

NEW LAW FOR COMPILATIONS AND DATABASES IN SINGAPORE?

A literary work is accorded protection under section 27 of the Copyright Act only if it is “original”. This simply means that the work must originate from the author, in the sense that he has expended “skill, judgment and labour” in coming up with the work. In determining whether there is such an expenditure, the courts traditionally would also take into account the preparatory efforts (such as obtaining, gathering and collecting facts) prior to expressing and presenting the facts in the work. There is now doubt as to whether the “skill, judgment and labour” involved in such efforts should be taken into account. This issue has impact on the protection of compilations and databases in Singapore.

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I. Introduction

1 Singapore’s copyright law has largely conformed to the prescription that a literary work is accorded copyright protection only if its author has exercised “skill, judgment and labour”¹ or has exuded “sweat of the brow” in creating the work. Such efforts bestow upon the work the characteristic of “originality”, a statutory requirement of the Copyright Act² (hereinafter the “Act”). The requirement is not particularly onerous – the work must simply originate from the author and not be copied by him from another source.³ Nor is there a demand

1 *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 at 283, *per* Lord Evershed. Other descriptions of the authorial exercise include: “labour, skill and capital” (*Walter v Lane* [1900] AC 539 at 545, *per* Lord Halsbury); “work, labour and skill” (*G A Cramp & Sons Ltd v Frank Smythson Ltd* [1944] AC 329 at 340, *per* Lord Parker); “skill, industry or experience” (*Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 at 289, *per* Lord Devlin); “concentration, care, analysis, comparison” (*Kalamazoo (Australia) Pty Ltd v Compact Business Systems Pty Ltd* (1985) 5 IPR 213 at 237, *per* Thomas J); and “time, labour and effort” (*Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [35], *per* V K Rajah JA).

2 Cap 63, 2006 Rev Ed.

3 This requirement was first articulated by Petersen J in *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601 at 608 and has been applied in a
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that the work must be novel, inventive or of a particular literary or artistic merit. The result is that there is copyright coverage for many kinds of literary works, however banal, pedestrian or uninspiring. These include compilations of mundane factual information expressed in words and figures.

2 However, there is now doubt in Singapore as to the sustainability of the prescription in relation to such compilations. An implicit invitation has also been extended to reconsider the law in this regard. In the recent Court of Appeal case of *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd*⁴ (“*Pioneers & Leaders*”), V K Rajah JA, who delivered the judgment of the court, noted that the compilation cases where copyright was granted on the basis of the “time, labour and effort” involved were predominantly decided in the early 19th century to the early 20th century, before computer usage became a part of everyday life. This led him to state:⁵

With the proliferation of computers and the ready availability of software, the law on copyright ought also to evolve to take into account the ease and convenience that computers bring to the process of compiling in the 21st century. Tediously painstaking works when done manually, such as the tabulation of tables, or broadcasting programmes, are now effortlessly completed with the touch of a computer key or two, without much exertion or skill being called for. Older decisions that had focussed on the gathering of information as the touchstone rather than the productive effort involved in expression may therefore require reconsideration one day.

3 Indeed, with advances in communications, storage and retrieval technologies, compilations of factual information and other data, which were traditionally expressed in print or writing, can now be expressed and printed electronically.⁶ Such technologies have enabled compilations of factual information relating to financial news, stock market prices, weather, travel habits and customer preferences to become easily accessible through the Internet, computer programs,

number of Singapore cases (see, eg, *Auvi Pte Ltd v Seah Siew Tee* [1991] 2 SLR(R) 786).

4 [2011] 4 SLR 381.

5 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [35].

6 Compilations that are expressed electronically are commonly called “electronic databases”. In the terminology of copyright law, a database is a “compilation”, a work formed by the collection and assembling of pre-existing data or materials. Compilations constitute one of the oldest forms of authorship protected by the common law. They include anthologies of poems, catalogues, directories, encyclopedias and law reports. In this article, the terms “compilations” and “databases” will be used together or interchangeably, although they both refer to the same type of work.

smartphones and other electronic devices. Such databases have become products of great commercial value and social utility and are instrumental in the growth of electronic commerce and the emergence of new markets such as the electronic publishing and online information provision markets. Additionally, due to the ability of digital technologies to track purchasing and web-browsing habits, new industries such as data mining and customer profiling by database makers and producers have emerged. Consequently, the economic importance of compilations and databases is poised to increase exponentially in this century.⁷

4 The technological advances have also brought along in their wake adverse side effects. Specifically, they have enabled ease of accessing, copying and dissemination of compilations and information by infringers and other interlopers. Modern digital and scanning capabilities can easily – with the stroke of a key and at a fraction of the cost – negate considerable entrepreneurial effort and investment by database makers or producers in obtaining, gathering, collecting and compiling information and other data in compilations and databases. The need for proper and effective protection of compilations and databases is therefore imperative.⁸

5 However, the nature and extent of the legal protection of compilations and databases necessarily involve finding a balance between two conflicting societal goals: the goal of providing adequate incentives for their continued production by database makers or producers, and that of ensuring adequate access by the public to the information and data contained in compilations and databases. This is a classic policy, an economic and legal dilemma that afflicts, as well as informs, much of intellectual property (“IP”) law generally. Finding the proper balance in the context of compilations and databases has taken a

7 The recent Australian case of *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2011] 90 IPR 1 provides an example. In the case, the plaintiff asserted copyright protection in the electronic versions of its yellow pages and white pages telephone directories consisting of the names, addresses and telephone numbers of its subscribers. At stake in the case was the plaintiff’s A\$1.3bn business in compilations. Another example relates to Acxiom Corp, a US company. It is reported to have the world’s largest commercial database on consumers, maintaining a database on about 500 million consumers worldwide, about 190 million individuals and 126 million households in the US. It also manages the customer database for its clients, which includes 47 of the Fortune 100 companies: Natasha Singer, “You for Sale: Mapping, and Sharing, the Consumer Genome”, *The New York Times* (16 June 2012) <http://www.nytimes.com/2012/06/17/technology/acxiom-the-quiet-giant-of-consumer-database-marketing.html?_r=3&> (accessed 14 July 2012).

8 See also Jason R Boyarski, “The Heist of *Feist*: Protection for Collections of Information and the Possible Federalisation of ‘Hot News’” (1999) 21 *Cardozo L Rev* 871 at 906–908 on the commercial concerns of American database producers.

new urgency in light of the technological advances in this digital age, as well as the noticeable shift from the “sweat of the brow” standard⁹ for copyright protection of literary works. The shift was precipitated by two significant developments: the decision of the US Supreme Court in 1991 in *Feist Publications Inc v Rural Telephone Service Co Inc*¹⁰ (“*Feist*”) and the introduction by the European Community in 1996 of a two-tier system of database copyright and *sui generis* database right for protecting compilations and databases.

6 The thesis of this article is that the two conflicting societal goals and interests in Singapore can be served by protecting the preparatory efforts of obtaining, gathering and collecting the information (the “preparatory efforts”) *prior* to expressing or presenting them in the compilations and databases through a new form of IP right, which is similar to the *sui generis* database right in the European Community. Such an approach would also align the meaning of the term “intellectual creation” in section 7A of the Act¹¹ with the emerging trend in other common law jurisdictions, which seem to be discarding the “sweat of the brow” standard of copyright protection for compilations and databases. This new legal scenario would ensure that the preparatory efforts will continue to be rewarded, as they have been under the “sweat of the brow” standard for the past two centuries in common law jurisdictions. Without such reward, there would be an undesirable failing in our law to protect database makers or producers, who perform important and useful preparatory efforts in the creation of compilations and databases. Such efforts are important and useful because they significantly contribute to the two main attractive features of compilations and databases, namely, their comprehensiveness and accuracy. The new legal scenario should also preserve the incentives for the continued production of compilations and databases by their makers or producers, whilst providing optimal availability of, and access to, the information and data they contain to the public in Singapore.

7 In this article, Part II explores the current landscape regarding copyright protection provided by the Act for original literary works (which include compilations) and, in particular, the meaning attributed to the word “original”. It will be noticed that much of that landscape is drawn from English and Australian decisions. This is unsurprising because the Act is similar to its English and Australian progenitors. Part III will review at some length the *Feist* case in the US, and two recent Australian decisions (namely, *IceTV Pty Ltd v Nine Network Australia Pty Ltd*¹² (“*IceTV*”) in the High Court and *Telstra Corp Ltd v*

9 Also known as the “industrious collection” standard.

10 499 US 340 (1991).

11 Copyright Act (Cap 63, 2006 Rev Ed).

12 [2009] 80 IPR 451.

*Phone Directories Co Pty Ltd*¹³ (“*Telstra*”) in the Full Federal Court) that seem to mark the drift from the “sweat of the brow” standard in both jurisdictions to one approaching the “creative spark” doctrine or standard prevailing in the civil law systems. Here, the author makes the important point that the decision in *Feist* is, in fact, a narrow one, being limited to compilations (namely, white pages telephone directories) in which the level of creativity was found by the court to be “virtually non-existent”;¹⁴ and that the decision was largely driven by the constitutional mandate “[t]o promote the Progress of Science and Useful Arts”.¹⁵ I shall also draw attention to the fact that the two Australian decisions were concerned with the question of whether the skill, judgment and labour expended by a human author in creating a compilation involved independent intellectual effort and were directed at the originality of the particular form of expression in the compilation, noting the courts’ stance that there are policy issues involved here that are better left to the legislature to consider and decide as regards the protection of preparatory efforts. Part III also reviews two aspects of the *Pioneers & Leaders* decision, which seem to indicate that the premises for protecting compilations and databases under our copyright law are to be altered, with a conclusion that that would leave an undesirable gap in the protection of compilations and databases in Singapore.

8 Part IV of the article will examine the contours of the European Community’s unique two-tier system of protecting compilations and databases under database copyright as well as *sui generis* database right. There will then be a brief review in Part V of the other possible modes of protection as well as their inherent and practical difficulties. Part VI evaluates the experience and impact of the two-tier system in the European Community as disclosed in its evaluation report of December 2005. The article will conclude in Part VII with a consideration of the policy options available in Singapore, followed by a suggestion to give serious consideration to adopting the European two-tier regime for protecting compilations and databases and, in particular, the preparatory efforts involved in creating such works.

II. Protection under the Copyright Act

A. *Literary work*

9 Literary works form one of the quartet of works that are accorded copyright protection by the Act, the others being dramatic,

13 [2011] 90 IPR 1.

14 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [41] (1991).

15 US Constitution Art I § 8 cl 8.

musical and artistic works. Specifically, section 27 of the Act¹⁶ provides that copyright shall subsist in an “original literary work”. There are thus two concepts embedded in that expression: (a) originality; and (b) literary work. The latter will be dealt with first.

10 There is no definition of the term “literary work” in the Act. This may be taken to mean that there is no statutory limitation on the categories of literary works that are eligible for copyright protection. It is possible that the need for a definition or limitation has not been compelling because Peterson J in the early case of *University of London Press Ltd v University Tutorial Press Ltd* had described a “literary work” as a:¹⁷

... work which is expressed in print or writing, irrespective of the question whether the quality or style is high. The word ‘literary’ seems to be used in a sense somewhat similar to the use of the word ‘literature’ in political or electioneering literature, and refers to written or printed matter.

11 The threshold is decidedly low. All forms of expressions of the mind can fall within the category of literary works so long as they have some physical manifestation. Intangible matters such as extempore speeches would thus be excluded. Moreover, as noted, the physical expressions do not have to evince any particular quality, standard or degree of creativity. The courts have deliberately eschewed such a requirement because they generally decline to be the arbiters of creativity.

12 As a result, the categories of work that have been protected under copyright law include such disparate compilations of information as:

- (a) street directories;¹⁸
- (b) railway timetables;¹⁹
- (c) examination papers;²⁰
- (d) trade catalogues;²¹
- (e) a racing information service;²²

16 Copyright Act (Cap 63, 2006 Rev Ed).

17 [1916] 2 Ch 601 at 608.

18 *Kelly v Morris* (1866) LR 1 Eq 697.

19 *H Blacklock & Co Ltd v C Arthur Pearson Ltd* [1915] 2 Ch 376.

20 *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601.

21 *Purefoy Engineering Co Ltd v Sykes Boxall & Co Ltd* (1955) 72 RPC 89.

22 *Portway Press Ltd v Hague* [1957] RPC 426.

- (f) football fixtures;²³
- (g) football betting lists;²⁴
- (h) listings of television broadcast programmes;²⁵
- (i) accounting forms;²⁶ and
- (j) a solicitor's directory and diary.²⁷

13 Under the Act, compilations are regarded as literary works and protectable as such. Specifically, section 7A of the Act provides that for the purposes of the Act, a literary work includes a compilation in any form. A "compilation" is defined to mean, among others:²⁸

[A] compilation, or table, of data other than relevant materials or parts of relevant materials, which, by reason of the selection or arrangement of its contents, constitutes an intellectual creation.

"Relevant material" is in turn defined in the section to include a literary work.

14 The important notion of intellectual creation shall be considered in a moment because it is first necessary to consider the other concept (that is, originality) embedded in the expression "original literary work".

B. Originality

15 As mentioned above, by virtue of section 27 of the Act,²⁹ copyright protection is accorded to a literary work if it is original. This originality requirement has a long provenance. It had been recognised at common law³⁰ and was made a statutory requirement for copyright protection in the UK Copyright Act 1911.³¹ Its meaning was established in the seminal case of *University of London Press Ltd v University Tutorial Press Ltd* where Peterson J said:³²

23 *Football League Ltd v Littlewoods Pools Ltd* [1959] 1 Ch 637.

24 *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273.

25 *Independent Television Publications Ltd v Time Out Ltd* [1984] FSR 64.

26 *Kalamazoo (Australia) Pty Ltd v Compact Business Systems Pty Ltd* (1985) 5 IPR 213.

27 *Waterlow Publishers Ltd v Rose* [1995] FSR 207.

28 Copyright Act (Cap 63, 2006 Rev Ed) s 7A(3)(c).

29 Copyright Act (Cap 63, 2006 Rev Ed).

30 See *Walter v Lane* [1900] AC 539, upholding copyright in the reporters' published records of speeches by Lord Roseberry.

31 c 46.

32 [1916] 2 Ch 601 at 608–609.

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 in an original or novel form, but that the work must not be copied from another work – that it should originate from the author.

16 It is noticeable that there are two aspects of the meaning given to the term "original": one positive ("originate from the author") and the other negative (no need for "original or inventive thought"). These have resonance with another fundamental premise of copyright law: it does not protect facts, ideas and information as such but the manner in which they are expressed.

17 The dual aspects inherent in the meaning attributed to the term "original" by Peterson J have been widely accepted and adopted in many common law jurisdictions. For instance, in *IceTV*, French CJ, Crennan and Kiefel JJ in the High Court of Australia reiterated the prevailing position under its Copyright Act 1968:³³

The requirement for copyright subsistence that a literary work be 'original' was first introduced into the [UK] Copyright Act 1911, although it had already been recognised at common law. Originality for this purpose requires that the literary work in question *originated* with the author and that it was not merely copied from another work. It is the author or joint author who brings into existence the work protected by the Act. In that context, originality means that the creation (that is, the production) of the work required some independent intellectual effort, but neither literary merit nor novelty or inventiveness as required in patent law. [emphasis in original]

18 The Singapore courts have also subscribed to the dual aspects of the meaning of "original". For instance, in *Auvi Pte Ltd v Seah Siew Tee*, Chao Hick Tin J (as he then was) succinctly said:³⁴

The law on this is clear. Originality in this regard does not mean novelty or uniqueness; nor does it necessarily involve inventiveness. All that needs to be shown is that the author created it and has not copied it from another, and that he has expended towards its creation a substantial amount of skill or labour. What will be the exact amount of skill, labour or judgment required cannot be defined in precise terms.

33 Act No 63 of 1968 (Cth) (Aust); *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [33].

34 [1991] 2 SLR(R) 786 at [32]–[33].

19 The justifications for the dual aspects of the meaning of “original” have been well articulated by two notable commentators:³⁵

The strictly limited level of ‘original’ achievement that is required to attract literary copyright can be explained in two ways. First, it reduces to a minimum the element of subjective judgment (and attendant uncertainties) in deciding what qualifies for protection. Secondly, it allows protection for any investment of labour and capital that in some way produces a literary result: this is true equally of the compiler of mundane facts and of the deviser of a football pool form whose real effort is in the market research determining the best bets to combine.

(1) “Skill, judgment and labour” in the preparatory efforts

20 Indeed, the early compilation cases emphasise the need to protect the real effort that had gone into compilation. Specifically, they indicate that in considering whether there was sufficient “skill, judgment and labour” expended in creating a work, the courts would take into account not only the author’s skill, judgment and labour involved in expressing or presenting the facts, ideas and information in the compilation, but also his preparatory efforts *prior* to expressing or presenting them in the work. The abiding principle in relation to protecting the latter efforts is that another person cannot take the results of the preparatory efforts, thereby saving himself the labour and expense of undertaking the efforts. He must go to the original sources and undertake the same process of creating a similar work. There is no shortage of authority for this principle.

21 In *Morris v Ashbee*, Vice-Chancellor Sir George Giffard said:³⁶

The plaintiff incurred the labour and expense first of getting the necessary information for the arrangement and compilation of the names as they stood in his directory, and then of making the actual compilation and arrangement. ... [N]o one has a right to take the results of the labour and expense incurred by another for the purposes of a rival publication, and thereby save himself the expense and labour of working out and arriving at these results by some independent road.

22 This was reiterated in another early English case involving business directories, *Kelly v Morris*, where Vice-Chancellor Wood said:³⁷

The defendant has been most completely mistaken in what he assumes to be his right to deal with the labour and property of owners. In the case of a dictionary, map guidebook or directory, when there are

35 See William Cornish & David Llewelyn, *Intellectual Property* (Sweet & Maxwell, 6th Ed, 2007) at para 11-09.

36 (1868) LR 7 Eq 34 at 40–41.

37 (1866) LR 1 Eq 697 at 701.

certain common objects of information which must, if described correctly, be described in the same words, a subsequent compiler is bound to set about doing for himself that which the first compiler has done. In case of a roadblock, he must count the milestones for himself. In the case of a map of a newly discovered island, he must go through the whole process of triangulation, just as if he had never seen any former map, and generally he is not entitled to take one word of information previously published, without independently working out the matter for himself, so as to arrive at the same result from the same common sources of information, and the only use that he can legitimately make of a previous publication is to verify his own calculations and results when obtained.

23 In another early case, *Weatherby & Sons v International Horse Agency & Exchange Ltd*,³⁸ the plaintiffs published a book listing all the thoroughbred brood mares at the stud in the UK. The defendants compiled a book that contained nearly the entire list of brood mares published in the plaintiffs' book. The court upheld the plaintiffs' claim on copyright infringement and said that by using the plaintiffs' list, the defendants had saved themselves the trouble of making "exhaustive inquiries from the 1,400 or 1,500 breeding establishments in [the] country" as well as "the labour and expense which would have been involved in preparing such lists by means of researches of their own".³⁹

24 This principle was adhered to in the compilation cases of more recent times. In *Purefoy Engineering Co Ltd v Sykes Boxall & Co Ltd*,⁴⁰ the tables in the plaintiff's catalogue of standard engineering components were held copyrightable. Each page in question comprised a photograph of a component, followed by its trade description, a table of the dimensions of the various sizes available, a line drawing or diagram indicating, by means of letters of the alphabet, the dimensions tabulated, and followed lastly by a statement of the material and finish of the component, code number and the word "Copyright". The court said that while the facts concerning the components were not protectable, it was the scope for variance in expressing the facts that attracted copyright protection, and the defendant could not save itself the trouble of compiling the information concerning the components and expressing them in its own catalogue.

25 In *Football League Ltd v Littlewoods Pools Ltd*,⁴¹ the plaintiff claimed infringement of copyright in its chronological list of football fixtures. The making of the list itself was not difficult, but it required

38 [1910] 2 Ch 297.

39 *Weatherby & Sons v International Horse Agency & Exchange Ltd* [1910] 2 Ch 297 at 303.

40 (1955) 72 RPC 89.

41 [1959] 1 Ch 637.

hard work and painstaking accuracy, and entailed a high degree of skill and ingenuity. The plaintiff had to consider how each club played every other club twice in a season, once at home and once away, and on which days before sending the draft fixtures to the clubs for their consideration. The defendants, who operated a system of gambling based on the results of the football matches, issued coupons containing lists of football fixtures, which were admittedly copied from the plaintiff's chronological list. Upjohn J held that although there could be no copyright in information *per se* and there was insufficient skill, labour and effort in making the chronological list, it was nevertheless necessary for the information in the list to be reduced to writing. The skill, labour and judgment involved in reducing the information to writing could not be separated from the work in compiling the chronological list. Accordingly, he held that the plaintiff was entitled to copyright in the chronological list.

(a) *Ladbroke (Football) Ltd v William Hill (Football) Ltd*

26 The principle (that copyright protection also extends to the skill, judgment and labour expended in preparatory efforts) was authoritatively endorsed by the House of Lords in the landmark case of *Ladbroke (Football) Ltd v William Hill (Football) Ltd*⁴² (“*Ladbroke*”).

27 The compilation involved in that case was a football betting coupon containing 16 lists of football matches to be played. Each list was headed with an appropriate name and offered a variety of wagers at stated odds, with explanatory notes. The respondents claimed copyright in the coupon and alleged infringement by the appellants. The appellants argued that there was no originality in the coupon as it consisted essentially of a selection of well-known and well-tried wagers and the application of the wagers to all or some of the listed matches. They submitted that the skill, judgment and labour involved in considering and selecting the wagers were irrelevant and that what was left was the skill, judgment and labour involved in expressing the wagers, which were negligible and had no originality. The House of Lords unanimously rejected these “dissection” arguments and held that it was relevant to consider the efforts involved in selecting the wagers. In particular, Lord Reid opined that the selection of wagers and their presentation in the coupons were so interconnected as to be inseparable. His Lordship said:⁴³

The appellants likened the coupon to a trader's catalogue of his wares, and argued that in considering whether a catalogue is entitled to copyright one must disregard the trader's skill and work in deciding

42 [1964] 1 WLR 273.

43 *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 at 278.

what wares he will stock for sale and only consider the skill and labour involved in the actual preparation of the catalogue. I do not think that that is a true analogy. Even in the case of the catalogue there may be a question whether the work in deciding what to sell and the work in deciding how to sell it are not so interconnected as to be inseparable.

28 In Lord Hodson's view, the preparatory work in developing ideas and selecting the wagers was clearly relevant. He said:⁴⁴

The argument is supported by reference to the case of *Purefoy Engineering Co v Sykes Boxall*. The actual decision in that case does not assist the argument, but there is there drawn a distinction between skill and labour devoted to the selection of a range of goods in which the plaintiffs were intending to trade and that employed for the purpose of bringing into existence the literary work, namely, a catalogue. It may well be that there are cases in which expenditure of time and money has been laid out which cannot properly be taken into account as skill and labour involved in bringing into existence the literary work, be it catalogue or other compilation. This, however, is not, in my opinion, such a case, and *I cannot accept that preparatory work must be excluded in this case so as to draw a line between the effort involved in developing ideas and that minimal effort required in setting those ideas down on paper.* [emphasis added]

29 In the same vein, Lord Pearce said:⁴⁵

In deciding therefore whether a work in the nature of a compilation is original, it is wrong to start by considering individual parts of it apart from the whole, as the appellants in their argument sought to do. For many compilations have nothing original in their parts, yet the sum total of the compilation may be original. In such cases the courts have looked to see whether the compilation of the unoriginal material called for work or skill or expense. *If it did, it is entitled to be considered to be original and to be protected against those who wish to steal the fruits of the work or skill or expense by copying it without taking the trouble to compile it themselves.* So the protection given to such copyright is in no sense a monopoly, for it is open to a rival to produce the same result if he chooses to evolve it by his own labours. [emphasis added]

30 The *Ladbroke* case has been described as “probably the most important of the modern authorities on copyright in compilations” by Lindgren J in the Federal Court of Australia in *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd*⁴⁶ (“*Desktop Marketing*”). That case concerned a copyright action by Telstra Corp Ltd (“Telstra”) against Desktop Marketing Systems Pty Ltd (“Desktop”), who made searchable

44 *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 at 287.

45 *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 at 291.

46 [2002] 55 IPR 1 at [126].

CD-ROM products that contained telephone subscriber listing data (such as the names, addresses and telephone numbers of subscribers) derived largely from Telstra's yellow and white pages directories. The trial judge held that there was copyright infringement and that copyright subsisted in a compilation of facts if the author had incurred sufficient labour and expense in gathering the facts. In dismissing Desktop's appeal, and after considering the earlier compilation cases in depth, Lindgren J said:⁴⁷

Decisively for the present case, there is no principle that the labour and expense of collecting, verifying, recording and assembling (albeit routinely) data to be compiled are irrelevant to, or are incapable of themselves establishing, origination, and therefore originality; on the contrary, the authorities strongly suggest that labour of that kind may do so.

31 In the same vein, Sackville J in the same case said that "an important rationale underlying the current law in the UK is the need to protect the painstaking labour involved in assembling the compilation".⁴⁸

32 It was thus settled in the Anglo-Australian jurisprudence that preparatory efforts were to be taken into account in assessing the originality of the expression of a compilation for the purpose of determining subsistence of copyright. In other words, in determining whether a compilation is an original literary work and is thus a copyright work, the preparatory efforts are to be taken into account.

33 However, there have been lively discussions in recent years as to whether, in respect of compilations and databases, copyright law's requirements of originality and authorship should be satisfied by something more than the author's "skill, judgment and labour" or his "sweat of the brow". The discussions concern two different philosophical approaches adopted by two main legal systems. The "sweat of the brow" requirement of originality and authorship of the common law system is premised on the Lockean theory that rewards hard work that goes into creating a copyright work.⁴⁹ In contrast, the "creative spark" standard as practised in civil law countries is predicated on the protection of the personality of the author as reflected in his work and the exercise of creative choice by the author in making the work.

47 *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [160].

48 *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [375].

49 According to Locke, one owns the fruits of one's efforts because they are the "labour of his body, and the work of his hands"; hands and body are parts of oneself, and "every man has a property in his own person". John Locke, *Second Treatise of Civil Government*, Ch V, s 27. Available at <<http://ebooks.adelaide.edu.au/l/locke/john/l81s/index.html>> (accessed 21 July 2012).

34 It has been argued that the “sweat of the brow” standard of copyright protection is too generous and tips the scale too much in favour of authors’ rights, with the consequent loss of society’s interest in maintaining a robust public domain that fosters future creative innovation.⁵⁰ In contrast, the “creative spark” standard provides a safeguard against excessive reward to the author and helps ensure that others are able to produce new works by building on the ideas and information contained in the copyright work. Essentially, the tension is between one that rewards perspiration, and the other, inspiration. Against this backdrop of divergent standards, the constancy of copyright law is, and must be, to strive to balance the public interest in promoting the encouragement and dissemination of copyright works, whilst obtaining a just and reasonable reward for their authors or creators.

35 The balance is a delicate one. However, in the compilation case of *Feist*, the US Supreme Court decisively tilted the balance, so far as US law is concerned, in favour of the “intellectual effort” or “creative spark” standard as it held that the sole basis for protection under US copyright law is creative originality.

III. *Feist Publications Inc v Rural Telephone Service Co Inc*⁵¹

36 The respondent, Rural Telephone Service Co Inc (“Rural”), provided telephone services to an area in Kansas. Pursuant to a requirement of state law, it published annually a telephone directory consisting of white and yellow pages. It obtained the information for the directory from subscribers who had to provide their names and addresses in order to obtain the telephone services. The petitioner, Feist Publications Inc (“Feist”), was a publisher of telephone directories. Its directory, which was the subject of the dispute, contained the names, addresses and telephone numbers of not only the subscribers in the area of Kansas served by Rural but also in the other areas of Kansas served by other telephone companies. Hence, its directory contained 47,000 white pages listings, compared to 7,700 listings in Rural’s directory.

37 Feist did not have independent access to subscriber information. It sought permission from the telephone companies. All except Rural gave permission. Despite this, Feist used Rural’s white pages listings, taking 1,309 names, towns and telephone numbers without Rural’s consent.

50 See, eg, Jessica Litman, “The Public Domain” (1990) 39 Emory LJ 965 at 969 and C J Craig, “Locke, Labour and Limiting the Author’s Right: A Warning against a Lockean Approach to Copyright Law” (2002) 28 Queen’s LJ 1.

51 499 US 340 (1991).

38 Rural sued for copyright infringement and succeeded in the District Court. The Court of Appeals of the Tenth Circuit affirmed. However, the Supreme Court, in an opinion delivered by O'Connor J, unanimously reversed the Court of Appeals, holding that the selection, co-ordination and arrangement of Rural's white pages did not satisfy the minimum standards of originality for protection under the US copyright law.

39 The legislative context of the decision should first be noted. Article I, section 8, clause 8 of the US Constitution empowers and mandates the US Congress to make laws:

[t]o promote the Progress of Science and Useful Arts, by securing for Limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

40 In relation to copyright, O'Connor J said:⁵²

The primary objective of copyright [in the US] is not to reward the labo[u]r of authors, but '[t]o promote the Progress of Science and Useful Arts'.

41 In O'Connor J's opinion, the lower courts had lost sight of this constitutional mandate when they based the protection of compilations of facts on the "sweat of the brow" standard. According to her, the theory has numerous flaws:⁵³

... the most glaring being that it extended copyright protection in a compilation beyond selection and arrangement – the compiler's original contributions – to the facts themselves. Under the doctrine, the only defence to infringement was independent creation. A subsequent compiler was 'not entitled to take one word of information previously published', but rather had to 'independently work out the matter for himself, so as to arrive at the same result from the same common sources of information' ... 'Sweat of the brow' courts thereby eschewed the most fundamental axiom of copyright law – that no one may copyright facts or ideas ... Without a doubt, the 'sweat of the brow' doctrine flouted basic copyright principles.

42 O'Connor J explained that facts are not copyrightable because they are not original and do not owe their origin to an act of authorship. The creation of compilations of facts may possess sufficient originality and creativity in their selection and arrangement of facts to deserve copyright protection. However, such a protection is "thin" because a subsequent compiler remains free to use the facts to help in preparing a competing work, as long as the competing work does not feature the

52 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [19] (1991).

53 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [28]–[30] (1991).

same selection and arrangement.⁵⁴ The learned judge further said that it is not unfair that others may freely use the fruit of a compiler's labour because encouraging others to build freely upon the ideas and information in existing works "is the means by which copyright advances the progress of science and art".⁵⁵

43 O'Connor J considered section 101 of the US Copyright Act,⁵⁶ which defines a "compilation" as:

... a work formed by the collection and assembling of pre-existing materials 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.

She discerned from this definition an intent to eschew the "sweat of the brow" doctrine by legislation, and identified the elements of authorship of a compilation as:⁵⁷

- (a) "the collection and assembling of pre-existing materials, facts or data";
- (b) "the selection, coordination or arrangement" of the materials, facts or data; and
- (c) "the creation, by virtue of the particular selection, coordination or arrangement, of an '*original*' work of authorship" [emphasis in original].

O'Connor J further said that "the principal focus should be on whether the selection, coordination, and arrangement are sufficiently original to merit protection".⁵⁸

44 Reverting to the facts, the learned judge held that Rural's white pages were "entirely typical" and "a garden-variety white pages directory, devoid of even the slightest trace of creativity".⁵⁹ The pages were limited to basic subscriber information and arranged alphabetically, "in accordance with an age-old practice, firmly rooted in tradition and so commonplace".⁶⁰ Furthermore, its selection of listings "could not be more obvious" and lacked the "modicum of creativity" necessary to transform the selection into copyrightable expression.⁶¹ As such, they

54 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [18] (1991).

55 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [19] (1991).

56 Copyrights 17 USC (US); Copyright Act of 1976.

57 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [36] (1991).

58 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [39] (1991).

59 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [50] (1991).

60 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [53] (1991).

61 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [51] (1991).

did not satisfy the minimum standards of originality for copyright protection.

45 Not surprisingly, the *Feist* decision has been the subject of much scrutiny, not all of which have been welcoming. In his testimony before the House of Representatives, the Registrar of Copyright, Ralph Oman, said that the Supreme Court “dropped a bomb” with its decision in *Feist*.⁶² One of the major criticisms of the decision is that it does not provide any guidance as to what *will* constitute copyrightable compilations in the US.⁶³ According to Jane Ginsburg, the Supreme Court’s frequent invocations of the constitutional constraints and mandate on copyright protection erect “unnecessary if not insuperable barriers to alternative sources of protection for information compilations”.⁶⁴

46 Aside from the constitutional underpinnings, the Supreme Court’s decision in *Feist* was based on the pursuit of a policy favouring general and free access to information and data. It reiterated its own observation in *Baker v Seldon*:⁶⁵

The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains. But this object would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book.

Ginsburg, however, has pointed out that the uninhibited pursuit of the policy may ironically compel compilers and other information providers to restrict access to compilations in order to maintain their contractual or technological hold on the underlying information and data.⁶⁶ Consumer access to such information and data may then become more expensive. Robert Denicola underscored the necessity of preserving incentive for compilers and information providers, stating that the effort of authorship:⁶⁷

... can be effectively encouraged and rewarded only by linking the existence and extent of protection to the total labour of production. To focus on the superficial form of the final product to the exclusion of the effort expended in collating the data presented in the work is to ignore the central contribution of the compiler.

62 Paul Goldstein, “Copyright” (1991) 38 J Copyright Soc’y 109 at 118.

63 See, eg, Mary M Brown *et al*, “Database Protection in the Digital World” (1999) 6 Rich J L & Tech 2 at para 46.

64 Jane C Ginsburg, “No Sweat? Copyright and Other Protection of Works of Information After *Feist v Rural Telephone*” (1992) 92 Colum L Rev 338 at 341.

65 101 US 99 at 103 (1880).

66 Jane C Ginsburg, “No Sweat? Copyright and Other Protection of Works of Information After *Feist v Rural Telephone*” (1992) 92 Colum L Rev 338 at 387.

67 Robert C Denicola, “Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works” (1981) 81 Colum L Rev 516 at 530.

47 In a similar vein, Sackville J in *Desktop Marketing* said that “the danger in refusing copyright protection to an industrious compilation is that a potential compiler will be deprived of the incentive to undertake work that may prove to be of great value”.⁶⁸

48 These legitimate concerns aside, it is submitted that the *Feist* decision is, in fact, a rather narrow one. It denies originality and copyright protection only to compilations in which the selection and arrangement of Rural’s white pages directory are obvious (such as alphabetically, chronologically or sequentially) and therefore devoid of “even the slightest trace of creativity” (see para 44 above). Indeed, O’Connor J said that the originality requirement is not stringent, as it merely requires the author to independently devise a selection or arrangement that displays “some minimal level of creativity”. She observed that most works will satisfy this requirement but not “the narrow category of works in which the creative spark is so utterly lacking or so trivial as to be virtually nonexistent”.⁶⁹ O’Connor J acknowledged that Rural’s white pages directory was an extreme case.⁷⁰

49 It follows that originality can be found in any selection and arrangement in a compilation that reflect its author’s subjective judgment, personal knowledge and experience, as long as they are not so commonplace or of the garden-variety type or determined by age-old practice, convention, industry standard or other utilitarian criteria. This reading of the narrow scope of the *Feist* decision was supported by three subsequent Second Circuit decisions in the US, which indicate that the category of works lacking the requisite level of creativity is narrow and affirm the view that, whilst copyright protection in compilations may be “thin” (according to the Supreme Court in *Feist*),⁷¹ it is not “anorexic”.⁷²

50 In *Key Publications Inc v Chinatown Today Publishing Enterprises Inc*,⁷³ the Second Circuit sustained the copyrightability of the plaintiff’s annual classified business directory for New York City’s Chinese-American community. Its president, Lynn Wang, created the directory from information in business cards obtained from professionals and banks associated with the Chinese-American community and from an earlier restaurant directory. The information collected was sorted by

68 *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [424].

69 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [41] (1991).

70 *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [41] (1991).

71 Under this slim standard, “a subsequent compiler remains free to use the facts contained in another’s publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement”: *Feist Publications Inc v Rural Telephone Service Co Inc* 499 US 340 at [9] (1991).

72 *Key Publications Inc v Chinatown Today Publishing Enterprises Inc* 945 F 2d 509 at 514 (2d Cir, 1991).

73 945 F 2d 509 (2d Cir, 1991).

type of business, with each listing being placed in one of over 260 different categories and each of the approximately 9,000 listings consisted of an English and a Chinese name, an address and a telephone number.

51 The defendant also published a classified directory for the Chinese-American community of New York. The yellow pages of its directory contained approximately 2,000 listings divided among 28 different categories. About 75%, or 1,500, of the businesses listed in its directory were also listed in the plaintiff's directory.

52 The defendant appealed a lower court's decision that it infringed the plaintiff's copyright in its directory. Affirming the court's decision on copyright, the Second Circuit said that the "[s]election implies the exercise of judgment in choosing which facts from a given body of data to include in a compilation".⁷⁴ Although the defendant claimed that Wang "slavishly" included every business about which she had information in the plaintiff's directory, the court held that there was adequate originality in her selection to entitle the directory to copyright protection. It accepted her testimony that she had excluded from the directory those businesses that she did not think would remain open for very long, such as certain insurance brokers, take-out restaurants and traditional Chinese medical practitioners. She had exercised thought and creativity in selecting the businesses to be included in the plaintiff's directory.

53 Further, the court was of the view that the arrangement of the plaintiff's directory into categories (such as accountants, bridal shops, shoe stores and bean sprout shops) was not mechanical, but involved creativity on the part of Wang in deciding which categories to include and under what name.

54 However, the court's decision on the copyrightability of its directory was of no consolation to the plaintiff as the court held that there was no infringement since the defendant took only some of the facts from the plaintiff's directory and arranged them differently in its own.

55 In *George L Kregos v The Associated Press and Sports Features Syndicate Inc*,⁷⁵ the Second Circuit found the plaintiff's "pitching form" (which is a form comprising nine statistics about a baseball pitcher's performance) to be copyrightable. This was because Kregos' selection of the nine statistics from the universe of statistics that could be used to

74 *Key Publications Inc v Chinatown Today Publishing Enterprises Inc* 945 F 2d 509 at 513 (2d Cir, 1991).

75 937 F 2d 700 (2d Cir, 1991).

describe a pitcher's performance could be original. The court held that "it cannot be said [as a matter of law] that Kregos has failed to display enough creativity to satisfy the requirements of originality".⁷⁶

56 By contrast, in *Victor Lalli Enterprises Inc v Big Red Apple Inc*,⁷⁷ the Second Circuit found the compilation in issue to possess insufficient creativity. The compilation consisted of lucky numbers used in gambling, arranged in a grid with months along the vertical axis and days of the month along the horizontal axis. The numbers were computed according to a formula that was standard in the industry. The court found no originality in either the selection or arrangement of the data. It said that "Lalli exercise[d] neither selectivity in what he report[ed] nor creativity in how he report[ed] it".⁷⁸

A. *Recent developments in Australia*

57 Two recent Australian cases seem to indicate a shift in that country away from the "sweat of the brow" standard in establishing originality, at least in respect of compilations and databases. In particular, they have eschewed the relevance of the "sweat of the brow" involved in preparatory efforts in establishing originality.

58 It will be recalled from the discussions above that, in 2002, the Federal Court of Australia in *Desktop Marketing*⁷⁹ held that copyright subsisted in Telstra's Yellow Pages directories and White Pages directories as original literary works. The court's reasoning was, in summary, that the skill, judgment and labour involved in collecting, verifying, recording and assembling data to be compiled are relevant to and are themselves capable of establishing origination of a literary work such as a compilation.

(1) *IceTV Pty Ltd v Nine Network Australia Pty Ltd*⁸⁰

59 However, the courts in Australia recently shifted their position as they emphasised, in relation to the concept of originality (particularly in the context of infringement), the need for human authorship in the expression of the compilation.

60 In the High Court of Australia case of *IceTV*, a television station ("Channel Nine") claimed copyright infringement by IceTV Pty Ltd

76 *George L Kregos v The Associated Press and Sports Features Syndicate Inc* 937 F 2d 700 at 704 (2d Cir, 1991).

77 936 F 2d 671 (2d Cir, 1991).

78 *Victor Lalli Enterprises Inc v Big Red Apple Inc* 936 F 2d 671 at 673 (2d Cir, 1991).

79 *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [126].

80 [2009] 80 IPR 451.

(“IceTV”) of its compilations consisting of weekly schedules of television programmes. The weekly schedules were used with its consent by aggregators who also obtained similar information from other television stations to produce aggregated guides for use by the public. No such consent was obtained by IceTV, which produced an electronic programme guide containing Channel Nine’s programmes and times of broadcast. Instead, to create its guide, an IceTV employee watched television for a period to record the time and the title of the broadcasts, following which IceTV updated the electronic programme guide on a weekly basis by comparing its original data with information available in the aggregated guides and amending the time and title information to Channel Nine’s programme where there was a discrepancy.

61 IceTV conceded that copyright subsisted in each of Channel Nine’s weekly schedules but denied that it had taken a substantial part of the weekly schedules. The issue then was whether, for the purpose of determining infringement, the time and title information, which was reproduced by IceTV in its electronic programme guide, constituted a substantial part of the weekly schedules.

62 The trial judge held that there was no copyright infringement because IceTV’s electronic programme guide had its own presentation of the time and title information and other information such as the synopses of programmes. The Full Court of the Federal Court, however, disagreed, holding that there was reproduction of the time and title information on which Channel Nine had expended substantial skill and labour. It said that the skill and labour involved in the preparatory efforts should not be separated from the relatively modest skill and labour in expressing the programmes in the weekly schedules.

63 However, the High Court unanimously reversed the Federal Court’s decision. In ruling that there was no copyright infringement, it held that the time and title information lacked the requisite originality to constitute a substantial part of the weekly schedules. French CJ, Crennan and Kiefel JJ, in particular, said in a joint judgment that the way in which the information could be conveyed was “very limited” and did not require any “particular mental effort or exertion”.⁸¹ The authors of the information had little, if any, choice in the form of expression adopted, as that expression was “essentially dictated by the nature of the information”.⁸² They said that to determine whether a part of a work is substantial, the focus should be on the nature of the skill and labour, and whether it is directed to the originality of the particular form of expression of the work. In the event, they held that the skill and labour

81 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [42].

82 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [42].

devoted by Channel Nine's employees to programming decisions was not directed to the originality of the particular form of expression of the time and title information, and that the level of skill and labour involved in expressing the time and title information was minimal because, as mentioned, the information was essentially dictated by "the nature of the information".⁸³

64 The three judges also warned that rewarding skill and labour in respect of compilations without any real consideration of the productive effort directed to the particular form of expression of information "can lead to error".⁸⁴ They said:⁸⁵

Much has been written about differing standards of originality in the context of the degree or kind of 'skill and labour' said to be required before a work can be considered an 'original' work in which copyright will subsist. 'Industrious collection' or 'sweat of the brow', on the one hand, and 'creativity', on the other, have been treated as antinomies in some sort of mutually exclusive relationship in the mental processes of an author or joint authors. *They are, however, kindred aspects of a mental process which produces an object, a literary work, a particular form of expression which copyright protects.* A complex compilation or a narrative history will almost certainly require considerable skill and labour, which involve both 'industrious collection' and 'creativity', in the sense of requiring original productive thought to produce the expression, including selection and arrangement, of the material.

It may be that too much has been made, in the context of subsistence, of the kind of skill and labour which must be expended by an author for a work to be an 'original' work. *The requirement of the Act is only that the work originates with an author or joint authors from some independent intellectual effort.*

[emphases added]

65 Similar warnings were sounded in the joint judgment of the other three judges (Gummow, Hayne and Heydon JJ):⁸⁶

This concerns the submission by the Digital Alliance that this Court consider the Full Court's decision in *Desktop Marketing* and, to the contrary of *Desktop Marketing*, affirm that there must be some 'creative spark' or exercise of 'skill and judgment' before a work is sufficiently 'original' for the subsistence of copyright.

It is by no means apparent that the law even before the 1911 Act was to any different effect to that for which the Digital Alliance contends. It may be that the reasoning in *Desktop Marketing* with respect to compilations is out of line with the understanding of copyright law

83 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [54].

84 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [44].

85 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [47]–[48].

86 *IceTV Pty Ltd v Nine Network Australia Pty Ltd* [2009] 80 IPR 451 at [187]–[188].

over many years. These reasons explain the need to treat with some caution the emphasis in *Desktop Marketing* upon 'labour and expense' *per se* and upon misappropriation. However, in the light of the admission of IceTV that the Weekly Schedule was an original literary work, this is not an appropriate occasion to take any further the subject of originality in copyright works.

It is thus significant to note that both joint judgments emphasised the need for authorship and originality to be linked, in particular, the need to identify clearly the work for which protection is sought and the authorship of that work.⁸⁷

(2) *Telstra Corp Ltd v Phone Directories Co Pty Ltd*⁸⁸

66 It may be said that the recent case of *Telstra* represents the final nail in the coffin on the application of the "sweat of the brow" standard (at least in relation to the preparatory efforts deployed to create compilations and databases) in Australia. In the case, the Full Federal Court of Australia upheld the trial judge's decision⁸⁹ that copyright did not subsist in Telstra's white and yellow pages directories. The trial judge (Gordon J) held that the compilation of the directories was "heavily automated" by a computer system, and the human input was "anterior" to the directories taking their material form, namely, the collection of information presented in the directories.⁹⁰ Such input could not be said to have involved "independent intellectual effort" and/or "sufficient effort of a literary nature".⁹¹

67 Agreeing, Perram J in the Full Federal Court said:⁹²

The question then is whether that human industry is relevant to the issue of the directories' originality. I think the answer to that question is that it is not. Whatever else might be said of the kind of efforts required of an author, they must be efforts which result in the material form of the work. The important creative steps which involve the fashioning of the ideas on which a literary work's ultimate form rests are not actions which the Act counts as authorial and this is because what is protected by the copyright monopoly is the form of a work and not the ideas which presage or prefigure it. And this is so even if those ideas can plainly be discerned in the fabric of the material. The travels reduced to a touring guide, the toils in the library

87 See also Sam Ricketson, "The Need for Human Authorship – Australian Developments: *Telstra Corp Ltd v Phone Directories Co Pty Ltd*" [2012] EIPR 54 at 55.

88 [2011] 90 IPR 1.

89 The decision is reported at *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2010] FCA 44.

90 *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2011] 90 IPR 1 at [338].

91 *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2011] 90 IPR 1 at [338].

92 *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2011] 90 IPR 1 at [104].

underpinning a substantive work of history and the life led which finally results in an autobiography are not authorial activities, however essential they might be to the creation of the work in question. No doubt the quality of many literary works will be much enhanced if their form reflects ideas of sophistication or merit, but those ideas go not to the work's originality for copyright purposes, save only to the limited extent that they show that the work is not copied from elsewhere. Much skill and hard work – 'sweat of the brow' – may be involved in the preparatory steps to the making of the material form of a work but those labours are not what is protected by copyright and are relevant only to show that the work is not copied.

68 The adverse commercial impact of the *IceTV* and *Telstra* decisions was recognised. Gordon J noted in her decision that Telstra had more than A\$1.3bn of revenue at stake in the case, and suggested that copyright law in Australia should be amended "without delay" to provide for better protection for databases.⁹³ She has the implicit support of Keane CJ in the Full Federal Court, who acknowledged that the lack of focus on the skill and labour of authors "may give rise to a perception of injustice on the part of those whose skill and labour have been appropriated".⁹⁴

69 The *Telstra* case was relied upon by the Court of Appeal in *Pioneers & Leaders*. It is therefore appropriate at this juncture to review the Court of Appeal's decision in that case.

(3) Asia Pacific Publishing Pte Ltd v Pioneers & Leaders
(Publishers) Pte Ltd⁹⁵

70 The case concerned horse racing magazines containing tables (which constituted compilations) (the "Tables") of relevant horse racing information such as the owners, pedigree and past performances of the horses. The information was obtained from the Singapore Turf Club and arranged in a specific sequence by the plaintiff, a company that published a horse racing magazine known as "Punters' Way". The plaintiff sued the defendant for publishing a rival horse racing magazine known as "Racing Guide", which contained tables arranged in the exact same sequence.

71 The trial judge found that copyright subsisted in the Tables and that the plaintiff was the author of the Tables. She also found that a substantial part of the Tables had been copied and the defendant had therefore infringed the plaintiff's copyright in the Tables. The defendant appealed.

93 *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2010] FCA 44 at [30].

94 *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2011] 90 IPR 1 at [97].

95 [2011] 4 SLR 381.

72 The Court of Appeal allowed the appeal, despite finding that the information was presented in the Tables in a distinct form that would attract copyright protection and that the defendant's tables indeed incorporated a substantial part of the Tables. The fatal flaw in the plaintiff's case was its pleading that it was the author of the Tables. The court latched on this, citing at length historical, policy and dialectical foundations for the notion that the Act envisages rights to be accorded to natural persons, not corporate entities, and that the rights flow from human authorship.⁹⁶

73 With respect, this aspect of the court's decision is unassailable. There is sufficient evidence in the Act to indicate that there is a distinction between authorship and ownership of copyright, and that authorship and ownership are not synonymous terms. Section 30(6) of the Act,⁹⁷ for instance, provides that where the author of a literary, dramatic or artistic work is an employee and the work was made in pursuance to his employment, the ownership of the work vests in his employer (which may be a company). Additionally, if a company can be the author of a work, the effect is that it can own the copyright in the work in perpetuity. This, as pointed out by the Court of Appeal, would be against public policy.⁹⁸

74 However, there are two other aspects of the decision that suggest that the premises for protecting compilations and databases under copyright law are to be altered.

75 The first aspect relates to the identity of the author of a work. After affirming the centrality of human authorship in determining the subsistence of copyright in a work, the court went on to add that the author must be *identified* before the work could be deemed to be original. In the case, the court found that the plaintiff's copyright action also failed on the ground that it did not identify any human individuals who were responsible for creating the Tables. It said that copyright cannot subsist without a human author, and the plaintiff was "unable to even begin to satisfactorily identify any author, let alone, authors."⁹⁹ In this regard, it cited with approval Gordon J's dicta in the *Telstra* case:¹⁰⁰

96 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [57]–[72].

97 Copyright Act (Cap 63, 2006 Rev Ed).

98 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [72].

99 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [81].

100 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [74], citing Keane CJ and Gordon J in *Telstra Corp Ltd v Phone Directories Co Pty Ltd* [2010] FCAFC 149 at [32].

Authorship and originality are correlatives. The question of whether copyright subsists is concerned with the particular form of expression of the work. You must identify authors, and those authors must direct their contribution (assessed as either an 'independent intellectual effort' of a 'sufficient effort of a literary nature') to the particular form of expression of the work. *Start with the work. Find its authors.* They must have done something, howsoever defined, that can be considered original. [emphasis added by the Court of Appeal]

76 Secondly, as foreshadowed at the outset, the Court of Appeal indicated that a reconsideration of the copyright law in relation to compilations is now in order in Singapore. Specifically, it suggested that we should also veer away from the "sweat of the brow" standard, at least in so far as the preparatory efforts expended in creating compilations and databases are concerned. The following statements of the court are indicative of the suggestion:¹⁰¹

[I]t is not the preparatory efforts or process of gathering facts that is protected. Rather it is the thought effort involved in creating the particular form of expression that is embraced by copyright. Not infrequently, the expression of data, say, through an alphabetical listing, will involve little ingenuity or skill beyond the mechanical labour or routine programming. In such matters, it may be difficult to argue that copyright protection is called for.

77 These statements contain, in effect, an invitation to eschew the "sweat of the brow" standard and, in particular, the earlier Anglo-Australian jurisprudence, which indicate that preparatory efforts (including the efforts of gathering facts) are relevant in considering the originality of a compilation. That this is so is also clear from the court's reference to *Feist*. That case, it will be recalled, had ejected the "sweat of the brow" standard under US copyright law.

78 Additionally, the court linked the notion of "intellectual creation" in section 7A of the Act¹⁰² to the amount of skill, labour and judgment "in the creative process".¹⁰³ Section 7A relevantly states:

- (1) For the purposes of the Act, 'literary work' includes—
 - (a) a compilation in any form; and
 - (b) a computer program.
- (2) Any copyright subsisting in a compilation by virtue of Part III—

101 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [37].

102 Copyright Act (Cap 63, 2006 Rev Ed).

103 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [33].

(a) is limited to the selection or arrangement of its contents which constitutes an *intellectual creation*; and

...

(3) For the purposes of this section—

‘compilation’ means—

...

(c) a compilation, or table, of data other than relevant materials or parts of relevant materials,

which, by reason of the selection or arrangement of its contents, constitutes an *intellectual creation*. ...

[emphases added]

79 The genesis of the protection of the intellectual creation of a literary work (including a compilation) is Article 2(5) of the Berne Convention for the Protection of Literary and Artistic Works (“Berne Convention”), which provides:¹⁰⁴

Collections of literary or artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations, shall be protected as such, without prejudice to the copyright in each of the works forming part of the collections.

80 The protection is preserved in Article 10(2) of the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”) 1994, which states:¹⁰⁵

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.

81 Unfortunately, the drafters of the Berne Convention and the TRIPS Agreement were reticent as to the precise meaning of the term “intellectual creations”, thus leaving the tension between proponents of the “sweat of the brow” standard and those in the “creative spark” fraternity to fester. The term is also not a matter of agreed-upon guidelines in the two international treaties. It would therefore seem that the treaties do not mandate either the “sweat of the brow” standard or

¹⁰⁴ Article 2(5) was introduced in its present form at the Brussels Conference of 1948 and renumbered by the Paris Conference of 1971.

¹⁰⁵ Article 5 of the World Intellectual Property Organization Copyright Treaty 1996 is in the same vein.

the “creative spark” standard on the member states, leaving the meaning of the term “intellectual creations” to be a matter of national appreciation.

82 An eminent commentator has, however, expressed the view that in adopting the “sweat of the brow” standard to decide what is original, common law countries such as the UK and Australia have “depart[ed] from the spirit, if not the letter, of the [Berne] Convention” as they accord copyright protection to works that have taken time, labour or money to produce but are not truly artistic or literary intellectual creations.¹⁰⁶ A contrary view was expressed by Sackville J in *Desktop Marketing*:¹⁰⁷

It may be that the grant of copyright protection to compilations which are original in the sense accepted by the English and Australian authorities goes further than required by international law. But that does not place Australia in breach of its international obligations.

83 The “creative spark” fraternity consists principally of those countries with civil law traditions. France, in particular, views originality as having the imprint of the author’s personality.¹⁰⁸ The originality relates to both the intellectual contribution of the author and the novel nature of the work as compared with existing works. This perception of originality is reinforced by the expression “*le droit d’auteur*” (literally the “author’s right”), which is the term used in the French title of the Copyright Act enacted in 1985.¹⁰⁹ In Germany, its copyright law stipulates that works are protectable only if they are “personal intellectual creations”.¹¹⁰ In Italy, copyright law only protects “intellectual works with creative character”.¹¹¹

84 It may be suggested that the difficulty of applying the “creative spark” standard to compilations and databases is that it fails to recognise that the commercial value and social importance of such works lie not so much in the selection and arrangement of their contents as in their comprehensiveness and accuracy. Yet these defining characteristics of the works often require their compilers and producers to expend

106 See Sam Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works: 1886–1986* (Centre for Commercial Law Studies, Queen Mary College, 1987) at p 901.

107 *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [403].

108 See, eg, Jane Ginsburg, “French Copyright Law: A Comparative Overview” (1989) 36 J of Copyright Soc’y of the USA 269.

109 Law on Author’s Rights and on the Rights of Performers, Producers of Phonograms and Videograms and Audiovisual Communication Enterprises (No 85-660 of 3 July 1985) (France).

110 Article 2(2) of the German Law on Copyright and Neighboring Rights (1965).

111 Article 1 of the 1991 Italian Copyright Statute (Law No 633 of 22 April 1941) and Art 2575 of the Italian Civil Code.

substantial investment in obtaining and verifying the contents of the works, but exercise minimal levels of selectivity and arrangement of the contents. Specifically, the more information they contain and the less “selection” they evidence, the more commercially valuable they are likely to become. On the other hand, a selective database is arguably less valuable (because of its lack of comprehensiveness of contents) but is more likely to achieve copyright protection. One commentator described this paradox well:¹¹²

[I]mposing a definite, physical arrangement on the information contained in a database would severely decrease the database’s utility. Even if database producers wanted to gain copyright protection by providing a definite physical arrangement when saving their information, it is not practical for them to do so. In addition to the limitations imposed by the physical process of randomly saving computerised information, any formal arrangement of information would detract from the usefulness of a database. It is the ability of users to search an unrestricted database for the information they want that makes the database valuable. After a search, a user can create for himself the best presentation of the information by imposing his own arrangement on the search results. Generally, the utility of a database is inversely related to the degree of arrangement originally found in the database. More structure equals less utility. Therefore, using ‘arrangement’ as a protectable element of a computerised database is both unfeasible and impractical.

85 There is also the paradox – thanks to digital technologies – that the selection and arrangement of the information in the compilations and databases by their compilers and producers are often mechanical and unoriginal, or executed by sophisticated computer program such as in *Telstra*. Such selection and arrangement involve little or no intellectual creativity and are thus not protectable under copyright. Yet, substantial investments of time, effort and other resources may have been often expended in the selection and arrangement.

86 All these paradoxes imply that embracing the “creative spark” standard could leave substantial investments of time, effort and other resources involved in the preparatory efforts unprotected and unrewarded.

87 Reverting to *Pioneers & Leaders*, the Court of Appeal agreed with George Wei’s view in his seminal work,¹¹³ that the notion of

112 Jeffrey C Wolken, “Just the Facts, Ma’am: A Case for Uniform Federal Regulation of Information Databases in the New information Age” (1998) 48 Syracuse L Rev 1263 at 1278.

113 George Wei, *The Law of Copyright in Singapore* (Singapore National Printers, 2nd Ed, 2000).

intellectual creation ties in with the basic copyright principle that only original compilations are protected by copyright and stated:¹¹⁴

The test for compilation remains the same as the general test for a literary work, namely, that of originality – ‘whether there is sufficient amount of skill, labour and judgment involved in the creative process’.

The court found on the facts that the creative process involved in the Tables concerned the arrangement of the relevant information “in a manner that was thought to be most conducive for readers”.¹¹⁵ This finding would seem to require the court to be an arbiter of creativity, taste, trends and other subjective factors that contribute to making a work conducive for its readers. If so, it would leave the protection of compilations in an uncertain state, subject to the vagaries inherent in the elusive expression “conducive for readers”.

88 It is perhaps too early to declare that the Court of Appeal in *Pioneers & Leaders* has clearly signalled a wholehearted shift to the “creative spark” standard for protecting compilations and databases in Singapore. It should be recognised that there are serious and important ramifications arising from such a shift. The “creative spark” standard should be embraced in Singapore only if, from the various policy perspectives, it offers clear and distinct advantages over the existing standard that rewards skill, judgment and labour involved in *all* the stages of creating a compilation and database. The risk of withholding such a reward is that it may deprive compilers and producers of compilations and databases, as well as other information providers, of the incentive to create compilations and databases that are often of great commercial value and social importance.¹¹⁶ In this connection, it is salutary to recall the argument of Robert Denicola:¹¹⁷

[T]he effort of authorship can be effectively encouraged and rewarded only by linking the existence and extent of protection to the total labour of production. To focus on the superficial form of the final product to the exclusion of the effort expended in collecting the data

114 George Wei, *The Law of Copyright in Singapore* (Singapore National Printers, 2nd Ed, 2000) at para 33.

115 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [103]. The court said that the plaintiff had not merely reprinted the horse racing data wholesale or in an alphabetical order but had selected information it thought relevant and arranged it in a manner that was thought to be most conducive for readers. It is therefore clear that the plaintiff’s work would not fail the *Feist Publications Inc v Rural Telephone Service Co Inc* (“*Feist*”) (499 US 340 (1991)) test as, unlike the telephone directory in *Feist*, it is not devoid of “even the slightest trace of creativity”.

116 See also *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] 55 IPR 1 at [424].

117 Robert C Denicola, “Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works” (1981) 81 Colum L Rev 516 at 530.

presented in the work is to ignore the central contribution of the compiler.

89 Specifically, it is suggested that a shift to the “creative spark” standard in Singapore would leave a gaping hole in protecting the substantial investment of time, effort and other resources deployed in the preparatory efforts involved in creating compilations and databases. This would amount to a serious failing of the law, which in turn would lend credibility to the widespread perception that IP laws:¹¹⁸

... often fail to afford those who produce today’s most commercially valuable goods enough lead time to recoup their investments. The risk of market failure inherent in this state of chronic under-protection tends to keep the production of information goods at suboptimal levels.

Doubtless, this is one of the reasons why the UK decided to adopt a separate and *sui generis* regime by way of an amendment in 1997 to the Copyright, Designs and Patents Act 1988¹¹⁹ (“CDPA”) to protect databases, regardless of whether or not the databases are also copyright works. The amendment was also in compliance with its treaty obligations to implement the European Commission Council Directive on the legal protection of databases (the “EC Database Directive”).¹²⁰ That directive introduced the *sui generis* regime.

IV. European Commission Council Directive on the legal protection of databases

90 The EC Database Directive was enacted in March 1996, following a long process of deliberation after the EC issued in 1988 the Green Paper on Copyright and the Challenge of Technology – Copyright Issues Requiring Immediate Action¹²¹ (“Green Paper”). One of the issues raised in the Green Paper was whether adequate protection was afforded to databases in the European Community. It noted that there were varying levels or standards of legal protection afforded to compilations and databases in the various member states, and that this impeded the free movement of database products across the European Community. Specifically the UK, Ireland, the Netherlands, France,

118 Jerome H Reichman & Pamela Samuelson, “Intellectual Property Rights in Data?” (1997) 50 Vand L Rev 51 at 55.

119 Copyright, Designs and Patents Act 1988 (c 48) (UK), amended by Copyright and Rights in Databases Regulations 1997 (SI 1997 No 3032) (UK).

120 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077).

121 Commission of the European Communities, “Green Paper on Copyright and the Challenge of Technology – Copyright Issues Requiring Immediate Action” (June 1988) 88 COM 172.

Portugal and Spain all gave full protection to compilations in one form or another.¹²² Germany and Italy required the compilation to be a “personal intellectual creation”,¹²³ whilst Denmark used the Scandinavian catalogue right system.¹²⁴ The existence of these different systems was considered “problematic” by the EC.¹²⁵

91 It was also felt that copyright alone could not offer adequate protection for the substantial investments involved in obtaining and collecting the contents of compilations and databases. Even though they may be created with a high level of skill, judgment and labour, they could not satisfy the originality criterion in most member states. For instance, by simply rearranging their contents, the compilations would still be exposed to slavish copying by competitors. After nearly eight years of deliberations, the EC appreciated copyright’s limitations and came to the view that the substantial investments should be protected by a new *sui generis* right. This view is reflected in recital (39) of the EC Database Directive:

[I]n addition to aiming to protect the copyright in the original selection or arrangement of the contents of a database, this Directive seeks to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment made in obtaining and collection [of] the contents by protecting the whole or substantial parts of a database against certain acts by a user or a competitor.

92 Another impetus for the EC Database Directive was the rapid expansion of the Internet, which raised the European Community’s awareness of “the exponential growth, in the Community and worldwide, in the amount of information generated and processed annually in all sectors of commerce and industry” and the important role of databases “in the development of an information market within the Community”.¹²⁶ In its recent decision in *Football Dataco Ltd v Yahoo!*

122 See, eg, Shireen Smith, “Legal Protection of Factual Compilations and Databases in England – How Will the Database Directive Change the Law in This Area?” [1997] *Intell Prop Q* 450 at 467.

123 Shireen Smith, “Legal Protection of Factual Compilations and Databases in England – How Will the Database Directive Change the Law in This Area?” [1997] *Intell Prop Q* 450 at 467.

124 Shireen Smith, “Legal Protection of Factual Compilations and Databases in England – How Will the Database Directive Change the Law in This Area?” [1997] *Intell Prop Q* 450 at 467. The system subsequently became the model for database right in the European Community.

125 Commission of the European Communities, “Green Paper on Copyright and the Challenge of Technology – Copyright Issues Requiring Immediate Action” (June 1988) 88 COM 172 at 212.

126 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) recitals (9) and (10).

UK Ltd (“*Football Dataco*”), the Court of Justice of the European Union (“CJEU”) said that the purpose of the EC Database Directive is to:¹²⁷

... stimulate the creation of data storage and processing systems in order to contribute to the development of an information market against a background of exponential growth in the amount of information generated and processed annually in all sectors of activity.

In addition, the *Feist* decision had galvanised concern regarding the adequacy of copyright protection for databases within the European Community as compared to that in the US.¹²⁸ As noted above, the decision underscored that copyright law was probably not sufficient to provide adequate protection to the obtaining and collection of the contents of compilations and databases.

93 In the event, the EC Database Directive established a two-tier protection regime for databases “in any form”, meaning paper-based collections of information such as telephone directories, television guides as well as electronic collections or databases of information.¹²⁹ Specifically, the first tier gives copyright protection for the structure (meaning the selection or arrangement of contents) of original databases, without prejudice to any existing copyright protection for the contents of the databases.¹³⁰ The second tier introduces a new *sui generis* database right for databases that are not original in the sense that they are not the result of the author’s intellectual creation (non-original databases). The objective of this *sui generis* right is to protect and encourage substantial investments of considerable human, technical and financial resources in creating non-original databases that “can be copied or accessed at a fraction of the cost needed to design them independently”.¹³¹

94 In effect, the approach adopted in the EC Database Directive is to harmonise the threshold of originality in the member states of the European Community, with respect to databases. It does so by adopting the higher intellectual creation standard applied in civil law countries

127 Case C-604/10 (1 March 2012) at [34]. The Court of Justice of the European Union was formerly known as the European Court of Justice.

128 See, eg, Mark Powell, “The European Database Directive: An International Antidote to the Side-Effects of *Feist*?” (1997) 20 *Fordham Int’l LJ* 1215 at 1221.

129 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) Art 1(1).

130 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) recital (15) and Art 3(2). See also *Football Dataco Ltd v Yahoo! UK Ltd* (Case C-604/10) (1 March 2012) at [32].

131 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) recitals (6) and (7).

for protecting original databases.¹³² For those non-original databases that previously enjoyed copyright protection under the “sweat of the brow” standard in countries such as the UK, a new *sui generis* database right was created to protect and encourage the substantial investments involved in creating such databases.

95 It is salutary to note at this juncture that in *British Horseracing Board Ltd v William Hill Organization Ltd*¹³³ (“*British Horseracing Board*”), Laddie J emphasised that the two-tier regime (database copyright and the *sui generis* database right) consists of two separate and distinct rights that have significant differences. He explained the differences:¹³⁴

The fact that database right and copyright in databases can exist side by side and that the former is described as *sui generis* is important. Although it is apparent that there are some features of the database right which are similar to features of copyright, it must not be assumed that the former is based upon or is to be construed as a mere continuation or development of the latter and, in particular, that it is a mere variation of United Kingdom copyright law. There may be a natural tendency, particularly for those familiar with copyright, to look at database through copyright eyes, but there are significant differences between the two rights. They may have concepts in common, but, if so, that is only because those concepts happen to fit both, not because database is a species of copyright. This means that courts have to guard against the assumption that principles which have become familiar in the copyright field automatically apply to the new right. The existence and scope of the new right has to be determined from the Directive itself, and any admissible preparatory texts.

96 We now review these separate and distinct rights in the EC Database Directive.

A. *Database copyright for “original” databases*

97 Article 1(1) of the EC Database Directive defines a database as a collection of independent works, data and other materials that:

132 The Court of Justice of the European Union has also recently adopted the “intellectual creation” standard in relation to computer programs. In *Infopaq International A/S v Danske Dagblades Forening* [2010] FSR 20 at [31]–[48], the court said that there will only be reproduction of a substantial part of a literary work if what has been reproduced represents the expression of the intellectual creation of the author of the literary work.

133 [2001] RPC 31 (HC).

134 *British Horseracing Board Ltd v William Hill Organization Ltd* [2001] RPC 31 (HC) at [23].

- (a) are arranged in a systematic or methodical way; and
- (b) are individually accessible by electronic or other means.¹³⁵

Thus, a database is more than a mere collection of simple data. It covers a collection of works of authorship, such as an anthology, an encyclopedia and a multimedia CD, and can even consist of other materials such as subject matter that is neither a work nor data (for example, sound recordings).

98 In order for the database to be protected as such by copyright, it must constitute the author's own intellectual creation by reason of the "selection or arrangement" of its contents.¹³⁶ This test does not admit of aesthetic or qualitative criteria.¹³⁷ The CJEU recently opined in *Football Dataco* that the concept of intellectual creation applies only where the selection or arrangement of the data that the database contains amounts to "an original expression of the creative freedom of its author".¹³⁸ It said that the criterion of originality is satisfied when, through the selection or arrangement of the data that the database contains, its author "expresses his creative ability in an original manner by making free and creative choices" and thus stamps his "personal touch".¹³⁹ The criterion is not satisfied if the creation of the database "is dictated by technical considerations, rules or constraints which leave no room for creative freedom".¹⁴⁰

99 The opinion highlights the fact that it is the originality of the selection or arrangement of the data contained in the database, and not the data itself, which is critical in determining whether copyright

135 Recital (17) of the European Commission Council Directive (96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077)) expands on the definition of "database" by stating that:

[T]he term 'database' should be understood to include literary, artistic, musical or other collections of works or collections of other materials such as texts, sound, images, numbers, facts, and data. ... [I]t should cover collections of independent works, data or other materials which are systemically or methodically arranged and can be individually accessed. ... [T]his means that a recording or an audiovisual, cinematographic, literary or musical work as such does not fall within the scope of this Directive.

This definition avoids conflicts with existing provisions in the European Union in the field of copyright and neighbouring rights.

136 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) Art 3(1).

137 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) recital (16).

138 *Football Dataco Ltd v Yahoo! UK Ltd* (Case C-604/10) (1 March 2012) at [45].

139 *Football Dataco Ltd v Yahoo! UK Ltd* (Case C-604/10) (1 March 2012) at [38].

140 *Football Dataco Ltd v Yahoo! UK Ltd* (Case C-604/10) (1 March 2012) at [39].

protection is to be extended to the database. In other words, the “skill, judgment and labour” expended to create, obtain and collect the data contained in the database would not be enough to meet the criterion of “intellectual creation”.

100 The *Football Dataco* case concerned the plaintiff’s football fixture lists that it licensed to commercial entities that use the database to provide news information and to facilitate gambling activities. It claimed that its fixture lists were protected by database copyright, the *sui generis* database right or copyright as a literary work, irrespective of whether it was a database. The English High Court held that the fixture lists qualified for database copyright protection because it involved “significant labour and skill in satisfying the multitude of often competing requirements of those involved” (for instance, that teams could not play at home on the same day because of geographical proximity – for example, Manchester United Football Club and Manchester City Football Club – to reduce the risk of disorder amongst fans for particular clubs) whilst also balancing the need for a perfect home and away combinations. The court opined that “[t]his work is not mere ‘sweat of the brow’” but the intellectual creation of the author of the fixture lists.¹⁴¹ It is, however, apparent from the CJEU opinion that it disagreed with the court’s decision and such efforts were not sufficient to qualify the fixture lists for database copyright protection under the EC Database Directive.

B. Sui generis database right for “non-original” database

101 Article 7(1) of the EC Database Directive sets out the type of investment in a database that is worthy of protection under the *sui generis* database right. It provides:

Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or reutilisation of the whole or a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.

It is stated in recital (40) of the EC Database Directive that the qualitative and quantitative investments may consist of not only financial expenditure but also expenditure in terms of time, effort and energy.

141 *Football Dataco Ltd v Brittens Pools Ltd* [2010] EWHC 841 at [41] and [43]. Such efforts are similar to those in *Football League Ltd v Littlewoods Pools Ltd* [1959] 1 Ch 637, where the court found that the plaintiff was entitled to copyright in its chronological list of football fixtures (see para 25 above).

102 Therefore it may be said that the new *sui generis* database right is a right based on utilitarian principles of protecting “sweat of the brow” investments in terms of time, effort and other resources in obtaining, verifying and presenting the contents of a database.

103 The new right applies irrespective of the eligibility of the database in question or its contents for copyright protection. It confers protection for a period of 15 years from the end of the calendar year in which the making of the database was completed. Exceptions from the right for lawful users are provided in respect of:¹⁴²

- (a) ... extraction for private purposes of the contents of a non-electronic database;
- (b) ... extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved; and
- (c) ... extraction and/or reutilisation for the purposes of public security or an administrative or judicial procedure.

104 Both the English courts and the CJEU have had the opportunity to consider the new right on a number of occasions.¹⁴³ Specifically, they have been concerned with the meaning of the expression “investment in either the obtaining, verification or presentation of the contents” in Article 7(1) of the EC Database Directive. According to them, the word “verification” refers to the checking, correcting and updating of data already existing in the database, whilst the word “presentation” involves the retrieval and communication of the compiled data such as the creation of a football fixture and a listing of television programmes. However, the meaning of the term “obtaining” is not entirely clear. This term obviously refers to the act of gathering, collecting or compiling data, works or other materials that already existed before the database was produced. Does it also refer to the acts of *creating* the contents of a database from scratch?

105 In *British Horseracing Board*, the board, which is the governing body for British horse racing, developed and maintained a large database of, amongst other data, horses, owners, racing colours, trainers and jockeys, after making extensive checks and verification. It sued the defendant, who had obtained the data from a subscriber to the board’s database for purposes of its Internet gambling service. The data

142 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) Art 9.

143 See, eg, *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU); *British Sky Broadcasting Group plc v Digital Satellite Warranty Cover Ltd* [2012] FSR 14; and *Football Dataco Ltd v Sportradar GmbH* [2012] EWHC 1185.

obtained was presented by the defendant in a new format but was not a substantial quantity of the data available in the board's database. Laddie J held that the defendant breached the *sui generis* database right.¹⁴⁴ The English Court of Appeal agreed with him but nevertheless sought guidance from the CJEU on the meaning of the expression "investment in either the obtaining, verification or presentation of the contents" in Article 7(1) of the EC Database Directive.¹⁴⁵

106 The CJEU advised that the resources used to draw up a list of horses and other data in a race and to carry out checks in that connection did not constitute investment in the obtaining and verification of the contents of the database in which the list appears.¹⁴⁶ It said that the expression "investment in ... the obtaining ... of the contents" of a database must be understood to refer to "the resources used to seek out existing independent materials and collect them in the database, and not to the resources used for the creation as such of independent materials".¹⁴⁷ This is because the purpose of the protection by the *sui generis* right provided for by the EC Database Directive is to promote the establishment of storage and processing systems for existing information and not the creation of materials capable of being collected subsequently in a database.¹⁴⁸

107 Thus, the CJEU drew an important distinction between the acts relating to *creating* the underlying data in a database and the acts relating to *obtaining* (from available or existing sources), *verifying* and *presenting* the data in a database. Only the latter acts could be protected under the *sui generis* database right. This effectively leaves no protection for organisations such as the horse racing boards, football governing authorities and real estate agencies, which typically create the data that make up the contents of their databases. On the other hand, organisations such as publishers of directories, listings and maps can rely on the *sui generis* database right to protect their works because they do not create the data in the works but usually obtain the data from other sources.

144 *British Horseracing Board Ltd v William Hill Organization Ltd* [2001] RPC 31 (HC).

145 *British Horseracing Board Ltd v William Hill Organization Ltd* [2001] EWCA Civ 1268 (CA).

146 *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU).

147 *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU) at [31].

148 *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU) at [31].

108 Recently, the rationale for the distinction was expressed with illuminating clarity by Floyd J in *Football Dataco Ltd v Sportradar GmbH*:¹⁴⁹

Data which is created by an individual or organisation is, in most cases at least, not available to others until it is created. There is, accordingly, no alternative source for such data. If one allows a database right to attach to data which is created by the maker of the database, the creator obtains a true monopoly in that data. Such a result would be inconsistent with the objectives of the Directive. The Directive should not be construed in a way which gives a party a monopoly in facts, such as the runners and riders or the fixture lists. On the other hand, where a database consists of data obtained from sources available to the public, such as existing published data, the balance of policy considerations is different. There is (or should be) nothing to prevent the public from investing in obtaining those data themselves. The owner of a database right in data which is obtained in this way does not achieve a stranglehold on the facts. The objectives of the Directive are therefore furthered by encouraging investment in the obtaining, verification and presentation of data, without creating monopolies in facts.

109 It may be said that the above-mentioned rationale for protecting and encouraging investment in obtaining, verifying and presenting the data in the database is essentially a restatement of the underlying reason for protecting “skill, judgment and labour” under the English copyright law prior to the CDPA and the EC Database Directive, namely, another person cannot save himself the time, effort and other resources involved in the preparatory efforts of creating a work but must also invest his own time, effort and other resources in obtaining, verifying and presenting the contents of his work.

110 According to Article 7(1) of the EC Database Directive, infringement of the *sui generis* database right occurs when there is unlawful “extraction and/or reutilisation of the whole or a substantial part, evaluated qualitatively and/or quantitatively, of the contents” of the database. According to the CJEU in *British Horseracing Board*, the terms “extraction” and “reutilisation” should be given a wide meaning because of the words “by any means or in any form” used in the definition of extraction and the words “any form of making available to the public” used in the definition of reutilisation in the EC Database Directive. The court added:¹⁵⁰

[T]hose terms must therefore be interpreted as referring to any act of appropriating and making available to the public, without the consent

149 [2012] EWHC 1185 at [19].

150 *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU) at [51].

of the maker of the database, the result of his investment, thus depriving him of revenue which should have enabled him to redeem the costs of the investment.

111 It is intriguing to consider now whether the Tables in *Pioneers & Leaders* would have been protected if there were similar database copyright and *sui generis* database right regime in Singapore. It is surmised that following the test for intellectual creation laid down by the CJEU in the recent case of *Football Dataco*, the Tables would not be protected under database copyright. It will be recalled that our Court of Appeal had found that the plaintiff “had not merely reprinted the horse-racing data wholesale or in alphabetical order, but had selected information it thought relevant and arranged it in a manner that was thought to be most conducive for readers”.¹⁵¹ This would suggest that the plaintiff company, in making the selection or arrangement of the horse racing data, was expressing its creative ability in an original manner by making free and creative choices and stamped its “personal touch”. However, according to the CJEU, in order to be protected under database copyright, the selection or arrangement of the data or information in a compilation must constitute “an original expression of the creative freedom of its *author*” [emphasis added].¹⁵² As noted above, the Court of Appeal found that the plaintiff was “unable to even begin to satisfactorily identify any author, let alone, authors” of the Table.¹⁵³

112 As regards the plaintiff’s preparatory efforts in creating the Tables, such as obtaining, gathering and collating the relevant horse racing data (for example, the owners, pedigree and past performances of the horses), it is suggested that these efforts could be protected under the *sui generis* database right if such a right had existed in Singapore. This is because, it will be recalled, the horse racing data in the Tables was *obtained* from the Singapore Turf Club and then presented in a particular sequence in the Tables by the plaintiff. That is, there was investment involved on the part of the plaintiff in obtaining the information by using its resources “to seek out existing independent materials and collect them in the database”.¹⁵⁴ Further, the Court of Appeal found that the defendant’s tables incorporated a substantial part of the Tables in the plaintiff’s “Punters’ Way” magazine. In other words, the defendant had wrongfully taken the result of the plaintiff’s investment in respect of the obtaining of the information in the Tables.

151 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [103].

152 *Football Dataco Ltd v Yahoo! UK Ltd* (Case C-604/10) (1 March 2012) at [45].

153 *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 at [81].

154 See *British Horseracing Board Ltd v William Hill Organization Ltd* [2005] RPC 13 (CJEU) at [31].

V. Other modes of protection

A. *Contractual provisions and technological safeguards*

113 One of the arguments against the need for any *sui generis* law on database protection is that database makers have other means of protecting their investments.¹⁵⁵ These other means include legal, technical and business options. For instance, they can restrict database use through contractual provisions (such as “shrink-wrap” licence), through technological safeguards to prevent unauthorised access and use and by changing the structure or content of their databases to incorporate greater creativity, such as via subjective selection and unusual arrangement of the contents.¹⁵⁶

114 However, there are inherent and practical problems in ensuring effective and proper protection through these methods. For instance, contractual provisions are ineffective against third parties due to the privity requirement in contract law. Additionally, the provisions will work in practice only as long as the database producer can keep track of the other party’s actions. For instance, if the database is provided by means of an online service, the producer may have difficulty distinguishing between his subscribers who access the information in the database for personal use and those who do so for purposes of repackaging and reselling the information.

115 The efficacy of technological safeguards is also dubious. They cannot protect database in paper or print form, which still represents a large proportion of the market. This is because, once disseminated, such database is outside the owner’s control and can easily be copied without his knowledge and consent. In addition, technological safeguards such as encryption and anti-copying codes on CD-ROMs are often expensive to maintain and are inconvenient and unattractive to users. Moreover, once a database has been lawfully decrypted, the database producer cannot control subsequent access to, and use of, the decrypted information.¹⁵⁷

116 As regards to changing the structure or content of databases to incorporate greater creativity, its utility depends on the nature of the database. In particular, the strategy is not useful for many databases whose market appeal lies in the availability of comprehensive and unadorned facts. Adding information may be superfluous or irrelevant

155 Another argument is that there is no sufficient evidence showing that a problem exists or that database makers have, in general, suffered financial detriment. They are still thriving under the current level of legal protection.

156 US Copyright Office, *Report on Legal Protection for Databases* (August 1997) at p 19.

157 US Copyright Office, *Report on Legal Protection for Databases* (August 1997) at p 27.

and may make the database too large or unwieldy. Subjective selection may destroy the value of the database as a resource when the user's goal is to examine all the relevant facts.¹⁵⁸

B. Compulsory licensing

117 It has been fervently argued that there should be a compulsory system of collective administration and licensing of compilations and databases because this will ensure that all users have equal access and pay lower fees by only dealing with a single entity.¹⁵⁹ Whilst acknowledging that such licensing is generally not a favoured technique in copyright law, it is less obnoxious as compared to giving no protection at all to compilations and databases and giving overly broad protection to such works.

118 However, compulsory licensing is a form of price regulation and is administratively cumbersome in terms of, for instance, setting the correct licence rate and distribution of the fees.¹⁶⁰ If the compilation is protected as a literary work, there is also an issue of whether it would conflict with the normal exploitation of the work and unreasonably prejudice the legitimate interests of its author, thus violating Article 9(2) of the Berne Convention.

119 In fact, the EU had initially considered introducing a compulsory licence scheme in the EC Database Directive, requiring database makers and providers who are the sole source of any information to license the information to competitors on fair and non-discriminatory terms. The proposal to introduce the scheme proved controversial, principally due to the difficulty of reconciling *sui generis* database right with EU competition law. Additionally, the proposal lost its legitimacy after a working party favoured a catalogue of exceptions to the *sui generis* right, which resulted in the scope of the right being limited to preventing the extraction and/or reutilisation of the whole or a substantial part of the database in Article 7(1) of the EC Database Directive. It was finally dropped following the CJEU decision in the competition law case of *RTE and Independent Television Productions v Commission of the European Communities*.¹⁶¹

158 US Copyright Office, *Report on Legal Protection for Databases* (August 1997) at p 22.

159 See Jane C Ginsburg, "Creation and Commercial Value: Copyright Protection of Works of Information" (1990) 90 Colum L Rev 1865 at 1923.

160 Jane C Ginsburg, "Creation and Commercial Value: Copyright Protection of Works of Information" (1990) 90 Colum L Rev 1865 at 1923.

161 [1995] 4 CMLR 418; Jens L Gaster, "The New EU Directive Concerning the Legal Protection of Databases" (1996) 20 Fordham Int'l LJ 1129 at 1145–1146.

120 In that case, the CJEU upheld the compulsory licences imposed by the EC on British and Irish broadcasters (such as BBC, ITV and Raidió Teilifís Éireann) who owned the copyrights in their television programme listings. They had refused to grant any licence to Magill, an Irish publisher, to publish a comprehensive television guide of their programmes. No such guides were then available to Irish and British television viewers. The broadcasters had their own television guides, containing only their own television listings. According to the EC, the broadcasters' conduct was an abuse of a dominant position in the sense of Article 86 of the European Economic Community Treaty.¹⁶² The CJEU agreed, as it held that an unjustified refusal to license information that is indispensable for carrying on a business undertaking and thus prevents the introduction of a new product into a market for which a potential consumer demand exists, thereby excluding all competition on a derivative market, amounts to an abuse of dominant position.

121 In the event, the EC Database Directive provides in recital (47) that “in the interests of competition between suppliers of information products and services, protection by the *sui generis* right must not be afforded in such a way as to facilitate abuses of a dominant position, in particular, as regards the creation and distribution of new products and services which have an intellectual, documentary, technical, economic or commercial added value”.

C. Trade secrets

122 The law on confidence is available to protect compilations and databases. The requirements that must be satisfied before an action for breach of confidence can be made out has been succinctly summarised by Megarry J in the oft-cited case of *Coco v A N Clark (Engineers) Ltd.*¹⁶³

123 However, there are inherent difficulties in relying on this area of the law. For instance, disclosure through sale or display of goods embodying the compilation will nullify the confidential status of the compilation. Further, a claim for breach of confidence requires a relationship between the owner of the compilation and the defendant, either by way of a contract or implied from the circumstances, and the use of the compilation in breach of confidence. Disclosure or use of the compilation by others who are not in the relationship would not be covered.

162 Currently Art 82. This Article is equivalent to s 47 of Competition Act (Cap 50B, 2006 Rev Ed).

163 [1969] RPC 41 at 47. These requirements have been relied upon by our courts on several occasions; see, eg, *Vestwin Trading Pte Ltd v Obegi Melissa* [2006] 3 SLR(R) 573 at [34].

VI. Evaluation of the European Commission Council Directive on the legal protection of databases

124 Nearly ten years after the enactment of the EC Database Directive, the EC conducted an evaluation of the directive, with a view to ascertaining whether the policy objectives of the directive had been achieved and, in particular, whether the creation of the new *sui generis* database right had had adverse effects on competition during those years.

125 According to the evaluation report issued in December 2005, most owners and users of databases were of the opinion that the EC Database Directive generally achieved a satisfactory balance between the legitimate interests of owners and users, and expressed the view that the directive should remain unchanged because it has proven to be an incentive for the further development of the market in databases in the European Community. Publishers of databases in particular claimed that the *sui generis* database right provided an incentive for wide dissemination of information and encouraged specialisation and differentiation on the market.¹⁶⁴

126 However, the evaluation report also disclosed lingering concerns (especially amongst academic organisations and libraries) as to whether the *sui generis* database right had indeed resulted in overly broad protection of databases, stating that the differentiation made by the CJEU in *British Horseracing Board* between the resources used in the “creation” of the contents of the database and the “obtaining” of the contents in order to create the database indicates that the right comes precariously close to protecting the contents or information themselves. The report further revealed that the economic impact of the *sui generis* database right was unproven. In particular, no empirical data was adduced to prove that its introduction had stimulated significant growth in the production of databases in the European Community.

127 The evaluation report concluded with the following policy options for stakeholders to consider:¹⁶⁵

164 European Commission, “Internal Market and Services Working Paper – First Evaluation of Directive 96/9/EC on the Legal Protection of Databases” (12 December 2005) <http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf> (accessed 11 August 2012).

165 See section 6 of European Commission, “Internal Market and Services Working Paper – First Evaluation of Directive 96/9/EC on the Legal Protection of Databases” (12 December 2005) <http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf> (accessed 11 August 2012).

- (a) repeal the EC Database Directive;
- (b) repeal the *sui generis* database right;
- (c) amend the *sui generis* database right; or
- (d) maintain the status quo.

128 It was acknowledged in the report that repealing the EC Database Directive would give rise to the pre-directive scenario where the member states could protect their original databases under diverging levels of originality, thus resulting in legal uncertainties that the directive was intended to eliminate. Repealing the *sui generis* database right alone would leave unprotected and unrewarded the investment involved in obtaining, verifying and presenting the data in the database, unless the “sweat of the brow” standard is re-introduced to protect the database in those countries that had adopted that standard. The report suggested that amending the *sui generis* database right could be proposed to clarify the scope of the right and whether the scope would only cover primary producers of compilations and databases (that is, those producers whose main business is to collect and assemble information that they do not create themselves) or would also include producers for whom the production of a database is a secondary activity. However, there was concern that amending the scope of the right “entails a serious risk that yet another layer of untested legal notions would be introduced that will not withstand scrutiny before the [European Court of Justice]”.¹⁶⁶

129 In the event, the *status quo* was maintained in the European Community. It was felt that even if a piece of legislation has no proven positive effects on the growth of a particular industry, its withdrawal would not necessarily be the best option.

VII. Conclusion

130 It would appear that there are two policy options in Singapore.

131 It has been suggested above that a shift to the “creative spark” standard in Singapore would leave a gaping hole in protecting preparatory efforts as well as the substantial investments of time, effort and other resources that are deployed in creating compilations and databases, and that this would amount to a serious failing in our law. We can either avoid creating such a hole by maintaining the *status quo* or

¹⁶⁶ See section 6.3 of European Commission, “Internal Market and Services Working Paper – First Evaluation of Directive 96/9/EC on the Legal Protection of Databases” (12 December 2005) <http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf> (accessed 11 August 2012).

take pre-emptory steps to plug the hole. As demonstrated above, the other possible modes of protection (through contractual, compulsory and technological means) are fraught with difficulties and are likely to be unfeasible.

132 Maintaining the *status quo* means that compilations and databases will continue to be protected under the “sweat of the brow” standard and that such protection extends particularly to preparatory efforts. This would, however, put us on a divergent path from the emerging trend in other common law jurisdictions, which, as noted above, increasingly regard the expression “intellectual creation” as encapsulating the “creative spark” standard, at least in relation to compilations and databases.¹⁶⁷ On the other hand, there is no compelling reason to change the *status quo* if the commercial interests of the principal stakeholders in Singapore (such as publishers of databases) have not been jeopardised by the current position. It would also seem that legislative action is not necessary at this stage, in the absence of empirical evidence that the interests of the stakeholders have indeed been jeopardised.

133 As regards taking pre-emptory steps, it is suggested that the experience of the European Community with respect to its EC Database Directive is instructive. Although, as noted above, the directive has its critics and has not resulted in an increase of the production of databases in the European Community, its two-tier protection regime does have the singular attraction of protecting *all* stages of the process of creating compilations and databases (but not the act of creating the data itself). It recognises the value of the “skill, judgment and labour” involved in the earlier stages of the creation of compilations and databases (namely, the preparatory efforts) and protects such efforts through the new and unique *sui generis* database right. In particular, databases that previously enjoyed copyright protection under the “sweat of the brow” standard are protectable under the new right if there has been “qualitatively or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents” of the database.¹⁶⁸ The creative process of selecting and arranging the contents is protected under the “intellectual creation” standard. There is therefore an accommodation not only of the varying levels or standards of copyright

167 A Canadian court has also adopted the “creative spark” standard in relation to compilations and databases; see, eg, *Tele-Direct (Publications) Inc v American Business Information Inc* [1998] 2 FC 22. See also the Canadian Supreme Court decision in *CCH Canadian Ltd v Law Society of Upper Canada* [2004] 1 SCR 339; [2004] SCC 13.

168 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases ([1996] OJ L 077) Art 7(1).

protection that previously prevailed amongst its member states but also of the conflicting interests of users and producers of databases.

134 We should seek to achieve such an accommodation in Singapore. In particular, we should protect both the earlier preparatory efforts involved in creating compilations and databases, as well as the later creative process of selecting and arranging the contents and data for such works. Perhaps the time has now come to enact such a protection, especially in light of the Court of Appeal's recent statement in *Pioneers & Leaders* that the law on copyright should evolve to take into account the ease and convenience that computers bring to the process of compiling and that it should protect the "creative process" involved in creating a copyright work (which, in the case, was the arrangement of the relevant information in the Tables). For this purpose, we would do well to give serious consideration to adopting the European two-tier regime for protecting compilations and databases and, in particular, the preparatory efforts involved in creating such works.
