This paper examines the issues and implications of the proposed WIPO treaty on intellectual property in respect of databases in the Indian context. It argues for articulation of exceptions on the basis of fair use principles to provide for the use and re-utilization of databases for scientific research, private purposes, education, public health and other social or governmental purposes. The importance of public domain/government-owned information has been highlighted. The need of database protection is essential in the context of the growth of information industry and services and attracting foreign investments and exploiting domestic capabilities. The impact of the proposed sui generis protection on secondary information services like abstracting is an important issue in the Indian context and needs to be examined.

New ideas, knowledge and information, by their intangible nature, once disclosed are no longer in the possession of their creators. As such, unlike physical property wherein the control is derived by its possession, in case of intangible property, the control is derived not from its possession, but by the operation of laws. The intellectual property laws provide protection to intangible information through legal regimes of patents, copyright, trademarks, services, integrated circuits and others. These laws play an important role in providing stability and confidence for the general public and commercial interests to undertake economic activities in an open and liberal economic environment.

The evolution of information as marketable goods and services is fast redefining the global economic relations and systems. Technological developments during last two decades have brought together information technology, computers and communication technologies in an unprecedented way opening up tremendous opportunities for expeditious flow of information and growth of world markets for information products and services. New technologies of fibre optics, microwave networks, satellites and other
communication technologies have accelerated the pace of change towards advanced high-speed, interactive, broadband, digital communications system and information services creating an entirely new base for integrated information market. These developments are putting new demands on the use of value added services of information products and services. Many countries including India have taken initiatives to restructure the value added services and information market. For example, new technological and organizational combinations and systems are being put in place in countries like Japan, Switzerland, Singapore, Brazil, France, Germany, UK, Australia, Mexico, USA and China.

In India, database market is characterized by products and services in manual, electronic or digital forms established and operated in variety of sectors of commercial and scientific and technological importance. A list of indicative databases and information services is given in the Annexure 1. Given the expertise and capabilities in the field of computer softwares, there is a vast growth of potential of the database industry in the country.

Business in databases involves both financial as well as manpower investments. Given the technological means, it is quite possible to copy full or substantial part of the database at a fraction of the costs involved in developing the same. This leads to a conflict of interests between the developers and authors of the databases, on the one hand and the users of the databases, on the other hand. Authors or developers are interested to receive remuneration from databases which is based on their intellectual and skill inputs and want to restrict copying from databases while the users are keen to make use of the information either without paying for it or would like to have copying rights at relatively lesser cost.

Emerging Focus on Database Protection

Most countries have accorded protection to databases under the copyright laws. The definitions of databases and legal interpretations of the protection under copyrights are considerably varied amongst different countries. There is no uniform system of protection and the legal systems in various countries are developing their own responses. The emerging focus on the question of protection of databases is guided by the international debate on the proposed WIPO treaty on intellectual property in respect of databases aimed at harmonising the national laws.

Existing Mechanisms

There are three broad approaches which have been used for database protection:

(i) database protection through copyright laws; many databases do not qualify basic conditions for being protectable under the copyright laws;

(ii) in addition to copyright, protection of databases is sought through "contracts";

(iii) legislative measures are sought for a sui generis system of protection for databases; for example, the EC directive on database protection of March 1996.

In view of the limitations of protections available to databases under the copyright laws or through contractual arrangements, there is a growing body of opinion for new initiatives and forms of protection.
Copyright

Under the copyright laws the databases are protected as collections or compilations of literary and artistic works. Under the Berne Convention protection is given to the collections and compilations of literary or 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. TRIPS Agreement follows the same principle and gives protection to the intellectual creations of the selection or arrangement of the contents of compilations in machine-readable or other form. The protection does not extend to the data or material itself and is without prejudice to any copyright subsisting in the data or material itself. Under the Indian Copyright Act, amended in 1994, the databases are protected as 'literary works' amongst others which means works such as computer programmes, tables and compilations including the computer databases.

The database should be original and result of creator's own intellectual effort. The intellectual skills involved in copyright protection is the conceptual approach to classification and "data organization" which facilitates quick retrieval and a variety of analyses of data. Many databases do not satisfy such stringent requirements of originality and the interpretations of the law have varied in different countries. A minimum expenditure of time, money and labour (the Sweat of the brow theory) in compiling of databases was once considered eligible for protection under US copyright laws which was negated in 1991 in the Fiest case. In contrast, a similar effort in India could receive protection under copyright laws. These limitations have implied the need for new initiatives for the protection of databases.

Contract

Protection of databases through contracts permit the user to use the database under a license from the database owner on payment of a fee based upon the amount of usage or royalty. License does not pass the ownership of the database to the user. Licenses are negotiated in good faith between the owner (the licensor) and the organization that wishes to exploit the database (the licensee). A contract may be used in addition to the protection of the database under the 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 violated the intellectual property rights of any third party. The owner of the database is responsible for contents to be free from all encumbrances. While one section of the database industry generally felt satisfied with these arrangements of protection of databases and did not feel the need for any new arrangements in the immediate future, there was another section which felt the urgency of having a sui generis form of database protection and advocated for the international treaty on the protection of databases.

Diplomatic Conference 1996

The Diplomatic Conference on certain copyright and neighbouring rights questions was held under the aegis of World Intellectual Property Organisation (WIPO) in Geneva during 2-20 December 1996. The conference was the result of the culmination of international efforts that were started in 1989 in respect of certain questions concerning a possible protocol to Berne Convention and amongst others included issues relating to protection of databases and computer soft-
ware. The Committee of Experts chaired by Mr Jukka Liedes prepared the basic proposals on the substantive provisions of the treaties on (i) certain questions concerning the protection of literary and artistic works; (ii) protection of the rights of performers and producers of phonograms; and (iii) intellectual property in respect of databases. On the first two proposals the diplomatic conference adopted the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). The Draft Databases Treaty was deferred and is expected to be reactivated in 1997. A discussion on implications of these treaties in Indian context was organized by the Ministry of Human Resource Development, Government of India, during 7-8 February 1997.

Sue Generis Protection of Databases

The present international initiative of WIPO for a sui generis protection of databases is largely guided by the efforts of the European Community in enacting a Directive on the legal protection of databases. The Directive was passed by the European Parliament on 11 March 1996. A similar proposal based on the bill (H.R.3531) introduced in its 104th Congress was also made by the United States to WIPO.

The EC Directive established for the first time 'a sui generis right' for the maker of a database on the basis of the entirely new norm of "a substantial investment" in either obtaining verification or presentation of the contents to prevent extraction and/or reutilization of the whole or of a substantial part of the contents of that database. In addition to the sui generis right the EC Directive reasserted continuation of rights on the basis of other established norms and practices viz. copyright or contracts and other administrative means.

WIPO Draft Databases Treaty - Salient Features

The WIPO Draft Databases Treaty of December 1996 aims to harmonize national laws in respect of protection of databases. It aims to enhance and stimulate the production, distribution and international trade in databases. The treaty recognizes that making of databases requires investment of human, technical and financial resources. There are increasing risks due to the possibilities of making exact copies of whole databases or parts thereof with little costs and due to the possibilities that the contents of the databases are copied and rearranged electronically to produce similar competing databases. The treaty establishes a new form of protection of databases granting rights to enable the makers of databases to recover the investments made.

Scope of Protection

The treaty covers protection to all databases that represent a substantial investment in the collection, assembly, verification, organization or presentation of the contents of the database. The protection is irrespective of

- whether the database is in itself innovative
- the form or medium in which the database is embodied
- whether the database is made available to public or not
- any other existing form of protection that apply to databases - any protection provided for contents of the databases.

The protection does not extend to any computer programmes or to facts and data as
such. It has introduced amongst others definitions, concepts, and principles in respect of database, extraction of contents of database, maker of the database, utilization, substantial investment, substantial part, rights, rightholders, beneficiaries of protection, national treatment and independence of protection, term of protection, exceptions, obligation concerning technological measures, enforcement mechanisms.

**Principles and Definitions**

**Database**

For the purposes of the Treaty, the database means a collection of independent works, data or other materials arranged in a systematic or methodical way and capable of being individually accessed by electronic or other means.

The definition would include collections of literary, musical or audiovisual works or other materials such as texts, sounds, images, numbers, facts, or data representing any other matter or substance. Databases may also contain collections of expressions of folklore. An important implication is that the works or materials in a database need not be physically stored in an organized manner since each of these can be individually accessed by electronic or other means. Any recording of an audiovisual, cinematographic, literary or musical works as such are excluded from the definition of a database.

**Extraction**

Extraction means the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form. The act of extraction is the transfer of some material to another medium; the original material on the medium in which the database is embodied remains on that medium. In this sense, the term extraction is a synonym for copying or reproduction. Reference to “any means” is meant to cover all means and forms now known or later developed.

**Maker of the database**

By maker of the database, the treaty means the natural or legal person or persons with control and responsibility for the undertaking of a substantial investment in making of a database. It excludes the possibility that the protection rights might flow to the employees who execute the tasks required to produce a database.

**Substantial investment**

It means qualitatively or quantitatively significant investment of human, financial, technical or other resources in the collection, assembly, verification, organization or presentation of the contents of the database.

**Substantial part**

Contents of the database means any portion of the database, including an accumulation of small portions, that is of qualitative or quantitative significance to the value of the database (consisting of direct investments in the database and the market value or expected market value of the database).

**Utilization**

It covers all forms of making a database or its contents available to the public. It comprises both tangible and intangible dissemination and diffusion including the distribution of physical copies and all forms of transmission by wire or wireless means.
It would cover making of the database available to public by 'on-line' and 'local' means as showing, playing, demonstrating or otherwise making the contents of database (such as a CD-ROM) perceptible to the public. Broadcasting and cable transmission may also be utilization of a database.

Rights

The maker of a database eligible for protection is to have the right to authorize or prohibit the extraction or utilization of its contents. The national legislation may make a provision that the right to utilization does not apply to distribution of original or any copy of any database that has been sold or ownership of which has been transferred pursuant to authorization.

Rights to be owned by the makers of the database are freely transferable. The makers of databases may be nationals of a country or companies, firms and other legal entities formed in accordance with the laws of the country.

Rightholders

The rights provided under the treaty are to be owned by the makers of the databases and are freely transferable.

Exceptions

The treaty makes a provision for granting exceptions in certain special cases wherein such exceptions do not conflict with the normal exploitation of database. The exceptions may be made to determine the protection that shall be granted to databases made by governmental entities or their agents or employees. The rights are enjoyable without any formalities.

Beneficiaries of Protection

The protection is to be available to the nationals of the contracting parties and shall also apply to companies, firms and other legal entities formed in accordance to the national laws.

Obligation concerning technological measures

The parties are required to make unlawful the importation, manufacture or distribution of protection - defeating devices or the offer or performance or services that will be used for rights not authorised by the right holder or the law.

Term of protection

The term of protection is proposed to be 25 or 15 years. The key point is that any substantial change to the database would qualify for its own new term of protection.

Database Protection - the key questions

The key questions that are raised in the context of database protection are:

- Legal measures - whether stricter controls or some what lesser control measures are better?
- Conflict of interests between the developers and authors of the databases and the users of the databases - how could these be balanced?
- There is a question of investor's risks vis-a-vis social and public interests including those of the scientific and academic research community
- Copyrightable vs. Non - copyrightable intellectual property in respect of databases - how best could these be protected?
• Non-copyrightable databases: could investment alone serve as an useful criteria? How does one stimulate creative endeavours which had hitherto been the basis of intellectual property laws?

• What are the implications of the proposed treaty for a developing country like India? How does one respond to these issues?

**Issues, Concerns and Probable Implications**

In an open market economy, transparent and effective systems of commercial law are aimed at reducing interventions of the government into the working of the business. The economic policies in India are being liberalised for a competitive market economy. This has called for new relationships between science, law, commerce and trade.

The central question for database industry is the prevention of outright piracy or illegal commercially significant uses of the databases. The laws for database protection would require a sufficient degree of certainty in their application to be effective in supporting the commercial activity. Equally important are the needs for scientific and technological enterprise for free exchange of information and that data and information in the public domain should not be lost to the private interests.

The intellectual property laws have traditionally been based on the intrinsic principle of balancing the commercial and public interests including those of the researchers and the creative authors. In the proposed database treaty, the task of the government is to balance the multiplicity of interests so as to facilitate development of the information market in the country. The kinds of issues that are considered in this context involve issues of definitions and principles, and those of multiplicity of interests. A critical appraisal of these issues is made in the following sections.

*Investment Principle - is it essential?*

The proposed treaty has introduced investment as a new norm for the protection of intellectual property - diluting well established principles of stimulating creativity and the social objectives of sharing of information with public. There will be no need to introduce the investment norm for the protection of intellectual property if one would broaden the interpretations of the copyright laws to cover the databases on the basis of the inputs made in terms of time, money and labour. For example, the names and addresses arranged alphabetically in a telephone directory would qualify for protection as databases. Such databases could be protected under the copyright laws, by broadening its interpretation, if necessary. In case the new initiative is to make explicit the legal basis of protection of the non-copyrightable databases then the norm of substantial investment could at best be reformulated for protection of such databases under contractual arrangements. Legally speaking, there could be no objection to the principle of substantial investment if it serves to remove the ambiguities in interpreting the grey areas in the protection of databases. It certainly is not the case, instead the principle has introduced more scope for subjectivity.

One should also consider the spin off effects of accepting the principle of substantial investment as the qualifying norm for the protection of intellectual property in defining protection in case of other forms of intellectual property like patents, trademarks or designs. There is a view that already a dilution is made on the norms of the requirements of
creativity while considering protection, for example, for utility patents implying a similar dilution for the principles of copyright.

*Dependence on Subjectivity

The definitions of the terms like substantial investment or a substantial part or extraction and utilization rights or calculating the term of protection depend upon subjective elements. What shall constitute a database or its substantial part? How exactly the term of protection is to be worked out? The opinions of the database vendors and the users of the database may vary. The definitions should be so articulated as to allow users to unambiguously exercise their rights of use and exceptions provided based on the fair use principles. The use or reuse of the database should not imply a future basis for a pay-per-use principle.

*Term of Protection

Fears have been raised about the likelihood that the term of protection is extended perpetually on minor pretexts. The treaty has made a provision for a term of protection of 25 or 15 years. Any substantial change to the database is to qualify for a new term of protection. The degree of substantial change or addition is likely to be subjective whereby a maker of a database is likely to extend the term of protection perpetually.

*Fair Use Principle

Development and Promotion of Science

The capabilities in scientific research and development are the prerequisite for socio-economic development. Free flow of information/data underlying scientific theories amongst scientists is essential for the development of this capability. The scientific community in the United States and elsewhere has voiced concerns that the proposed treaty limits any public-good exceptions - such as the fair use exemption traditionally enjoyed by the research and education communities. It is felt that the treaty is likely to inhibit researchers seeking to reuse and combine data for publication or for research as well as educators wishing to use portions of the data sets for instructional purposes and may even restrict uses by libraries and private users.

Mr Jukka Liedes, the Chairman of the Committee of Experts considered such concerns as misinformed and stated that the provisions of the draft database treaty were modelled on the Article concerning the right of reproduction in the Berne Convention which clearly allows fair use exceptions.

The Article 5 in the treaty relates to "Exceptions" and stipulates the provision that the national governments may, in their national legislations, provide for exceptions to or limitations of the rights provided for in this treaty in certain special cases wherein such exceptions do not conflict with the normal exploitation of the database and do not unreasonably prejudice the legitimate interests of the right holder.

The national legislations may also determine the protection that shall be granted to databases made by governmental entities or their agents or employees.

The fair use exceptions are indeed the contentious issues of the treaty. It is surprising that the exceptions which have rather been explicitly articulated in the EC Database Directive have been made more ambiguous in the proposed draft treaty. The EC Directive has clearly stipulated that the lawful user of the database may, without the authorisation of its maker, extract or re-utilize a substantial part of the database in the case of extraction for private purposes, for the purposes of il-
illustration for teaching or scientific research and for the purposes of public security or an administrative or judicial procedures. In Indian context, the additional exceptions for other social purposes like use by newspapers or public health purposes may also be relevant. The ambiguity of the definitions of the exceptions has the potential to undermine the progress of scientific and technical research and education if appropriate exceptions are not clearly articulated.

*Public Domain/Government Owned Information*

The questions about utilization of the public domain information or making the government owned information available to the database vendors are of central importance. Government organizations are the repository to a vast amount of information of social and cultural value. As far as the scientific community is concerned a vast amount of information and databases are generated by publically funded R&D institutions. How the public interests will be protected once the information is made available to database vendors, particularly in case of transfer of information in electronic or digital form for commercial purposes?

The implications are of crucial importance for the scientific community. S&T institutions are the leading organizations for developing and utilization of the databases in the country. During past few years, there is an increasing pressure on these organizations to generate their own resources. There is an apprehension that the distinctions between non-commercialized databases and the databases for commercial purposes may tend to fade away once the pressure to earn increases on these institutions. This is likely to restrict free flow of information amongst scientific and educational community.

In an alternative scenario wherein the information is made available for commercial databases there is the question of sharing the benefits from the commercialization of government or publically owned information which would need a deeper examination. As a guiding principle, no such data or information is to be transferred by Government organizations on mutually exclusive basis. The Government organizations should retain the reasonable rights for their own or public purposes, in the databases generated from the information provided by them.

Apprehensions that ownership rights of data will be passed on to the makers of databases - restricting free flow of information to the public at large should be removed.

*Information Services and Industry*

Databases have tremendous potential for growth of the information industry and services. In the field of science and technology information, S&T organizations and institutions have extensive capabilities for development and exploitation of S&T information resources. There is an increasing awareness on the utilization of modern computer communication technologies including on line databases and information systems and networks like NICNET, ERNET, INFLIBNET, ENVIS, BTIS. Initiatives have been taken in the country to provide services based on CD-ROM databases e.g. by NIC, INSDOC, DOE, NISSAT and other organizations. There is an ample scope for developing the value-added products and services.

The growing capability as a producer and as an user of the database products and services is to be complemented with the similar services and products available from outside the country. In the absence of protection
mechanisms at par with the international standards, it may be difficult to attract the foreign investments by the databases vendors. Equally important is the need to provide the protection to domestic databases from being copied by others. A clearly articulated legal regime for the protection of the databases would go a long way in accelerating the pace of development of the databases industry and services in the country.

*Joint Databases*

Attracting foreign database vendors in the domestic market may call for the joint development and exploitation of the preexisting manual databases by conversion to electronic or digital form. For any such commercial venture, the terms and conditions would need to be carefully framed protecting all the preexisting rights in the databases and ensuring the benefits that could accrue as a result of such rights. There are instances wherein assistance is sought from international organizations for generating a database or updating the existing manual database and their conversion to electronic or digital form under various governmental bilateral or multilateral arrangements. These are complex decisions, however, in such situations, the ownership rights in the database should be retained by the maker of the manual databases and appropriate licensing arrangements considered for the conversion process.

*Databases of Abstracts of Published Articles*

The country has well established capabilities for secondary information services such as preparation of databases of abstracts of published articles. Under copyright protection such databases make no infringement if an original article, reports facts and the abstract simply extracts such facts. An abstract cannot reproduce the text of the article. Author's abstract or use of an abstract accompanying an article in a periodical is not an infringement of a copyright. The implications of generating such databases would need to be examined under the proposed sui generis protection.

**Annexure - 1**

An illustrative list of databases and services on science and technology information include:

- NISSAT information centres (machine tools, drugs and pharmaceuticals, leather, food, chemicals, textiles)
- S&T information centres at universities and institutions of national importance in the fields of genetic engineering, plant tissue culture and molecular biology, immunology, and other areas
- Environment Information Systems including those relating to a number of areas such as toxic chemicals, pollution control, environmentally sound technologies etc.
- Databases set up by TIFAC on advanced areas of technology e.g. composites, energy, electronics, materials, standards and others
- Patent information services and databases
- Organized S&T information and database services e.g. through INSDOC, NISCOM, DESIDOC, NIC, and other leading S&T institutions in a variety of S&T areas
- Databases and information services of industry organizations like CII, FICCI and other private vendors.
References


4. Ibid 3.


