repeated extraction of insubstantial parts, and that the sui generis right is not confined to the 'database-ness' of the collected information. The fact that the extraction and re-utilisation was indirect, via the SIS raw data feed, did not prevent infringement. He also confirmed that the duration of protection for a database is renewed by 'substantial changes'[52] and rejected the defendants' argument that substantial changes created a new database, so that repeated extractions from a dynamic database would not amount to repeated extraction for 'the' database. Finally, he also rejected the defendants' argument (predicated on the argument that the underlying information must be unprotected) that to use the information after manipulation and re-presentation would not infringe, as this would continue to amount to re-utilisation of the data.

The decision is not unarguable. Its result is protection for the information itself once collated in a database, despite Recitals 45 and 46. Laddie J emphasised the Directive's objective to protect the investment in generating a database[53]. He pointed out that such investment is jeopardised not merely by the taking of the form of the data, but also by making use of its accuracy, and that infringement is not confined to rival database manufacturers[54]. Chalton (2001) argues, on the other hand, that the concept of extraction implies that the extraction should be directly taken from the database, and that the sui generis right 'should not follow the information, and should cease to apply to the re-expressed information'. And, he continues, to protect the data itself is tantamount to creating a new right in information. A database, as defined by the Directive, is a collection of works, data or other materials[55]. If an individual element were to constitute a substantial part of the database and the investment in its generation, protected by the sui generis right when divorced from the database, such protection necessarily constitutes a new right in that item of data.

Chalton (2001) concludes that this difficulty is inherent in the Directive itself, as the subject-matter of protection of the sui generis right is not clearly defined. This is exacerbated by the tension between protecting investment, a database as a collection, and information contained in a substantial part of a database's contents. He does go on, however, to point out that any narrower interpretation leaves information derived from a database wholly unprotected once it has been re-expressed in a form not qualifying as a database.

The result of the British Horseracing Board case serves to illustrate the predictions of Reichman and Samuelson (1997a) and Litman (1997) that the Directive results in the protection of data as such, and in perpetuity if the database is dynamic. This means that, unless the right is abandoned or abused, the concept of incremental innovation has been forsaken, notwithstanding the economic inefficiency of such a result.

Copyright is equally prey to a looseness of definition concerning the subject-matter of its protection[56]. This has the advantage that new forms of expression can be absorbed into the legislative fold, limited by other determinants of the ambit of protection. A similar flexibility may be desirable in relation to databases as technology develops. Laddie J focuses on the investment in the making of a database as delineating the extent of the right's subject-matter. If the inevitable logic of his approach is protection for underlying information it seems that resort can only be made to the exceptions to infringement, or to compulsory provisions for some uses of information derived from a protected database, in order to preserve appropriate access to information[57]. To attempt a definition of the subject-matter sui generis right, it is submitted, would be an unsuccessful solution, for the reasons iterated by Chalton (2001). To confine protection to the structure and arrangement of the database would leave manufacturers open to rampant competition and remove the incentive the right is designed to provide[58].

The focus, therefore, if access to information is to be ensured without discouraging investment in collation, must lie in the exceptions to infringement, including the imposition of licences, or alternative models for protecting unoriginal databases.

4.2 Court of Appeal - Reference to the European Court of Justice

The Court of Appeal lifted the permanent injunction, nevertheless holding that there should be a reference to the European Court of Justice on the interpretation of the Directive. It is unlikely that Laddie J's wide interpretation of the Directive will be overruled on appeal as the court indicated their support for Laddie J's decision. A similar decision in relation to information was reached in a German case[59] by the Federal Supreme Court[60], and database right in telephone directories scanned by a competitor held to have been infringed[61].

William Hill argued that information in the public domain could be used without the realisation that its derivation might be traced to a protected database. The Court of Appeal did recognise the importance of this point. They left the questions for reference to counsel to agree. They also noted the narrower decisions made this year in Holland and Sweden in *NV Holdingmaatschappij de Telegraf v Nederlandse Omroep Stichting*[62] and *Fixtures Marketing Limited v AB Svenska Spel*[63]. The Court of Appeal of The Hague refused database right to broadcasting listings as there was no evidence of substantial investment in compiling the listings, which might also be regarded as a spin-off from the broadcasters' activities. *Gotland City Court* found that there had been substantial investment in the production of football fixture lists, but that there had been no infringement of database right. Citing *Ulf Bernitz, Immaterial Rights, 1987*, this court asserted narrow protection for a compilation, not extending to the underlying information, and only encompassing 'reprinting or copying the information in the same or a similar compilation', or thinly-disguised plagiarism.

Further resolution from the European Court of Justice is expected to take 9 months to two years. Meanwhile, William Hill have appealed to the Office of Fair Trading[64]. Until these appeals are determined the effects of the sui generis right remain uncertain.

5. The Future for the Sui Generis Right

But, that there is good cause for concern for access to information has been demonstrated. Libraries and the scientific and educational community have raised the issue of protection for items of information *per se*[65]. CODATA, a committee of the International Council for Science (ICSU), have prepared a set of principles for evaluating legislative proposals affecting the use of scientific databases. Just as copyright works build on preceding copyright works, so too does the creation of new information rely on preceding collections. Providing database protection that allows for such development can be seen as a priority, particularly within the context of scientific and educational research.

While the sui generis right may well convert the use of information into a pay-per-view model, and potentially monopolise information held in sole-source databanks, this result is not necessarily one that is 'written in stone'. The Directive itself already contains provision which may serve to modify this result, although only in relation to competition among rival database manufacturers. In addition, the provision for review in the Directive and developments in the United States and internationally through the aegis of WIPO

may influence the future, and effect, of the sui generis right on raw information.

5.1 European Competition Policy

The Directive provides for the application of national and European Union competition laws to competition among database manufacturers. Recital 47 states that the protection given by the sui generis right:

‘must not be afforded in such a way as to facilitate abuses of a dominant position, in particular, as regards the creation and distribution of new products and services which have an intellectual, documentary, technical, economic or commercial added value’.

Certainly the European Court of Justice has proved itself willing to prevent such abuses relating to the provision of information in the past. RTE and ITP v EC Commission (‘Magill’) (1995)[66] concerned the lack of competition in relation to copyright protected television listings information. The Court upheld the Commission’s finding that a refusal to licence the information to third parties constituted an abuse of a dominant position. Effectively, this constituted the imposition of a compulsory licence. It is not clear, however, when such a power might be used. The case was said to be exceptional, and diverged from the result of *Volvo v Veng* (1998)[67] that a design right owner could decide on granting licences. It was a situation where some Member States would not have accorded copyright to such factual data, and was ancillary to other controls exercised over broadcasting. It remains to be seen whether the European Court of Justice would revert to the reasoning of *Volvo v Veng* (1988) if the defendant could rely on the existence of the new database right. In 1998 the Netherlands Competition Authority regarded broadcasters’ refusals to license radio and television programme listings as an abuse of their dominant position[68].

5.2 Review of the Database Directive

Article 16(3) of the Database Directive provides for review three years after its implementation. It refers specifically to the sui generis right and its exceptions, and to any abuse of a dominant position or other interference with free competition ‘which would justify appropriate measures being taken, including the establishment of non-voluntary licensing arrangements’. The date for implementation of the Directive was 1 January 1998, meaning that the report should be submitted to the European Parliament, Council, and Economic and Social Committee by the end of 2001. However, late implementation of the Directive by some Member States means that work on the review has been delayed, and a report is not expected until the end of 2002[69].

Reference to non-voluntary licensing relates to the history of the Database Directive. The first proposal[70] contained provision for compulsory licences for the new right. The Explanatory Memorandum recognized the Directive’s potential to create a monopoly in information where a database constituted the sole source for that data. The proposal applied in two situations. Firstly, where works or materials in a database made publicly

available could not be independently created, collected or obtained from another source. The proposed Article 8(1) stated:

If the works or materials contained in a database which is made publicly available cannot be independently created, collected or obtained from any other source, the right to extract and re-utilise, in whole or substantial part, works or materials from that database for commercial purposes shall be licensed on fair and non-discriminatory terms.

Secondly:

...if the database is made publicly available by a public body which is either established to assemble or disclose information pursuant to legislation or is under a general duty to do so[71].

Like the Magill case, and the provisions of European competition policy, such compulsory licences would allow for the manufacture of competing databases. Lloyd (2000) comments, however, that in most cases where information is only available to one person it is likely to be considered confidential and not publicly available. Any such licences would not necessarily meet criticisms of a more widespread monopoly over information, at least at a price, where the production of a competing database would be uneconomic, thus hindering access to that information. These provisions were removed in closed door meetings of the Council of Ministers which led to the Common Position of 10 July 1995, in turn becoming the final version of the Directive[72].

5.3 United States Proposals

New models for protection may emerge from the United States. After Feist, protection for databases in the United States has been restricted to the misappropriation doctrine propounded in *INS v Associated Press* (1918), as was suggested in the Feist case itself. A resulting vulnerability for database manufacturers was revealed in *National Basketball Association v Motorola* (1997). The Second Circuit held that only a very narrow class of misappropriation can survive the pre-emption provisions of the Federal Copyright Act [73]. The effect was to limit protection to 'time-sensitive' facts and to spur proposals for reform.

Several proposed bills have been presented to the House of Representatives. These bills adopt one of two approaches to the balance of protection against access - either that of a remedy against unfair misappropriation, or by providing for compulsory licences allied to a database right. Debate in the United States must also take into consideration the constitutional commitment to securing free flow of information embodied in the First Amendment[74].

Writing in 1997, Reichman and Samuelson advocated an unfair competition model for protection. They expose the paradox of the effects of technological change on the collection of information, depending on the nature of the database concerned. Technology can at once deepen a state of inadequate protection by making competition very easy, or lead to considerable over protection where it bestows monopoly power on a sole-source

data provider. Such power not only leads to higher prices but can prevent access to information completely. This is particularly significant, they state, in relation to the databases which have become the building blocks of knowledge in the observational sciences.

Such a model was adopted in two bills introduced in to the House of Representatives, The Collections of Information Antipiracy Act 1998 (HR 2652), and Consumer and Investor Access to Information Act 1999, HR 1858. The former allowed a person collecting, organizing or maintaining a collection of information to prevent extraction or use of a qualitatively or quantitatively substantial part of that collection sufficient to harm the actual or potential market for products or services incorporating the collection. It was dropped in October 1998 after sustained opposition from a variety of interests including, significantly, universities, libraries, scientists, communications and Internet companies, and financial institutions engaged in on-line trading in securities. Djavaherian (1998) highlights differences from common law misappropriation in the proposal, as there was no requirement of competitive misuse, and no built-in duration. He states that to prevent non-commercial extraction was too extreme, although this could have been avoided by a requirement of harm to the plaintiff[75]. Reichman and Uhler (1999) discuss the potential effects of HR 2652 on scientific and educational research. They show how the likely outcome would be to prevent a second researcher from uses of protected information or data not allowed by a site licence - despite having paid for access to a sole-source database, and the fact that the data falls within the public domain. Where that data is based on one-time events that could not be regenerated no subsequent research can fall within the permitted acts of independent creation. They also point out that even where regeneration might be physically possible the cost in relation to a niche market of potential users could be so high that few second comers would be likely to reproduce the data. Sole-source providers would therefore remain a dominant force within the database market, lacking competition, and perpetuating barriers to entry. The Association of Research libraries reach a similar conclusion from a similar example in the context of historical research. Reichman and Uhler (1999) state that anecdotal evidence suggests Japan may also adopt a truly unfair competition approach.

The latter bill, HR 1858, has even clearer foundations in an unfair competition model as it prevented only competitors from slavish copying of the contents of a database without adding value for sale in competition with the first database.

The other proposals have been modeled on the sui generis right. The Information Industry Association favours this approach; arguing that the large investment in data collation needs strengthened protection in a digitized world, that Feist jeopardizes comprehensive on-line databases used by means of a search engine, and that the Directive places the United States database industry at a competitive disadvantage. The Database Investment and Intellectual Property Piracy Act 1996 (HR 3531) introduced by Representative Howard Coble, drew heavily on the Directive, but was not successful. It lacked any fair use or public interest exception and was criticized by the scientific and education communities[76]. Professor Jaszi criticized this ushering in of a 'pay-per-view' model of access to information. HR 354, Collections of Information Antipiracy Act, introduced in January 1999 and a modified version of HR 2652, suffered the same fate despite

restricting protection to 15 years and adding exemption for reasonable uses by educational, research and scientific organizations. Though modeled on copyright fair dealing defences, the exemption was only to be applied to individual acts of use or extraction of information for specified purposes, placing the burden of proof on the otherwise infringing user. Despite the modifications, Reichman and Uhler (1999) conclude that the long-term implications would be 'potentially very damaging for science and technology' where the digitization of data collection and dissemination has ushered in a 'transparency revolution'.

While the debate continues, it is clear that the real issue, in both Europe and the United States, is one of securing an effective balance between protection and access, and the reminder supplied by Oram (2000) that database manufacturers also constitute information consumers is a timely one. In March and June 2001 it was reported that the House Commercial and Judiciary Committees were meeting with a view to securing a common approach[77]. Most significant is the fact that a great deal of opposition has come from the non-commercial sector - that of users of information - fearing the consequences of protection for information (the foundation for increased knowledge and understanding) itself.

5.4 Proposed WIPO Database Treaty

Further debate has been generated in the World Intellectual Property Organisation (WIPO), which is charged with administering some international intellectual property agreements. It is also mandated to initiate new proposals for international action. Acting in this capacity, a proposal was brought forward in 1996 for the establishment of a 'Treaty on Intellectual Property in Respect of Databases'. This proposal was closely based on the model of the sui generis right, though with protection lasting for twenty five years, and mandating national treatment rather than the reciprocity of treatment provided for in the Directive.

The draft Treaty was tabled before the WIPO Diplomatic Conference on Certain Copyright and Neighboring Rights Questions held at Geneva in December 1996. The proposal was not voted upon, but a recommendation was passed which suggested that the matter should be considered further. Another meeting was held in September 1997 at which documents considering the nature and extent of data base protection in signatory states were considered. It is not clear, however, when or whether the Treaty will finally be adopted. Proposals remain on the agenda of the Standing Committee on copyright and related rights. In 1999 the Secretariat commissioned a report on the economic implications of database protection. It is expected to be available by the beginning of 2002.

Just as the American proposals for legislation in the United States have been fiercely criticized, the draft Treaty received considerable opposition from the United States. Concerns were raised both at the possible impact of the proposed Treaty on access to government information under freedom of information legislation, and also at what was described as the 'chilling' impact of the provisions on the operation of the Internet. Two issues were highlighted, the first that organisations such as VeriSign which maintain

databases of Internet domain names and addresses might seek to claim proprietary rights in essential tools for those seeking to navigate the Internet, and secondly, the impact upon the operation of Internet search engines such as Alta Vista or Yahoo which seek to index the contents of virtually all WWW sites. Such an activity might be seen as extracting a substantial part of the databases involved. The scientific community also voiced its alarm.

The draft Treaty did not contain compulsory licence provisions, nor would an international sui generis database right be subject to competition policy in the way that Magill might be applied to the European right. The implications for access to information are worrying at least.

6. Conclusion

The future of access to some collections of information, even information that can be found elsewhere in the public domain, is threatened. De facto monopolies over data have been shown to be possible. The consequences, had the contents of the BHB Database, been necessary to medical research, for example, would have been far-reaching and socially as well as economically negative or even damaging. Subject to the European Court of Justice's opinion on *British Horseracing Board Ltd v William Hill Organisation* (2001), the sui generis right appears to over protect sole-source databases unless provision for compulsory licensing or other unfair competition-like provision is made.

However, there are two ways in which access to information held within a sole-source database protected by the sui generis right could be secured - either by ensuring adequate competition (which might include both competition law and compulsory licences) so that alternative sources develop, or by providing user rights that guarantee sufficient access to such information.

Compulsory licensing, as favoured by Reichman and Samuelson (1997a), is dismissed by the economists Tyson and Sherry (1997). They argue that compulsory licences constitute a form of price control and allow competitors to exploit only the most profitable databases, substituting externally determined rates (whether by the courts or government) for those secured by voluntary negotiations. To determine what might constitute the reasonable compensation and agreed uses to be licensed propounded by Reichman and Samuelson, is, they say, likely to be controversial and daunting. Ginsburg (1990), however, does suggest, in relation to copyright for low-authorship works, that compulsory licences could lie for close copying in order to create a competing work. These might allow use of a work to save time, effort, and money, and reproduction of substantial elements to create a different and not directly competing work.

Nevertheless, Samuelson (1997b) mounts a robust defence of her position, emphasizing the failure in particular of the Tyson Sherry Report to appreciate the competitive significance of the public domain, or the reluctance of sole-source database manufacturers to grant licences[78]. Her letter highlights one of the most significant factors in all debate concerning database protection - that it is only by a combining of the expertise of both economists and intellectual property and competition lawyers that an optimum solution can be reached.

Support can also be found for the second option of extended user rights, however. Brown et al (1999) highlight the strength of exclusivity bestowed by the sui generis right and argue that if the United States were to adopt a sui generis right a broader right to private non-commercial use should be adopted. They point out the ineffectiveness and practical unenforceability of legal prohibitions against personal use, but also that the software industry has demonstrated an ability to survive it. Davison (1999) points out that changes in The Collections of Information Antipiracy Act (1999) HR 354 in section 1403 did attempt to address the fair use objections.

Alternatively, a more radical solution would be to replace the sui generis right, too much of a hybrid between copyright and protection against unfair competition, with an unfair competition model, as some American proposals have done. Djavaherian (1998) argues that the state remedy against misappropriation strikes the right balance between access and protection, particularly as any initiative needs to be adaptable until the extent of any market failure in an emerging industry is known. Misappropriation has the advantage of only being applied within the context of specific cases. Any case law emerging could then be drawn upon in the future by legislators.

While the United States is in the position of being able to start from scratch, in the European Union a solution by way of compulsory licensing seems the most likely option given its inclusion in the initial Directive proposal. Opponents of sui generis protection in the United States have argued that technological measures would provide better protection. This may be so, but the danger they pose for access to and private use of databases is serious. In the absence of adequate exceptions in either the Digital Millennium Copyright Act, or the 'Information Society' Directive, a suitably modified database protection would appear a preferable solution.

It would seem that the Commission are unlikely to review the granting of the new right in its entirety, even if the United States debate does finally settle on a remedy against misappropriation as a better form of protection. Article 16(3) makes specific reference to the creation of non-voluntary licensing arrangements, although the report is to compass 'the application of the Directive'. The report of the Delegation of the European Community at the Standing Committee on Copyright and Related Rights in May 2001 suggests satisfaction with the current working of the Database Directive. It is equally unlikely that the Commission will review the compulsory licensing provisions in the absence of any convincing evidence of abuses of monopolistic power.

Compulsory licensing would promote competition. However, where access to information, rather than the interests of competing database manufacturers, is at issue the real debate should, it is submitted, centre on the exceptions to the sui generis right, in order to answer the criticisms of others seeking access to information, and specifically information held within a sole-source database.

Footnotes

1. *Collis v Cater* (1898) 78 LT 613. Before amendment by The Copyright and Rights in

Databases Regulations 1997, Section 3, Copyright, Designs and Patents Act 1988 provided for protection for compilations as a form of literary work.

2. In the United Kingdom see *Football League v Littlewoods* (1959) Ch. 637; *Ladbroke v Wm Hill* (1964) 1 WLR 273; *Macmillan v Cooper* (1923) 93 LJPC 113.

3. The decision, says Cohen Jehoram (2000) struck the database industry and the European Commission like 'a bombshell'. Why this should be so, when it is broadly commensurate with the civil law approach to originality is not explained.

4. Article 3(2), Database Directive <http://europa.eu.int/eur-lex/en/lif/dat/1996/en_396L0009.html>.

5. COM (92) 24 Final SYN 393.

6. Reported at: <http://www.wipo.int/pressroom/en/updates/1999/upd99_58.htm> after the third session of the Standing Committee on Copyright and Related Rights in November 1999.

7. The Database Investment and Intellectual Property Piracy Act, (1996), HR 3531; in 1999 Senator Orrin Hatch entered three different proposals emphasising the danger of database piracy in the Senate Record, and the Collection of Information Antipiracy Act, HR 2652 (HR 354), and Consumer and Investor Access to Information Act, HR 1858, were introduced to the House of Representatives. <<http://www.gigalaw.com/articles/yu-2000-12-p1.html>> <http://www.codata.org/codata/data_access/linn.html>.

8. Section 3(2) Copyright, Designs and Patents Act 1988 provides that a literary work must be recorded 'in writing or otherwise'. 'Writing' is defined in s. 178 as including 'any form of notation or code ...regardless of the method by which, or medium in or on which, it is recorded'.

9. See note 1.

10. *Ladbroke (Football) v William Hill* (1964) 1 All ER 465.

11. For example, in the Dutch case of *Van dale v Romme* (1991) Ned. Jur. 608 the Dutch Supreme Court required the selection of words for a dictionary to include the author's own views, as reported in Cornish, W (1999), *Intellectual Property: Patents, Copyright Trade Marks and Allied Rights* (London: Sweet & Maxwell) at page 385.

12. *Feist Publications v Rural Telephone* 499 US 340 (1991).

13. *Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd* (2001) FCA 612.

14. *Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd* (2001) FCA 814.

15. Recitals 1 to 6 recite the reasons for harmonising existing protection and creating a

new right.

16. Implemented in the United Kingdom on 1 January 1998.

17. Article 1 (2), Database Directive. Recital 17 elucidates, excluding recordings and audiovisual, cinematographic, literary and musical works as such. The definition has been seen as extending even to the results of a search on the world wide web (Lloyd, 2000), or the contents of a web page (Lai, 1999, 2000).

18. Article 1(2), Recital s 15 and 16, Database Directive.

19. Regulation 6, Copyright and Rights in Databases Regulations 1997; Section 3(2) Copyright, Designs and Patents Act 1988.

20. The phrase is ambiguous (Cornish, 1999, at p.386). Article 1(3), Council Directive on the legal protection of computer programs (91/250/EEC) uses the same wording in relation to original as the Database Directive and this was not incorporated in the implementing amendments made by the Copyright (Computer Programs) Regulations (1992). The United Kingdom argued that traditional interpretation met the Software Directive's standard which could be seen as referring to the United Kingdom's existing standard, although this was criticised by some Commission officials - as reported by Cornish (1999 at p.509, n.5). The change in wording in the Copyright and Rights in Databases Regulations (1997) may be interpreted, accordingly, as recognition that a higher standard is required for database copyright, while compilation copyright remains un-amended (Lai, 2000 at p.163) (Lloyd, 2000 at pp.450-451) (Cornish, 1999 at p.524). Ultimate clarification will have to come from the European Court of Justice. Laddie J's dictum in *British Horseracing Board Ltd v William Hill Organisation* (2001) that resort should be made directly to the Directive for the purposes of interpretation may prevent a divergence from an otherwise harmonised European approach; however, the Directive gives no direct guidance in Recital 15 or Article 3(1).

21. Article 10, Database Directive.

22. Recital 42, Database Directive.

23. Cornish (1999) points out that the awarding of protection to European Union nationals and residents and those with whom agreements have been made in Article 11 and Recital 56, Database Directive necessarily suggests that the new right falls outside the provisions of Article 10bis, Paris Convention.

24. For a fuller discussion see Cornish (1999) pp.34-40.

25. For fuller discussion see Cornish (1999) pp.129-138; 367-369.

26. Section 25, Patents Act 1977; Article 33 TRIPS Agreement 1994
<http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm>.

27. Sections 16, 125, Patents Act 1977.
28. Section 14(3) , Patents Act 1977 1977, <<http://www.jenkins-ip.com/common/direct?destination=http://www.jenkins-ip.com/patlaw/index.htm>>;
Article 29(1), TRIPS Agreement 1994,
<http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm>.
29. Section 48, Patents Act 1977, <<http://www.jenkins-ip.com/common/direct?destination=http://www.jenkins-ip.com/patlaw/index.htm>>;

Article 5A(2), Paris Convention 1883,
<<http://www.wipo.org/treaties/ip/paris/index.html>>.
30. L B Plastics v Swish (1979) FSR 145.
31. Laddie, Prescott, Vitoria, (2000), The Modern Law of Copyright and Designs, London, Butterworths.
32. Section 16 Copyright, Designs and Patents Act 1988, Ravenscroft v Herbert (1980) RPC 193, Walter v Steinkopff (1892) 3 Ch 489.
33. (1980) RPC 213.
34. Dworkin, G (1979), 'Elanco Products - The Ideas-Expression Dichotomy' EIPR 17.
35. (1984) FSR 64.
36. Broadcasting Act 1990.
37. Sections 29, 30, Chapter III, Copyright, Designs and Patents Act 1988.
38. Articles 92), 10(1), TRIPS Agreement 1994.
39. Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.
40. The arrest of Russian programmer Dmitri Sklyarov by the FBI on criminal charges after discussing software developed to circumvent Adobe's copy-protection technology for digital books at the Defcon Convention has been criticised in the United States, <<http://www.epccentral.org/dmca.html>>.
41. As they have been in the cases relating to CSS copy-protection, Universal v Reimerdes, and Professor Edward Felten's attempt to publicise the attempts to crack the SDMI code, Felten v RIAA.
42. Recitals 38, 39, and 52, Information Society Directive.

43. As Reichman and Samuelson (1997a) state, this may be nugatory protection for the user, as any data extracted following the user's request might be deemed substantial. Laddie J took a similar view in *British Horseracing Board Ltd v William Hill Organisation* when he took into account the importance of the data extracted to the defendants in determining its substantiality.
44. Thakur (2001) does not agree, arguing that the sui generis right is restricted to extraction and re-utilisation from a database, and that it does not remove information from the public domain so that the collection of information can always be repeated, or a licence sought.
45. Reg 20, and Schedule 1, Copyright and Rights in Databases Regulations 1997.
46. Article 9(b) and Recital 50, Database Directive.
47. Recital 36, Database Directive.
48. Reichman and Samuelson (1997a) suggest that the bulk of electronic data stem from sole-source providers, public or private.
49. Reichman and Samuelson (1997a).
50. Article 10(2), Berne Convention.
51. Reichman and Samuelson (1997a).
52. Article 10(3) Database Directive, reg 17(3) Copyright and Rights in Databases Regulations 1997.
53. Recital 40 and Article 7(1), Database Directive.
54. Recital 42, Database Directive.
55. Article 1(2), Database Directive; section 3A(1) Copyright, Designs and Patents Act 1988.
56. There has been considerable recent debate concerning the nature of a dramatic work following the litigation in *Norowzian v Arks Ltd (No 2)* (1999) FSR 79, (2000) FSR 363.
57. Leistner (2000) states that the German Federal Supreme Court's decision in *Tele-Info-CD* in May 1999, the first of a European supreme court on the sui generis right, appears to reach the same conclusion.
58. Recitals 6 to 12, Database Directive.
59. *Tele-Info-CD* Case No. I ZR 199/96.

60. Bundesgerichtshof

61. As reported in (2000) 31 IIC 1055.

62. 99/165, 30 January 2001.

63. T 99-99. 11 April 2000. My thanks go both to Alex Morrison, PhD student at the University of Strathclyde, and the chambers of Peter Prescott QC for providing me with copies of these cases.

64. Hickman, R (2001), 98 Law Soc Gazette 22.

65. That these concerns are real may be illustrated by the evaluation of the Celera Genomics database of the Human Genome published in Science magazine at the HUGO Satellite Meeting 'Intellectual Property and Related Socio-legal Aspects of the Human Genome Project' held on 23 April 2001 at the University of Edinburgh. E-mail correspondence with Professor David Porteous suggests that licences must be secured for the extraction of sufficient data to perform any of the named and necessary computations, evaluations or enhancements of the data that would be considered the norm in computational genome biology. More detail can be found at the Wellcome Trust, <http://www.codata.org/codata/data_access/principles.html>. Though this relates to contractual protection for a database, in an environment where free access to full information was expected for the benefit of all, the effects of such guarding of a database may be seen to illustrate the fears of researchers and scientists.

66. (1995) FSR 530.

67. (1988) ECR 6211.

68. De Telegraaf v NOS and HMG, Netherlands Competition Authority, 10 September 1998, as reported by Hugenholtz, 'The New Database Right: Early Case Law From Europe', <<http://www.ivir.nl/publications/hugenholtz/fordham2001.html>>.

69. Contents of e-mail received by the author from the Commission.

70. COM (92) 24 Final SYN 393.

71. First Proposal, Article 8(2).

72. As reported by Reichman and Samuelson (1997a). Thakur (2001) reports that the provisions were removed when the scope of the new right was narrowed as reported in Council Common Position No. 95/20, Statement of Council's Reasons 19, OJ C288/02 at 26-27 (1995).

73. Section 301 Copyright Act 1976 prevents conflict of state laws of misappropriation which create copyright-like rights with copyright if the material being protected falls within copyright subject-matter and the state laws create a right equivalent to copyright

exclusive rights.

74. The Copyright Clause also prohibits the grant of exclusive rights, Thakur (2001).

75. The Information Technology Association of America suggested that the adverse effects of HR 2652 for science and education could be avoided if the bill were revised to incorporate a true misappropriation approach, focused against true uncompetitive practices between databases manufacturers.

76. Brown, Bryan and Conley (1999).

77. <<http://www.newsbytes.com/news/01/163856.html>>;
<<http://www.newsbytes.com/cgi-bin/udt/im.display.printable?client.id=newsbytes&story.id=167024>>.

78. That there may be an incentive to refuse a licence may be seen from the analogous German case of IMS Health. A world leader in data collection in pharmaceuticals, IMS Health refused to grant licences for the structure of their collection. The Commission ordered that licences be granted.

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