THE INTELLECTUAL PROPERTY IN A DATABASE – A HUMAN RIGHTS ISSUE?

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I Introduction and Context

The universal right to receive and impart information declared in Article 19 of the Universal Declaration of Human Rights (UDHR) was intended to protect the right to free speech. In recent years, this right has been interpreted more broadly. The right to receive information has been proposed as a means of eliminating discrimination against women in the areas of reproductive health, education, employment and political opportunities. In the context of government officials withholding readily available information about HIV-AIDS, it has been argued that the UDHR can be interpreted as declaratory of a right to know vital health information. The right to information guaranteed in the European Convention on Human Rights has been interpreted as guaranteeing a right of access to environmental information held by public authorities. In today’s information economy, this paper argues, the human right to information should also be interpreted as declaring an economic right. If this is correct, legal constraints upon the access to and distribution of information should be imposed with caution and with due consideration of the potential effect of any such constraints upon the

economic development of less developed nations. One such legal constraint is the proposed international system of intellectual property protection for databases.

The database is a key tool of the information economy. It has been described as “a vital element in the development of a global information infrastructure.” As with other products of human creativity or skill and effort, the inherent value of a database lies in its intellectual property. The structure and format of a particular database, if it is original, is copyright. Although it is fundamental that factual information is not intellectual property, copyright protection of the structure of a database effectively prevents any unauthorised use of the “unprotected” information within that database. In effect, when copyright subsists in a database of information an unauthorised person may not copy that information from the database (although they may collect and publish the identical information independently).

Nevertheless, despite what appears to be extremely broad protection for their valuable work, database owners complain that copyright is an unsatisfactory form of protection. Conversely, end-users of information such as scientists, academics, educationalists and librarians complain that the potential for database owners to control the use of factual information is contrary to intellectual property principles. These issues have led to the current debate

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5 The term “database” appears to be a relatively recent term for “an ordered collection” or “compilation” of data. The dictionary definition explains that a specific feature of a database that encapsulates its advantage over less-ordered collections of data, for business organisations in particular, is that “its contents can easily be accessed, managed and updated.” See Webster’s New World Dictionary (3rd Edn, 1988).


about the appropriate nature and extent of the intellectual property rights in a
database in the information age.

As with other intellectual property laws, copyright comprises a series of legal
rights provided by the state for, on the one hand, the economic incentive and
benefit of creators of original works and, on the other, for the advancement of
the public interest in innovation. Thus, copyright protection for an original
work endures for a limited term of years, after which the work falls into the
public domain for others to freely use and develop further. Furthermore, the
term of copyright protection itself is not a monopoly – copyright legislation
provides “fair dealing defences” for limited uses of copyright works for
public interest purposes such as education, research, study and criticism.

Cees Hamelink has described the protection of intellectual property as
representing a “delicate balancing act between private economic interests,
individual ownership, moral values and public interests.” However, in the
current debate, this balance is under threat by powerful commercial entities
and governments who argue that the economic significance of the debate is of
paramount importance. If the investment in a database is not rewarded, they
maintain, there will be no incentive to create or update databases. This paper
argues that there is another dimension to the debate that is equally significant.
This is the human right to information.

The paper first explains the significant differences between the copyright
protection that is available for original databases in many countries, including
New Zealand, and the recent sui generis intellectual property right that
protects the investment in both original and non-original databases created in
the European Union. It next describes the growing interface between human
rights law and intellectual property law and considers the implications for
human rights of the call to adopt sui generis protection for non-original
databases at an international level. The paper concludes that human rights
considerations have an important place within the database debate that should
not be overlooked.

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8 Cees J Hamelink The Ethics of Cyberspace (Sage Publications Limited, London,
2000) 156.
II The Intellectual Property in a Database – Current Protections

A Copyright

Although copyright legislation protects the original structure and format of a database, there are three specific areas of difficulty. First, copyright protection of any work is uncertain. There is no system of formal application or registration of a work for copyright protection. Generally, the creator of a database will not know whether or not copyright subsists in the database until the matter comes to litigation – an expensive and uncertain procedure at best.

Secondly, since the threshold for originality in a database currently varies in different jurisdictions, the database will receive different treatment in different jurisdictions – an unsatisfactory situation. In New Zealand and Australia the courts impose a low, ‘non-creative’, ‘sweat of the brow’ originality standard in accordance with the standard of originality imposed upon other categories of ‘literary works’. A database would be termed original for copyright purposes if it is not copied and if it is apparent that sufficient skill, labour, or judgment was expended in its selection and arrangement. The Australian courts have used the term “industrious collection” to describe the threshold of originality.9 United States copyright law requires that “a modicum of creativity” be present in any work before it can be considered original.10 A database created in the European Union will qualify for copyright protection only if the selection or arrangement of the database is the “author’s own intellectually creative selection”.11

Thirdly, there is no copyright protection for “non-original” databases. In jurisdictions which have a low threshold of originality there may not be many databases which fall into this category. However the value of the investment in a database is not necessarily related to the copyright standard of originality. After all, the inherent value of a database to its owner lies in its accessibility and “… intelligible arrangement. Who would want a telephone directory containing particulars of all subscribers listed randomly and

9 Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd (2001) 55 IPR 1 (FCA).
Therefore inaccessibly?" Because there is no copyright in a non-original database, creators and investors currently rely upon contractual measures and technological means to render the database inaccessible to other users. In effect such measures “lock up” information to a greater extent than copyright protection with its limited term and fair dealing defences.

B European databases – the sui generis right

In 1996 the European Database Directive (“the Directive”) provided a new kind of intellectual property right, or sui generis right, for the protection of the financial investment in a database created in the European Union. The sui generis right accrues to the person or body that has undertaken a substantial investment in the obtaining, verification or presentation of the contents of the database. This “substantial investment” may consist of financial resources, and/or time, effort and energy. The sui generis right is independent of any copyright that might exist in the database, and allows the investor to prevent unauthorised third parties from extracting or re-utilising the whole or substantial parts of the database. Once the Directive has been implemented into the domestic law of a European Union member country it is possible for a database created within that country to qualify for both copyright protection (for its originality) and also the sui generis right. However, although a non-original database will not qualify for copyright protection, the sui generis right will protect its investor.

The European sui generis rights have led to heated debate. While many commercial entities from countries outside the European Union are urging their own governments to bring similar legislation into force (since the Directive’s sui generis protection is available to databases produced by nationals of countries outside the European Union only if those countries provide comparable protection for databases), public interest users of information such as scientists, teachers, researchers and librarians are highly

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12 Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd (2001) 55 IPR 1 (FCA), per Black CJ.
16 Database Directive, Recital 56.
critical of the Directive, calling it “one of the least balanced and most potentially anti-competitive intellectual property rights ever.”

The *sui generis* database right differs from traditional intellectual property rights in several significant ways. In particular, it is not dependent upon establishing originality in the structure or format of a database. Consequently it affords protection “… for subject-matter (information) that carries none of the value-added originality nor novelty necessary for copyright or the grant of a patent.”

The Directive provides that a lawful user may extract or re-utilise insubstantial parts of the database for any purpose. This provision is similar to copyright law, which permits insubstantial copying of a work. However, it appears from European decisions on this issue that most uses of parts of a database will be determined qualitatively rather than quantitatively and may be deemed to be substantial by virtue of their perceived benefit to the end-user.

The term “lawful user” is not defined in the Directive and is also considered to be unsatisfactory. In particular, a person who has been licensed to access only limited parts of a database for limited purposes may not be a lawful user for the purposes of insubstantial extraction or re-utilisation of other parts of the database. This will encourage database owners to issue limited user licences and thus restrict the usefulness of the lawful user provision.

Finally, and most significantly, although the term of *sui generis* protection is stated to be 15 years from 1 January of the year following the date of completion of a database, provision is made for the right to endure for a much longer term. Each time ‘a substantial change’ is made to a database, which “evaluated qualitatively or quantitatively” results in the database being

20 Database Directive, Art 10(1).
considered to be a substantial new investment, the database resulting from that investment re-qualifies for its own term of protection. Regular updating additions will therefore enable the entire database to regularly re-qualify as a new database with a new 15 year term of protection. This provision is seen as having the potential to “lock up” information for an indefinite period. While certain information may be available through other sources, this is not always the case. The reality is likely to be the creation of a monopoly on information for the investor and an active incentive for the investor to keep information out of the public domain.

III An International Protection Regime – The Implications

Arguably the Directive’s sui generis protections have tipped the intellectual property protection balance toward private economic interests, private ownership and governmental control at the expense of moral values and truly public interests. The danger of such extensive protections is the potential unlimited control by database investors (from private enterprise or governments) of access to information for an indefinite period. The less developed countries complain that information is becoming an “endangered environment”. They argue that international developments in intellectual property law are the cause of a reduced information flow from North to South.

21 Database Directive, Art 10(3).
23 See text to n 8 above.
25 The respective stances taken by the developing countries and the developed countries in the database debate is somewhat inconsistent with their respective positions within the earlier information debate. The latter began in 1979 with the establishment of the New World Information and Communication Order (NWICO), a set of demands by the developing countries which was intended to stem the global free flow of information between countries, and which was endorsed by UNESCO. While the developed countries, notably the United States, viewed the human right to information as absolute, the developing countries
These criticisms do not imply that there should be no legal protection for the intellectual property in databases. However, traditional copyright protection for databases, while offering the advantages of limited public interest access and a finite term of protection, has been demonstrated to be unsatisfactory due to its uncertainty and international inconsistency.

One practical example of copyright’s shortcomings is described by Julie Wald, who discusses the theoretical situation of a pirated version of the Poisindex system (a system designed to enable medical personnel in emergency situations to identify a patient’s problem and its appropriate treatment) being copied without authorisation, posted on the Internet and providing outdated medical advice.26 Wald notes that under current United States copyright law it is likely there would be no legal liability accruing to the copiers. She suggests that, faced with the possibility or reality of such “legally condoned database piracy”, there would be no incentive for Poisindex’s creators to invest in updating and improving the database.

The value of the database in the information economy as well as its accessible nature, particularly when in digital form, has led the World Intellectual Property Organisation (WIPO) to examine proposals for an international system of protection for non-original databases, including the possibility of a system of **sui generis** rights for the protection of the investment in a database. Since an initial “Information Meeting”27 in 1997, the WIPO Standing Committee on Copyright and Related Rights (SCCR) has been investigating the complex and often contentious issues raised by the proposal. Some of these issues are noted below:

- the potential for an international system of protection for encouraging the commercialisation of scientific information at the

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believed that the human right to information could be limited by a national government in the interest of balancing the flow of information.


expense of the cooperation which currently predominated within the global scientific community

- whether database producers would make available their productions in the information networks if there were not guarantees for recouping their investments on the basis of a *sui generis* protection system
- the foreseeable impact of a *sui generis* protection on the use and exchange of information
- whether such protection should aim to restrict, or would result in restriction of, certain non-commercial information, for example meteorological data and, in general, publicly financed databases
- would such protection restrict or increase the availability of information?
- scientists need full databases relating to their fields – would a *sui generis* system mean that they could only obtain the necessary data through licences or should they create their databases from scratch?
- would a *sui generis* system not lead to denial of access to data necessary for global development?
- how would such a system affect scientific research and education, particularly in developing countries?

In 2001, in order to address the concerns of the developing countries and the scientific community about the proposed international legislative regime, the SCCR commissioned five studies on the potential economic impact of the protection of non-original databases in developing countries and countries in transition. The reports of these studies were, on the whole, inconsistent and tended to reflect the ongoing debate rather than provide solutions. For example, India reported that in 2002 approximately 80% of Indian databases were prepared by government and public sector sources and were non-

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28 “UNESCO Submission to the Information Meeting on Intellectual Property in Databases” (DB/IM/5, Geneva, November 1997). The submission from the World Meteorological Organisation (WMO) also emphasised its fear of losing the spirit of co-operation which had hitherto driven its activities for the overall benefit of countries and peoples: see “WMO Submission to the Information Meeting on Intellectual Property in Databases” (DB/IM/4, Geneva, November 1997).
commercialised. The report speculated that there are two possible reasons for non-commercialisation: the government’s intention to encourage scientific research through the wide dissemination of information; and also the fact that most of the data generated by the government is raw and needs to be analysed and classified further in order to be useful. However the government is moving toward more commercialisation of its data, especially in areas where it is technologically advanced, such as remote sensing. (This raises issues of the ethics of commercialising information that was initially obtained using public funding.) The private database industry in India was growing, but tended to concentrate on areas that offered little competitive advantage for India such as databases of legal information, banking and financial information, market research, stock market information, and ticketing and travel information.

The Indian report suggests that there are three broad areas which would be unique to India and in which there is potential for data generation and consequent economic benefit for the country. The first would capitalise on India’s status as one of the most ancient civilisations in the world and involve the documentation of traditional knowledge data such as medicinal, folklore and art. The second would exploit India’s diverse population and gene pool and involve the creation of databases of genomic data which would be valuable to medical researchers. Similarly, databases of animal, plant and microbiological genomic data would capitalise on India’s biodiversity and could bring in substantial revenues for the country. The third area involves India’s extensive information technology capacity, which should be used to leverage the database industry in general.

The Indian report concludes by noting that traditional copyright protection is proving inadequate to protect unoriginal databases and urging that an adequate protection regime be provided. Although the report urges that any new regime should provide specific exceptions in favour of the academic and research community (and also that privacy legislation in India is urgently

29 Phiroz Vandrevala “A Study on the Impact of Protection of Unoriginal Databases on Developing Countries: The Indian Experience” (WIPO SCCR/7/5, Geneva, 4 April 2002).

30 The report notes that a recent decision of the Delhi High Court had cast doubt on whether the “sweat of the brow” standard of originality which had formerly applied in India continued to apply: Vandrevala, “The Indian Experience”, above 33.
The Intellectual Property in a Database

required), it encapsulates the potential for international legislation to facilitate the removal of information from the public domain. The suggestion from India that traditional knowledge and genomic data be removed from the public domain and locked into databases is, of course, precisely the scenario that has led to the current tension between database producers and users.

Mark Davison suggests that the solution lies in offering different kinds of protection for different kinds of information databases,31 while Jacqueline Lipton proposes a state-run model of rights for databases based upon the principles of trade mark and patent registration.32 There are merits and difficulties with both suggestions which I do not propose to discuss in this paper. Instead, in the following part of the paper I ask whether some of the issues in the database debate should be examined by considering the other components of the intellectual property protection balance – moral (or ethical) values and the public interest.33 Arguably, these two components can be usefully incorporated into one fundamental human right, the right to information.

IV A Human Right to Information?

In conventional ethical discourse, intellectual property regimes have been described as asserting the natural or deontological rights of the individual to a limited extent, but ultimately pursuing a utilitarian goal.34 Any property right in databases of information, be it copyright or a sui generis right, tends to position that information in the control of a relatively few large commercial organisations.35 However, in accordance with its utilitarian goal, copyright (as a property right) in a database upholds a balance between the rights of a

33 See text to n 8 above.
creator to reap the economic benefits for a limited term and the interests of the public domain.

The Directive’s *sui generis* rights, when possessed by a commercial organisation, can be described as pursuing a deontological goal with no concessions to the public domain. However, a government which owns and controls a database in which there are *sui generis* rights might argue that the profits made from its investment are available for the benefit of the public of its country and thus represent a utilitarian purpose. (Such reasoning, of course, conveniently ignores the rights of the global public domain, which includes scientists and educationalists of other countries, the rights of the sources of that information, and also the moral obligations of a government which has incorporated information into a profitable database with public funding).

The difficulty with applying traditional ethical theories to the formulation of an international legal regime for databases is that the very nature of the essentially cultural and subjective application of each theory can result in conflicting interpretations. While this is entirely acceptable to some sectors of society, Cees Hamelink argues (in connection with the governance of cyberspace) that there is a need for a universality of moral principles which is not provided by traditional ethical theories. He suggests that we “adopt the moral standards of the human rights regime as guidance for human conduct in all domains of social activity.”

V Human Rights and Intellectual Property

Traditionally, human rights and intellectual property have been viewed by their respective specialists as comprising quite distinct legal regimes. Although the UDHR declares economic, social and cultural rights, as well as civil and political rights, the drafters of intellectual property laws and treaties have not, to date, taken into account any human rights implications of their legislation. One of the main reasons for this may have been the perception that civil and political human rights are of greater importance than other rights. However, since the early 1990s there has been a gradual shift in this

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36 Above n 8, 55.
37 Above n 8, 61.
position, with the “growing international consensus that all human rights, civil and political rights on the one hand, and economic, social and cultural rights on the other, are of equal status and interdependent.” The rights thought to be of less importance are in reality the foundation of all other rights. Indeed, although the rights declared in the UHDR can be roughly divided into civil and political human rights and social, economic and cultural human rights, its drafters intended that the Declaration be considered as one “organic unity”. This means that the placement of a right or article within the Declaration is not intended to bear any particular significance and also that each of the rights should be interpreted in light of all the others.

Article 27 of the UHDR recognises a right for everyone “freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits”, and an author’s right “to the protection of moral and material interests resulting from any scientific, literary or artistic production ...”. This balance between encouraging innovation on the one hand, by providing a right for the creator to receive some form of recognition and benefit, and enhancing the public domain on the other, by providing a right of access for the community to creative works, is strikingly similar to the fundamental balancing principle which underpins intellectual property law. The language of Article 27 is echoed in Article 15 of the International Covenant on Economic Social and Cultural Rights, (ICESCR), which is one of the international human rights instruments by which the declaratory provisions of the UDHR are transformed into human rights obligations that become legally binding upon those countries which are signatories.

Article 19 of the UHDR, which declares the right to receive and impart information, is also relevant to intellectual property law, since copyright protection of the structure of a database effectively prevents any unauthorised use of the “unprotected” information within that database.


40 See Johannes Morsink The Universal Declaration of Human Rights, above 232.
However, current intellectual property treaties and agreements were not drawn up with any consideration of their potential implications for human rights. Following a 2001 discussion on Article 15.1(c) of the ICESCR the United Nations Committee on Economic, Social and Cultural Rights (the Committee) reported “The allocation of rights over intellectual property has significant economic, social and cultural consequences that can affect the enjoyment of human rights.” The Committee noted two specific issues for human rights. The first is the expansion of intellectual property regimes to non-traditional areas of creativity such as patenting of biological entities, copyright in digital works and intellectual property protections for indigenous heritage and knowledge.

The second is the international intellectual property regime regulating global trade, of which the most important example is the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPs Agreement). Many countries have been pressured to become signatories to the TRIPs Agreement in order to prevent the imposition of trade sanctions by the United States. Although the TRIPs Agreement is presented to less developed countries as intending to provide them with a more secure environment for the transfer of technology from the developed countries, in reality a less than beneficial result of TRIPs for the developing countries has been increased intellectual property protections for drugs, resulting in higher prices and greatly restricted access for the poor. The report of the High Commissioner for Human Rights on the Impact of the TRIPs Agreement on Human Rights recommends that developing countries be cautious about enacting “TRIPs plus” legislation that imposes more stringent standards than present requirements under the TRIPs Agreement without first assessing the impact of such legislation on the protection of human rights.

The Committee also observed that current intellectual property regimes, whether international or national, are tending to focus upon the protection of business and corporate interests and investments. Such a focus increasingly distinguishes intellectual property rights from human rights, which fundamentally belong to individuals or communities:

Thus, in adopting intellectual property regimes, States and other actors must give particular attention at the national and international levels to the adequate protection of the human rights of disadvantaged and marginalised individuals and groups, such as indigenous peoples.

It is surprising therefore to note that the current debate about the appropriate international protection for databases does not specifically acknowledge human rights issues apart from, incidentally, the United Nations Educational Scientific and Cultural Organisation (UNESCO) which made written submissions to the SCCR expressing particular concern about the potential for an international system of protection for encouraging the commercialisation of scientific information at the expense of the cooperation which currently predominates within the global scientific community. Indeed, although the questions raised by the WIPO Information Meeting could readily be linked with Articles 19 and 27 of the UDHR, a human rights perspective is not acknowledged in SCCR proceedings.

VI Conclusion

The international community is becoming aware of the interface between intellectual property developments and human rights. In particular, it is apparent that certain international intellectual property regimes have the potential to restrict particular economic, social and cultural rights. Within the contexts of both the human rights discourse and traditional intellectual property principles there are difficulties associated with the protection of the database by an international system. Any such system needs to acknowledge the role of information within the information economy and should provide a balance between the economic rights of the creator and investor and the human right to information declared by the UDHC. It is possible that the characteristics of the information within a specific database need to be

44 Committee on Economic, Social and Cultural Rights, above.

45 “UNESCO Submission to the Information Meeting on Intellectual Property in Databases” (DB/IM/5, Geneva, November 1997).
considered. The view that different categories of information have different value to society is becoming widely acknowledged, and some analysts have suggested that protection that is appropriate for one category of information may be inappropriate for other categories. The optimum length of time for which any protection should endure is another issue that requires careful consideration.

Although these questions and others are currently exercising WIPO and its committees, with the effect of any new legislation upon developing countries very much part of WIPO’s agenda, the link with the UDHR and the human right to information does not appear to have been specifically noted. This paper has contended that a human rights approach to the complex questions that comprise the database debate will promote “coherent, consistent, and balanced legal norms that enhance both individual rights and global economic welfare”.

46 See Mark Davison The Legal Protection of Database, above 238; and Phiroz Vandrevala “The Indian Experience”, above.