## Comparative Analysis of Copyright Protection of Databases: The Path to Follow

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Databases are generally perceived as static warehouses, storing up valuable facts and information. With the advent of e-commerce, entire businesses are being built upon databases and generating revenue streams from subscriber fees, royalties, or advertising. In order to recover the initial investment of time, money and skill put into it and to avoid parasitic competition, database manufacturers protect their compilation efforts. Therefore, without the ability to restrict access to and use of databases that it compiles, a company is effectively discouraged from participating in the information age. Although traditionally, databases have been protected under copyright laws; advances in information technology have enabled potential competitors and pirates to engage in market-destructive copying. Further, in many jurisdictions, the required level of originality has been in a state of flux in recent years, particularly in the US and Europe, after the *Feist* decision. The position in India regarding databases is governed by the theory of rewarding investment in labour, time and money coupled with the very low requirement of creativity. A few guidelines have been suggested which may be used to develop a new law taking into account the private and public interests and keeping in mind the primary objective of the intellectual property regime to promote creativity and innovation, and to maintain a vigorous public domain.

**Keywords**: Database, Copyright Directive, *sui generis* right, literary work, originality

Databases are data collections that allow selection and arrangement of data by attributes that are set up in the database. A database, or information system, contains two primary forms of digital property: raw data, which is a source of knowledge or entertainment value; and tools, which are programs that can be used to communicate, store, or manipulate raw data. A fully developed database is an interrelated set of components capable of generating value from the collection. processing, merger, storage, dissemination of data. The variety of entities lumped under the heading of 'database' comprise a complex array of potentially protectable intellectual property. The principal categories include the data elements themselves; the effort used in locating them; any originality involved in selecting and arranging the available elements; and the tools for search and organization, together with all aspects of their creation.<sup>2</sup>

Traditionally, databases have been classified as literary works and protected in many countries by copyright. Database developers seeking to protect the data compiled by them face a unique challenge: facts

cannot be copyrighted but an arrangement of facts, such as a database, can be copyrighted, provided it 'features an original selection or arrangement' that 'possesses at least some minimal degree of creativity.' Database rights are essentially rights conferred in recognition of labour and investment, rather than creativity or innovation. The strongest argument in favour of database protection is the prevention of copying by a competitor as compiling a database is an expensive and time-consuming proposition. The person who copies on the other hand, does not share the original compiler's development costs and can undercut the original compiler's price.

## The Scope and Nature of Protection

International reference to the legal protection of databases is found in the Berne Convention [Article 2(5)] which says that 'a database is a collection of literary and artistic work such as encyclopedias and anthologies which by reason of the selection and arrangement of their contents, constitute intellectual creations'. TRIPS relaxes the Berne Convention standard by allowing protection based solely on originality in the choice of works compiled or in the arrangement and broadens the definition of compilation to include data and other material in any form.<sup>6</sup> The most recent WIPO Copyright Treaty of

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1996, enforced in 2002, defines compilations of data substantially similar to the TRIPS Agreement provisions.<sup>7</sup> All three international agreements talk about the presence of some intellectual creativity as a requirement for originality in the author's selection of the materials or in their arrangement to get copyright protection.

At the Diplomatic Conference of WIPO held in Geneva, Switzerland during December 1996, the World Intellectual Property Organization (WIPO) considered, and ultimately deferred a proposal for a Database Treaty. Since then, the matter has remained on the agenda of WIPO's Standing Committee on Copyright and Related Rights (SCCR), but there has been little movement due to increasing opposition from developing countries. The draft WIPO Database Treaty was based on proposals by Europe and the US proposals that were similar in nature and scope to the EU Database Directive. While the database treaty was removed from the conference agenda and taken off the table, WIPO has not abandoned its work on the subject.

# The Issue of Originality in Database Protection under Copyright

The most important issue in the protection of databases is the issue of originality. The question, 'what is original?' is hard enough to answer in everyday life, but becomes infinitely more complex in the context of copyright litigation. Frequently, it is argued that works are not sufficiently original to be copyrightable. This is an important argument since a work that is not original cannot be protected, irrespective of the labour involved. Before a court determines originality, it must first address the issue of whether originality is a 'question of law' or a 'question of fact'. Inconsistency and lack of clarity are pervasive in this issue.

Copyright protection in cases of compilations or in databases however, extends only to 'material contributed by the author'. Therefore, the compiler does not acquire any rights in the preexisting material. Until 1991, the vast majority of courts used one of two methods to evaluate originality in compilations. Some courts rewarded the compiler's 'sweat of the brow' by holding that a compilation was original by virtue of the labour, time, money, and skill employed in its production. Other courts believed that the 'sweat of the brow' doctrine violated the basic tenets of copyright law, and found originality in compilations only if the compiler had exhibited

creativity, in the assembly and/or coordination of data. <sup>12</sup> In 1991, the US Supreme Court finally settled the debate in *Rural Telephone Inc* v *Feist*, ruling that effort alone can never be original in the constitutional sense. Instead, the Court held that a compilation, like any other work, must reflect a 'minimal degree of creativity' before it may be copyrightable. <sup>13</sup> Feist delineated a three-step approach for evaluating originality in compilations. First, there must be a collection of 'pre-existing material, facts, or data.' Second, the data must be selected, coordinated, or arranged. And third, by virtue of such selection, coordination, or arrangement, an original work of authorship must be created.

### **Protection Measures**

#### The American Action

Historically, the US Supreme Court held that ideas cannot be protected under the Copyright Clause of the Constitution and that only the expression of an idea may be protected by the government.<sup>14</sup> Justice Hand described this concept as different levels of abstractions and pointed out that there was a point in this series of abstractions where the expressions of ideas are no longer protected, since otherwise a person could prevent the use of his 'ideas,' to which, apart from their expression, his property is never extended. 15 In addition to expression, another requirement for copyright protection is that the item must have some degree of originality. Facts, for instance, cannot be protected because the truth is unoriginal but a compilation of facts may be protected as a whole if there is some originality involved. For most of this century, it was assumed by businesses and the courts alike that a person may obtain a copyright on a compilation of facts.

However, the US Supreme Court struck down this notion in the early nineties in *Feist Publishing Inc* v *Rural Telephone Service Co*<sup>16</sup> and established that mere 'sweat of the brow' did not endow collections of information with copyright protection instead 'creativity in selection or arrangement' was the determining element. The *Feist* case was fairly stark because Rural Telephone's 'selection' included all customers and their 'arrangement' was a standard alphabetical listing. The defendant, Feist, needed to copy the data in order to put out a unified telephone listing covering several companies; Rural Telephone refused to license the data while the other companies cooperated.<sup>17</sup> The *Feist* Court did leave open the

possibility that unoriginal effort alone might be eligible for legal protection other than copyright. A final variation on the originality theme was presented by *Kregos* v *Associated Press* 19, in which the compilation related to statistics on starting pitchers in upcoming baseball games (primarily of interest to gamblers). Comparing the plaintiff's and defendant's forms, the court observed that six of the ten statistics presented on the two forms were identical. However, it concluded that much of the overlap was influenced by the common purpose of the two forms. Based on this rationale, the defendant's selection of four different statistical categories was enough to avoid a finding of substantial similarity. 19

## Copyright and Digital Millennium Copyright Act

The US Congress implemented the World Copyright Treaty's measures regarding technical protection in an Act entitled 'Digital Millennium Copyright Act' (DMCA). In the Act, the Congress sought to combat copyright piracy in its earliest stages, even before the work was copied.20 The Congress was concerned that the ease with which pirates could copy and distribute a copyrightable work in digital form was overwhelming the capacity of conventional copyright enforcement to find and enjoin unlawfully copied material. The anticircumvention and rights management information (RMI) clauses in the Act have proven the most controversial, particularly, as they apply to public access to digital works.<sup>21</sup> Specifically, under the implementation model of the DMCA adopted by the United States, traditional access mechanisms such as fair use or fair dealing exceptions have been constrained. Rather than facilitate prospects for diffusion and access to works, the copyright regime co-opted to consolidate social gains associated with new technologies and to transform these gains into economic opportunities for owners.<sup>22</sup> The DMCA prohibits circumvention of technological measures used to prevent unauthorized access to or use of a protected work.<sup>23</sup> The DMCA also prohibits trafficking in tools that might be used to disable such copy protection [§1201 (a) 2, 1201 (b) (1)]. These controversial provisions of the DMCA have been severely criticized as overprotective and lacking in any limitations to safeguard legitimate uses of content protected by technological means.<sup>24</sup> The Copyright Act, in a new Chapter 12 entitled 'Copyright protection and management systems,' introduced legal rules that dealt with circumvention of copyright-protected works.<sup>21</sup> Subject to a number of exceptions, it is a copyright offence to 'circumvent a technological measure that effectively controls access to a work protected under [Title 17],' or to manufacture, sell, or traffic in products whose significant purpose is circumvention. This provision regulates software devices designed to unlock the copy protection from a copy-protected computer program. Accordingly, these provisions also cover software tools that are used unlawfully to decrypt an encrypted database.<sup>25</sup>

Upon preliminary examination, it appears that regardless of the scope of copyright or other existing protection, the proprietor of a database can employ technological measures to prevent unauthorized copying and thus achieve fool-proof protection. If the measures work, there will be no unauthorized copying; if they are circumvented, the act of circumvention itself will violate the Copyright Act. This reasoning, however, contains several flaws. First, some database proprietors will not want to use technological measures.<sup>26</sup> Many of them concerned mainly with massive appropriation and remarketing of their data by competitors, while tolerating and even encouraging small-scale copying by ordinary users. Second, the legal meaning of the phrase 'a work protected under this title' is still an open question. If this phrase is interpreted as 'a work falling generally within the subject matter of copyright,' then circumventing a measure designed to protect a database – a compilation that is clearly within the subject matter of copyright - would be illegal, regardless of how thin that copyright might prove to be. However, the phrase can also be interpreted as a work protected under this title, but only to the extent of such protection. Under such an interpretation, a court would first have to determine the extent of the traditional copyright protection in the work in question. Circumventing technological measures would then be illegal only to the extent that those measures protect copyrightable expression.

In the case of *Inquiry Management Systems* v *Berkshire Information Systems*<sup>27</sup>, US District Judge Naomi Buchwald was of the opinion that Berkshire Information Systems (Berkshire) did not run afoul of the 1998 copyright law by allegedly downloading up to 85 per cent of a proprietary advertising-tracking database from the website of Inquiry Management Systems (IMS). IMS, a Canadian Corporation, was engaged in the service of providing advertising

tracking information to publishers, advertisers, and others and operated a web-based service known as 'e-Basket', exclusively available to IMS clients and protected by password.<sup>28</sup> The e-Basket content was selected by IMS and arranged into categories and subcategories, a process which involved substantial creativity, time and effort. According to IMS, the e-Basket service contained copyrightable subject matter. Berkshire introduced and operated a service competing tracking called Marketshareinfo.com. According to IMS, Berkshire, or an agent thereof, intentionally and without authorization accessed IMS's e-Basket service, and gathered and copied content therefrom for use in Marketshareinfo.com. Specifically, Berkshire's unauthorized access spanned eight different web-pages of e-Basket content (about 85 per cent), including that which would ordinarily be used by IMS clients. Marketshareinfo.com was launched after Berkshire accessed e-Basket, and IMS alleged that it incorporated original copyrightable elements of e-Basket, including the selection and arrangement of informational category headings and IMS - compiled market data.<sup>27</sup>

To gain access to e-Basket, IMS apparently obtained a user identification and password issued to a third party, thereby knowingly inducing that third party to breach an agreement it had with IMS. The plaintiff claimed that the defendant, by accessing IMS's computer system through the unauthorized use of a password issued to a party other than defendant, violated the DMCA's bar on circumventing a technological measure that effectively controlled access to protected work.<sup>29</sup> To circumvent a technological measure as defined in the DMCA means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner; and a technological measure effectively controls access to a work if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.<sup>30</sup> One might associate these activities with the breaking and entering (or hacking) into computer systems. Because Berkshire may have somehow obtained a legitimate password to the website, the judge said, IMS's argument that the bulk downloading circumvented a security system was a stretch.<sup>31</sup> 'Whatever the impropriety of defendant's conduct, the DMCA and the anti-circumvention provision at issue do not target this sort of activity,' according to Judge Buchwald. Post the *Feist* decision, many collections of facts (e.g., databases) are not protected by copyright - an element of the great idea/expression dichotomy. The great worry about the DMCA with regard to databases is that the unscrupulous will use the DMCA to obtain copyright-like protection for databases that are not protected by copyright.

## **The European Reaction**

## **United Kingdom**

Feist caused ripples of alarm in Europe. A Feist-type approach by European courts was quite conceivable and would have posed a substantial threat to the database industries in the European Union specifically.<sup>32</sup> Before the Database Directive came out in EU, the standard for the protection of databases in the Anglo-Irish systems had been very different because of the different originality requirements. The United Kingdom has a very low requirement of originality. The English statutory law long accorded copyright protection to databases as 'collections or compilations of data'. The requirement of originality in this context was that some degree of 'labour, skill and judgement' had been applied in the 'selection and arrangement' of the contents of the work as said in the judgement of Peterson J in University of London Press v University Tutorial Press<sup>33</sup>. It allows copyright in a database (as distinct from its contents), but only on the basis of authorship involving personal intellectual creativity. Where this copyright exists, it is an author's right and accordingly will last during his/her life plus 70 years.<sup>34</sup>

Database Directive<sup>35</sup> extends copyright protection to databases as collections under Article 2(5) of the Berne Convention and without prejudice to the protection by copyright of collections of works or materials arranged, stored or accessed non-electronic means, which accordingly remain protected to the extent provided for by the Berne Convention.<sup>36</sup> Article 1(2) of the Database Directive defines a database as, 'a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.'37 A typical database system is comprised of three components. The first is a computer program which operates the database, the second component is the actual information stored within the database. The Directive extends protection to such information if it meets the of 'originality in selection requirements arrangement (Recital 14) and the third part is an amalgam of electronic material that allows the user to interact with the database to store, retrieve, and manipulate the information. This broad category includes search criteria implemented in command strings or macro language procedures, indexing methods, thesaurus, and presentation methods. The Directive specifically extends protection to such methods of presentation, manipulation and data input (Recital 17). In a radical departure from the copyright paradigm, the European Commission took a sui generis approach to database protection in Article 10(2) which confers upon the database creator the right to 'prevent the unauthorized extraction utilization', from that database, of its contents in whole or substantial part, for commercial purposes. The right is subject to certain exceptions that resemble, but are narrower than the fair use exceptions under copyright law. The right owner in this case has to be from Europe, and in case of an individual, he/she must be a national or resident of one of the member states of the EU.<sup>38</sup>

As originality requirements pervade virtually every system of copyright known, the problem is further compounded in the context of compilations, because originality must be manifest in the selection or arrangement of the included materials.<sup>35</sup> The Commission admits that the arrangement of database materials is performed in large part by the system.<sup>39</sup> This standard is very similar to the standard that is applied in the United States after Feist with one additional limitation: under the Database Directive. there must be intellectual creation by a human author for copyright protection to exist, raising questions about the extent to which a database can be protected under copyright law if the selection and arrangement of data is accomplished by a computer program with minimal human contribution. The new right gives protection from the moment the database is completed, and expires 15 years later [Article 10(1)]. A fresh 15-year term can be obtained if the contents are 'substantially changed'. 40 Depending on what level of investment is ultimately required to be substantial, the provision for a renewable sui generis right could last in perpetuity if the contents are regularly updated.<sup>41</sup>

However, the sui generis right is not absolute and there are restrictions to this right like, a maker of a database that is made available to the public cannot prevent a lawful user of the database from extracting or re-utilizing insubstantial parts of it. In addition, the sui generis right is subject to certain exceptions for non-commercial uses related to teaching, scientific research, and public security. These exceptions are narrower than the similar fair use exceptions under copyright law. For example, the sui generis right has no exceptions for criticism, news reporting, satire, or library use. The primary objective of the intellectual property regime is to promote creativity and innovation and also to maintain a vigorous public domain. But this new right may block dissemination of information and obstruct its flow into the public domain.<sup>42</sup> The Final European Commission Directive does not condition sui generis protection on any showing of a creative achievement or of a novel contribution to the prior art, the classical bases for justifying legal derogation from free competition. Rather, it merely requires the database maker to prove that 'there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents'. This may create hurdles for diverse communities academicians, researchers, scientists, and students due to the commercial nature of facts. Further, there is also potential danger of the new database right ending in perpetuity. Because the EC Directive itself provides no further guidelines for evaluating the requisite level of investment in either case, this threshold will remain uncertain, pending decisions by European courts applying the still to be drafted domestic database laws.

Further, on closer inspection, the investor's scope of protection under the hybrid extraction right appears paradoxically to exceed even that afforded to authors of traditional literary and artistic works under the classical copyright paradigm of the Convention. For instance, it ignores the important distinction that copyright law makes between ideas legal metaphor for the non-copyrightable components of protected works, including among other things, the facts or data they contain) and the author's expression. The TRIPS Agreement makes distinction universally applicable to copyrightable works, including such borderline works as computer programs and factual compilations. 43 Yet, the database law contains no such distinction. This

means that, in the universe of data generators, there is no evolving public domain substratum from which either research workers or second comers are progressively entitled to withdraw previously generated data without seeking licences that may or may not be granted.<sup>44</sup> The absence of any equivalent to the idea-expression doctrine under the new sui generis regime means that investors, in effect, obtain proprietary rights in data as such, a type of ownership that the copyright paradigm expressly precludes. Proponents of the sui generis right downplay this prospect by insisting that third parties remain free to generate their own databases. 45 In *British Horseracing* Board v William Hill<sup>46</sup>, the European Court of Justice adopted a parallel ruling, which affected the very existence of the right, besides its infringement. The British Housing Board maintained a large, costly database of horseracing across Britain as a part of its management of the industry, in which the details of entries and results were constantly updated. This information was sold to two companies who were entitled to distribute it to bookmakers and others. The defendant, UK's biggest betting firm, obtained the information this way for publishing each day's racing programs. However, when it set up an Internet betting service partly based on this source of information, the BHB relied on its database right to demand a separate charge. The ECJ held that quality was to be judged by referring back to the elements of investment which gave rise to the existence of the sui generis right in the first place. The 'elements of investment' superseded the value of the extracted material itself and was the measure to be assessed in these types of infringement cases. The Court held that as to the provision which related to the repeated extractions of insubstantial this would content. constitute infringement only if it allowed the defendant to 'reconstitute and make available to the public the whole or a substantial part of the contents of the BHB database and thereby seriously prejudice investment made by BHB in the creation of the database.'46

The Court's ruling in this case substantially truncated the scope of the *sui generis* database right. Identifying the object of the right as the promotion and protection of investment in data storage and processing systems, it drew a fundamental distinction between investment in creating the information in the first place and investment in storing and processing it in the database. To claim a database right it was thus

necessary to show substantial investment in the latter which is the database itself in both qualitative and quantitative terms. So, where the collection and storage investment is substantial, the database right will still accrue. For there to be infringement, there has to be a substantial extraction and utilization, including the repeated takings that are in themselves insubstantial.<sup>34</sup>

### France and Canada

In Societe Reed Expositions France v Societe Tigest Sarl, 47 a French case, the court held that catalogues and magazines on the organization of trade fairs and exhibitions came under the scope of the Protection of Database Act 1998 (an Act passed to implement the European Union Database Directive) as the claimant expended sufficient financial, material and human investment in the creation of the same.<sup>48</sup> In Canada, each component constituting a database (interface or 'look and feel', content, software) may enjoy copyright protection insofar as it meets the traditional test of originality. Raw data or an element in the public domain is not protected under Canadian law. It is however, more debatable that newspaper classified ads be protected under the Copyright Act. The Canadian copyright system offers protection to databases, as a compilation, meaning a work resulting from selection or arrangement (Section 2 of the Copyright Act).

The Canadian Copyright law in this regard follows the position adopted by the US Supreme Court in Feist. In Tele-Direct (Publications) v American Business Information<sup>49</sup>, the appellant, Tele-Direct, the publisher of the yellow pages directory claimed copyright in respect of its organization of subscriber information. At issue was whether copyright subsisted in the compilation of information contained in the yellow pages and in particular, in a sub-compilation referred to as 'in-column listings'. The Court of Appeal ruled in favour of the 'creativity' doctrine over that of the 'sweat of the brow' doctrine. It held that a selection or arrangement of data only resulted in a protected compilation if the end result qualified as an original intellectual creation. In this case, the appellant's in-column listings were held to be devoid of creativity and thus not eligible to copyright protection. In addition, the Court of Appeal reiterated the principle that no copyright could be claimed by the appellant in the data, and therefore the issue of infringement was not even considered. Because the Supreme Court of Canada dismissed an application to

leave an appeal, the Tele-Direct judgment is still the applicable authority with respect to database protection. In *Setym International* v *Belout*<sup>50</sup>, the plaintiff, a company specializing in management training, instituted an action against its employee, Belout, on the ground that the latter used and reproduced the plaintiff's client directory. The court decided that Belout was liable for damages on the grounds that the use of the plaintiff's lists and directory was an infringing use pursuant to Canada's Copyright Act. This decision extended the scope of protection of factual databases in Canada and contradicted the Tele-Direct case.<sup>51</sup>

#### The Scenario in Australia

Australia's Section 10 of the Copyright Act defines literary work to include 'a table, or compilation, expressed in words, figures or symbols (whether or not in a visible form)'. Latter clause in parentheses intended to make clear that computerized databanks could be compilations. A database right, like protection for 'sweat' databases under Australian copyright law, is conferred primarily for investment undertaken in manufacturing the database. This means that when there has been a sufficient exertion of time, energy and effort in creating a database comprised of non-original material, this material forming part of the database, is necessarily protected together with the database itself. In the recent Australian Federal Court case of Telstra Corp v Desktop Marketing Systems<sup>52</sup>, Judge Finkelstein ruled on a factual situation very similar to Feist, except the Telstra case involved electronic versions of what were paper-based telephone directories in Feist. In Telstra, Desktop Marketing Systems reused without permission significant amounts of information contained in Telstra's white pages and yellow pages directories. Judge Finkelstein held that Telstra was entitled to assert copyright in both its white and vellow page directories.<sup>53</sup> The selection and arrangement of the contents showed sufficient originality to attract copyright protection.<sup>54</sup>

The year 2010 was a very controversial year for the Australian copyright law with the Federal Court of Australia delivering another landmark decision in *Telstra Corporation Limited* v *Phone Directories Company Pty Ltd.* <sup>55</sup> In this case, the Court held that copyright does not subsist in yellow pages and white pages telephone directories. Justice Gordon said that copyright could not subsist because the author of each of the directories could not be identified as they were

created through a computer automated system which allow any independent intellectual contributions from human contributors. This decision is a significant departure from the Full Federal Court's 2002 decision in Desktop Marketing where it held that copyright subsisted in Telstra's directories and that the copyright had been infringed. In 2007, Telstra and its advertising arm, Sensis, commenced proceedings against a competitor, Phone Directories Company. They alleged, among other things, that copyright in each of the directories had been infringed. The applicants adduced a mammoth 91 affidavits from witnesses in support of their claim that copyright subsisted in the directories. While the applicants submitted that they were not required to identify a particular 'author' in order to prove subsistence, they added that if required then these 91 individuals were the authors. Evidence on the contrary revealed that the production of a white pages or a yellow pages directory was mostly automated. The Court held that none of the 91 people identified by the applicants were the authors of the directories. The evidence did not cover all of the directories but only related to a sample. Further, many of the individuals who could be considered as joint authors had a limited role in contributing to the directories.

This case indicated strongly the importance of authorship and confirmed the centrality of authorship in determining whether copyright subsists in a work. Indeed, the Act fixes copyright on the author/s. Therefore if author/s cannot be identified, copyright cannot subsist. As far as originality is concerned, it must be an independent intellectual effort and all literary work must be original for copyright to subsist in them. Pursuant to Telstra Corp v Desktop Marketing Systems, subsistence of copyright in Australia only required a low level of originality. In this case, the focus was whether there had been substantial labour and expense expended in the creation of the work.<sup>56</sup> As, the notion of originality is closely tied to authorship, it is obvious that works originate with an author and that the creation of the work involves some independent intellectual effort or sufficient effort of a literary nature. What this effort is shall have to be determined on a case-to-case basis.

## The Indian Stand

There is no express legislation in India dealing with database protection. Although the Personal Data Protection Bill was introduced in Parliament in 2006, it is yet to see the light of the day. The bill seems to

be based on the general framework of the European Union Data Privacy Directive, 1996. It follows a comprehensive model with the bill aiming to govern the collection, processing and distribution of personal data. It is important to note that the applicability of the bill is limited to 'personal data' as defined in Clause 2 of the bill.<sup>57</sup> Data protection is aimed at protecting the privacy of information pertaining to individuals, while database protection has an entirely different function, namely, protect creativity and investment in the compilation, verification and presentation of databases. The Copyright Act, 1957 protects works under literary, dramatic, musical, artistic and cinematographic categories. The term 'literary work' includes computer databases as well. Therefore, copying a computer database, or copying and distributing a database amounts to infringement of copyright for which civil and criminal remedies are available. The Information Technology Act, 2000 was recently amended to meet challenges in cyber crime. It has introduced two important provisions that have a strong bearing on the legal regime for data protection. These are Sections 43A<sup>58</sup> and 72A.<sup>59</sup> But the to data provisions pertaining security confidentiality are still inadequate. The proposed amendments widen the liability for breach of data protection and negligence in handling sensitive personal information.<sup>60</sup>

There are very few cases that can be found on the works of compilation or databases. One such is the case of Burlington Home Shopping Pvt Ltd v Rajnish Chibber<sup>61</sup>, where the plaintiff published mail order catalogues dealing with several consumer items which were posted to a select list of the plaintiff's clients. The said database was an expensive one in a gradual process of compilation. The defendant managed to get a copy of the database and started making use of the same for the purpose of establishing relationship with the plaintiff's customers. The question which arose was whether a database consisting of compilation of mailing addresses of customers was a subject matter of copyright. The court decided that compilation of addresses involved devoting time, money, labour and skill. Even though the sources were commonly situated, the compilation amounted to a 'literary work' wherein the author had a copyright. 62 This was reiterated in the case of *The Himalaya Drug Company* v Sumit. 63 The Indian courts seem to uphold the 'sweat of the brow' theory or the skill, labour and judgment test in deciding copyright protection against

infringement. In other cases, like *McMillan* v *Suresh Chunder Deb*, <sup>64</sup> *Govindan* v *Gopalakrishna*, <sup>65</sup> the courts held that a compilation developed through devotion of time, capital, energy and skill, though taken from a common source, amounted to a literary work and was therefore protected under copyright. The Court referred to the US Supreme Court's *Feist* decision and said that there should be a modicum of creativity in the selection, arrangement or co-ordination of the contents of a database to attract copyright protection. <sup>66</sup>

#### Conclusion

The European Union Directive contains a reciprocity clause which may vitiate the impact of Feist. The right to prevent unauthorized extraction will only protect databases of foreign origin if the country of origin provides comparable protection to databases of European origin. International access to database technology enables instruments such as the reciprocity clause to exert pressure on legal systems of other countries. Proponents of database protection face lack of empirical data supporting their arguments. An analysis by Maurer shows that a onetime spike in the number of available European databases followed adoption of the EU Database Directive. 67 The United States, on the other hand, has enjoyed steady growth in the number of available databases, without offering protection.<sup>68</sup> Arguments against sui generis database protection seem to have the upper hand. Computers and the Internet have revolutionized how the world works, and the world continues to benefit from these new technologies. Part of this growth has increased the ability to access large amounts of data.<sup>69</sup> Establishing property rights over information products by extending the concept of property will not inevitably create an information monopoly. Rather, legislatures can use property rights to balance private and public interests. The form of protection has two components: the nature of what is to be protected and the conduct that is to be prohibited.

The following pointers are suggested to pave a new road for protection of databases: (i) the purpose of a new database law should be to support commerce by offering a lead time to database producers for investing time, energy and capital; (ii) a new database law should offer *sui generis* rights to non-original databases and copyright to original databases; (iii) a new database law should offer a mandatory

system of registration of database rights under a governmental authority which will oversee the commercial exploitation of database (iv) the governmental authority under a new database law should ensure that the quality and quantity of the public domain shall not be affected; (v) the fair use exception should be the same as is available under copyright law (Section 52 of Indian Copyright Act); (vi) a new database law should offer protection only to those databases which are created solely for commercial purposes; (vii) private databases, non electronic databases, government databases and scientific and educational databases should be excluded; (viii) there should be compulsory licensing for sole-source databases and lastly; (ix) the new legislation should offer protection for a short and limited period to gain a commercial head-start over competitors.<sup>70</sup> The importance of information and its protection so as to encourage more people to contribute the information reservoir cannot be overemphasized.

#### References

- 1 Brown Mary, Bryan Robert M & Conley John M, Database protection in a digital world, *Richmond Journal of Law & Technology*, 6 (1) (1999) 2-10.
- 2 Conley John M & Bemelmans Kelli, Intellectual property implications of multimedia products: A case study, *Information & Communication Technology Law*, 6 (1) (1997) 3-15.
- 3 Ginsburg Jane C, No "Sweat"? Copyright and other protection of works of information after *Feist* v *Rural Telephone*, *Columbia Law Review*, 92 (2) (1992) 343-88.
- 4 Anderman Steven D, EC Competition Law and Intellectual Property Rights: The Regulation of Innovation (Oxford University Press, United Kingdom), 2001, p. 247.
- 5 Ginsburg Jane C, Copyright, common law, and *sui generis* protection of databases in the United States and abroad, *University of Cincinnati Law Review*, 66 (1997) 151-71.
- 6 Article 10 (2) provides that: Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations, shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself.
- 7 Article 5 provides that: Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation Basic proposal for the substantive provisions of the Treaty on Intellectual Property in Respect of Databases to be considered by the diplomatic conference, WIPO, CRNR/DC/6, 31 August 1996.
- 8 Jukka Liedes, 'the database treaty is based on the European directive and the European Union proposal for a treaty on the

- sui generis protection of databases. And at the same time, it is based on the United States proposal, which was made last May in the context of the last expert committee meeting dealing with both conventions, http://www.uspto.gov/web/offices/dcom/olia/diplconf/briefing.pdf (31 March 2011).
- 9 Patry William, Copyright in collection of facts: A reply, *Communications & The Law*, 6 (1984) 11-31.
- 10 Nimmer Melville B, *The Law of Copyright* (Matthew Bender, USA), 1975, p. 36.
- 11 West Publishing Co v Mead Data Central Inc (1986) 799 F 2d 1219 (8<sup>th</sup> Circuit, USA).
- 12 The copyright statute requires that copyrightability not be determined by the amount of effort the author expends, but rather by nature of the final result. To grant copyright protection based merely on the 'sweat of the author's brow' would risk putting large areas of factual research material off limits and threaten the public's unrestrained access to information, *Financial Info Inc v Moody's Investors Serv Inc* (1986) 808 F.2d 204, 207 (2d Circuit, USA).
- 13 Reytblat Julia, Is originality in copyright law a "question of law" or a "question of fact?": The fact solution, Cardozo Arts & Entertainment Law Journal, 17 (1) (1999) 186-97.
- 14 Baker v Selden (1879) 101 US 99 (US Supreme Court).
- 15 Nichols v Universal Pictures Corp (1930) 45 F 2d 119 (2<sup>nd</sup> Circuit, USA).
- 16 Feist Publications Inc v Rural Telephone Service Co, (1991) 499 US 340 (US Supreme Court).
- 17 Jeang Wei Wei & Brooks Robin A, Exploring emerging issues: New intellectual property, information technology, and security in borderless commerce: Current on-line issues, Texas Wesleyan Law Review, 8 (2002) 615 – 34.
- Suggesting the availability of unfair competition protection, the Court referred to its 1918 decision (never overruled) in *International News Service v Associated Press* (1918) 248 US 215 (US Supreme Court). There, the defendant was enjoined from repackaging news items originally reported by the Associated Press and then selling them to its own subscribers. While the Court acknowledged that the factual items that comprise the news were not literary works eligible for copyright protection, it found that the common law of unfair competition would not allow a competitor 'to reap where it has not sown.'
- 19 Kregos v Associated Press (1992) 795 F Supp 1325 (SDNY).
- 20 Digital Millennium Copyright Act Pub L No 105-304, 112 Stat 2860, 2887 (1998); Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, 2001 OJ (L 167) 10-19.
- 21 17 USC §§ 1201-1205 (2005), the DMCA provides generally in § 1201 (a)(1)(A) that 'no person shall circumvent a technological measure that effectively controls access to a work protected under this title....'
- 22 Okediji Ruth L, Development in the information age: Issues in the regulation of intellectual property rights, computer software and electronic commerce, UNCTAD-ICTSD Project on IPRs and Sustainable Development, http://ictsd.org/i/publications/12215/ (27 September 2011).
- 23 The tools for searching and organizing data enjoy the same level of protection as other computer programs. The scope of and limitations on software copyrights are substantial topics

- that are well beyond the scope of this work. Although individual cases continue to pose difficult questions of application, a general consensus about the applicable legal principles now exists as a result of the near-universal acceptance of the 'abstraction-filtration-comparison' test promulgated by the Second Circuit in *Computer Associates International Inc* v *Altai Inc* (1992) 982 F 2d 693 (2<sup>nd</sup> Circuit, USA).
- 24 Samuelson Pamela, Intellectual property and the digital economy: Why the anti-circumvention regulations need to be revised, *Berkeley Technology Law Journal*, 14 (1999) 519 – 529.
- 25 The software that manages the database could provide derivative protection to the materials held in the database itself. Any attempt to extract materials from the database at issue might also result in acts that infringe on the copyright of the computer program. Thus, the materials enjoy a derivative protection that stems from software protection.
- 26 Bitton Miriam, A new outlook on the economic dimension of the database protection debate, http://www.law.umich.edu/ centersandprograms/olin/workshops.htm (27 September 2011).
- 27 Inquiry Management Systems v Berkshire Information Systems (2004) US Dist, LEXIS, 2673.
- 28 http://importance.corante.com/archives/002149.html (27 September 2011).
- 29 http://www.iptablog.org/2004/03/05/dmca\_database\_decis ion\_dissected.html (27 September 2011).
- 30 http://www.law.berkeley.edu/10422.htm (27 September 2011).
- 31 http://news.cnet.com/2100-1024\_3-5165624.html (27 September 2011).
- 32 Scales Linda, The European Database Directive An example to the rest of the world? *Irish Intellectual Property Review*, 2 (1997) 21-37.
- 33 University of London Press Ltd v University Tutorial Press Ltd (1916) 2 Chancery Division 601 (United Kingdom), The word 'original' does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought, and, in the case of 'literary work', with the expression of thought in print or writing. The originality which is required relates to the expression of the thought. But the Act does not require that the expression must be in an original or novel form, but that the work must not be copied from another work that it should originate from the author.
- 34 Cornish W R and Llewlyn D, *Intellectual Property: Patents, Copyright, Trademark And Allied Rights* (Thomson Sweet and Maxwell, South Asian Edition), 2007, p. 831.
- 35 Durdik Paul, Ancient debate, new technology: The European Community moves to protect computer databases, *Boston University International Law Journal*, 12 (1994) 153-67.
- 36 The Database Directive, Article 2(2), Recital 19, The Directive should be taken as applying only to collections which are made by electronic means.
- 37 Computer programs used in the manufacture or operation of databases are not within the scope of protection described in the Database Directive. These remain protected by the Software Directive under Article 1(3) of the Directive.
- 38 Article 11, A company will qualify if (1) it is created under the laws of one of the member states and has a substantial presence in a member state, or (2) it has a registered office

- within the EU and 'its operations are genuinely linked on an ongoing basis with the economy of a Member State.'
- 39 The 'arrangement' of the materials within the database depends to some extent on the indexing system which has been devised, so that efficient retrieval of information from a given location is possible by virtue of the index. To this extent, 'arrangement' does not occur unless a framework of references is established, which the database management software then implements. The 'framework of references' is a set of indexes set up by the creator of the database. The author selects items, called 'data-fields,' which the user may access with search criteria. Thus, originality in arrangement for databases is limited to selecting which items to expose to the system for searching purposes.
- 40 Oriola Taiwo A, Electronic database protection and the limits of copyright: What options for developing countries? *Journal of World Intellectual Property*, 7 (2) (2004) 201-228.
- 41 Lehmann Michael, The European Database Directive and its implementation into German law, *International Review of Industrial Property and Copyright Law*, 29 (1998) 776-795.
- 42 Informational Meeting on Intellectual Property in Databases, Geneva, 17-19 September 1997, 4, WIPO DB/IM/6, where the importance of free and open access to information was stressed by most delegations, especially in domains of high public interest, such as science, education and national security.
- 43 Reichman J H, The know-how gap in the TRIPS Agreement: Why software fared badly, and what are the solutions? *Hastings Commercial & Entertainment Law Journal*, 17 (1995) 763-794.
- 44 Litman Jessica, The public domain, *Emory Law Journal*, 30 (1990) 965 991.
- 45 Reichman J H & Samuelson Pamela, Intellectual property rights in data? *Vanderbilt Law Review*, 50 (1997) 51-91.
- 46 British Horseracing Board v William Hill (2004) ECR I-1045 (European Court of Justice).
- 47 Societe Reed Expositions France v Societe Tigest Sarl (2003) ECDR 20 (Court of Appeal, Paris).
- 48 CA Paris, C d'A, 12 September 2001 [2002] ECC 29, 26.
- 49 Télé-Direct (Publications) Inc v American Business Information Inc, (1997) 76 CPR (3d) (FCA).
- 50 Setym International Inc v Belout (2001) CCS 24669 (not reported).
- 51 Trosow Samuel E, *Sui generis* database legislation: A critical analysis, *Yale Journal of Law & Technology*, 7 (2004) 94- 139.
- 52 Telstra Corp Ltd v Desktop Marketing Systems Pty Ltd (2001) FCA 612 (Australia).
- 53 The Australian Federal Court of Appeal upheld Judge Finkelstein's first instance decision in the case, *Desktop Mktg Sys* v *Telstra Corp* (2002) F.C.A.F.C. 112 (Australia). Moreover, because the High Court of Australia recently refused leave to appeal the decision, the Full Court Decision stands as the current law in Australia, Result of applications for special leave to appeal, High Court of Australia, http:// www.hcourt.gov.au/registry/slresults/20-06-03M.html (27 September 2011).
- 54 Lipton Jacqueline, Balancing private rights and public policies: Reconceptualizing property in databases, Berkeley Technology Law Journal, 18 (3) (2004) 773-816. The Feist decision's outcome is that many obvious methods of grouping or listing data, for e.g. alphabetical, chronological or sequential, will be denied originality

- even though the obviousness of the selection and arrangement may give the database its value.
- 55 Telstra Corporation Limited v Phone Directories Company Pty Ltd (2010) F.C.A 44 (Australia).
- 56 In *IceTV Pty Limited* v *Nine Network Australia Pty Limited* (2009) HCA 14 (Australia), subsistence of copyright was admitted on the pleadings so the High Court could not rule on it. However, the High Court sound an ominous warning bell for *Desktop Marketing* case by observing that '...it may be that the reasoning in *Desktop Marketing* ... is out of line with the understanding of copyright law over many years'. French CJ, Crennan and Kiefel JJ said that the 'requirements of the Copyright Act is only that the work originates with an author or joint authors from some independent intellectual effort'. Therefore, the focus is not on labour or expense but on intellectual effort.
- 57 Personal data means information or data which relate to a living individual who can be identified from that information or data whether collected by any government or any private organization or agency.
- 58 Compensation for failure to protect data: Where a body corporate, possessing, dealing or handling any sensitive personal data or information in a computer resource which it owns, controls or operates, is negligent in implementing and maintaining reasonable security practices and procedures and thereby causes wrongful loss or wrongful gain to any person, such body corporate shall be liable to pay damages by way of compensation, to the person so affected, enforced on 27 October 2009.
- 59 Breach of confidentiality and privacy: Save as otherwise provided in this Act or any other law for the time being in force, any person including an intermediary who, while providing services under the terms of lawful contract, has secured access to any material containing personal

- information about another person, with the intent to cause or knowing that he is likely to cause wrongful loss or wrongful gain discloses, without the consent of the person concerned, or in breach of a lawful contract, such material to any other person shall be punished with imprisonment for a term which may extend to three years, or with a fine which may extend to five lakh rupees, or with both enforced on 27 October 2009.
- 60 Kumar Ranjit G, Database protection—The European way and its impact on India, *IDEA The Journal of Law and Technology*, 45 (2) (2005), 97 131.
- 61 Burlington Home Shopping Pvt Ltd v Rajnish Chibber, (1995) 61 DLT 6 (Del).
- 62 Govindan v Gopalakrishna, AIR, 1955 Mad 391(Madras), Sham Lal Paharia v Gaya Prasad, AIR, 1971 All 182 (Allahabad).
- 63 The Himalaya Drug Company v Sumit, 2006 (32) PTC 112 (Del).
- 64 McMillan v Suresh Chunder, ILR, 17 (Cal) 951 (Calcutta).
- 65 DebGovindan v Gopalakrishna, 1955 AIR 42 (Mad) 391(Madras).
- 66 Eastern Book Company v Desai, (2001) AIR (Delhi) 185, p. 203.
- 67 Maurer Stephen M, Across two worlds: Database protection in the US and Europe, http://strategis.ic.gc.ca/pics/ipf/ maurer.pdf (12 March 2011).
- 68 Huse Charles C, Database protection in theory and practice: Three recent cases, Part I: Law and technology, *Berkeley Technology Law Journal*, 20 (2005) 23 - 51.
- 69 Saltiel Joseph A, With nowhere else to hide can the first amendment protect databases? *University of Illinois Journal of Law, Technology & Policy*, 2001 63 203.
- 70 Mazumdar Anirban, Information, copyright and the future, European Intellectual Property Review, 29 (5) 2007, 180 – 213.