

LEGAL PROTECTION OF DATABASES

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ABSTRACT

The computer-based databases have made significant value addition in information products and services, and have enabled fast access to information. The growing role of databases for information access has brought to the fore questions of legal rights of the owners and users of the databases. The paper examines current developments in the legal protection of databases. The developments in the European Union (EU) and USA show significant departure from the existing practices in many countries. The salient aspects of these developments, the relevant provisions of the international agreements, the proposed WIPO draft database treaty, the legal implications of the protection of databases within the context of promotion and progress of science, and the role of the library and information science profession, are also discussed.

Keywords: Databases ; Electronic publications ; Legal issues ; Copyright; Intellectual Property Rights; European Union ; United States of America ; India.

INTRODUCTION

One of the many functions of the library and information science professionals is to handle data as well as information in order to provide timely and effective services to their users. With the advent of computer and information technologies, radical transformations are taking place in the way data and information are handled, organised and disseminated. The computer-based databases are a significant and invaluable addition to the vast array of information products and services, and have enabled fast access to information for the users.

The growing role of databases for information access has brought to the fore questions involving legal rights of the owners and users of these databases. The key players, whose interests are at stake, include creative authors,

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researchers, artists, scholars generating new knowledge and information, the public user, and the information industry comprising publishers and vendors of information products and services, which include databases. How can the interest of each of these players be protected in the growing database and information industry?

The creation of databases involves both financial as well as manpower investments. The creators of databases would like to get returns on investment for their efforts. Currently, the technological means make it quite easy to copy the whole or a substantial part of the database at a fraction of the costs involved in developing it. This has led to a conflict of interests between the developers and authors of the databases and the users of these databases. Authors and developers are interested in restricting the copying from databases, while the users would like to either make use of the information without paying for it or would like to have user rights at a relatively lower cost. The key to resolving this conflict is to have a legal system that would adequately safeguard the interests of both parties. This paper examines the current developments in the legal protection of databases and considers the implications to the library and information science professionals.

COPYRIGHT PROTECTION

Databases are protected as collections or compilations of literary and artistic works. The Indian Copyright Act, amended in 1994, provides protection for databases as 'literary works', which amongst others, include works such as computer programmes, tables and compilations, and computer databases (The Copyright Act, 1994). It is the skill, labour, and judgement of the author that is protected, irrespective of the form in which the product appears.

One of the basic principles of copyright protection is that it protects only the material form, or manner of expression of the information. The idea or information itself is not protected. For example, if a particular joke is recorded in a cartoon, copyright will protect that cartoon so that others cannot reproduce it without permission. However, anyone is free to use the same joke in a different way. The works have to be original works to qualify for protection under the copyright law. No other condition applies. It is not essential for the works to be of very high quality in order to be protected by copyright. The use of copyrighted works for the purposes of research and private study is generally permissible.

In the case of databases, one of the interpretations of the copyright law is that a database has to be the result of its creator's intellectual effort and that it has achieved a sufficient level of originality. The intellectual skills involved in copyright protection are in the conceptualisation of 'data classification' and 'data organisation' in order to facilitate quick retrieval and a variety of data analyses. The originality lies in the manner an author chooses :

- what facts to include,
- in what order to place them, and
- how to arrange the data so that the user may use them effectively.

The interpretation of the copyright law varies across national boundaries. Recent developments in the European Union and USA show significant departure from the existing practices in many countries. The salient aspects of these developments are described in the following sections.

EU Database Directive

The EU Directive for the Protection of Databases was enacted in March 1996 (Directive 96/9/EC, 1996). In this directive, the European Union established for the first time a *sui generis* for the maker of a database. The right was based on an entirely new norm of 'a substantial investment' in obtaining, verification or presentation of the contents to prevent extraction and or re-utilisation of the whole or of a substantial part of the contents of that database. The right is created even if the database is not original.

In the EU context, the 'database' is defined as a collection of work, data or other materials arranged in a systematic and methodical way and is capable of being accessed by electronic or other means. It includes the materials necessary for the operation and consultation of a database, such as a thesaurus and indexes. This definition does not include the computer programmes used in the making or operation of databases (Directive 96/9/EC, 1996). The protection of a database is without prejudice to any rights that subsisted in the works or materials contained therein. The incorporation into a database of bibliographical material or brief abstracts, quotations or summaries, which do not substitute the original works themselves, does not require the authorization of the rights holder in those works. For any other works, their incorporation into a database remains subject to any copyright or other rights acquired or obligations incurred therein. A second-generation publisher is also not allowed to extract or reuse a qualitatively or quantitatively substantial part of a first generation database, even if the second publisher does not extract or reuse any protectable expression.

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The Directive makes an exception to the *sui generis* right. A lawful user of a database may extract or re-utilize a substantial part of its contents for the purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent, justified by non-commercial purposes. The *sui generis* protection is available only on a reciprocity basis, which means a non-EU publisher can receive the heightened level of protection only if the publisher's country of origin affords an equivalent level of protection. However, if a non-EU publisher has a subsidiary operating in the EU, then all databases distributed by the subsidiary should receive the same heightened level protection. The EU finds its experience of working with the concept of the *sui generis* protection of databases quite positive.

Database Protection in the US

In the US Copyright Act, the term compilation is defined as work formed by the collection and assembling of pre-existing material, or of data that are selected, coordinated or arranged in such a way that the resulting work as a whole constitutes an original work of authorship (US Copyright Act, 1997).

US courts apply two distinct rationales for protection of databases under this copyright law (US Copyright Act, 1997). One, known as *sweat of the brow*, views the compiler's effort and investment as the basis for copyright protection. The other, views the creativity and judgement of the compiler in selecting and arranging materials as the basis for protection. In 1991, the US Supreme Court decision in *Feist Publications, Inc. v. Rural Tel. Service Co.*, overturned a Lower Court decision that had allowed *sweat of the brow* protection under copyright law (US Supreme Court, 1991).

Feist Case : the Turning Point

The *Rural Telephone Service Company*, a certified public utility telephone service, published a typical telephone directory consisting of white pages and yellow pages. It obtained data for the directory from subscribers who provided their names and addresses to obtain the telephone service. *Feist Publications* is a publishing company that specializes in area-wide telephone directories covering a much larger area than those of the *Rural's* directory. *Feist* extracted the white page listings from the *Rural's* directory on being refused by the *Rural Telephone Company* to give the same information under license. Although *Feist* altered several of the listings, many were still identical to the data contained in the *Rural's* directory. The Courts held in this case that the *Rural's* white pages were not entitled to copyright protection. In other words,

it amounted to stating that the database of listings was not protected under the US copyright laws.

In order to overcome the limitations of existing laws, steps were taken in the US to introduce legislative measures for *sui generis* protection of databases. These attempts did not succeed (Band, et al., 1999). The US advocates for additional protection of databases through an additional intellectual property right or through other laws as well as for adequate safeguards to protect fair use for research and other uses. The US administration is now taking a view that the best approach for its national law would be rules on the misappropriation, the intention of which is, to prohibit any person against misappropriation of the databases owned by another person, while permitting use of an individual item of information or other insubstantial part of the database. The repeated use of an item is not permitted. The exceptions made are for non-profit educational, scientific, or research purposes.

International Agreements

The Berne Convention for the Protection of Literary and Artistic Works, established on 9 September 1886 and later revised periodically, is an important international instrument for copyright protection. In principle, the Convention provides protection to the collections and compilations of literary and artistic works by reason of the selection and arrangement of their contents constituting intellectual creations. The protection is without prejudice to the copyright in each of the works forming part of such collections. Similarly, the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), established in 1995, follows the same principle. The new WIPO (World Intellectual Property Organisation) Copyright Treaty adopted on 20 December 1996 contains an article on copyright protection of databases. The compilation of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation.

The Draft Database Treaty was proposed for adoption at the diplomatic conference of the member countries organised by the WIPO in December 1996. The treaty aims at harmonising national laws in respect to protection of databases (WIPO Memorandum, 8 July 1998). It aims at enhancing and stimulating the production, distribution, and international trade in databases. The treaty establishes a new form of protection of databases in which rights

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are given to the makers of databases on the basis of the criteria of investments made.

The databases with substantial investments are protected, irrespective of their being original. The definition of “substantial investment” was totally subjective. What kind of investments and how much should be required? An investment of Rs. one lakh may be substantial in India, but not in the US. The treaty established some other norms, for example, restricting copying of any “substantial part” of the database. Again, it was not clear as to what is meant by substantial or insubstantial part. The clarification is important when using databases for research purposes. The definition of the term “protection” also raised anomalies in its interpretation. The extent to which changes are made in the database, for example in the process of updating or verifying its contents, resulted in a new term for protection. There was a concern that the result could be perpetual protection for as long as the database is continually updated, new terms of protection could continue indefinitely. It may be difficult to determine which aspects of the databases are new and which aspects are found in prior versions.

THE CURRENT UPDATE

The decision on the proposal of the draft database treaty was deferred to in December 1996. Further, regional consultations were held in 1999 to examine its pros and cons. After various consultations, it was felt that the issues were still far from being clear. The following comments were made :

- The Asian countries felt that the need for additional protection was still to be fully demonstrated. So far, copyright protection seemed to have been sufficient and working well. They were concerned about the possible effects on the development of science, technology, research, and education.
- The majority of the African countries felt that additional protection was necessary, but that exceptions should be prescribed for private use, research, government use, and education
- The International Council of Scientific Unions (ICSU) recognised that database producers might need more than copyright protection for their investments, but the balance with the interests of users, as reflected in the Berne Convention, should be carried out (WIPO, 1998).
- It was felt that a *sui generis* protection of the databases might close up access to the vast amount of data freely available on the Internet.

- There was no need for an urgent action at this stage to protect non-original databases. The countries asking for a special protection at the international level should first provide such protection in their domestic laws.

THE KEY ISSUES

Free Flow Of Information

The copyright law has been one of the main facilitators in the growth of libraries around the world. The availability of books and provision of information services by the libraries, has resulted in reduction costs to a larger number of users. The libraries have been performing a unique function of acquiring knowledge and information by meeting the increasing costs and, in doing so, disseminating information to a wide range of users of a library. The use of published information for research and private purposes has enabled free flow of information. Libraries and information scientists, engaged in using the vast amount of information available in the published literature, should be free to use information for providing bibliographic and abstracting services, which is in the interest of the users at large.

Free flow of information is also integrated with the principles and practices of conducting science (International Council of Scientific Unions, 1997). For example, for mapping the ocean floor, data from surveys and earth-orbiting satellites is necessary to produce a topographic map of the depth of the ocean floor. The open publication and unrestricted sharing of high quality data are, therefore, essential for the practice of ocean sciences. From the point of view of library and information sciences, most data originate from measurements taken in scientific journals. The data have to be compiled from the primary literature and republished as reference books. The data may also be converted into electronic format. The development of such a database would require thousands of letters to obtain permission from the owner of every database (scientific journal or other compilation) from which contents are taken. This requirement may act as a disincentive. It is, therefore, essential that the legal protection of databases should be such that the scientific and educational communities have access to data on reasonable terms. There should be freedom to use the data thus accessed for any research or educational purposes.

The scientific community has voiced concerns that the WIPO draft database treaty is likely to inhibit researchers seeking to reuse and combine data for publication or for research. It may also restrict educators wishing to use

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portions of the data sets for instructional purposes and may even restrict uses by libraries and private users.

Liedes (1997) considered such concerns as misinformed and stated that the provisions of the draft database treaty were modeled on the Article concerning the right of reproduction in the Berne Convention, which allows fair use exceptions.

Fair Use Principle

One of the important functions of the libraries and information centres is that they procure and collect vast amounts of data and information, which can further be used for making computer-based databases. The legal rights of the creators and authors of such information should not be jeopardized by copying the full-text into the databases. The essential requirement is that the legal rights of the authors of the contents of such databases should be strictly adhered to.

The fair use exemption under copyright laws has permitted a large number of users of published material to copy a small portion without permission of the authors for purposes of research and private use. With the emergence of new technologies like photocopying, one of the tasks of librarians and information scientists has been to ensure that they or library users do not infringe legal provisions of copyright laws. However, many libraries do provide appropriate means of photocopying small portions for personal use on the basis of reasonable costs.

With the advent of the Internet, a new dimension has been added to the meaning of databases. Users in any part of the world can have access to data instantaneously. The database is not a static entity in the physical control of a custodian in a library or premises of an organisation, but an information product placed in an environment accessible to any user, the only control being through the technological measures. The library and information science professionals should continue to have the freedom to allow small portions of these databases to be used for personal use or research and educational purposes, by its users.

In addition to photocopying, protection for the databases has been sought through other legal measures such as trademark law. However, the trademark law only protects brand name databases, and only against uses that involve the trademark and confuse the consumer as to the origin of the database.

Contracts

The protection of databases through contracts is another legal practice that has been used effectively by database vendors (Gupta, 1996). The contract is an agreement, which describes mutually acceptable set of understandings and commitments often arrived at, through discussion and negotiation. The library staff may be required to review and negotiate the material terms of the contract because they have the most knowledge of the user community and the resources being acquired.

The contracts may also have to be negotiated for obtaining databases in an electronic form. The following principles have been suggested as a guide to the library staff to create agreements that respect the rights and obligations of both parties (American Association of Law Libraries, 1997).

- State clearly what access rights are being acquired; obtain permanent use of the content or access rights for a defined period of time
- Recognise and not restrict or abrogate the rights of the library or its user community as permitted under the copyright law. The uses which are critical to its particular users include, but is not limited to, printing, downloading, and copying should be permitted
- Recognise the intellectual property rights of both the owner and the libraries or its users
- No liability should fall on the library and information professional for unauthorised uses of the licensed resources by its users, as long as they have implemented reasonable and appropriate methods to notify its user community of use restrictions
- Not to permit the use of any authentication system that may act as a barrier to access by authorised users
- When permanent use of a resource has been licensed, a license agreement should allow the licensee to copy data for the purposes of preservation and/or the creation of usable archival copy.

A contract may be used in addition to the protection of the database under copyright laws. While drawing upon the contract as a means of protection or license, one has to be cautious that no part of the database should violate the intellectual property rights of any third party. The owner of the database is responsible for the contents to be free from all legal encumbrances. The agreement should respect the fair use exceptions for researchers and educationists.

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Balancing Role

The interest of library and information scientists in the use and access to databases is linked with the interests of each of the key players associated with the making and utilisation of the database services. In principle, following the Laws of Ranganathan, the role of information scientists is to ensure that the data and information are put to good use. They should enable the access of data and information to every user and provide them with the required information in the quickest possible time. From the point of view of developing countries, it is essential that the users be allowed access to databases in libraries and information centres without the additional burden on costs for repeated use. In order to effectively perform their functions, it is essential that there are no barriers on the access and use of databases available in libraries and information centers for users. In other words, the users should be free to access such information from the databases as is done by them from published sources. They should, however, not be allowed to copy the entire database, which will obviously be a contravention of the established legal rights of the producers or publishers of the databases. The librarians and information scientist should therefore restrict any such activities that may harm the commercial interest of the vendors of the databases.

Many technologies are aimed at raising the cost or inconvenience of making unauthorised uses of copyrighted works, for example encryption, electronic copyright management systems, digital objects, proprietary viewers, and watermarks. Such measures are in the early stages of development and are vulnerable to technological circumvention, and do not prevent reuse of a database once it is available in an accessible form. Therefore, it is essential to seek protection for databases through additional legal measures.

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