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Global Yellow Pages Ltd
v
Promedia Directories Pte Ltd

[2016] SGHC 09

High Court — Suit No 913 of 2009
George Wei JC (as he then was)
29, 30 September; 1–3, 7–10, 13–17, 20–24, 27–31 October;
19 December 2014; 7 April 2015

Copyright — Authorship

Copyright — Defences

Copyright — Groundless threat

Copyright — Infringement

Copyright — Subject matter — Compilations

28 January 2016 Judgment reserved.

George Wei J:

Introduction

1 The plaintiff and defendant both produce telephone directories. The plaintiff alleges that the defendant infringed its copyright by, amongst other things, copying and referencing the listings and classifications in its directories. The central issue in this suit is whether plaintiff's directories are protected by copyright, and if so, what the scope of that protection is.

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2 This engages a question on which the foundations of copyright law rest: what does originality within s 27 of the Copyright Act (Cap 63, 2006 Rev Ed) ("the Copyright Act") entail? Originality is the defining characteristic of works entitled to copyright protection under the Copyright Act. Other key concepts in copyright law, such as authorship, copying and substantiality, orbit around and take shape from the assessed originality of the work in question.

3 Telephone directories, in particular, occupy a special place in this debate. They cast in sharp relief the dichotomy between facts and expression, a dichotomy which is said to lie at the heart of the requirement of originality. Similar cases have been encountered by courts all over the world and each jurisdiction has formulated varying responses to what is in essence the same problem: what subject matter does the law of copyright protect? Copyright is a property right conferring rights *in rem*. The term of protection is very long and liability for infringement is generally strict. Furthermore, certain types of infringement attract criminal liability. The question of what is the subject matter protected by copyright is important not just to the copyright owner; it is of fundamental importance to the public at large whose duty it is to avoid infringement.

4 Whilst the plaintiff submits that the factual matrix of the suit is not complicated,[1] the evidence was heard over 23 days; it was originally set down to be heard over 24. The statement of claim was amended six times. Numerous interlocutory proceedings took place. Indeed, the plaintiff initially intended to call one expert witness and 17 factual witnesses, three of which were subpoenaed. In the eventuality, only 15 witnesses testified orally for the plaintiff

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[1] Plaintiff's Closing Submissions at para 1.

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after the defendant agreed to forgo cross-examination of the remaining two. The defendant, on the other hand, called two witnesses. The plaintiff's position was that the legal issues required a thorough examination of the efforts devoted to the creation of the works in suit.[2]

5 Much of the evidence comprised a detailed examination of the business process by which the plaintiff and defendant produced their competing works. Whilst this was necessary to determine questions of fact relevant to originality, subsistence of copyright and copying, *etc*, other areas proved to be of little assistance. I do not propose to set out a detailed summary of the evidence. Instead, I shall refer only to salient parts of the evidence when setting out the reasons for my decision on the issues of fact and law that have arisen.

6 This judgment is structured under the following main headings:

(a) Background (at [7]–[16]).

(b) The issues (at [17]–[20]).

(c) The plaintiff's business processes and how its directories are produced (at [21]–[69]).

(d) Whether and if so to what extent copyright subsists in the plaintiff's directories (at [70]–[305]).

(e) The defendant's business processes and how the defendant's directories are produced (at [306]–[361]).

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[2] Plaintiff's Closing Submissions at para 78.

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(f) Whether the defendant infringed any copyright found to subsist in the plaintiff's directories (at [362]–[373]).

(g) Whether the defendant can avail itself of any defences to copyright infringement (at [374]–[407]).

(h) Whether the plaintiff is liable for groundless threats of copyright infringement (at [408]–[418]).

(i) Miscellaneous issues (at [419]–[422]).

(j) Summary of main findings (at [423]–[424]).

(k) Concluding remarks (at [425]–[426]).

Background

7 The plaintiff, Global Yellow Pages Limited, publishes telephone directories in Singapore. It alleges that the defendant, Promedia Directories Pte Ltd, infringed its copyright in the 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008, 2008/2009 and 2009/2010 editions of its three printed directories—the Business Listings, the Yellow Pages Business and the Yellow Pages Consumer—as well as its online directory, the Internet Yellow Pages.[3] I note, however, that the "litigation period" covered by the suit runs from 27 October 2003 to 26 October 2009.[4]

8 The Business Listings is a white pages directory in which listings of businesses are sorted alphabetically. The Yellow Pages Business and Yellow

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3 Statement of Claim (Amendment No 6) at para 4.1.

4 Plaintiff's Opening Statement at para 12.

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Pages Consumer, which are targeted at businesses and consumers respectively, are classified directories that contain listings arranged within various classifications. The three printed directories were each previously known by different names (the White Pages, the Yellow Pages Commercial & Industrial Guide and the Yellow Pages Buying Guide respectively), but that is immaterial and I shall refer to them by their names at the time this suit was commenced. The plaintiff's online directory is maintained at the URL http://www.yellowpages.com.sg. It is built around a search engine containing an online database.

9 The plaintiff claims, broadly, that copyright subsists in three categories of works:

(a) First, each of the plaintiff's directories "in whole or in part", as compilations that constitute intellectual creations by the selection and arrangement of their content.[5]

(b) Second, the "seeds" in the plaintiff's directories. Seeds are false listings which the plaintiff deliberately introduced into its directories to detect copying. These listings comprise a fictitious company or person which bore the plaintiff's registered or post-office box address. The plaintiff claims that each individual seed is itself a compilation that constitutes an intellectual creation.[6]

(c) Third, the "enhanced data" found in the plaintiff's directories. It suffices for now to say that the enhanced data refers to the individual

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5 Statement of Claim (Amendment No 6) at para 4.1.

6 Statement of Claim (Amendment No 6) at para 4.2A.

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listings in the plaintiff's directories (*ie*, business names, addresses, profiles, telephone or fax numbers, website URLs, and other additional information). The data is said to be "enhanced" because the listings appear in the plaintiff's directories in their final form only after they have been verified, embellished, arranged and classified. I will elaborate on how enhanced data is defined and derived, as well as the plaintiff's business processes further below.

10 The plaintiff alleges that its copyright was infringed by directories produced or maintained by the defendant.[7] These comprise: (a) the defendant's printed directory, The Green Book; (b) the defendant's digital directory, The Green Book CD-ROM; and (c) the defendant's online directory, maintained at the URL http://www.thegreenbook.com.

11 The plaintiff says the infringement is evinced by two circumstances. First, the "substantial similarities" between the listings in the defendant's directories and those in the plaintiff's directories.[8] Second, the seeds found in the defendant's directories are relied on as "fingerprints" of copying.[9]

12 As to the former, the listings or enhanced data would only have been available to the defendant through the copying of "the whole of the [p]laintiff's [w]orks or alternatively all the listings contained under each and every of the classification heading[s]", which were identified in various annexures appended

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7 Statement of Claim (Amendment No 6) at para 12.

8 Statement of Claim (Amendment No 6) at para 14.

9 Statement of Claim (Amendment No 6) at para 13.

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to the amended statement of claim.[10] Alternatively, the defendant reproduced or authorised the reproduction of the Business Listings in their entirety, or all the listings contained within various classification headings in the plaintiff's directories.[11]

13 As to the latter, the large number of seeds found in the defendant's directories is proof of the defendant's wholesale copying of the plaintiff's directories, or in the alternative, copying of all the listings under each of certain classification headings.[12]

14 The defendant's position is a tooth-and-nail denial of each of the elements of the plaintiff's pleaded claims. The defendant contends that copyright does not subsist in the plaintiff's directories, the enhanced data or the seeds, either in whole or in part. The compilations do not amount to intellectual creations because the selection and arrangement is "commonplace and ... a matter of course"; it is "mechanical" and "not done by human authors but computers".[13] The plaintiff's online directory was "constantly changing" and so there was no fixation.[14] The seeds are not compilations amounting to intellectual creations because there is "no sufficient quantum/mass or literary merit to constitute a work".[15] There is no copyright in the enhanced data because it consists of "information or facts", it was "not created or authored by the

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10 Statement of Claim (Amendment No 6) at para 15.

11 Statement of Claim (Amendment No 6) at para 17.

12 Statement of Claim (Amendment No 6) at para 25.

13 Defence and Counterclaim (Amendment No 4) at para 5.1.

14 Defence and Counterclaim (Amendment No 4) at para 5.2.

15 Defence and Counterclaim (Amendment No 4) at para 5.3.

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[p]laintiff or its employees", it was a "derivative work", or its enhancement "did not involve sufficient intellectual skill, labour and judgment".[16]

15 The defendant also denies copying. It has published The Green Book since 1980 and has built up its own database of listings since then.[17] Telephone directories, which are fact-based, will inevitably be similar in content.[18] Further, there is no copyright in facts, and "similarity in content is not the same as similarity in expression".[19] The defendant admits that seeds were found in its online directory and the Green Book CD-ROM, but states that this is "negligible and minimal and therefore do[es] not amount to substantial copying".[20]

16 The defendant also raises four defences and a counterclaim. First, its use of the enhanced data was fair dealing.[21] Second, its publication of the plaintiff's enhanced data or listings was in the public interest.[22] Third, the plaintiff's claim is barred by laches, delay and acquiescence.[23] Fourth, the infringement was, in any event, innocent.[24] The defendant counterclaims against the plaintiff for groundless threats of copyright infringement.

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16 Defence and Counterclaim (Amendment No 4) at para 5.4.

17 Defence and Counterclaim (Amendment No 4) at para 13(ii).

18 Defence and Counterclaim (Amendment No 4) at para 13(iii).

19 Defence and Counterclaim (Amendment No 4) at para 15(iv).

20 Defence and Counterclaim (Amendment No 4) at para 22.

21 Defence and Counterclaim (Amendment No 4) at para 29.

22 Defence and Counterclaim (Amendment No 4) at para 30.

23 Defence and Counterclaim (Amendment No 4) at para 31.

24 Defence and Counterclaim (Amendment No 4) at para 32.

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The issues

17 At the risk of over-simplification, this is the broad order in which I will deal with the issues raised in this suit. I will first address the question of subsistence. This will entail setting out the plaintiff's business processes and how the plaintiff's directories are compiled. These facts, though largely undisputed, give rise to contentious legal issues. The issues centre on whether the plaintiff's directories satisfy the requirements of originality, authorship and fixation (reduction into material form).

18 I will then turn to the question of infringement. This raises a factual dispute as to whether the defendant copied the plaintiff's directories, and if so, to what extent. It will entail examining and making findings on the defendant's business processes (which are disputed) concerning how it produced its directories. Intertwined with this factual dispute is the legal issue of substantiality in copying.

19 I will thereafter turn to the defences to infringement raised by the defendant, as well as the defendant's counterclaim for groundless threats of copyright infringement.

20 I will finally address what appeared to me to be peripheral issues that were distractions from the main contentions in the suit. These included the defendant's arguments that the plaintiff was not the owner of copyright even if it subsisted, or that certain elements of the plaintiff's claims were time-barred.

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The plaintiff's business processes and how its directories are produced

The Integrated Directory System

21 A convenient entry point into the plaintiff's business processes is the Integrated Directory System ("the IDS"), which is a software system that undergirds the production of the plaintiff's directories. The IDS was developed in 1990 by the plaintiff's in-house IT Department,[25] and was continually updated and improved upon by the department thereafter. The IDS is the cerebral cortex of the plaintiff's operations. It is described as a "highly complex" software system comprising 16 software modules.[26] Each module performs different tasks at different stages in the plaintiff's directory-production process, from the capture of subscriber information (also known as raw data) from telephone service providers, until the final extraction and formatting of the subscriber listings for printing in the form of a telephone directory.[27]

22 Five of the software modules are particularly relevant to these proceedings:

(a) The Service Order Processing module ("the SOP module"). This module is responsible for capturing raw data transmitted by telephone service providers to the plaintiff, performing validation checks on the raw data, transforming the validated data into a "consistent standardized form for publication" and storing the validated data in the plaintiff's master database.

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25 Chua Sai Huah's affidavit at para 8; Anil Kumar's affidavit at paras 17–18.

26 Anil Kumar's affidavit at para 11.

27 Assoc Prof Chan Chee Yong's Expert Report at paras 6–8.

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(b) The Listing Management System ("the LMS module"). This module is used by the plaintiff's Records Maintenance Team to, as the team's name suggests, maintain information of subscribers in the plaintiff's master database. The Records Maintenance Team utilises the LMS module for two primary purposes. First, to resolve errors in the raw data identified by the SOP module's validation checks and second, to capture and process further enhancements to the validated data.

(c) The Contracts Processing System ("the COP module"). This module is used by the plaintiff's Sales Department to store information relating to contracts between the plaintiff and subscribers who advertise in the plaintiff's directories. Whenever a subscriber purchases an advertisement with the plaintiff, the details of the advertisement such as the type and duration of the advertising contract are entered into and stored in the COP module.

(d) The Corporate Information System ("the CIS module"). This module is used by the Sales Department and the plaintiff's Digital/Online Business Team ("the Online Team") to capture and store profile data of subscribers who advertise in the online directory. This information is then incorporated into and published in the online directory.

(e) The Compilation Module ("the COM module"). This module is responsible for extracting, collating and sorting the information in the plaintiff's master database for publication in the plaintiff's directories. The COM module plays an instrumental role in determining the final output of each of the plaintiff's directories. It extracts the information from the relevant databases, synthesises them and arranges them in

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> accordance with pre-set parameters to create an output data file. That data file is then processed through third-party publishing software to obtain the final .pdf file which is eventually sent for printing.

23 This gives a snapshot of the software involved in the production of the plaintiff's directories. I now turn to the plaintiff's actual process of directory production, including the various human interventions that are necessarily present in the operation and adjustment of these software modules.

Receipt of subscriber information from telephone service providers

24 The building blocks of the plaintiff's directories are the subscriber information that is fed to the plaintiff daily by telephone service providers.[28] This is information of the businesses who subscribe to the telephone service provider's landline services.

25 The parcels of subscriber information contain the name, telephone number, installation address and company registration number (where applicable) of each landline subscriber. The subscriber information can either relate to new subscribers, or be updates to the information of previous subscribers whose information already resides in the plaintiff's master database. The plaintiff receives approximately 4,200 discrete parcels of subscriber information monthly. Whilst the volume of subscriber updates received by the plaintiff in any given year was disputed (especially in respect of the percentage of errors found), nothing turns on that point. It suffices to say it is clear the amount would have been substantial.

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[28] Tan Ai Lin's affidavit at para 10.

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26 It appears that the telephone service providers do not give the plaintiff information of all their landline subscribers indiscriminately. Rather, the plaintiff is only sent information that falls within certain prescribed guidelines set out in the plaintiff's agreements with the telephone service providers. For example, the plaintiff generally only requires information pertaining to landline subscribers, with the exception of offshore subscribers who have addresses outside mainland Singapore (*ie*, Pulau Ubin). For these subscribers, the plaintiff requires their mobile numbers.[29] The plaintiff says that the selective receipt of information from the telephone service providers represents the "first round of selection … in deciding what to include in its directories".[30]

27 The parcels of subscriber information that the plaintiff receives from the telephone service providers are in a very raw and unpolished form, but they are not unintelligible. For example, on 24 February 2004, the plaintiff was provided a parcel of subscriber information for "Blu Shoes Pte Ltd", which had installed a landline with the number "6737 0114" at the address "390 Orchard Road #03-05" with the postal code "S238871". The subscriber information that the plaintiff received from SingTel appeared as follows:[31]

> H24022004000000 3544CSI1.0
>
> DTSZTJ667PROV 00**67370114** BB **Blu Shoes Pte Ltd**
>
> 198103327G R
>
> **390 Orchard Rd #03-05 Palais Renaissance**
>
> DL **238871** 20040220222033Y
>
> [emphasis added in bold]

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29 Chuah Sai Huah's affidavit at para 13.

30 Plaintiff's Submissions at para 85.4.

31 Chuah Sai Huah's affidavit at para 25.

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Thus, although the subscriber information appears at first glance to be gibberish, the valuable information is still discernible nonetheless.

From subscriber information to enhanced data

28 The parcels of subscriber information from the telephone service providers are received by the SOP module. This process is computerised and carried out in accordance with a file transfer protocol.[32] The plaintiff accepts that the receipt of subscriber information by the SOP module is "largely automated". It, however, claims that its employees police the process and prevent the receipt of information that does not fall within the prescribed guidelines.[33]

29 Once the subscriber information is received, the SOP module performs more than 50 basic automated validation checks on the information to detect errors. These errors include, for example, missing information fields or addresses with non-matching postal codes. The validation checks conducted by the SOP module are implemented through rules and programmes created by the plaintiff's IT Department.[34] I pause here to comment that the work done at this stage is essentially concerned with the fact finding process. This will be touched on in more detail later in connection with subsistence of copyright.

30 The parcels of subscriber information which clear the validation checks are converted by the SOP module into a "consistent, standardized form for

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32 NE 30 September 2014 at p 6, lines 6–15.

33 Plaintiff's Submissions at para 86.

34 NE 30 September 2014 at p 6, lines 19–22.

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publication".[35] The conversion process includes subdividing the entire parcel of subscriber information and sorting it into individualised fields, such as the "Street", "House No", "Level", "Unit", "Building" and "Postal Code".[36] In the context of the Blu Shoes Pte Ltd example above, the subscriber information would be broken down and stored as follows:[37]

Hse No	390
Street	Orchard Road
Unit	#03-05
Building	Palais Renaissance
Postal Code	238871

These parcels of subscriber information are then channelled directly into the plaintiff's master database.[38]

31 The parcels of subscriber information which are registered as erroneous by the validation checks will be rejected by the SOP module. The erroneous data is brought to the attention of the Records Maintenance Team in the form of an error report.[39] The Records Maintenance Team verifies and corrects these errors manually before transferring the subscriber information into the plaintiff's master database through the LMS module.[40]

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35 Assoc Prof Chan Chee Yong's Expert Report at para 12.

36 Plaintiff's Closing Submissions at para 88.

37 Chua Sai Huah's affidavit at p 13.

38 Tan Ai Lin's affidavit at para 16.

39 Tan Ai Lin's affidavit at para 19.1.

40 Tan Ai Lin's affidavit at para 17.

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32 The manual correction of errors in the subscriber information requires the members of the Records Maintenance Team to cross-check the information with the SingPost or ACRA websites, or with the telephone service providers themselves. For example, if the "address" field of the subscriber does not have an "address type", then the Records Maintenance Team will determine whether the subscriber's address is that of a "Landed Property", "HDB", or "Highrise Building". This is done by verifying the address against information on the SingPost website, or through feedback from the subscribers.[41] There is a dispute as to the percentage of subscriber information that has to be verified and corrected manually by the plaintiff's employees. The plaintiff's witnesses gave evidence that it was in the region of 20 per cent. The defendant says that the figure is inflated, and that 11 per cent is a more accurate estimate.[42] It suffices to say that the plaintiff's employees correct a substantial number of the listings manually, although nothing turns on the precise figure.

33 After the parcels of subscriber information are validated and converted by the SOP module, and verified and corrected by the Resource Maintenance Team (if necessary), the product is what the plaintiff calls "enhanced data". The enhanced data is stored in the plaintiff's master database.

Further enhancement of enhanced data

34 The enhanced data is enhanced further by the plaintiff's employees or software through a variety of means. These enhancements are diverse and quite different to one another, but they were all grouped by the plaintiff under the broad umbrella term "further enhancements". They include: (a) the assignment

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41 Tan Ai Lin's affidavit at para 19.2.

42 Defendant's Closing Submissions at para 261–276.

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of "book codes" to the subscribers; (b) the assignment of "main classification headings" to the subscribers; and (c) the advertisements of subscribers. It should be noted that further enhancements come in the form of modifications to the subscriber's information in the plaintiff's master database. They are translated into print only later, when the listings extracted for printing.

Book codes

35 Book codes indicate the type of subscriber that the information belongs to. The telephone service providers generally tag subscribers to two codes, "B" for business and "R" for residential. The Records Maintenance Team manually subdivides the data into two further categories, "G" for government and "C" for residential numbers subscribed to by businesses.[43] These additional tags are said to be important because they affect "the selection of listings to be published in each directory".[44]

Main classification headings

36 Main classification headings are tags which are assigned to subscribers based on the primary nature of their business. The tags will in turn dictate which classification the subscriber's listing is placed into for the Yellow Pages Business, the Yellow Pages Consumer, and the plaintiff's online directory.[45]

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43 Tan Ai Lin's affidavit at para 19.5.

44 Plaintiff's Closing Submissions at para 93.

45 Plaintiff's Closing Submissions at para 105.

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37 The main classification headings and their related classifications are set out in the plaintiff's "Headings Book".[46] Examples of main classification headings include "Fish Farms", "Cable Support Systems", "Agricultural Chemicals", *etc*. Each subscriber is only assigned one main classification heading,[47] but can opt to be cross-listed under other classifications for a fee (this is one of the advertisements that subscribers can purchase, which I describe at [44]–[50] below).

38 The assignment of main classification headings was done differently pre- and post-November 2006. Until November 2006, the assignment was done by the members of the Records Maintenance Team. This was described as a tedious process. It involved members of the team calling up each subscriber to understand the nature of the subscriber's business in order to find the best match between the subscriber's business and the plaintiff's main classification headings.

39 After November 2006, the plaintiff outsourced the assignment of main classification headings to a third party, DP Information Network Pte Ltd ("DP Info"). The plaintiff provided DP Info with a classification map that correlated the plaintiff's main classification headings (*eg*, "Cigar, Cigarette & Tobacco – Mfrs") to the various categories of recognised business activities maintained by ACRA (*eg*, "Manufacture of tobacco products"; "Manufacture of tobacco products nec (e.g. cigars, chinese tobacco)"; "Manufacture of cigarettes").[48] DP Info would use the classification map to match subscribers to

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46 Susan Tan's affidavit at para 30.

47 Susan Tan's affidavit at para 29.

48 Susan Tan's affidavit at para 33.

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the plaintiff's main classification headings based on the subscriber's registered ACRA business activity.[49]

40 The Records Maintenance Team continued to play a role, albeit a greatly reduced one, in the assignment of main classification headings post-November 2006, in two ways.

41 First, the team had to assign manually main classification headings to subscribers that fell into "controlled classifications". Controlled classifications were not referred to DP Info for matching. These were classifications in which subscribers had to meet certain requirements before the plaintiff would consent to publishing their listings in those classifications. The requirements could either be internal to the plaintiff or regulatory requirements that the plaintiff had to comply with. For example, "Caterers" was a controlled classification, and subscribers had to have a valid catering license before they were permitted to be placed within that classification. If a subscriber did not have one, it would instead be recommended alternative (unregulated) classifications such as "Cafeteria" or "Food Ready to Serve", by the plaintiff's employees. Examples of other controlled classifications are "Vector Control" and "Escort Agency".

42 Second, the Records Maintenance team had to assign main classification headings manually to the subscribers who did not agree with the matching done by DP Info, or whom DP Info was unable to match successfully.[50] This was done in a manner similar to the pre-2006 manual assignment of main classification headings.

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49 Assoc Prof Chan Chee Yong's Expert Report at paras 15–17.

50 Susan Tan's affidavit at para 37–38.

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43 I digress for a moment to mention "classifications", which are related to, but not the same as, main classification headings. Classifications are the visible categories or headings that appear in the Yellow Pages directories or the online directory and under which the individual listings within the directories are arranged. Main classification headings, on the other hand, are part of a back-end process for tagging and categorising subscribers (and their information) in the plaintiff's master database. Thus whilst the entire schema of assigning main classification headings to subscribers is invisible to the eye of an end-user of the plaintiff's directories, that assignment will determine the classification that each listing ultimately appears in. I will elaborate more on classifications below.

Advertising

44 Further enhancements to the subscriber information also come in the form of subscriber's advertisements in the plaintiff's directories. Each subscriber is ordinarily given only one free listing in the Business Listings and one free listing within one classification in either the Yellow Pages Business or the Yellow Pages Consumer. This is known as the plaintiff's "free listing policy". The free listing policy is not set in stone. It is periodically adjusted by the plaintiff's Marketing Department. For example, certain classifications were listed in both the 2009 editions of the Yellow Pages Business and Yellow Pages Consumer, effectively giving the subscribers listed in those classifications free listings in two classified directories.[51]

45 The free listing policy also determines the lines of information that would appear in each subscriber's free listings. For example, the free listing policy for the 2007 editions of the printed directories stipulated that each

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[51] Tracy Koh's affidavit at para 23.

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subscriber's free listings would comprise the company name, address and *all* of the company's telephone numbers. The free listing policy was adjusted for the 2008 editions of the Yellow Pages directories where each subscriber's free listing was limited to only *one* telephone number.

46 Subscribers can, for a fee, augment or embellish their basic listings, or purchase additional cross-listings. These advertisements are considered by the plaintiff as a form of further enhancement and are the primary source of revenue for the plaintiff.[52] There are multiple forms of advertisements the subscribers can purchase. For the Business Listings, which does not classify listings, subscribers can pay to create box listings, bold listings, insert additional listings, or insert additional lines of information within each listing. They can also pay to include company marks or cross-references to other related businesses belonging to or associated with the subscriber.[53] For the Yellow Pages directories, the subscribers can additionally pay to place their listings in classifications other than the one that the subscriber appears in for free.[54] Subscribers can also pay for prime positions (at prominent places of the directory) and display advertisements of varying sizes. Put loosely, the subscriber is given the right to pay for inclusion of more information and greater prominence in the directory.

47 The Records Maintenance Team and the plaintiff's Sales Department are both responsible for "upselling" to the subscribers further enhancements in the form of advertisements. Both departments actively identify companies they

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52 NE 29 September 2015 p 37 line 15–p 38 line 2.

53 Brian Ho's affidavit at para 14.

54 Brian Ho's affidavit at paras 19–29.

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think might be interested in enhancing their basic free listings.[55] These include, for example, companies that have upwards of 20 registered telephone lines. These companies would likely be keen to streamline or re-sequence their listings.[56]

48 Once identified, these companies will be sent letters that display how their basic free listings will appear in the plaintiff's directories. The letter will also include proposed enhancements to their listings. The Records Maintenance Team and Sales Department then works with the subscribers to decide on the most effective and relevant enhancements to be made to their listings.[57] This was described as an "interactive" process between the plaintiff's employees and the subscriber, one which ends with the approval of the plaintiff's employee.[58]

49 Whilst both the Sales Department and the Records Maintenance Team are responsible for "upselling", there are some differences in the further enhancements that each department sells:[59]

(a) The Records Maintenance Team only sells further enhancements for the Business Listings and the online directory, whilst the Sales Department sells further enhancements for all the plaintiff's directories.

(b) The Records Maintenance Team sells further enhancements that are automatically renewable yearly, while those sold by the Sales Department are valid for a stipulated contract term.

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55 Susan Tan's affidavit at para 15.

56 Susan Tan's affidavit at para 17.

57 Susan Tan's affidavit at para 25; Brian Ho's affidavit at para 22.

58 Plaintiff's Closing Submissions at para 97.

59 Susan Tan's affidavit at para 22.

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(c) The details of the further enhancements sold through the Records Maintenance Team are entered directly into the plaintiff's master database through the LMS module. On the other hand, those sold through the Sales Department are entered into the Customer Automation for Sales Harvesting System, or "the CASH system", which is synced and maintained within the COP module.[60] The details of the further enhancements in the CASH system are tagged to the contract information for the advertisement between the plaintiff and the advertising subscriber.[61]

50 At the end of the process that I have described thus far, the result is a vast aggregation of subscriber information that has been verified, enhanced, (possibly) further enhanced, and assigned and tagged to (possibly multiple) main classification headings. This vast aggregation of data resides in the plaintiff's master database. The data is built upon and updated daily with the stream of subscriber information that the plaintiff receives every day. It is only after this data has been extracted and compiled that it begins to resemble the final product that is seen in the form of the printed directories and the online directory. It is to that process that I now turn.

Extraction and compilation of the directories

51 The extraction and compilation process for the printed directories and the online directory are broadly similar, although there are differences in material respects. I shall therefore deal with them separately.

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60 Anil Kumar's affidavit at para 14.

61 Assoc Prof Chan Chee Yong's Expert Report at para 20.

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The printed directories

52 The content and formatting of each of the printed directories is determined by extraction criteria implemented by the COM module.[62] The COM module extracts and arranges information from the plaintiff's master database in accordance with the stipulated criteria to produce an output file that is eventually sent for printing. Each printed directory has its own extraction criteria, which are reviewed periodically. The Marketing Department is the prime mover in fashioning extraction criteria for each printed directory every year, but the process is said to be an "organic" one that involves "collaboration" with the Production, IT, and sometimes even the Sales Departments.[63]

53 The extraction criteria govern two essential aspects that determine the ultimate form of the plaintiff's printed directories.[64] The first aspect is the selection of classifications to be included in the Yellow Pages Business and Yellow Pages Consumer. (This is not relevant to the Business Listings, which does not publish classified listings.) The second aspect is the formatting rules, which in turn determine the arrangement, organisation and sorting of subscriber listings within a classification or directory, and the lines of information that appear within each listing.

(1) Selection of classifications

54 This step determines the listings that appear in each Yellow Pages directory, because individual listings are tagged to classifications through the assignment of main classification headings (see [43] above). When a

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62 Assoc Prof Chan Chee Yong's Expert Report at paras 23–25.

63 Anil Kumar's affidavit at para 24; Tracy Koh's affidavit at para 25.

64 Anil Kumar's affidavit at para 28; Tracy Koh's affidavit at para 31.

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classification is selected to be placed in a particular directory that would bring with it all the listings that are tagged to that classification through the main classification heading. As I mentioned above, the free listing policy generally dictates that there would be no classifications that are incorporated in both the Yellow Pages Business and Yellow Pages Consumer, although this is not always the case (see [44] above).[65]

55 I digress to elaborate on the plaintiff's classifications, which are important because they go to the heart of the selection and arrangement of the listings which are published in the Yellow Pages Business, Yellow Pages Consumer and the online directory. The entire list of the plaintiff's classifications was maintained in a classification table in the Table Maintenance System module within the IDS.[66] Each classification is assigned a classification code according to which directory the classification appears in.[67]

56 The classifications were maintained by the Classifications Committee until 2004, when it was dissolved.[68] The Classifications Committee comprised members from the plaintiff's Marketing, Sales, Production and IT Departments.[69] It appears that after 2004, the Marketing Department bore the main responsibility of maintaining the classifications. This responsibility included the duties of deciding whether to create new classifications,[70] to split

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65 Tracy Koh's affidavit at para 23.

66 Tracy Koh's affidavit at para 7.

67 Tracy Koh's affidavit at para 14–15.

68 Anil Kumar's affidavit at para 36.

69 Anil Kumar's affidavit at para 33.

70 Tracy Koh's affidavit at paras 17.1, 18–19.

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existing classifications,[71] to rename or update existing classifications,[72] to remove and streamline classifications,[73] and to approve suggested new classifications.[74] The plaintiff's Sales Department would sometimes receive requests from subscribers for new classifications to be created, or existing classifications to be renamed. The Sales Department would forward these to the Marketing Department for their approval.[75] Various factors are considered when determining whether to create new classifications. These include demand by users, revenue potential and sales pressures.[76] The Marketing Department also undertook streamlining exercises to remove redundant or irrelevant classifications every three to four years.[77]

57 Not all of the classifications in the classification table in the plaintiff's master database would appear in Yellow Pages Business and Yellow Pages Consumer. Which of these are ultimately included in each directory is a product of the extraction criteria that is adopted for that particular directory in that particular year.[78] The Marketing Department, which had oversight of the extraction criteria, thus made decisions as to whether a classification should appear in either of the Yellow Pages directories and, if so, which of the two

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71 NE 15 October 2014 at p 95 lines 23–24.

72 Anil Kumar's affidavit at para 35.

73 Anil Kumar's affidavit at para 37.

74 Richard Sim's affidavit at paras 17, 21–23.

75 Brian Ho's affidavit at paras 32–34.

76 NE 20 October 2014 at p 89.

77 Tracy Koh's affidavit at para 20.

78 Tracy Koh's affidavit at para 16.

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Yellow Pages directories it should appear in.[79] This would, as I have mentioned above, in turn affect the listings that appear in that directory.

(2) Formatting rules

58 I now turn to the second aspect regulated by the extraction criteria, the formatting rules. The formatting rules determine the information that is displayed for each listing in each directory, as well as the arrangement of that information. In respect of the former, the formatting rules affect the number of lines of information and the fields of information that would appear for each individual listing (this is connected to the prevailing free listing policy for that year). For example, in the 2008 edition of Yellow Pages Consumer and Yellow Pages Business, the formatting rules were adjusted so that listings for non-paying subscribers displayed only one address and telephone number, where, in the past, there was no such limitation.[80]

59 In respect of how the information is arranged, the formatting rules determine the order in which the listings are presented in each directory. The formatting rules generally provided for an alphabetical arrangement of the listings (whether within each classification for the Yellow Pages directories or within the directory for the Business Listings).[81] The plaintiff says, however, that an alphabetical arrangement is not inevitable. There was, for example, one instance of priority sorting, where listings belonging to advertisers were placed before those of non-paying subscribers. This was done in the 2005/2006 edition

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79 Tracy Koh's affidavit at para 33.

80 Anil Kumar's affidavit at para 32.7.

81 Plaintiff's Submissions at para 115.

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of Yellow Pages Consumer. But apart from that isolated instance, it appears priority sorting was never otherwise implemented.[82]

60 The plaintiff says that even if the listings are arranged alphabetically, there are other arrangement decisions that have to be made. These include, for example, decisions as to whether to prioritise spaces or numerals or alphabets (*ie*, whether "A A A Appliances" should take precedence over "AA Accord Fancy Pte Ltd") or the sorting of words in abbreviated forms (*ie*, whether "Dr" should be sorted under "Dr" or "Doctor").[83]

(3) Implementation of the extraction criteria

61 The extraction criteria, which are decided upon by the Marketing Department, are implemented through the COM module. The COM module is made up of the "Com_Rules_Table", the "Compilation Business Rules", various technical specifications in the IDS, database tables and source programmes.[84] The COM module extracts and compiles the subscriber information from the plaintiff's database according to the extraction criteria, and generates an output format that can be interpreted by the printing software. The extraction criteria can be modified either by adjusting the Com_Rules_Table or by changing the source code for the COM module itself.[85]

62 Whilst decisions as to the substance of the extraction criteria are made by the Marketing Department, the IT Department is responsible for

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82 Anil Kumar's affidavit at para 32.6; Tracy Koh's affidavit at para 31.3.

83 Tracy Koh's affidavit at para 30.

84 Anil Kumar's affidavit at para 13.

85 NE 9 October 2014 at p 92 line 25–p 93 line 1

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implementing those decisions through adjustments to the Com_Rules_Table or the COM module.[86] The employees of the plaintiff make internal service requests, or "ISRs", to the staff in the IT Department to indicate the changes that are required to the software to implement that year's extraction criteria. The IT Department will make amendments to the coding to implement those requested changes, which would result in the modification of the extraction criteria.

(4) Trial extractions

63 Once all the requisite changes have been made, there would follow a series of trial extractions and assessments to determine whether the revised extraction criteria have been satisfactorily implemented.[87] Extractions are done by applying the COM module to a compilation database, or a "comdb". The compilation database is a mirror of the plaintiff's master database as at a specified cut-off date. The master database is not used for extraction purposes because it is a live database which is constantly being populated by information received from the telephone service providers; the extraction process could interrupt these daily updates.[88] After each of these trial extractions, the IT department further refines and fine-tunes its implementation of the extraction criteria through the COM module before attempting the next trial extraction. The trial extractions are repeated and "can go many times"[89] until all the kinks in the coding and programming are resolved entirely.

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86 Anil Kumar's affidavit at paras 24–27.

87 Anil Kumar's affidavit at para 28.

88 Anil Kumar's affidavit at para 23.

89 NE 16 October 2015 at p 133 lines 12–13.

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(5) The final product

64 When the Marketing and Production Departments are satisfied with the results of the trial extractions,[90] a final extraction is made. This final extraction creates a data file that will eventually be printed as the directory. The output data from the final extraction is fed into third-party software known as "Abacus". It is a pre-press system that paginates and renders the pages of the directory into a .pdf file in its final form of expression. That file is checked manually by the Production Department and thereafter sent to the printer.[91]

The online directory

65 The content of the online directory is similar to that of all the printed directories combined.[92] The online directory would thus display listings that are found in the Yellow Pages Business and Consumer, as well as the Business Listings. The plaintiff says that whilst the "mechanism" for accessing the information in the online and printed directories differs, both have a similar "backbone and substance".[93] The essential difference between the online and printed directories (apart from being accessed through different media) is that the former is published daily, while its printed cousins are published every year.[94] The online directory thus contains the most up-to-date subscriber information amongst all of the plaintiff's directories.

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90 Anil Kumar's affidavit at para 27.

91 NE 30 September 2014 at p 105 lines 22–25; NE 16 October 2014 p 55 line 24–p 56 line 4.

92 Statement of Claim (Amendment No 6) at para 3(ii).

93 NE 16 October 2014 at p 118, lines 1–6; p 120 line 24–p 121 line 5.

94 Leo Tsoi's affidavit at para 8.

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66 The extraction process for each (daily) edition of the online directory follows a largely similar process to that of the printed directories.[95] The COM module, in accordance with the applicable extraction criteria, extracts information from the plaintiff's database. The extraction criteria for the online directory are distinct from those employed in the printed directories, but the rules are largely similar. This means that the Online Team, which has oversight of the online directory, is given the flexibility to modify the extraction criteria specific to the online directory without affecting that of the printed directories. The Online Team, like the Marketing Department, works with members of the IT Department to make such modifications.[96]

67 The data file for each day's edition of the online directory is compiled by the "Web Modules", which are computer programs that synthesise the data extracted from the plaintiff's master database with the data in the CIS module, to generate the "Web Daily Data".[97] The Web Daily Data is the database which contains the final repository of information for each day's edition of the online directory.[98] Information from the Web Daily Data (which resides in the plaintiff's private server) is then fed into a (public) search engine's internal database, where the information is indexed and optimised for searching.[99] A user of the online directory thus does not access the Web Daily Data directly. He instead accesses the information that has been fed into the internal storage of the search engine.[100]

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95 NE 16 October 2014 at p 125 line 24–p 126 line 7.

96 Leo Tsoi's affidavit at para 13.

97 NE 17 October 2014 at p 44 lines 14–17.

98 Assoc Prof Chan Chee Yong's Expert Report at paras 30–31.

99 NE 17 October 2014 at p 47 lines 8–21.

100 NE 9 October 2015 at p 112; 16 October 2014 at p 126 lines 15–24.

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68 The listings in the online directory are classified in "categories", much like the classifications in the Yellow Pages directories. The entire set of categories in the online directory is a superset of all the classifications in the Yellow Pages Business and the Yellow Pages Consumer. Changes made to the classifications in the Yellow Pages Business and Yellow Pages Consumer are usually mirrored in the categories for the online directory, but the converse is not true. The online directory contains unique categories that are not published in any of the Yellow Pages directories.[101] For example, the online directory contains "sub-categories" or "drill downs", that further sub-divide main categories (*eg*, a main category "Restaurant" would have various sub-categories including "Chinese", "Japanese", "Seafood", "Halal").[102] The online directory also contains various "keywords" and "filters" to improve the user interface, which are also not present in the Yellow Pages directories. Therefore, whilst the online directory contains some material distinctions with the printed directories, all of the plaintiff's directories trace their source, through different paths, back to the plaintiff's master database.

69 This concludes my overview of the plaintiff's directory-production process. I now turn to the law on the subsistence of copyright, and the extent to which copyright subsists in the plaintiff's directories.

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101 Leo Tsoi's affidavit at para 9.

102 Leo Tsoi's affidavit at para 16.

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Whether and if so to what extent copyright subsists in the plaintiff's directories

The law

70 The central legal issue in these proceedings, the subsistence of copyright, brings us back to the meaning of originality and the dichotomy between expression on one hand, and facts and ideas on the other. It is uncontroversial that copyright protects expression and not facts or ideas. But that sharp dichotomy is eroded in the context of a compilation of facts or information (factual compilation). For where a factual compilation is concerned, the facts are necessarily bound up with and implicated in the form of expression. It becomes less clear where the expression stops and the facts begin. This murkiness is however "illuminating" because it draws into sharp focus contrasting conceptions of the ideals that the law of copyright serves.

71 There are of course many different types of factual compilations. They include a compilation of poems or quotations; a law report such as any volume of the *Singapore Law Reports*; a weekly television broadcast schedule or guide; a guide to the best restaurants in Singapore; annual weather statistics; a compilation of all the genes and gene sequences of a human being and, of course, telephone directories. In some cases, the compilation comprises existing works (which may enjoy their own copyright) such as a compilation of poems. Whilst each poem is a work of fiction, the fact that the poem exists is still a fact and information. In other cases, the compilation may be of facts which may have no human author (properly so-called) such as in the case of a yearly compilation of daily weather temperature in Singapore. The weather scientist must of course spend time and effort in finding and recording the temperature. He is not the author of the temperature. He is the discoverer of a fact of nature. Then again, whilst many compilations relate to pre-existing facts (which have to be

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discovered and collected), there are other compilations which require the creation of facts before the facts can be collected. One example is a broadcast schedule of television programmes. It is only when the broadcaster has made the decision to broadcast a programme on a given day, time and channel that the information can be collected and compiled. Facts and information are continuously created in this manner. An individual who moves into a new home creates a fact. He is who he is and lives where he now lives.

72 The broad point I make is that for many compilations, the lion's share of the work, effort and expense will be connected with the discovery of facts or the creation of facts which are then selected and arranged. The degree of effort required in selecting and arranging the facts can also vary considerably. In some cases there will be almost no effort of selection over and above the initial decision to produce a type of compilation (for example, a directory of all schools in Jurong, as opposed to a directory of all schools in Clementi, or indeed, Singapore). Once the "macro" decision is made, the comprehensiveness of the collection is often (but not always) the aim; not selection. The same is also true of arrangement and presentation. In the analogue world, the bigger the data set, the more important it will be to ensure that the individual pieces of information are presented in a user friendly and accessible manner. Whilst there may be creative ways of arranging facts to achieve that goal, often times, the facts will be arranged and presented in an obvious manner or by means of use of well-known methods or standards.

73 In the world of digital databases, the digital interface with the end user is also important. The database must be able to interface efficiently with the search engine employed by or made available to the user. The search engine may enjoy its own copyright as a computer program separate from the copyright (if any) in the database. Indeed, the ability of the end user to efficiently search

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a digital database will depend as much on the search engine and its interface with the database as the database itself.

74 It is in this context and, at the risk of over-simplification, that I note there are two prevailing schools of thought on originality and copyright. The first is the "creativity" school and the second, the "sweat of the brow" or "industrious collection" school. These contrasting schools of thought differ primarily on two connected aspects of the same point.

75 The first aspect concerns the *quality* of the effort that is required before a work can be considered original. The creativity school emphasises the need for intellectual effort or creativity in the production of the work. The sweat of the brow school, on the other hand, acknowledges the industriousness or labour of the author as being relevant to its originality.

76 The second aspect concerns what the author's effort must be *directed at or towards*. The creativity school focuses on the narrower window of the reduction of the work to its final form of expression. The sweat of the brow school, on the other hand, admits effort taken in the preparatory steps leading up to the reduction of the work to its final or particular form. These preparatory efforts include the labour involved in fact finding, fact creation and fact collection.

77 Both schools are replete with pithy maxims said to capture the policy spirit that supports the case being advanced. The sweat of the brow school pleads the case that "if it is worth copying it is worth protecting" and that the law should be concerned with "preventing another person from reaping that which he has not sown". The creativity school, on the other hand, borrows the aphorism often attributed to Sir Isaac Newton: "If I have seen further it is by

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standing on the shoulders of giants." Copyright law should develop in a manner that permits and indeed encourages knowledge to be built on knowledge.

78 These are, of course, caricatures of polar opposites. It comes as no surprise that there are nuances in the case law across jurisdictions which do not lend to a simple or clean characterisation. It is to these cases that I now turn. I will analyse the positions in the United States, Australia, Canada and England before turning to the position in Singapore. Many of these cases that I will discuss were cited by the parties in their closing submissions.

United States case law

79 There is no place better to begin the exploration of both competing schools of thought than the celebrated decision of the US Supreme Court in *Feist Publications, Inc v Rural Telephone Service Company, Inc* 111 S Ct 1282 (1991) ("*Feist*"). Rural, the plaintiff, was a telephone service provider in Kansas. Rural produced white and yellow pages directories. State regulations made the production of updated telephone directories mandatory for Rural. The white pages listed in alphabetical order the names of Rural's subscribers together with their towns and telephone numbers. Feist, the defendant, was a publishing company that specialised in area-wide telephone directories, the contents of which had a far wider geographical reach than those of Rural's.

80 Feist attempted to obtain a licence to use Rural's listings but was refused one. Feist thereafter used Rural's white pages listings without the latter's consent. Feist's employees called up the subscribers listed in Rural's directory to verify the data and to obtain additional information from those subscribers. As a result, many of Feist's listings contained addresses where Rural's did not. But still, 1,309 of the 46,878 listings in Feist's directory were identical to the

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listings in Rural's white pages published the previous year. Feist's directory also contained four fictitious listings that Rural introduced into its directory to detect copying. Rural claimed for copyright infringement. The issue was whether by copying the information, Feist had infringed Rural's copyright. Both the US District Court and the Court of Appeals for the Tenth Circuit held that it did.

81 The US Supreme Court, however, disagreed with the courts below. Justice O'Connor, who delivered the opinion of the court, observed that the case concerned the interaction and undeniable tension between two well-established propositions. The first, that facts were not copyrightable; the second, that compilations of facts were. Facts were not copyrightable because "[t]he *sine qua non* of copyright is originality" (*Feist* at 1289). An original work was one that was "independently created by the author (as opposed to copied from other works)", and that "possesses at least some *minimal degree of creativity*" [emphasis added]. The requisite level of creativity was low, but it existed nonetheless.

82 Factual compilations could be original because the compilation author had to decide which facts to include, and how to arrange and present the facts. These choices of "selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity" (*Feist* at 1289), are sufficient to bring them within the scope of copyright protection. The court acknowledged that the "vast majority of compilations will pass this test [of originality]", but that there existed a narrow category of works in which "the creative spark is utterly lacking or so trivial as to be virtually non-existent" (*Feist* at 1294).

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83 The protection conferred on compilations by copyright was, however, "thin", and limited to the original selection or arrangement of the facts (*Feist* at 1290):

> Facts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted. A factual compilation is eligible for copyright if it features an original selection or arrangement of facts, but the copyright is limited to the particular selection or arrangement. In no event may copyright extend to the facts themselves.

84 The court repudiated the notion that protection for factual compilations could be justified under a distinct theory of "sweat of the brow" or "industrious collection". That approach had numerous flaws. The most glaring was that "it extended copyright protection in a compilation beyond selection and arrangement—the compiler's original contributions—to the facts themselves" (*Feist* at 1291).

85 The court held that Rural was unable to establish infringement because all Feist had copied was data or facts. There was nothing in the selection and arrangement of Rural's white pages that conferred on it copyright protection (*Feist* at 1296):

> Rural's white pages are entirely typical. Persons desiring telephone service in Rural's service area fill out an application and Rural issues them a telephone number. In preparing its white pages, Rural simply takes the data provided by its subscribers and lists it alphabetically by surname. The end product is a garden-variety white pages directory, devoid of even the slightest trace of creativity.
>
> Rural's selection of listings could not be more obvious: It publishes the most basic information—name, town, and telephone number—about each person who applies to it for telephone service. This is "selection" of a sort, but it lacks the modicum of creativity necessary to transform mere selection into copyrightable expression. Rural expended sufficient effort to make the white pages directory useful, but insufficient creativity to make it original.

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The court observed *obiter* that the selection in Rural's white pages may also have failed to meet the originality threshold because it did not truly select to publish the names and telephone numbers of subscribers. Instead, it was required by law to do so.

86 Finally, the court concluded that Rural could not claim originality in its coordination and arrangement of the facts. That was done in alphabetical order. It was an "age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course" (*Feist* at 1297).

87 Feist had copied some of the fictitious listings and had used Rural's directory as a source of information. Feist eliminated entries that fell outside the geographic scope of the area-wide directory. Of the 4,935 entries that remained—these were subjected to the verification process described earlier. What is significant is that Feist conceded that Rural's white pages directory as a whole enjoyed copyright since it included foreword text and other original material such as advertisements. Nevertheless the court found that there was no infringement even though some 1,309 entries were identical. The other entries referenced from Rural were modified in that street addresses were included. The key point made in finding against infringement was that merely to copy unoriginal parts of a work (which as a whole enjoys copyright) did not on its own amount to a substantial taking. The selection of information for each listing (name, town and telephone number) could not have been more obvious and lacked that "modicum of creativity."

88 Whilst the court recognised that Rural had expended effort to produce a useful work, this did not mean that the appropriation of the labour and expense of producing the work was copyright infringement. In the court's view, the primary objective of copyright was not to reward the labour of authors, but to

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advance the progress of science and the arts. To that end, copyright assured authors the right to their original expression but encouraged others to build freely upon ideas and information conveyed by a work.

89 I note that *Feist* was influenced by the point that "progress of science and the arts" was a constitutional requirement under the applicable US laws. I digress to mention that a similar remark was made in England by Brightman J in *Ravenscroft v Herbert and New English Library Limited* [1980] RPC 193 ("*Ravenscroft v Herbert*") (in the context of historical texts and non-fiction works). He stated that it was reasonable to take the view that copyright permitted wider use of a historical work than a novel so that knowledge could be built on knowledge.

90 The decision of the US Court of Appeals for the Second Circuit in *Key Publications, Inc v Chinatown Today Publishing Enterprises, Inc* 945 F 2d 509 (1991) ("*Key Publications*") was one of the first to consider and apply *Feist*. The plaintiff published a classified business directory containing both white pages and yellow pages sections for the Chinese-American community in New York City. The litigation concerned the yellow pages section of the directories, which occupied approximately two-thirds of each directory.

91 The yellow pages initially contained telephone numbers and addresses for businesses that operated in Chinatown, but it then later expanded to include businesses operating in other parts of the New York metropolitan area, Boston and Philadelphia. The information was sorted by the type of business, with each of the 9,000 listings placed in one of the over 260 categories that the directory contained. The moving spirit behind the plaintiff, Ms Wang, had collected business cards from doctors and lawyers associated with the Chinese-American community, banks that did business with the Chinese-American community and

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other establishments which she thought should be included in the yellow pages since the directory's inception. However, a "modest percentage" of the plaintiff's listings were also obtained from another directory of Chinese-American restaurants.

92 The plaintiff commenced suit against the producers of a competing directory also targeted at the New York City Chinese-American community. About seventy-five per cent of the businesses listed in the defendants' directory were listed in the plaintiff's directory for the year immediately preceding. The US District Court held that the plaintiff's directory was protected by copyright, which had been infringed by the defendants' directory. The defendants appealed.

93 The Court of Appeals agreed with the District Court that the plaintiff's directory was an original compilation protected by copyright. Ms Wang's testimony that "she excluded from the directory those businesses she did not think would remain open for very long, such as certain insurance brokers, take-out restaurants, and traditional Chinese medical practitioners" in itself "indicate[d] thought and creativity in the selection of businesses included in the [plaintiff's directory]" (*Key Publications* at 513).

94 Further, the arrangement of listings within the categories was original. Whilst some of the categories were commonplace in directories, others were peculiar to the Chinese-American community (*eg*, "Bean Curd & Bean Sprout Shops"). The arrangement of the plaintiff's directory, "viewed in the aggregate", was original. It was "in no sense mechanical". It involved creativity on the part of Ms Wang to decide which categories to include and the names of the categories (*Key Publications* at 514).

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95 The Court of Appeals, however, held that there was no infringement and reversed the District Court on that point. The court thought that a "somewhat more refined analysis" was necessary in the case of infringement of a factual compilation as opposed to a wholly original work (*Key Publications* at 514). On one reading of *Feist*, nothing short of an exact replica of a copyrighted compilation would amount to infringement. The court refused to take such a "self-defeating" view of *Feist*, and preferred a broader approach (*Key Publications* at 514): "[w]hat must be shown is substantial similarity between those elements, and only those elements, that provide copyrightability to the allegedly infringed compilation". To give any broader protection than that would "preclude competitors from using elements in the public domain and impede rather than encourage originality and creativity in future compilations" (*Key Publications* at 515).

96 The court held that two elements of the plaintiff's directory were protected by copyright. First, the arrangement of over 260 categories under which all the businesses were catalogued, and second, the selection of the 9,000 businesses included in the yellow pages of the directory. If the defendants' directory was substantially similar to the plaintiff's directory in either of these respects, then there would be copyright infringement.

97 The court held that there was neither. There was no substantial similarity in relation to the arrangement of the categories because the arrangement adopted in the defendant's directory could "hardly be described as even remotely similar to the arrangement utilized by the [plaintiff's directory]" (*Key Publications* at 515). Whilst many of the duplicate listings in both of the plaintiff's and defendant's directories were placed in similar categories, this did not amount to infringement. There was a distinction between the "arrangement of categories in a classified directory" on one hand, and the "placement of a listing in a

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particular category" on the other. The latter was a "mechanical task" that did not merit copyright protection.

98 There was also no substantial similarity in respect of the selection of listings. Whilst the 1,500 duplicate listings comprised seventy-five per cent of the 2,000 listings found in the defendant's directory, it only made up seventeen per cent of the 9,000 listings in the plaintiff's directory. Some degree of overlap in the listings was to be expected because there were a "finite number of businesses that are of special interest to a sizeable segment of the New York Chinese-American community" (*Key Publications* at 516).

99 *Key Publications* again illustrates the crucial linkage between whether and why copyright subsists in a compilation and whether it has been infringed. The end effect is that only the original elements of the compilation are cloaked with copyright, and so infringement was necessarily assessed with reference to whether those original elements of the compilations had been reproduced. It is of course established law that the originality of a work is determined in respect of the claimed work as a whole. It is not necessary that all parts of the work are original when determining subsistence of copyright in the work. Nevertheless it is also established law that in deciding whether infringement has arisen by substantial copying, it is necessary to determine whether the parts copied were original to the copyright work. Merely to copy un-original parts of a copyright work will not on its own amount to a substantial part.

100 Whilst *Key Publications* addressed a specialist yellow pages directory, the Court of Appeals for the Eleventh Circuit in *Bellsouth Advertising & Publishing Corporation v Donnelley Information Publishing, Inc* 999 F 2d 1436 (1991) ("*Bellsouth*") was concerned with "a typical yellow pages directory" (*Bellsouth* at 1438). BAPCO, the plaintiff, published a yellow pages directory

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of businesses operating in the Greater Miami area. The directory was organised into an alphabetical list of business classifications. Subscribers were each listed within one appropriate classification without charge, and within each classification, the arrangement was alphabetical. Subscribers were also able to purchase advertisements or cross-listings in other classifications.

101 Donnelley, the defendant, employed a data-entry company to create a database of business telephone subscribers based on BAPCO's directory. The data-entry company created an entry for each listing appearing in BAPCO's directory. Each entry recorded the name, address and telephone number of the subscriber, as well as the codes corresponding to business type and unit of advertising. Donnelley eventually created a competing directory from this database. BAPCO sued for copyright infringement.

102 The defendant conceded that the directory as a whole enjoyed copyright. What was in issue was whether the defendant had infringed by taking the plaintiff's original selection, coordination or arrangement. The US District Court granted BAPCO's motion for summary judgment on its claim. Donnelley appealed.

103 The majority opinion of the Court of Appeals, delivered by Circuit Judge Birch, was that there was no copyright infringement. The majority rejected the District Court's reasoning that BAPCO performed selective acts by: (a) determining the geographic scope of its directory and setting a closing date after which no changes in listing information could be made; and (b) employing marketing techniques to generate listings, including the number of free listings offered to each subscriber, which subscribers to contact, and the procedure used to recommend the purchase of listings under multiple headings.

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104 These purported "acts of selection" did not meet the requisite level of originality and were, more fundamentally, not acts of authorship. They were techniques for the discovery of facts. BAPCO's sales strategies merely enabled it to discover how certain subscribers described their business and were willing to pay "for a certain number of listings under certain available business descriptions" (*Bellsouth* at 1441). These went to the efficient discovery of data and not the selection of facts to be reported:

> The protection of copyright must inhere in a creatively original *selection* of facts to be reported and not in the creative means used to discover those facts … Ultimately, the district court erred by extending copyright protection to the collection of facts in the BAPCO directory based on the uncopyrightable formative acts used to generate those listings. [emphasis in original]

105 The majority also did not look favourably upon the District Court's finding that there was originality in BAPCO's arrangement of the directory in an alphabetised list of business types, with individual businesses listed in alphabetical order under the applicable headings. That arrangement was "entirely typical" and "practically inevitable" for a business directory (*Bellsouth* at 1442). Related to this was the preclusion of BAPCO's claim on the basis of the "merger" doctrine. The doctrine stipulated that "expression is not protected in those instances where there is only one or so few ways of expressing an idea that protection of the expression would effectively accord protection to the idea itself" (*Bellsouth* at 1442). The only way to construct a useful business directory was that done by BAPCO. The arrangement had merged with the idea of a business directory, thus making BAPCO's arrangement unoriginal.

106 The majority rejected the District Court's reliance on the acts of coordination and arrangement in the system of headings used in the BAPCO directory. First, it was not clear that the heading structure constituted sufficiently original expression warranting copyright protection. Many of the

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headings (*ie*, "Attorneys" or "Banks") were such obvious labels that they could not be said to be original. Many of these headings were the direct result of standard industry practice. Further, the ultimate appearance of a particular subscriber under a certain heading was "determined by the subscriber's willingness to purchase those listings" (*Bellsouth* at 1445). Second, and in any event, there was no evidence Donnelley copied BAPCO's system of headings. Because of the extent to which the heading structure of a classified directory was dictated by functional considerations and industry practice, the differences between the heading structures in both directories were sufficient to rebut any inference of copying.

107 Circuit Judge Hatchett, who wrote the sole dissent, thought there were at least four original aspects of BAPCO's publication which had been "substantially appropriated" by Donnelley (*Bellsouth* at 1478–1480). First, the selection of the 7,000 classified headings. Second, the arrangement of the business listings within these classified listings. Third, the selection of businesses with only business telephone numbers, and not businesses with both residential and business telephone numbers. Fourth, the selection of the geographic area to be covered in its directory.

108 It is clear, therefore, that the US cases require creativity, albeit only at a low threshold, in the reduction of the work to the final form of expression, before the work will be considered original, and copyright found to subsist. Further, substantiality in copying is established only when the original portions of the work (and not those unprotected by copyright) are taken.

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Australian case law

109 The Australian case law is instructive because there has been a perceptible shift from the "sweat of the brow" approach to one that instead focuses on intellectual effort expended in reducing the work to its final form of expression. The Australian copyright legislation is also substantially similar to that in Singapore. Section 27 of the Singapore Copyright Act, which deals with original works in which copyright subsists, was based on and is identical to s 32 of the Australian Copyright Act 1968 (Cth). The definition of a "literary work" is, however, not similar. Australia defines a "literary work" to include "a table, or compilation, expressed in words, figures or symbols" (there is also a separate definition for computer programs, but that is not relevant for present purposes). This broad definition, which was also previously found in the Singapore legislation, was narrowed (or clarified) considerably by amendments to our Copyright Act in 1999. I discuss this change and its implications further below.

110 The decision of a Full Court of the Federal Court of Australia in *Desktop Marketing Systems Pty Ltd v Telstra Corporation Ltd* 192 ALR 433 (2002) ("*Desktop Marketing (Full Court)*") depicts the high watermark of the "sweat of the brow" approach in Australia. Telstra, a telephone service provider, produced telephone directories. It sued Desktop Marketing for infringing its copyright in its white pages and yellow pages directories, as well as its "headings book". The infringement was alleged to arise from software containing white pages and yellow pages listings data, which Desktop Marketing produced and sold.

111 The case was heard at first instance by Finkelstein J: *Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd* 181 ALR 134 (2001) ("*Desktop Marketing (First Instance)*"). After a lengthy review of the English

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authorities, he concluded that an author may have copyright in the *form* in which he publishes facts, and that copyright will subsist so long as the author has undertaken sufficient work or expense in gathering the facts (*Desktop Marketing (First Instance)* at [64]):

> I take the effect of the English authorities to be as follows. The author of a book that records facts, whether it be an encyclopedia, a map, a directory or some other factual compilation, does not acquire copyright in the facts that have been published. So much is trite. *But the author may have copyright in the form in which he has published the facts. Copyright will subsist if there has been sufficient intellectual effort in the selection or arrangement of the facts. It will also subsist if the author has engaged in sufficient work or incurred sufficient expense in gathering the facts.* The cases have not defined with any precision what amount of intellectual effort, labour, etc, is required to justify copyright. … *When copyright does subsist in a compilation of facts, any person who wishes to publish the same facts is free to do so. But he must collect the facts himself. He cannot copy them from the first work.* [emphasis added]

112 Finkelstein J considered the "creativity" standard adopted in the US and Canada, but declined to follow it. This was so even though the learned judge recognised that an element of creativity could be found in the preamble of the Statute of Anne (8 Ann c 21) (UK) ("the Statute of Anne"), the first English copyright statute passed in 1710, which stated that it was enacted "for the encouragement of learned men to compose and write useful books". In Finkelstein J's view, English law had since developed and evolved such that it recognised the importance of protecting the labour and expense of gathering facts. The legislative scheme in Australia was based on the law in England as it stood after that evolutionary development, and there was nothing in the subsequent changes in the Australian legislation to "admit of the conclusion that the English law had been discarded" (*Desktop Marketing (First Instance)* at [85]). It was not possible, especially as a judge of first instance, to jettison the old law and replace it with the principles expressed in *Feist*.

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113 Finkelstein J's decision was affirmed on appeal by a Full Court. Lindgren J, with whom Black CJ agreed, conducted an impressive review of the English authorities dating back to the early 19th century as well as the Australian authorities on point. He concluded that the requirement of originality did not necessitate a modicum of creativity (*Desktop Marketing (Full Court)* at [160]). The test of originality was "whether the work was not copied, but originated from the putative author". It was not an all-or-nothing test but raised a question of fact as to the putative author's contribution to the making of the literary work in question. Lindgren J also observed that it was *not* the law that where there was "only one way of expressing and arranging a whole-of-universe factual compilation", the compilation could not attract copyright protection. There was also no principle that the labour and expense of collecting, verifying, recording and assembling the data to be compiled are irrelevant to establishing originality.

114 Lindgren J candidly observed that the practical effect of this position was "an acceptance of the proposition that copyright can subsist in facts" (*Desktop Marketing (Full Court)* at [161]). He acknowledged that there were policy considerations tugging in both directions, but those were a matter for the legislature and not the courts (*Desktop Marketing (Full Court)* at [164]).

115 The position in *Desktop Marketing (Full Court)* was subsequently cast in doubt by the landmark decision of the High Court of Australia in *IceTV Pty Limited and another v Nine Network Australia Pty Limited* [2009] 239 CLR 458 ("*IceTV*"), which marked the beginning of a shift in Australian jurisprudence away from the sweat of the brow approach.

116 The plaintiff, Nine, selected and scheduled television programmes to be broadcast by certain free-to-air television stations. The scheduling of

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programmes involved Nine's computer network, "the Nine Database". Nine produced weekly schedules of the television programmes to be broadcast two weeks in advance based on information from the Nine Database. The weekly schedules comprised time, title and programme information of television programmes scheduled to be aired in the seven-day broadcast week. The weekly schedules were then forwarded to third parties who published aggregated guides of the television programmes based on those schedules in various media.

117 The defendant, IceTV, produced the "IceGuide" which was an electronic programme guide for television. The IceGuide schedules, which were used to produce the IceGuide, were verified and corrected against the aggregated guides. Nine alleged that by doing so, IceTV had reproduced a substantial part of the weekly schedules or alternatively, the Nine Database, which was the source of the information. It should be noted that the judge at first instance found that IceTV never took the whole of the time and title information from the aggregated guides. Rather, IceTV copied no more than "slivers" of time and title information in order to maintain and update the IceGuide (*IceTV* at [123]). That finding was not challenged on appeal. The first instance judge found in favour of IceTV. She was overturned on appeal to a Full Court of the Federal Court of Australia.

118 IceTV appealed to the High Court of Australia. IceTV accepted that copyright subsisted in the works in suit, namely, each weekly schedule and each week's version of the Nine Database. The sole question before the High Court of Australia was whether there was a reproduction of a substantial part from any of the individual works.

119 The court unanimously rejected Nine's claim for copyright infringement in two separate concurring judgments. The first was a joint judgment by

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French CJ, Crennan and Kiefel JJ. They said that the concept of "authorship" was "central to the protection given by copyright legislation" (*IceTV* at [22]). The copyright legislation struck a balance between policy objectives of rewarding authors of original literary works and yet recognising that literary works are beneficial to the public.

120 They stressed that copyright protected an author's *expression* and not *facts* (*IceTV* at [28]). The distinction between both was a crucial component in balancing the competing policy considerations that the scope of copyright protection brought to the fore:

> Copyright does not protect facts or information. Copyright protects the particular form of expression of the information, namely the words, figures and symbols in which the pieces of information are expressed, and the selection and arrangement of that information. *That facts are not protected is a crucial part of the balancing of competing policy considerations in copyright legislation. The information/expression dichotomy, in copyright law, is rooted in considerations of social utility. Copyright, being an exception to the law's general abhorrence of monopolies, does not confer a monopoly on facts or information because to do so would impede the reading public's access to and use of facts and information. Copyright is not given to reward work distinct from the production of a particular form of expression.*
>
> [emphasis added]

121 French CJ, Crennan and Kiefel JJ emphasised the inextricable link between *substantiality* of copying and the part of the work which was said to be *original* (*IceTV* at [30]–[32]). Where factual compilations were concerned, it was unhelpful to speak of "what is worth copying is prima facie worth protecting". Facts were worth copying but unprotected by copyright. Focusing on the "commercial value" of the information was also prone to mislead because it centred on the information rather than the form of expression.

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122 What then did "originality" in the context of copyright subsistence mean? French CJ, Crennan and Kiefel JJ said that this requirement was correlative to authorship. Originality simply meant that the works originated from the author. The creation of the work required "some independent intellectual effort", but not literary merit or novelty (*IceTV* at [33]).

123 French CJ, Crennan and Kiefel JJ then turned their focus to originality in the context of infringement. Infringement also implicated the question of originality because the part reproduced would not be a substantial part if it did not originate from the author. The focus was on the "originality" of the part which was copied (*IceTV* at [40]):

> These cases direct attention to the degree of originality in the *expression* of the part of the work reproduced. The same point is made in the current edition of *Copinger and Skone James on Copyright*:
>
> > '[T]he more simple or lacking in substantial originality the copyright work, the greater the degree of taking will be needed before the substantial part test is satisfied.
>
> [emphasis in original]

124 By focusing on the element of originality in the works reproduced, French CJ, Crennan and Kiefel JJ held that the parts of the weekly schedules or the Nine Database that had been reproduced were not substantial parts. This was because there was very little choice in the form of expression ultimately adopted in the weekly schedules and Nine Database (*IceTV* at [41]–[43]):

> The Weekly Schedule (and the Nine Database) as a whole involves orderly arrangement of its various elements and the evidence showed choices were made about what programmes were included or excluded. As a whole, it is an original (ie not copied) collocation of both information and creative material.
>
> *However, the expression of the time and title information, in respect of each programme, is not a form of expression which requires particular mental effort or exertion. The way in which the information can be conveyed is very limited.* Expressing a

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> title of a programme to be broadcast merely requires knowledge of the title, generally bestowed by the producer of the programme rather than by a broadcaster of it. Expressing the time at which a programme is broadcast, for public consumption, can only practically be done in words or figures relating to a twelve or twenty-four hour time cycle for a day. *The authors of the Weekly Schedule (or the Nine Database) had little, if any, choice in the particular form of expression adopted, as that expression was essentially dictated by the nature of the information. That expression lacks the requisite originality (in the sense explained) for the part to constitute a substantial part.*
>
> [emphasis added]

125 French CJ, Crennan and Kiefel JJ concluded with some remarks on the relevance of "skill and labour" in the context of both subsistence and infringement. In respect of the former, they cited with approval *Feist*, and said that perhaps too much had been made of the relevance of skill and labour and the distinction between that and creativity (*IceTV* at [47]):

> … '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.

French CJ, Crennan and Kiefel JJ said that when ascertaining whether a "substantial part" had been copied, the focus was not so much on whether there was an "appropriation" of the author's skill and labour, but rather, "on the nature of the skill and labour, and in particular … whether it is directed to the originality of the particular form of expression" (*IceTV* at [49]). Where factual compilations were concerned, focusing solely on skill and labour instead of the

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effort directed to producing the form of expression may lead copyright law to error (*IceTV* at [52]):

> … The error is of a kind which might enable copyright law to be employed to achieve anti-competitive behaviour of a sort not contemplated by the balance struck in the Act between the rights of authors and the entitlements of the reading public. The Act mandates an inquiry into the substantiality of the part of the work which is reproduced. *A critical question is the degree of originality of the particular form of expression of the part. Consideration of the skill and labour expended by the author of a work may assist in addressing that question: that the creation of a work required skill and labour may indicate that the particular form of expression adopted was highly original.* However, focusing on the 'appropriation' of the author's skill and labour must not be allowed to distract from the inquiry mandated by the Act. [emphasis added]

126 On the facts of the case, there was no doubt that Nine employees expended skill and labour on producing the weekly schedules and the Nine Database (*IceTV* at [53]). The critical question, however, was whether that skill and labour was directed to the final form of expression (*IceTV* at [54]). French CJ, Crennan and Kiefel JJ held that it was not. The level of skill and labour required to express the time and title information was minimal; the final form of expression was dictated by the nature of the information.

127 Gummow, Hayne and Heydon JJ came to the same conclusion. They too focused on the centrality of the requirement of "authorship". Where a literary work was brought into existence by multiple individuals, it was a question of "fact and degree" as to which, if any, had expended "*sufficient effort of a literary nature*" [emphasis added] to be considered an author of that work (*IceTV* at [99]).

128 Gummow, Hayne and Heydon JJ disapproved of the "rhetoric of 'appropriation' of 'skill and labour'" (*IceTV* at [131]):

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> … A finding that one party has 'appropriated' skill and labour, of itself, is not determinative of the issue of infringement of a copyright work. The Act does not provide for any general doctrine of 'misappropriation' and *does not afford protection to skill and labour alone*.
>
> [emphasis added]

They focused on the process of creating the weekly schedules and the Nine Database. They said that the first instance judge was correct to stress that the detailed and lengthy preparatory work "was directed to the conduct of the business of the Nine Network in broadcasting programmes which would attract viewers" (*IceTV* at [167]). Once that was done, there remained "the extremely modest skill and labour" in setting down the programmes already selected into the form of the Nine Database and the weekly schedules (*IceTV* at [168]).

129 Gummow, Hayne and Heydon JJ also addressed a submission based on *Feist* as to whether a "creative spark" was required before a work could be considered original. They held that it was "by no means apparent that the law [in Australia] … was to any different effect", and that it may be that "the reasoning in *Desktop Marketing* with respect to compilations is out of line with the understanding of copyright law over many years" (*IceTV* at [188]). There was therefore a need to be cautious as to the emphasis in *Desktop Marketing* on "labour and expense".

130 *IceTV* was a case that dealt with infringement, although the indelible link between infringement and subsistence is apparent from the analysis above. *IceTV* was considered and applied in the context of subsistence by a Full Court of the Federal Court of Australia in *Telstra Corporation Ltd and another v Phone Directories Company Pty Ltd and others* (2010) 273 ALR 725 ("*Telstra (Full Court)*"). The question was whether copyright subsisted in the white pages and yellow pages directories published by one of the applicants, Sensis, which

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was a wholly-owned subsidiary of the other applicant, Telstra, a telephone service provider.

131 Gordon J tried the question of subsistence as a preliminary issue at first instance: *Telstra Corporation Ltd and another v Phone Directories Co Pte Ltd and others* 264 ALR 617 ("*Telstra (First Instance)*"). Gordon J held that copyright did not subsist in any of the directories. She reached that conclusion after undertaking a detailed examination of the directory-production process. She observed that much of it was automated (*Telstra (First Instance)* at [56]), and carried out by a computer system known as the "Genesis Computer System".

132 At the heart of that automated process were "the Rules", which Gordon J described as "a set of prescriptive guidelines that control, dictate, restrict and/or prohibit the content and presentation of listings in the [white pages directories] and the [yellow pages directories]" (*Telstra (First Instance)* at [90]). The Rules were automated in the sense that they were programmed into the Genesis Computer System, which supported the applicants' directory-production operations. But they were also indirectly automated because human intervention was required in the application of the Rules (*Telstra (First Instance)* at [92]). Gordon J thought that the "overarching process is designed to ensure that decisions that violate the Rules are as rare as possible". Where human intervention was required, it was directed at ensuring the content and presentation of listings complied with the Rules; "instances of so-called 'discretion' … [were] not a true discretion but one to be used in *accordance with the Rules*" [emphasis in original] (*Telstra (First Instance)* at [123]).

133 Gordon J took the view that copyright did not subsist in the directories because there was no author. None of the 91 people that the applicants listed as

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authors contributed what could be described as "independent intellectual effort" or "sufficient effort of a literary nature" in the compilation of the directory. Many of the processes were highly automated (*Telstra (First Instance)* at [334]–[335]). The "gamut of individuals" also could not have been considered joint authors. The staff performed their function separately from each other and it was doubtful that the requisite level of collaboration had been crossed (*Telstra (First Instance)* at [337]).

134 A Full Court of the Federal Court of Australia affirmed Gordon J's decision on appeal. Keane CJ said that a revision of the position on the relevance of skill and labour as stated in *Desktop Marketing (Full Court)* was necessary in the light of *IceTV* (*Telstra (Full Court)* at [79]). The latter case shifted the focus away from the protection of a party's labour and expense to (a) the "particular form of expression" said to constitute an original literary work, and (b) the requirement that "the work originates with an author or joint authors from some independent intellectual effort" (*Telstra (Full Court)* at [82]). Keane CJ agreed that the compilation of the directories was "overwhelmingly the work of the Genesis computer system" (*Telstra (Full Court)* at [89]). The compilations which emerged thus did not originate from an individual or a group of individuals. Since there was no author, copyright could not subsist in the directories.

135 Perram J said that whilst the collection of data engaged processes that involved substantial human industry, the creation of the material form of the directories was carried out by a computer program; no persons had any substantive input into those forms (*Telstra (Full Court)* at [101]). It was clear that the human effort in this case was directed at the collection of facts and not the creation of the material form, which was the work of a computer.

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136 For Perram J, two questions thus arose (*Telstra (Full Court)* at [101]). First, whether the independent intellectual effort had to be directed at the creation of the material form, or whether it was sufficient that the effort was directed at some anterior activity (*ie*, fact collection). Second, whether there was in fact sufficient human effort involved in the process to mean that the directories were reduced to a material form by an author.

137 Perram J held in relation to the first question that the effort directed at data collection was not relevant to the issue of the directories' originality. He acknowledged that the business structure of Sensis was elaborate and comprised employees verifying data, performing quality control checks and persuading customers to purchase advertisements. It involved "the full panoply of activities which one might expect to attend the collection and maintenance of customer information for telephone directories prepared for a country of twenty or so million people" (*Telstra (Full Court)* at [103]). Although much of this activity was automated, the collection phase would certainly not have been able to proceed without human input and contribution. However, all this human effort was not relevant to the issue of the directories' originality. The preparatory steps that contributed to the ideas which a literary work ultimately expressed did not contribute to the work's originality (*Telstra (Full Court)* at [104]):

> *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 form. The travels reduced to a touring guide, the toils in the library 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.
>
> [emphasis added]

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138 Perram J concluded the first question with the observation that it was difficult to find any room for the protection of labour or skill in the collection of material beyond that which satisfied the statutory requirement of originality (*Telstra (Full Court)* at [112]):

> *Once one accepts that the focus of the copyright is on the creation of the material form by an author it is analytically difficult to identify any role for labour or skill in the collection of material beyond the question posed by the statute, namely, whether the work is 'original' in the sense of not being copied from elsewhere.* Any role for skill and labour in the process of collection which extends beyond that is inconsistent with the emphasis given in *IceTV* to the reduction of a work into a material form. *It follows that, beyond showing that the directories were original in the sense of not having been copied, the activities in the collection phase are not relevant to assessing whether those who reduced the directories to material form did so with sufficient independent intellectual or literary effort.*
>
> [emphasis added]

139 In relation to the second question, Perram J said that if any of Sensis's employees could have been said to have reduced the directories to material form, it was the persons who had control of the Genesis Computer System software, Mr Vormwald and Mr Cooper. Those persons were, however, not using the software in the way a novelist used a word processor. They were "giving [the software] instructions at the very highest level about the principal parameters of the directories …" (*Telstra (Full Court)* at [117]). Any intellectual effort by Mr Vormwald and Mr Cooper was thus not directed at the material form of the directories.

140 Perram J emphasised that whether a person was sufficiently in control of a computer or computer program such that he could be considered an author was ultimately a question of degree that had to be decided with regard to the facts of the case (at [118]):

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> … [C]are must be taken to ensure that the efforts of [the person controlling the computer program] can be seen as directed to the reduction of a work into a material form. Software comes in a variety of forms and the tasks performed by it range from the trivial to the substantial. *So long as the person controlling the program can be seen as directing or fashioning the material form of the work there is no particular danger in viewing that person as the work's author. But there will be cases where the person operating a program is not controlling the nature of the material form produced by it and in those cases that person will not contribute sufficient independent intellectual effort or sufficient effort of a literary nature* … [emphasis added]

141 Yates J also acknowledged the laboriousness of the work of Sensis's employees in "collecting, entering and manipulating data to provide the fabric out of which each identified compilation" was fashioned (*Telstra (Full Court)* at [166]). However, the selection, ordering and arrangement of the directories was carried out by the Genesis Computer System. It was not a "mere tool" utilised by Telstra's employees for that purpose. The "transformative steps" performed by the Genesis Computer System were fundamental to the making of the compilation in each case. Yates J said that it was ultimately a question of "fact and degree" in forming a judgment about whether a work was original, or whether the requirement of authorship was satisfied. In that case, the compilations simply could not bear the characterisation of originating from human authors.

Canadian case law

142 The position in Canada is said to be an intermediate one. In the Supreme Court of Canada's decision in *CCH Canadian Ltd v Law Society of Upper Canada* 2004 SCC 13 (2004) ("*CCH Canadian*"), McLachlin CJ held that the meaning of originality in Canada fell in between the extremes of the creativity and sweat of the brow views. A work was original within the meaning of Canada's Copyright Act 1985 (c C-42) if there was an "exercise of skill and

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judgment" in the expression of an idea (*CCH Canadian* at [16]). Skill meant "the use of one's knowledge, developed aptitude or practiced ability". Judgment meant "the use of one's capacity for discernment or ability to form an opinion or evaluation by comparing different possible options in producing the work".

143 McLachlin CJ came to this conclusion after considering the plain meaning of the word original; the idea of an "intellectual creation" which was implicit in the Berne Convention for the Protection of Literary and Artistic Works (1886) ("the Berne Convention"), which Canada had adopted in 1923 and which was the precursor to Canada's first Copyright Act; the purpose of the Copyright Act; and the need to create a "workable yet fair standard".

144 McLachlin CJ's remarks in relation to the last two points are pertinent. She said that the purpose of copyright law was to balance, on one hand "the public interest in promoting the encouragement and dissemination of works of the arts and intellect" and, on the other, "obtaining a just reward for the creator" (*CCH Canadian* at [23]). The choice between the creativity or sweat of the brow standards of originality would determine where that balance was struck. She held that the sweat of the brow approach was too liberal because it shifted the balance of copyright protection too far in favour of the owner's rights. The creativity standard was too stringent and the requirements of novelty or non-obviousness were more properly in the realm of patents than copyright. In view of that, clothing a work that was the product of an exercise of skill and judgment with copyright protection was a "workable yet fair standard" (*CCH Canadian* at [24]). The Canadian Supreme Court's decision thus appears to have rested on what it thought was a reasonable compromise that sat on the horns of a dilemma between competing policy objectives.

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145 Applying the "skill and judgment" standard, the court considered that copyright subsisted in all the works in suit, namely: (a) headnotes of judicial decisions; (b) case summaries of judicial decisions; (c) the topical index in the book *Canada GST Cases*; and (d) reported judicial decisions as a compilation.

146 I pause to comment that, however skill and judgment is defined, the Canadian Supreme Court nonetheless emphasised that it must be related to and directed towards the particular expression of the information or ideas. Over and above the point that the skill does not have to reach a high standard of intellectual creativity (there is certainly no requirement for inventiveness), it is a question of fact as to whether there is sufficient skill and judgment in the expression of an idea, facts or information. The Canadian Supreme Court clearly accepted that the skill and judgment must not be so trivial that it amounts to a purely mechanical exercise. The Canadian Supreme Court was not for a moment disparaging the practical significance and value of a mechanical exercise. But the point made was that given the objectives of copyright, this was insufficient to cloak the work with the requisite originality.

147 I note also that the statutory provisions in the Canadian Copyright Act under consideration in *CCH Canadian*, whilst similar, are not the same as those in our Copyright Act. In particular, the Canadian legislation does not expressly set out that for compilations, what is required is that the selection or arrangement of the contents is such as to constitute the compilation an intellectual creation. The Canadian Supreme Court, however, accepted that the idea of "intellectual creation" was implicit in the Berne Convention (*CCH Canadian* at [19]). It also observed that some commentators took the view that countries which adopted a sweat of the brow or industrious collection approach to originality had departed from the spirit if not the letter of the Berne Convention.

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English case law

148 The position taken by the English cases has been alluded to above in the review of the Australian decisions. The key point is that even though many English cases recognise the importance of protecting the labour of authorship, the significance of a balanced approach is also underscored. Shortly after the Copyright Act 1777 (17 Geo 3 c 57) (UK) was enacted, Lord Mansfield heard the case of *Sayre v Moore* (1785) 102 ER 139 ("*Sayre v Moore*"), which concerned copying of sea charts. The plaintiff's evidence was that he had gone to great expense to obtain information for the sea charts. The defendant copied the sea charts into one large map together with other alterations and improvements. In the direction to the jury (who found for the defendant), Lord Mansfield commented:

> The rule of this decision … is a matter of great consequence to the country. In deciding it we must take care to guard against two extremes equally prejudicial; the one that men of ability, who have employed their time for the service of the community, may not be deprived of their just merits, and the reward of their just merits, and the reward of their ingenuity and labour; the other that the world may not be deprived of improvements, nor the progress of the arts be retarded. The Act that secures copyright to authors guards against piracy of the words and sentiments; but it does not prohibit writing on the same subject …

149 There is no doubt that in the years after *Sayre v Moore*, many English cases placed greater stress on the effort and labour of authorship. For example, in *IBCOS Computers Ltd v Barclays Mercantile Highland Finance Ltd* [1994] FSR 275 at 302, Jacob J proffered the view that liability for copyright infringement depended on whether there had been an over-borrowing of the skill, labour and judgment that went into the copyright work. In *Autospin (Oil Seals) Ltd v Beehive Spinning (A Firm)* [1995] RPC 683 at 698, Laddie J stated that in compilation cases, copyright protected not just the form of the words;

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rather, it was also concerned with the author's skill and effort expended in gathering information that was compiled. Indeed, in *Designers Guild Ltd v Russell Williams (Textiles) Ltd* [2001] FSR 113, Lord Bingham commented that "no one else may for a season reap what the copyright owner has sown" (at [2]). And yet, the remarks of Lord Mansfield in *Sayre v Moore* and Brightman J in *Ravenscroft v Herbert* remain valid, at least as part of the overall balance of factors to be taken into account.

150 In UK and Europe, the tension and problem in using copyright to protect the investment of labour and expense into making of databases has long been recognised. The lack of a common approach within Europe resulted in the European Union Directive 96/9/EC of the European Parliament and Council of 11 March 1996 on the Legal Protection of Databases ("the Database Directive"), that has been given effect to in the UK by the Copyright and Rights in Databases Regulations 1997 (SI 1997 No 3022).

151 The Database Directive came into being soon after the decision of the US Supreme Court in *Feist* brought into sharp focus the problem of using copyright to protect databases or factual compilations. The result of the database legislation in the European Union and the UK was to adopt a two-track approach. Copyright would remain as the appropriate form to protect databases created by an author. A new *sui generis* database right was introduced to protect databases that were the product of considerable human, technical and financial resources.

152 The preamble to the Database Directive (at para 45) makes clear that its purpose is not to replace copyright. Instead, the scope of copyright protection for databases was clarified and expressly limited to the original selection and arrangement of the contents of the database. It is also clear that there was no

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intention to extend protection to mere facts or data. The new *sui generis* database right was explained as serving the objective of protecting the investment in obtaining, verifying or presenting the contents of a database from (a) unauthorised extraction and (b) re-utilization of all or a substantial part of the contents of the database (preamble to the Database Directive at para 42). The *sui generis* database right is not limited to electronic or digital databases. Instead, "database" is defined in Art 1 of the Database Directive as "a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means".

153 It is not necessary to review the considerable body of English and European case law on the new *sui generis* database right. The interpretation and application of many of the provisions have proven difficult. That said, recent English and CJEU decisions have examined the use of copyright to protect databases that are created by an author. Whilst these cases are not binding and must be interpreted in the light of the Database Directive and its implementing provisions, a passing reference may be helpful.

154 The first is *Football Datco Ltd v Brittens Pools Ltd* [2010] RPC 17 *("Brittens Pools")*. This case concerned the English and Scottish (football) Premier Leagues and football leagues fixture lists. They were lists which contained the dates, and match-ups between the football teams playing in the football leagues each season. The process of producing these fixture lists was a complex one. It required considering and balancing, amongst others, the large number of teams and matches played during the football season (between August and May every season), the many rules that governed the way teams could be matched up, and the pairing requests from football teams regarding dates and match-ups.

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155 Floyd J recognised that whilst a computer assisted with the task, a significant amount of human judgment went into, *inter alia*, striking a fair and reasonable balance between competing dates and pairing requests of each club (*Brittens Pools* at [41]–[44]). He held, however, that the *sui generis* database right in Art 7(1) of the Database Directive did not apply to protect the data in the fixtures list, for a number of reasons. Chief amongst them was that the type of investment made into the fixture lists was the wrong sort of investment to qualify for protection. The investment into the fixture lists was in the creation of the content and not in the obtaining, verification, or presentation of the content (*Brittens Pools* at [92]). The work done in obtaining, verifying or presenting the data in the fixture lists was trivial.

156 Floyd J nonetheless accepted that the fixture lists were protected by copyright (as a database) under Art 3(1) of the Database Directive. The process of preparing the fixture lists was said to involve "very significant labour and skill in satisfying the multitude of often competing requirements of those involved … the process was not entirely deterministic" (*Brittens Pools* at [41]). Not everyone would come up with the same answer; there was an exercise of judgment which had to be made based on the relative importance of requests, rules, and so on (*Brittens Pools* at [42]). The work was not mere "sweat of the brow", which meant the rigid application of criteria to the processing of data as in, for example, a telephone directory. In each stage of production of the fixture lists, there was scope for the application of judgment and skill. Unlike a "sweat of the brow" compilation, some solutions were better than others. The use of the computer also did not eliminate the use of judgment discretion (*Brittens Pools* at [44]).

157 Floyd J stated that the purpose of copyright was to provide encouragement for creative endeavour, and differed in this respect from the *sui*

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generis right which was designed to encourage investment in particular types of data gathering (*Brittens Pools* at [80]). Further, the selection or arrangement required by Art 3(1) of the Database Directive was not confined to selection or arrangement performed *after* the data was finally created. The process of selection and arrangement of the contents of a database could and often did commence *before* all the data was created. To exclude selection decisions because they had occurred whilst the database was being created was arbitrary and conceptually fraught with difficulty (*Brittens Pools* [82]).

158 The *Britten Pools* case came as a surprise. The plaintiff lost on the new *sui generis* database right that was introduced precisely because of the fear of inadequate copyright protection. The plaintiff, however, won on copyright protection.

159 The appeal against Floyd J's decision resulted in the English Court of Appeal referring questions (*sub nom Football Dataco Ltd v Stan James (Abingdon) Ltd* [2011] RPC 9 ("*Stan James*")) to the European Court of Justice. Jacob LJ, when dealing with the copyright claim in the Court of Appeal, expressed the view that the objective of the Database Directive (in setting up the two-track system) was not to create two additional rights, copyright and a *sui generis* right. Instead, the Database Directive simply made clear that any copyright in any work contained in a database continued notwithstanding that it was included in the database (*Stan James* at [14]). The importance of this is that it did not follow that anything contained in a database necessarily enjoyed copyright.

160 The decision of the European Court of Justice on the reference (Case C-604/10) is reported as *Football Dataco Ltd v Yahoo! UK Ltd* [2013] FSR 1 ("*Yahoo!*"). The European Court of Justice effectively reversed Floyd J's

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decision in *Brittens Pools*, and held that copyright protection under Art 3(1) of the Database Directive was concerned with the "structure" of the database, and not the contents nor the elements constituting its contents (*Yahoo!* at [30]). The concept did not extend to the creation of the data contained in that database (*Yahoo!* at [32]). The intellectual effort and skill of creating data were not relevant to assessing copyright protection under Art 3(1) (*Yahoo!* at [33]). This was said to be consistent with the purpose of the Database Directive: to 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 (*Yahoo!* at [34]). Resources spent on creating the fixture lists related to the *creation* of the data, which was of no relevance to assessing the eligibility of the football fixture lists for copyright protection under Art 3(1) (*Yahoo!* at [36]). Instead, as regards the setting up of a database, the criterion of originality was satisfied when—through the selection and arrangement of the data which it contained—the author expressed his creative ability in an original manner by making free and creative choices and thus stamped his personal touch on it (*Yahoo!* at [38]).

161 Another instructive decision is that of the English Court of Appeal in *Football Dataco Ltd v Sportradar GmbH* [2013] FSR 30 ("*Sportradar*"). The plaintiffs created and marketed a database known as "Football Live", which contained, amongst others, football-related information including time-stamped data on goals, goals-scorers, own goals, penalties, cautions/expulsions and substitutions. It also contained data on sports other than football. The data was said to have been collected by ex-professional footballers engaged by the plaintiffs who attended the relevant matches for this purpose.

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162 The defendants in one of the two jointly-tried actions were the Swiss and German arms of Sportradar, a firm that provided data relating to sports events to betting companies and their customers. The plaintiffs alleged that Sportradar copied data from the plaintiffs' databases and included them in the defendants' own database.

163 The key issue was whether database rights under Art 7(1) of the Database Directive subsisted in a database containing data on events occurring during football matches (*ie*, goals, goalscorers, own goals, penalties) and the time at which those events occurred. The Court of Appeal agreed with Floyd J's decision in the High Court (reported at *Football Dataco Ltd v Sportradar GmbH* [2013] FSR 3), and held that when a goal was scored and employees of the claimants at the match phoned in to report it, the employees were not creating facts. The fact that a goal was scored was not a fact created by the claimants. The effort of the observer at the match was part of the effort of obtaining data or information (*Sportradar* at [68]). If an opinion was added, the opinion may have been created but not the fact of the goal. The Court of Appeal thus found that the database was protected by the database right created under Art 7(1) of the Database Directive.

164 The significance of the latest *Sportsradar* decision is primarily in the area of the *sui generis* database right, and in the recognition that the observation of a fact is not the same as its creation. The point being that earlier cases on the *sui generis* right had made clear that a substantial investment in creating facts fell outside the *sui generis* regime.

165 However, the question that remains is the extent to which effort and labour expended on finding, observing and recording facts is relevant in determining originality for the purposes of copyright law in English law. On its

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own, it is improbable that the labour of discovering facts will be sufficient. It will be recalled that the European Court of Justice in *Yahoo!* effectively reversed the *Britten Pools* decision in respect of the relevance of effort of creation and originality in copyright and databases. Indeed, Jacob LJ, in a judgment that was a prelude to the *Sportradar* decision discussed above, commented that whilst there may have been copyright in the Football Live database as a whole, what was alleged to have been copied was mere data on any reasonable view (*Football Dataco Ltd v Sportradar GmbH* [2011] FSR 20 at [16]). The recording of data may sometimes involve some skill (who scored in a goal-mouth scramble) but that is not creative skill.

166 Whilst I am cautious in commenting on the law from another jurisdiction (especially given the complexity of the relationship between copyright and the *sui generis* database right), it does appear that the long and short of the English and European cases is that, whatever the position of factual compilations and copyright prior to Database Directive, originality requires a selection and arrangement of the data whereby the author expresses his creative ability in an original manner. The mere effort of collecting or finding data is insufficient.

Singapore case law

167 Before coming to my decision, I will first discuss two series of Singapore cases that have addressed the elusive dichotomy between facts and expression in factual compilations, and the related concepts of authorship and originality that it implicates. The first is the *Virtual Map* litigation.

168 The first instance decision was given by District Judge Thian Yee Sze in *Singapore Land Authority v Virtual Map (Singapore) Pte Ltd* [2007] SGDC 216 ("*Virtual Map (DC)*"). That case concerned copyright in (a) various editions

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of the Singapore Street Directory; (b) the street directory data of Singapore in vector format; and (c) the address point data of Singapore in vector format. The Singapore Land Authority ("the SLA") had licensed the use of the vector data to Virtual Map for the latter to produce its online directories. The SLA subsequently terminated the licenses. The question was whether Virtual Map's continued sale of its online maps after the termination of the licenses amounted to copyright infringement.

169 The District Court held that the works were a subject matter capable of protection by copyright, and that copyright did in fact subsist in the works. The definition of "compilation" in the Copyright Act was a wide one. A compilation would be protected by copyright where "skill and labour [was] expended in choosing and arranging the individual works" that comprised the compilation (*Virtual Map (DC)* at [28]). The District Court rejected Virtual Map's submission that the compilation comprised merely information and facts, which were not copyrightable. Although the individual parts of a compilation may "have nothing original", "the sum total of the compilation may be original" (*Virtual Map (DC)* at [30]).

170 The District Court found that it was "evident" that "a lot of work was required to produce the new Singapore Street Directory" (*Virtual Map (DC)* at [37]). The "labour, skill and expense involved in producing the new directory was such that the final form of work … was an original work within the meaning of the Act". The compilation of the address point vector data also "necessitated much work to be done on the part of … SLA" (*Virtual Map (DC)* at [44]), and was thus protected by copyright. The District Court's approach towards the requirement of originality was perhaps summed up in the manner the issue was framed in the introduction to the judgment (*Virtual Map (DC)* at [1]):

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> The question posed to me in this action was precisely … whether the defendant had availed for itself the results of what the plaintiff had sown by virtue of the latter's hard work, skill, knowledge and judgment, without permission and in breach of the plaintiff's copyright.

171 The District Court found that Virtual Map had infringed SLA's copyright in the works. It discussed extensively the map-making process, from the determination of a skeleton framework upon which the details of the map were overlaid, to the process of surveying the topography and rendering it as vector data, to the effort involved in collecting additional data such as place names and other cultural data. The District Court found fingerprints of copying in the copied errors and inessential details, some of which had been deliberately introduced by SLA (*Virtual Map (DC)* at [73]–[87]). There was therefore substantial copying because Virtual Map had used "the framework or 'skeleton of SLA's data'", within which was embedded the street directory vector data and address point vector data. The use of the "skeleton" itself was substantial because, without the skeleton, "there would be no map to speak of" (*Virtual Map (DC)* at [90]).

172 Virtual Map's appeal against the District Court's decision was dismissed by the High Court: *Virtual Map (Singapore) Pte Ltd v Singapore Land Authority* [2008] 3 SLR(R) 86 ("*Virtual Map (HC)*"). The appeal was, however, only confined to the question of infringement. Virtual Map was prepared to accept that SLA had copyright in the street directories and vector data (*Virtual Map (HC)* at [6]). Tan Lee Meng J held that there was infringement because proof of copying had been established. Virtual Map was unable to explain the "innumerable" fingerprints of SLA's works in its maps nor was it able to establish that its maps were the result of its independent creation (*Virtual Map (HC)* at [55]). By copying the skeleton of SLA's maps, Virtual Map had reproduced a substantial portion of SLA's works (*Virtual Map (HC)* at [61]).

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173 Virtual Map's application for leave to appeal against the High Court decision was dismissed by the Court of Appeal: *Virtual Map (Singapore) Pte Ltd v Singapore Land Authority and another application* [2009] 2 SLR(R) 558 ("*Virtual Map (CA)*"). The Court of Appeal's judgment centred on a point of civil procedure, namely, whether Virtual Map required leave to appeal against the High Court's decision. It held that leave was necessary, and went on to consider briefly the grounds on which leave was sought. These related to the District Court's and the High Court's holdings on infringement and substantiality. Leave was refused because there were no *prima facie* error in either the District Court's or the High Court's judgments. The District Court's decision was found to be "careful and well-reasoned" (*Virtual Map (CA)* at [40]).

174 The *Virtual Map* cases may thus have expressed a view that was in line with the sweat of the brow approach. That was the approach taken in the District Court, and there were no adverse comments on that approach in the High Court or the Court of Appeal, even though the issue of subsistence was, strictly speaking, not before either of those courts.

175 The second case is the Court of Appeal's decision in *Asia Pacific Publishing Pte Ltd v Pioneers & Leaders (Publishers) Pte Ltd* [2011] 4 SLR 381 ("*Pioneers & Leaders*"), which focused on the requirement of authorship under the Copyright Act. *Pioneers & Leaders* seems to have endorsed the creativity approach espoused by *Feist*, but its attention does not appear to have been drawn to the *Virtual Map* line of cases. The plaintiff, Pioneers, produced a horse-racing magazine, *Punters' Way*. The defendant, APP, produced a competing publication, *Racing Guide*. Pioneers alleged that APP infringed its copyright by copying four tables of horse-racing information printed in *Punters' Way*. There was also a separate claim against APP for passing off.

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176 The tables that were the subject of the appeal contained information on: (a) the competing horses, physical statuses, jockeys, recent performance and the trainers' strike rates; (b) the choice selection of potential winning horses picked by Pioneers' tipsters; (c) preparation that the trainers had put the horses through; and (d) detailed accounts of the horses' pedigree, ownership, and race history. APP's *Racing Guide* allegedly reproduced the four tables in a materially similar way.

177 The High Court judge allowed Pioneers' copyright claim. She found that copyright subsisted in the four tables. They were original because skill and creativity were expended to compile the information in the tables in a manner which made it accessible to readers. The judge also held that a company could be the author of a copyright-protected work. The judge accepted the evidence that there was substantial similarity in the presentation of the information in *Punters' Way* and *Racing Guide*, and granted an injunction restraining APP from infringing Pioneers' copyright.

178 The judge was reversed on appeal. V K Rajah JA, giving the judgment of the Court of Appeal, stated that the test of copyright in factual compilations remained the same as for all literary works; the defining characteristic was originality (*Pioneers & Leaders* at [33]). Rajah JA acknowledged that the threshold requirement of originality was "problematic", and was a question of "fact and degree" to be determined on the facts of the particular case (*Pioneers & Leaders* at [34]). While the Anglo-Australian authorities appeared to place emphasis on the author's time, labour and effort, many of those cases were decided in the 19th and 20th century, before the proliferation of computers. Those cases may "require reconsideration one day" (*Pioneers & Leaders* at [35]).

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179 In respect of originality and the subsistence of copyright, Rajah JA advanced a tentative proposition that (*Pioneers & Leaders* at [36]):

> [W]here someone has expended effort in creating something that has some literary value, it is worthy of protection, irrespective of the precise quantum of intellectual input involved in producing it or the literary merits or novelty of the work.

He cautioned against the practical test that "what is worth copying is prima facie worth protecting" (*University of London Press, Limited v University Tutorial Press, Limited* [1916] 2 Ch 601 at 610) in the case of a factual compilation. Copyright did not protect facts, information or ideas; only the form of expression (which was the product of some creativity) could be protected. He continued as follows (*Pioneers & Leaders* at [37]–[38]):

> 37 … *Similarly, it 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 mechanical labour or routine programming. In such matters, it may be difficult to argue that copyright protection is called for.
>
> 38 In assessing copyright for compilations, in particular, we think it is always profitable to bear in mind the four key principles discerningly summarised in *Feist Publications Inc v Rural Telephone Service Company Inc* 499 US 340 (1991). First, facts are not copyrightable. Second, compilations of facts, however, are generally copyrightable. Third, the *sine qua non* of copyright is originality. Fourth, originality simply means that the work was independently created by the author and that it possesses some minimal degree of creativity, the level of creativity required being extremely low …
>
> [emphasis added]

180 In relation to authorship, Rajah JA thought that it was clear from the copyright scheme that since the enactment of the Statute of Anne, "the objective of copyright law has been to encourage the creativity of natural authors" (*Pioneers & Leaders* at [41]). An analysis of the history of the Copyright Act

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made it clear that copyright could only be accorded to natural persons, and not corporate bodies; "legal rights flowed only from human authorship" (*Pioneers & Leaders* at [67]). Rajah JA also agreed with *Telstra (Full Court)* that an author "must first be identified before the work in question can be deemed to be original" (*Pioneers & Leaders* at [75]).

181 Rajah JA concluded that on the facts, Pioneers had not identified a human author and so, the four tables in *Punters' Way* could not be said to be protected by copyright. There was evidence that *Punters' Way* was "a continuing project developed from ideas and contributions put forward by the readers and horse racing experts" (*Pioneers & Leaders* at [76]). Those ideas and contributions, however, were not protected, since copyright extended only to the final form of expression and not the ideas in the work. He also rejected the argument that Pioneers' employees were the authors. They were not part of the actual process of compilation because their work was "not collaborative, but was instead merely organised to facilitate the production of the work" (*Pioneers & Leaders* at [78]). In this case, the collection, organisation and selection of data was "done by separate people" (*Pioneers & Leaders* at [79]). Rajah JA concluded that "in cases involving a high degree of automation, there will be no original work produced for the simple reason that there are no identifiable authors" (*Pioneers & Leaders* at [81]).

182 Finally, I touch briefly on *RecordTV Pte Ltd v MediaCorp TV Singapore Pte Ltd and others* [2011] 1 SLR 830 ("*RecordTV*"). Whilst the legal issues raised were quite different, the observations of Rajah JA at [69] are nonetheless helpful:

> Although copyright law is intended to promote creativity and innovation by granting exclusive rights … there is also a public interest in not allowing copyright law to hinder creativity and innovation.

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The general point which emerges is that copyright is not just about protecting the commercial interests of the author or copyright owner. It is not even a law of unfair competition. Copyright, where it is held to subsist, is a property right enforceable *in rem* on a strict liability basis backed up by an impressive armoury of remedies, both civil and criminal. Copyright is not an end in itself. It is a means to an end: benefit to the society as a whole.

The parties' submissions

183 The plaintiff argues that both *Pioneers & Leaders* and *Virtual Map (CA)* are conflicting.[103] In the former, the Court of Appeal opined that a modicum of creativity was necessary before a work could be considered original, but that remark was only *obiter* because the appeal had been disposed of on the basis that there was no identified author of the works in question.[104] In the latter, the Court of Appeal appeared to place weight on the SLA's "monumental endeavour" expended in creating its works.

184 The plaintiff recognises that other common law jurisdictions have "shift[ed] … towards the [creativity] approach", and that adherence to the "standard of mere labour would place Singapore [on] a [divergent] path".[105] However, the shift abroad must be seen in the light of the parallel development of a *sui generis* database right in other jurisdictions. Since there is none in Singapore, the courts should adopt "a broader approach towards the originality criterion", and expand the concept so that "unfair competition policy concerns

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103 Plaintiff's Closing Submissions at para 60.

104 Plaintiff's Closing Submissions at para 55.

105 Plaintiff's Closing Submissions at para 61.

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can be properly addressed".[106] That said, it is noted that the movement of the Australian courts away from the industrious collection approach was not accompanied or preceded by any new *sui generis* database right.

185 The plaintiff submits that the appropriate approach in Singapore should be as follows, relying on the Canadian Supreme Court decision of *CCH Canadian*:

(a) Copyright should protect effort which is "the exercise of skill or judgment that is not purely mechanical".[107]

(b) Consideration should be given to "skill or labour that is concerned with selection and/or arrangement, without having to deal with the issue of whether they are to be considered 'preparatory'".[108]

186 The plaintiff argues that this position is justified in the light of the following considerations:

(a) Any anti-competitive concerns from adopting a broader approach towards originality, which will extend copyright protection to a wider category of factual compilations, can be ameliorated by the Competition Commission and through the law of competition.[109]

(b) The concern of inhibiting the progress of science and arts by preventing "standing on the shoulders of giants" can be resolved through

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106 Plaintiff's Closing Submissions at para 64.

107 Plaintiff's Closing Submissions at para 76.1.

108 Plaintiff's Closing Submissions at para 76.2.

109 Plaintiff's Closing Submissions at para 75.1.

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the requisite proof of copying. "An innocent second comer who re-collects the facts independently of the first author will be adequately protected."[110]

(c) With the introduction of the general fair dealing defence in s 35 of the Copyright Act, the second comer is given "broader latitude to create new and/or improve upon the work of the first author" so long as he used the work in a fair manner.[111]

(d) There is no *sui generis* database right in Singapore.[112]

187 The defendant, on the other hand, makes two connected arguments. First, the creativity standard applies in Singapore in the light of the definition in s 7A of the Copyright Act, which limits copyright protection to compilations which are intellectual creations by reason of their selection and arrangement.[113] This in turn gives rise to two corollary principles. One of which is the merger doctrine, which provides that where facts or information can only be expressed in a particular form, then that expression cannot be said to be original to attract copyright.[114] The other is that "preparatory efforts" or the "process of gathering facts or information" is not protected.[115]

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110 Plaintiff's Closing Submissions at para 75.2.

111 Plaintiff's Closing Submissions at para 75.3.

112 Plaintiff's Closing Submissions at para 75.4.

113 Defendant's Closing Submissions at para 91.

114 Defendant's Closing Submissions at para 86.

115 Defendant's Closing Submissions at para 87.

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188 Second, the defendant argues that the intellectual creation of the final form of expression must be the product of human authors.[116] Allied to the requirement of human authorship is the point that "not all work done or contributed by a person in whatever capacity, as an employee or as a customer, is necessarily authorial".[117] Where an author or authors cannot be identified, it is doubtful that the work can be said to be original.[118] The production of telephone directories, which are highly automated and dominated by computers, may result in the directory not having a human author, or may be such that their contributions towards the final form of expression cannot be identified.[119]

My decision

189 The appropriate approach in Singapore is ultimately a matter of construing the Copyright Act. In my judgment, not only is the creativity standard required by the Copyright Act and the authorities, it also rests on firm policy justifications.

190 The starting point is s 4 of the Copyright Act, which states that "no copyright shall subsist otherwise than by virtue of [the Copyright] Act". Section 27(2) makes provision for when copyright subsists in published original literary works:

> (2) Subject to the provisions of this Act, where an *original literary*, dramatic, musical or artistic *work* has been published —
>
> (*a*) copyright shall subsist in the work; or

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116 Defendant's Closing Submissions at para 95.

117 Defendant's Closing Submissions at para 97.

118 Defendant's Closing Submissions at para 101.

119 Defendant's Closing Submissions at para 105.

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> (*b*) if copyright in the work subsisted immediately before its first publication, copyright shall continue to subsist in the work,
>
> if, but only if —
>
> (c) the first publication of the work took place in Singapore;
>
> (*d*) the *author of the work* was a qualified person at the time when the work was first published; or
>
> (e) the author died before that time but was a qualified person immediately before his death.
>
> [emphasis added]

The express wording of the provision, which mirrors that in Australia, makes clear that the existence of an original work presupposes an author. The two requirements are correlatives. A work is only original where it emanates from an author.

191 Section 7A amplifies the definition of a "literary work" for the purposes of the Copyright Act:

> **Literary works include compilation and computer program**
>
> **7A.**—(1) For the purposes of this Act, "literary work" includes —
>
> (*a*) a *compilation in any form* …
>
> …
>
> (2) Any copyright subsisting in a compilation by virtue of Part III —
>
> (*a*) *is limited to the selection or arrangement of its contents which constitutes an intellectual creation*; and
>
> (*b*) is in addition to, and independent of, any right subsisting by virtue of Part III, IV or XII in any relevant material or *data* contained in the compilation.
>
> …
>
> [emphasis added]

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The section proceeds to define a "compilation" in s 7A(3) to include a compilation: (a) consisting wholly of "relevant material" or parts thereof; (b) consisting partly of "relevant material" or parts thereof; or (c) of *data* rather than "relevant materials" which by reason of selection or arrangement of the contents constitutes an intellectual creation. "Relevant materials" are expressed to include a work (including a computer programme), sound recordings, cinematograph films, television and sound broadcasts, cable programmes and a recording of a performance within Part XII.

192 The literal wording of s 7A requires that copyright protection be confined to the elements of original expression arising from the author's *selection and arrangement of* the individual components of the compilation. It does not extend to the individual components of the compilation. This is but a natural extension of the correlation between originality and authorship. The individual components of a compilation cannot, in any sensible way, be said to have originated from the author (of the compilation). It is only the author's selection and arrangement of the individual components that originated from him. This connection is reinforced by the superadded requirement that the compilation constitute an "intellectual creation" before it is protected by copyright.

193 This position based on the literal reading of the provisions is consistent with and supported by the drafting history of the Copyright Act. Section 7A was introduced by the Copyright (Amendment) Act 1999 (No 38 of 1999) ("the Copyright (Amendment) Act 1999"). Prior to that, the definition of "literary work" was identical to the definition in the Australian Copyright Act (see [109] above) and was expressed to include "a table, or compilation, expressed in words, figures or symbols (whether or not in a visible form)" (s 7 of the Copyright Act (Cap 63, 1988 Rev Ed) ("the Copyright Act 1988")).

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194 The 1999 amendments came just three years after the Copyright Treaty 1996 ("the WCT") maintained by the World Intellectual Property Organization was adopted in Geneva. The resemblance between Art 5 of the WCT and s 7A is unmistakable. Art 5 states:

Article 5
Compilations of Data (Databases)

> Compilations of *data* or other material, in any form, *which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such.* This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation.
>
> [emphasis added]

195 Art 5 of the WCT is in turn almost identical to Art 10(2) of the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS"), which is found in Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization. Art 10(2) of TRIPS has been described as "appear[ing] to emulate the *Feist* holding" by "requiring a consideration of the selection or arrangement of a database" (Michael Blakeney, *Trade Related Aspects of Intellectual Property Rights: A Concise Guide to the TRIPs Agreement* (Sweet & Maxwell, 1997) at para 4.14). Art 10(2) TRIPS provides:

> 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

196 Art 10(2) in fact is similar to the provision in Art 2(5) of the Berne Convention, which provides that:

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> Collections of literary or artistic works … 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 such collections.

197 The key differences between Berne Convention and TRIPS for our purposes are (a) the reference in TRIPS to "data or other material", and (b) the linkage in TRIPS between intellectual creation to selection *or* arrangement. Carlos M Correa, *Trade Related Aspects of Intellectual Property Rights* (Oxford University Press, 2007) at p 126 comments that despite the differences, the TRIPS provision on compilations remains within the boundaries of accepted copyright principles as some level of intellectual creation is required. It is said that the drafters of TRIPS were not seduced by the concept promoted at the time of the negotiations by the database industry of expanding (copyright) protection to non-original databases. Yet another commentator, Daniel Gervais, *The TRIPS Agreement: Drafting History and Analysis* (Sweet & Maxwell, 3rd Ed, 2008) at para 2.103 comments in respect of Art 10(2) that the mere amassing of huge amounts of data, even at high cost, will not be sufficient if it is not also selected or arranged by an author. Indeed, it must be said that not any selection or arrangement will suffice. It must be sufficient to qualify the compilation as an original work using well-established copyright principles.

198 In my judgment, the introduction of s 7A is consistent with the scope of copyright protection conferred on compilations by *Feist*. Singapore is not of course bound by *Feist*, but the creativity standard is entirely consistent with the Berne Convention, TRIPS and the language of section 7A. The 1999 amendments in Singapore came after the *Feist* decision and on the back of important developments in the global intellectual property environment. The connection between the s 7A of the Copyright Act, and Art 10(2) of the TRIPS

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agreement and Art 6 of the WCT is seen not just in the focus on selection or arrangement, but also in the express coverage of data.

199 All these provisions stipulate that any copyright in the compilation is separate and distinct from any copyright that may subsist in the material or data. Copyright in the compilation does not extend to the data or material *per se*. What this means is that a collection of poems may well enjoy copyright as a compilation as a whole by virtue of the effort of selection or arrangement. The copyright in the compilation does not, however, protect the material or data. That said, in appropriate cases, applying established copyright principles, there may well be a separate copyright in the material or data. Data after all can mean many different things. A collection of the best new poems of 2014 may enjoy copyright as a compilation. Each individual poem may also enjoy copyright. What is clear is that s 7A is not mandating a separate copyright in each item of compiled material or data as a matter of course. Whether any item of data or material (that is then compiled) enjoys copyright on its own depends on basic copyright principles. In particular, whether it is an original literary work bearing in mind the distinction between expression and facts or ideas.

200 I am fortified in this conclusion by the Court of Appeal's approach in *Pioneers & Leaders*. In my view, Rajah JA expressed a clear preference for the creativity approach and agreed with *Feist* and *Telstra (Full Court)*. Whilst it is correct that the Court of Appeal was concerned with authorship, there is no denying the intimate connection between the author, originality and the expression, idea/fact principle of copyright law. Rajah JA also emphasised, albeit *obiter*, that with a compilation it was not the effort in collecting or gathering facts that was protected. Rather, it was the intellectual effort in "creating the form of expression" that was (*Pioneers & Leaders* at [37]). I do not think that *Pioneers & Leaders* is at odds with the Court of Appeal's decision

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in *Virtual Map (CA)*. The latter case concerned the narrow point of whether leave to appeal ought to be granted. The Court of Appeal thought that there was no *prima facie* error of law and thus refused leave. It did not give the issue of what was necessary to cross the threshold of "originality" full consideration.

201 The *Virtual Map* series of cases was decided after the 1999 amendments had come into effect. The District Court after citing the new statutory definition of literary work and compilations and analysing the facts, concluded that copyright subsisted in the Street Directory, the street directory vector data and the address point vector data. That said, I note that the primary authority the District Court relied on was the decision of the House of Lords in *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273 ("*Ladbroke*"). Whilst that decision is certainly helpful for focusing the question on whether the compilation as a whole is original, it does not, with respect, shed much light on the proper approach to be taken to what is meant by originality and copyright especially post-1999 amendments and the sharpened legislative focus on intellectual creation, selection and arrangement.

202 The brief review of recent English case law subsequent to the amendments driven by the European Union Database Directive is instructive. It will be recalled that the current English position is that whilst a database may be protected as an original work alongside the new *sui generis* database right, it is necessary to show that the database is original by reason of the selection or arrangement of the contents of the database such that the database is the author's own intellectual creation. The requirement of intellectual creativity and selection and arrangement means that English law has moved away from "sweat of the brow" and "industrious collection" for databases.

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203 It is true that UK and Europe have introduced a new *sui generis* database right to protect substantial investment in obtaining, verifying or presenting the contents of a database. But it does not follow that our Parliament must have intended copyright to "fill the gap" and recognise and protect "industrious collection" because there is no such right in Singapore.

204 The explanatory statement to the Copyright (Amendment) Bill 1999 stated that the bill sought, *inter alia*, to address issues arising from the use of copyright material in the digital environment as well as to make further amendments to the Copyright Act to give full effect to TRIPS. This included the new s 7A to clarify that the expression "literary work" includes a compilation of any type of copyright material (*eg*, a multimedia work) which, by reason of the selection or arrangement of its contents, constitutes an intellectual creation. Speaking at the second reading of the bill, the then Minister for Law, Professor Jayakumar, explained that s 7A set out a new definition of compilation to ensure protection for multimedia works. These were to be protected provided there was intellectual creation by virtue of selection or arrangement of the contents (see *Singapore Parliamentary Debates, Official Report* (17 August 1999) vol 70 at cols 2070–2071).

205 It is apparent then, that there were two reasons for the 1999 amendments. First, the pre-amendment definition of literary work provided that it included "a table, or compilation, expressed in words, figures or symbols (whether or not in a visible form)". The problem was that it was unclear whether compilation was restricted to compilation of works: literary, dramatic, musical and artistic works. Did the definition extend to compilations of works and sound recordings or films (multimedia)? Second, there was the larger question as to whether a compilation of other material (not copyright subject matter), such as pieces of data, was covered. Given the expression/idea and fact dichotomy in copyright

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some compilations may well comprise collections of facts wherein each collected fact is not protected by copyright as such. To meet these problems and satisfy Singapore's obligations under TRIPS, the Copyright (Amendment) Act 1999 was passed.

206 For these reasons, I am not persuaded by the plaintiff's argument that I should augment the statutory requirement of originality to make up for the absence of a *sui generis* database right in Singapore. It is not the role of the court nor does it have the tools to shape the law to extend copyright protection to an entire class of subject matter (*ie*, data) on the basis of substantial investment in the obtaining of information or data. On the creativity view, this is fundamentally at odds with the essence of copyright protection. To do so would be to judicially overrule the clear legislative intent to adopt the creativity view at least where compilations are concerned. Nor do I think it would be beneficial for the court to supplement database protection by augmenting the scope of copyright protection. I have no doubt that in the modern world databases have a tremendous commercial significance and arguments can be raised that it is in the public interest to protect them. But the scope and strength of any new form of database protection (if necessary) must be appropriate. That is a matter best left for Parliament. The protection of databases engages distinct concerns from what copyright was originally concerned with, namely, the protection of artistic expression (see Rajah JA's remarks in *Pioneers & Leaders* at [37]–[38]).

207 The point was made earlier that the decision of the Canadian Supreme Court in *CCH Canadian* represents a compromise between the two schools. The Canadian Supreme Court held that copyright (compilation) subsisted in: (a) headnotes of judicial decisions; (b) case summaries of judicial decisions; (c) the topical index in the book *Canada GST Cases*; and (d) reported judicial decisions. Whether the same decision would have been reached applying the

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creativity standard is not relevant to the matter before me. That said, I would comment in passing that the headnotes, case summaries and topical index are material to which the author of the compilation has applied intellectual creativity. Substantial judgment (selection and choice) over and above mechanical extraction is likely to be necessary. Leaving aside the actual judgments (*ie*, the judicial reasons in themselves) reported judicial decisions comprising the headnotes, case-summary, catch-lines, tables of cases and legislation, the judgment, *etc*, are also likely to pass the creativity standard of originality.

208 In summary, for a compilation to be protected by copyright under s 27(2) of the Copyright Act, the compiler must exercise sufficient creativity or intellectual effort in the *selection or arrangement* of the material or data within the compilation. The copyright protection only extends to the original expression in the form of the selection or arrangement of data or material. The compilation copyright does not extend to the composite parts of the compilation, namely the facts or data contained therein. Whether the data or material enjoys its own copyright is a separate matter to be determined by general copyright principles including the principle that copyright is concerned with original expression and not underlying facts and ideas.

Application to the facts

209 I now turn to address the various works that the plaintiff claims are entitled to copyright protection. I have described these earlier and do so again for convenience.

210 The plaintiff's amended statement of claim identifies the copyright works as: (a) the plaintiff's printed directories as compilations by reason of the

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selection and arrangement of their contents; (b) the plaintiff's online directory as a compilation by reason of the selection and arrangement of its contents; (c) the compilation of seeds as well as each individual seed; and (d) the subscriber information as verified, enhanced, arranged and classified from the raw data.[120]

211 It is noted that aside from the raw subscriber information provided by the service providers, the plaintiff adopted a multi-layered approach in defining the copyright subject matter. At the broadest, each directory as a whole was a compilation. Thereafter the claims were directed towards the collection of listings under any given heading as a compilation in its own right, followed by each individual listing as yet another compilation in its own right. These included the seeds.

212 I pause here to make the comment that there may be a practice of claiming and defining the copyright work in a cascading manner so as to aid proof not just that there is a valid copyright but also to aid infringement. Infringement depends on the substantiality of the material reproduced (copied). Whilst this is a matter of the quality, and not quantity, of what was taken, it stands to reason that a copyist who takes three pages of a five-page article is much more likely to infringe than a copyist who takes three pages of a 500-page textbook. In *Hyperion Records Ltd v Warner Music (UK) Ltd* (unreported, 17 May 1991) ("*Hyperion Records*"), a decision of the late Mr Hugh Laddie QC (then sitting as a deputy judge of the English High Court), the copyright action concerned the taking of approximately eight notes from a recording of a medieval chant that lasted some 5 minutes and 18 seconds. The eight notes taken were repeated several times in the allegedly infringing work. The plaintiff

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120 Statement of Claim (Amendment No 6) at para 4.

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claimed copyright in the recording as a whole. It also claimed that the eight-note segment enjoyed copyright in its own right. Mr Laddie QC expressed doubt as to whether all copyright works could be regarded as consisting of copyright in the whole and in an infinite number of sub-divisions. If that was possible it would render the substantiality requirement meaningless (see also Brad Sherman, "What is a Copyright Work?" (2011) 12(1) *Theoretical Inquiries in Law* 99 at pp 111–114).

213 Whilst a compilation such as a collection of speeches will comprise a selection and arrangement of a number of discrete works, it cannot be assumed that every part of any compilation is a discrete work in its own right. *Hyperion Records* rightly underscores the importance of defining and determining with care whether any portion of a work can be excised and treated as a discrete work in its own right.

214 I also note that whilst the plaintiff claims copyright in each directory as a whole on the basis of selection or arrangement of contents, that the contents of the directories included introductory and other sections quite apart from the actual listings of subscribers. Whilst much has been made of the plaintiff's works as a whole or as dissected, it is important to bear in mind that *there is no suggestion or allegation that the defendant's directories took anything else aside from the listings*. The relevance of this will become clear later.

215 For convenience, the order that I adopt to address the works in which copyright is claimed and asserted is as follows: (a) the individual listings in the plaintiff's printed and online directories; (b) the listings arranged within each classification in the Yellow Pages Business and Yellow Pages Consumer or each category within the online directory; (c) the plaintiff's printed and online directories, each as a whole; and (d) the individual seeds.

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Whether copyright subsists in the individual listings

216 The plaintiff argues that the "individual listings" in its directories are each "compilations on their own thereby being entitled to copyright" protection.[121] The argument for subsistence of copyright does not rest on the enhanced data as it exists in the plaintiff's master database. Rather, it rests on the expression of that data in the form of the subscriber listings in the plaintiff's directories.

217 The plaintiff argues that the individual facts—the name, the address and the telephone number of each subscriber—would be meaningless in isolation. It is the compilation of those facts that is useful. The plaintiff is faced with "*a range of facts* pertaining to each subscriber and its employees can choose, *from amongst these facts*, what to include in a listing to be published" [emphasis in original].[122] The question is "whether there is more than one sensible way for a single listing to be expressed".[123] The plaintiff relies on Prof Ng-Loy Wee Loon's rationalisation of the *Virtual Map* line of cases in her textbook, *Law of Intellectual Property of Singapore* (2nd Ed, Academy Publishing, 2014) at para 10.1.34, where she states:

> … Another perspective is that the 'skeleton' of SLA's map was not merely the factual information about the Singapore landscape. According to the evidence tendered in court, whilst it was possible to use GPS technology to obtain topographical details, there would invariably be errors in the results provided by GPS technology by as much as several meters. … Therefore it is conceivable that the 'skeleton' of SLA's maps, which was embedded in the vector data, was a particular *expression* of the factual information about the Singapore landscape, and it was

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121 Plaintiff's Closing Submissions at para 134.

122 Plaintiff's Closing Submissions at para 136.

123 Plaintiff's Closing Submissions at para 137.

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> this particular expression that the defendant had copied. [emphasis in original]

218 The plaintiff argues that it has choice in what to publish in the individual listings, for example:

(a) The plaintiff was sometimes given the subscribers' mobile numbers by the telephone service providers but it chose not to include them in the listings.[124]

(b) The plaintiff was able to decide how the facts in the address were presented. It cites an example of an address which I have referred to at [30] above to show the possibilities:[125]

> 390 Orchard Road #03-05
>
> #03-05 Palais Renaissance
>
> 390 Orchard Road #03-05 Palais Renaissance
>
> 390 Orchard Road #03-05 Palais Renaissance Singapore 238871

219 In my judgment, copyright does not subsist in the individual listings. The form of expression contained in the listings does not meet the requisite level of originality—if there is any originality at all—for copyright protection to be conferred on it.

220 There is no doubt that the plaintiff has invested painstaking effort and considerable expense in developing procedures, creating software and employing persons to collect, verify and sort subscriber information. It begins with the receipt of subscriber information from the telephone service providers.

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124 Plaintiff's Closing Submissions at para 140.2.

125 Plaintiff's Closing Submissions at para 101.

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That information is then synthesised and verified by automated computer software (the SOP module) and manually by the efforts of the Records Maintenance Team. The information is then sorted by the assignment of book codes and main classification headings. This is done by the Records Maintenance Team and DP Info. Advertisements, which allow subscribers to embellish their listings in various ways, are sold by the Records Maintenance Team and the Sales Department, which record the advertisements in the LMS module and COP and CIS modules respectively.

221 The collection, verification, enhancement and arrangement of information are time-consuming and expensive. Intellectual effort and human skill and judgment are interspersed at many stages in the process. It requires complex interactions between human actors and sophisticated software. The fruit of that effort is an up-to-date, accurate and well-organised database of subscriber information. But that effort is not what copyright protects. The difficulty is that *none* of that effort is directed at the *particular form of expression*: the individual listing. And in my judgment, there can be little, if any at all, intellectual effort or creativity directed towards the expression of a listing in a telephone directory.

222 I mentioned at [70] above that factual compilations posed a particular problem because they erode the dichotomy between expression on one hand and facts and ideas on the other. There may be greater room for expression where the expression of vector data is concerned, and Prof Ng-Loy's perceptive remarks are well taken. But in the case of an individual listing in a telephone directory, the fact-expression dichotomy dissolves entirely. The fact is largely coterminous with the expression. A listing in a telephone directory is essentially an entry to provide the user of the directory adequate information about an individual subscriber to enable the user to contact that subscriber. This

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information must necessarily take the form of the subscriber's name with any combination of the following fields of information: (a) the subscriber's address; (b) the subscriber's telephone number; (c) the subscriber's email address; or (d) the subscriber's website. It seems to me inconceivable that the selection or arrangement of any combination of these fields of information to form an individual listing could entail the minimum level of creativity or intellectual effort necessary to make that listing an original work protectable by copyright.

223 To grant the plaintiff copyright protection over the individual listings would be tantamount to granting the plaintiff copyright in, and thus a monopoly over the use of the bare facts themselves. I reject the plaintiff's argument that copyright subsists in each individual listing.

Whether copyright subsists in the listings arranged within each classification

224 The plaintiff argues that its employees expended "skill, judgment and/or creativity" in "the assignment of [main classification headings] to each listing, creation of each classification and arrangement of listings under each classification". Therefore the "compilation under each classification is worthy of copyright protection".[126]

225 To be clear, examples of classification headings include "Dentists" and "Lawyers". The plaintiff does not specifically claim copyright in the headings, although the plaintiff says "they are [nonetheless] pertinent in respect of the selection and arrangement into each classification".[127] The complaint made relates to the compilations of the listings under each classification heading. Each

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126 Plaintiff's Closing Submissions at para 144.

127 NE 29 September 2014 p 6 lines 15–22.

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subscriber is assigned a particular heading under which his listing will appear. There will ordinarily be many listings under any given classification heading. The collection of listings under each classification heading is said to be an original compilation in its own right. I note in passing that there was evidence that the plaintiff from time to time reviewed the classification headings (see [56] above), for example, for the purpose of introducing a new heading or to alter the heading for an existing classification such as "Dental Surgeons" to "Dentists".

226 *Even if* a claim for copyright had been made in respect of each of the specific classification headings, I am of the view that the effort expended fell far short of what is required to meet the requirement of originality. Whilst I do not doubt that some time and intellectual effort was expended on maintaining the classification headings, each classification heading on its own could hardly be regarded as a work in its own right. There may have been some effort in the selection of the categories, but I am not satisfied that there is sufficient effort of selection or labelling such as to constitute the classification heading as an intellectual creation. Indeed, the headings used appear to be common place.

227 Instead, what is asserted is that the *placement* of the listings under each classification heading entailed sufficient effort and judgment such as to make the listings under each heading a protected compilation. In my judgment, copyright does not subsist in the listings selected and arranged within each classification. That is because there was no creativity or intellectual effort in reducing the work (*ie*, the individual listings under each classification) to the *final form of expression*. Any intellectual effort expended by the plaintiff's employees was directed at the *discovery of facts* and did not fix upon the selection and arrangement of the listings within the classifications.

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228 Central to the selection and arrangement of listings into the classifications is the assignment of main classification headings to subscribers. This could happen in one of two ways. First, through matching of main classification headings to new subscribers either by DP Info or the Records Maintenance Team. Second, through the subscriber's purchase of cross-listings by existing subscribers.

229 In relation to the first aspect, the assignment of main classification headings to new subscribers was done manually by the Records Maintenance Team prior to 2006, and thereafter outsourced to DP Info (see [39] above). DP Info successfully assigned main classification headings to approximately 82% of the new subscribers each year.[128] None of the plaintiff's employees were involved in this matching process. The matching simply consisted of DP Info's pairing the subscriber's registered ACRA business profile with the classification map that the plaintiff had created. The fact that a substantial part of the matches could be made mechanically by DP Info (in accordance with the classification map) suggests that no creativity was necessary.

230 The Records Maintenance Team performed the matching manually for subscribers who (a) did not agree with DP Info's matching; (b) were unsuccessfully matched by DP Info; or (c) fell within controlled classifications. Ms Tan Ai Lin from the Records Maintenance Team, who had been an employee of the plaintiff for 42 years, gave evidence on the process of assigning main classification headings to subscribers manually:

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[128] Susan Tan's affidavit at para 39.

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(a) She would telephone subscribers to ask about the nature of their business, and recommend a suitable main classification heading.[129]

(b) If a subscriber did not agree with the assigned main classification heading, she would attempt to recommend one closest to the nature of the subscriber's business.[130]

(c) If the subscriber agreed, that main classification heading would be assigned to the subscriber.[131]

(d) If the subscriber still disagreed, she would indicate in the LMS module that the subscriber did not wish to be listed in the Yellow Pages directories.[132]

(e) If she was unable to contact the subscriber after three calls, that subscriber's listing would not be assigned a classification and would not appear in the Yellow Pages directories.[133]

231 In my judgment, Ms Tan's evidence sheds light on the true nature of the process for matching main classification headings. The members of the Records Maintenance Team are not engaged in a creative process of selecting and arranging subscribers within a list or classification. Rather, the matching of main classification headings is no more than a systematic attempt to discover

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129 NE 3 October 2014 p 49 line 20–p 50 line 4.

130 NE 3 October 2014 p 50 lines 5–16.

131 NE 3 October 2014 p 51 line 9–12.

132 NE 3 October 2014 p 50 line 5–p 51 line 20.

133 NE 3 October 2014 p 51 line 25–p 52 line 4.

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facts and label them. The "Yellow Pages Heading Book"[134] aptly captures the gist of the process in its opening page:

> A business customer's free classified listing should be printed **under the heading which is most descriptive of the business**.
>
> [emphasis added]

While the tagging of subscribers no doubt requires intellectual effort and judgment, it is not intellectual effort or judgment directed at the final form of expression, namely, the selection or arrangement of the individual listings within each classification heading. Instead, the actual task of selecting and arranging the individual listings within the classification is done by the COM module during the extraction process.

232 The second way subscribers could be assigned additional or alternative main classification headings is through cross-listings which the subscribers purchased. Both the Sales Department and the Records Maintenance Team were responsible for "upselling" these additional cross-listings. A substantial amount of effort went into sales strategies and procedures for identifying potential advertisers and maximising sales and advertising revenue.[135] Mr Brian Ho, who was a Team Leader in the plaintiff's Sales Department and had been an employee in that department since 1987 gave evidence on the upselling process. He admitted that whilst the plaintiff's employees could recommend and cajole the subscribers to take up various cross-listings, the ultimate choice of whether or not to purchase a cross-listing lay with the subscriber:[136]

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134 B15/627/8702.

135 Susan Tan's affidavit at paras 15–23; Brian Ho's affidavit at paras 19–29.

136 NE 8 October 2014 p 140 line 19–p 141 line 5.

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> Q. So do you agree that the final choice of whether or not to take up the advertisement resides with the subscriber? You can advise, you can suggest, but do you agree that the final choice of whether the contract is done lies with the advertiser?
>
> A. For me, our role as a salesperson is actually to make it easier for the customer to buy from us, to say 'Yes'.
>
> Q. Mr Ho, I don't think you are answering my question … do you agree that the final choice of whether to take up an advertisement resides with the subscriber?
>
> A. Yes.

In my view, it cannot be said that the members of the Sales Department or the Records Maintenance Team exercised authorial choice when their role was limited to making recommendations to prospective clients, who retained the ultimate decision as to whether they wished to be placed in the particular recommended classification. Further, these efforts at upselling were also not directed at the selection or arrangement of the individual listings within a classification. Rather, those efforts were directed at maximising profit through the effective sale of advertisements.

233 I therefore hold that the plaintiff is not entitled to copyright protection in respect of the selection and arrangement the compilation of listings under each classification.

Whether copyright subsists in the plaintiff's directories as a whole

234 I will deal with the printed Yellow Pages directories first before turning to the Business Listings, then finally to the online directory.

(1) The Yellow Pages directories

235 The plaintiff did not identify precisely what the Yellow Pages directories "as a whole" comprised. The lack of precision in identifying the subject matter

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said to be the copyright work is troubling. French CJ, Crennan and Kiefel JJ in *IceTV* emphasised at [15] that it was "essential that the plaintiff identify precisely the work or works in which copyright is said to subsist and to have been infringed". This is because the identification of the precise work in which copyright is said to subsist is the first step from which everything flows. It determines the scope of the copyright protection and whether there has been infringement.

236 Each Yellow Pages directory consisted of multiple parts. One of these was the classified listings of subscribers. There was also other front matter and introductory material. Each Yellow Pages directory also had special segments devoted to certain classes or categories of products. In the Yellow Pages Business, for example, there was a segment known as the "Trade-name Listings" which featured various advertisers. In the Yellow Pages Consumer, there was a segment known as the "Verticals", which contained editorials or advertorials on certain specially selected topics, such as "After Hours" or "Lifestyle". There was evidence that a substantial degree of intellectual effort went into the determination of the topic and contents for the Verticals in each year's directory.[137]

237 It is not clear whether the plaintiff's claim for copyright in the Yellow Pages directories as a whole,[138] refers to (a) the Yellow Pages directories in their *entirety* including the specialist segments and other introductory or forward material, or (b) whether it refers only to the compilation of all the individual

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137 NE 20 October 2014 at pp 15–22.

138 Statement of Claim (Amendment No 6) at para 4.1.

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listings within all the classifications in each entire directory (*ie*, the entire classified listings part of each directory).

238 The plaintiff's answer to a request for further and better particulars in respect of an earlier amendment of the statement of claim[139] suggests (although not without ambiguity) that "directories as a whole" refers to the former characterisation. This is also the position taken in the plaintiff's closing submissions.[140] There are, however, two difficulties with this position. First, the plaintiff's pleadings do not make any reference whatsoever to the Trade-name Listings or the Verticals or other introductory and forward material, much less plead that these segments formed a part of the directories as a compilation. Second, and more fundamentally, the plaintiff has not alleged that the defendant reproduced parts of the directories other than the various listings in the classifications. I have no doubt that each Yellow Pages directory, comprising the introductory material, specialist segments, *etc*, as well the listings under the classification headings is likely to pass muster as an original compilation. But there is no assertion that the defendant copied any of the introductory material, the Trade-name listings or the Verticals. The plaintiff's allegation of infringement is limited to the defendant's taking of information about the subscribers and the listings found in the classified listings of the subscribers. Indeed, the plaintiff submits that the legal issues engaged relate to works which "consist of information that largely comprise subscriber listings and enhancements made to the listings".[141]

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139 Further and Better Particulars of Statement of Claim (Amendment No 1) dated 2 July 2010 at para 1(d).

140 Plaintiff's Closing Submissions at paras 142–143.

141 Plaintiff's Closing Submissions at para 3.

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239 Assuming for the moment that copyright subsists in each Yellow Pages directory as a whole (including the introductory material, *etc*), copyright is only infringed if there has been copying of a substantial part of the protected work. Substantiality depends on the quality of the material copied, not quantity alone. It is well established that quality in this context is primarily tested against whether the defendant has copied or taken the parts of the work which contribute towards the finding of originality. In short, merely to copy parts of the work which are not original to the work is not substantial copying.

240 Thus in *Ladbroke*, Lord Pearce stated that the reproduction of a part of a work which by itself has no originality would not normally be regarded as a substantial part of the copyright work (at 293):

> The reproduction of a part which by itself has no originality will not normally be a substantial part of the copyright and therefore not be protected. For that which would not attract copyright except by reason of its collocation will, when robbed of that collocation, not be a substantial part of the copyright and therefore the courts will not hold its reproduction to be an infringement.

This passage was cited with approval by the Court of Appeal in *Flamelite (S) Pte Ltd and others v Lam Heng Chung and others* [2001] 3 SLR (R) 610 at [37]. A similar conclusion was reached in *Warwick Film Productions Ltd v Eisinger and others* [1969] Ch 508.

241 That being so, even if there is copyright in the Yellow Pages Directory as a whole (including the introductory material, *etc*), a defendant who copies just the listings may not infringe unless there is a finding that the listings themselves copied contributed to the originality—in this case, as an intellectual creation by reason of selection or arrangement. Indeed in the US case of *Bellsouth* the defendant conceded that the directory as a whole enjoyed copyright. What was in issue was whether the defendant had infringed the

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copyright in the yellow pages directory by taking the plaintiff's original selection, coordination or arrangement. It will be recalled that US Court of Appeals found that infringement had not taken place despite the fact that a considerable amount of material (including listings) had been taken.

242 This then collapses back into the second characterisation that the Yellow Pages directory as a whole refers to the entire compilation of all the individual listings under all the classification headings within each entire directory, since there is no allegation that anything other than that has been copied. In this respect, the plaintiff argues that there was sufficient originality in the selection and arrangement of the contents of both Yellow Pages directories, such that they each constituted intellectual creations that were protected by copyright. The originality is said to arise from the Classification Committee's/Marketing Department's choices as to which classifications to include in each of the Yellow Pages directories.[142] The selection of the classifications would in turn determine the subscriber listings that would appear in each directory. These choices in selecting the classifications to include in each directory thus affected the ultimate selection of the contents of the compilation.

243 It will be recalled that the incorporation of the classifications into each of the Yellow Pages directories (Yellow Pages Business and Yellow Pages Consumer) was determined by the extraction criteria (see [54]–[57] above). The evidence also shows that the Marketing Department had control over and "[came] up with the extraction criteria" every year.[143] This is not disputed by the

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142 Plaintiff's Closing Submissions at paras 111–113.

143 NE 10 October 2015 p 17 lines 10–13, p 78 lines 4–17; NE 21 October 2015 p 74 lines 18–20.

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defendant.[144] Determining the extraction criteria every year was said to be a "continuing" process. There were "changes along the way, then the extraction criteria would … be adjusted according to whichever policy that [the Marketing Department sets every year]".[145]

244 The exact magnitude of changes made every year to the extraction criteria and the concomitant changes in the selection of classifications is unclear.[146] But what is clear is that the Marketing Department had the responsibility to determine the "content" of each of the plaintiff's printed directories. For example, in 2007, there was contemporaneous email evidence of members of the Marketing Department working together to assess whether approximately 111 classifications should be shifted from the Yellow Pages Consumer to the Yellow Pages Business.[147]

245 Mr Khoo Boo Leong was a Senior Manager in the Marking Department between 2006 and 2008. He stated in his affidavit that the "main duties" of the Marketing Department were threefold. First, to "determine the content of each product (i.e. directory)"; second, to "maintain the product integrity and avoid compromising market and users' needs"; and third, to "enhance sales by fine-tuning sales strategies, coming up with new products and refining existing directories".[148] In cross-examination, he elaborated that "determining the

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144 Defendant's Closing Submissions at para 380.

145 NE 21 October 2015 p 75 lines 6–10.

146 NE 10 October 2015 p 3 lines7–11; NE 20 October 2015 p 9 lines 14–20.

147 Khoo Boo Leong's AEIC at para 13.

148 Khoo Boon Leong's AEIC at para 4.

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content" meant deciding on the classifications that went into each of the Yellow Pages directories:[149]

> Q. But you wrote this in your AEIC, and *I'm trying to understand what you mean by 'determine the content of each product'.*
>
> A. As mentioned before, the determination of content could be renaming the content, moving or removing the classification.
>
> Q. Mr Khoo, if we are defining 'content', could you try to avoid using the same word, 'content', so that we can better understand what 'content' means.
>
> A. *Okay, the content for a directory would be classifications.*
>
> [emphasis added]

246 Ms Geraldine Png was a Senior Marketing Manager in the Marketing Department between 2003 and 2006. She held a senior position, and was the "second-in-command" in the department.[150] She was a subpoenaed witness. Her evidence was less consistent, but the thrust of it was that the Marketing Department played an important role in selecting and arranging the content in the printed directories:[151]

> Q. Can you just tell briefly what role the Marketing Management Department for the Marketing Department did in Global Yellow Pages?
>
> A. *Basically the Marketing Department's role is to manage the entire print products, to decide on the look and feel of the products itself, to come up with new product development within the products itself, or even probable a revamp of the products, as well as sales initiatives so that's the role of the Marketing Department.* Yes.
>
> …

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149 NE 15 October 2015 p 64 line 20–p 65 line 10.

150 NE 20 October 2014 p 97 line 21–p 98 line 3.

151 NE 10 October 2015 p 2 line 18–p 3 line 1; NE 20 October 2014 p 29 line 6–p 30 line 1.

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> Q. How would you determine or how would you decide to make each directory different?
>
> A. I mean, the difference encompasses quite a fair bit of stuff, right? So first of all, like for example the cover designs, it's different every year. …
>
> …
>
> *Then the rest of the other changes could be like new headings or new ad solutions that we came up with, so it all depends on that year's initiatives that we have come up with.*
>
> [emphasis added]

247 Ms Png was asked more pointedly whether the Marketing Department determined the content of the directories in cross-examination:[152]

> Q. So did the Marketing Department decide on the content of the directories?
>
> A. The company listings are actually provided by SingTel, right. The decision was made on where to post these company listings, to which classification or heading. So that's the main content that the Marketing Department or the Classifications Committee decides on. So that's basically what we do. So I'm not exactly sure what you mean by extraction criteria.
>
> Q. No, I'm not talking about extraction criteria. I'm just saying whether the [Marketing Department] effectively decided on what content goes into the printed directory.
>
> …
>
> A. The *Marketing Department basically would do, work out some recommendations on what they could put in on the directory. But ultimately the decision is made by the CEO, who will then decide whether this content should be in the directory; right?* But the contents also could be referred to, like headings, new headings, and stuff like that. These are also contents. Right? So this is not -- this doesn't come under the purview of the Marketing Department. This comes under the purview of the Classifications Committee. So that's the reason why I said the Marketing Department is not the only

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152 NE 20 October 2015 p 102 line 8–p 103 line 9.

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> department that has the final say in the contents of the directory.
>
> [emphasis added]

Her evidence suggests that the content of the Yellow Pages directories was, in part, the remit of the Classifications Committee. But as I pointed out at [56] above, the Classifications Committee was dissolved in 2004 and its duties appear to have been taken over by the Marketing Department thereafter. Ms Png's evidence is nonetheless broadly consistent with that of the rest of the witnesses, that the Marketing Department was responsible for the content that appeared in each of the printed directories.

248 The evidence also shows that the Marketing Department's choices regarding the content of the Yellow Pages directories were guided by textured considerations and required the exercise of judgment. Mr Koh said that the relevant factors included considerations such as reader-friendliness, cost and relevance.[153] Ms Png said that whilst revenue was an important factor in decisions relating to content, *usage* was still the foremost concern:[154]

> Q. But this would have an impact on your revenue?
>
> A. *Oh, yes, it does. But we can't compromise usage, because ultimately usage is still king. Yes.*
>
> Q. Could you explain a little bit more as to what you mean by 'usage'?
>
> A. *'Usage' means -- I mean, what we want is subscribers to use the book and refer to the book, the directory, to look for companies, to call for quotes and to ask for enquiries. So that's what I mean by 'usage'.*
>
> [emphasis added]

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153 NE 15 October 2014 p 90 line 21–p 91 line 16.

154 NE 20 October 2014 p 18 lines 17–25.

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249 The defendant argues that the selection of listings was not original because it was done in a manner that enabled the Yellow Pages to perform its function as a directory.[155] With respect, this puts the question the wrong way around. A compilation of data can be creatively selected and arranged precisely to enable it to perform its function of conveying information to the reader with ease. The question is whether the function of the work dictates the form of expression such that there can be no creativity in the expression of the work (see *Bellsouth Publishing* at 1442).

250 Here, the choice of what classifications to include in which directory presented the Marketing Department with a field of discretion. For example, the line between business-to-business listings (which were placed in the Yellow Pages Business) and business-to-consumer listings (which were placed in the Yellow Pages Consumer) was not an entirely clear one. It is not self-evident which directory the classifications "Marble-Synthetic" and "Marble-Natural" should belong to. The Marketing Department had to make decisions as to which of the two Yellow Pages directories these classifications should appear in.[156] Such choices required intellectual effort and judgment. Various factors including user-experience were considered. This would have entailed conceptualising what a user of each of these directories would find useful, and selecting the content to meet the needs of that user.

251 Whilst I do not pretend that the decision was easy, in my judgment, the intellectual effort in the selection of the classifications to be included in each of the Yellow Pages directories possessed the requisite creativity to qualify the

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155 Defendant's Closing Submissions at para 477.

156 Khoo Boo Leong's affidavit at para 19.

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compilation in each directory of classifications and listings as a whole for copyright protection. The protection conferred on it, however, is a "thin" one (see *Feist* at 1290). The copyright does not protect the individual listings, the individual listings within the classification or even the individual classifications themselves. It is limited to the plaintiff's selection and arrangement of the various classifications and listings within each of the Yellow Pages directories as a whole.

252 The defendant takes a further objection to the subsistence of copyright in the Yellow Pages directories as a whole. There are no identifiable authors or joint-authors because the process was largely automated and any compilation was carried out by the COM module rather than any human.[157] There was insufficient collaboration between the plaintiff's employees for any of them to be considered the authors of the Yellow Pages directories.[158]

253 I am not convinced by this objection. It is well established that the mere fact that a literary work is reduced into its final form of expression through the instrumentality of computer software does not in itself divorce the work's origination from the person operating the machine.

254 In *Express Newspapers plc v Liverpool Daily Post & Echo plc and others* [1985] FSR 306 ("*Express Newspapers*"), the plaintiff newspaper publisher devised a competition, which comprised a grid containing letter sequences. The defendants allegedly copied the grid and letter sequences into their publications. The defendants argued that there was no author because the grids and letter sequences were produced by a computer which had been

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157 Defendant's Closing Submissions at para 454.

158 Defendant's Closing Submissions at para 461.

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programmed by Mr Ertel, the person tasked to create the grid and letter sequences. Whitford J rejected this argument and held that the computer was to Mr Ertel what a pen was to a writer (at 310):

> … The computer was no more than the tool by which the varying grids of five-letter sequences were produced to the instructions, via the computer programs, of Mr Ertel. It is as unrealistic as it would be to suggest that, if you write your work with a pen, it is the pen which is the author of the work rather than the person who drives the pen.

255 The same point was made by a Full Court of the Federal Court of Australia in *Telstra (Full Court*). Perram J said at [118] that:

> So long as the person controlling the program can be seen as directing or fashioning the material form of the work there is no particular danger in viewing that person as the work's author.

The crucial question is the degree of *control* that the putative authors exercise over the computer software in shaping the final form of expression (*Telstra (Full Court)* at [118] *per* Perram J; at [166] *per* Yates J). In *Telstra (Full Court)* there were no authors because the persons in control of the software were not involved in "shaping or guiding the material form of the directories". This was a natural consequence of the first instance court's finding that the Rules dictated the final form of expression of the directories, and any discretion given to the employees in the directory production process was not a true discretion, but rather, a discretion to ensure the Rules were complied with (*Telstra (First Instance)* at [124]).

256 The case here, however, is different. The members of the Marketing Department dictated the final selection of the compilation in the form of the Yellow Pages directories by determining the extraction criteria for each of the directories. The IT Department was the bridge between the members of the Marketing Department and the COM module. As the defendant itself submits,

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"it is clear that, all that IT did was to implement the ideas of the Marketing Department and did not exercise any intellectually creative authorial choice".[159] That was because the intellectual activity or creativity in fashioning the content of the Yellow Pages directories was exercised by the members of the Marketing Department, and *not* the IT Department or the COM module. To put it another way, the members of the Marketing Department were the authors of the compilations of all the listings in Yellow Pages directories, but the members of the IT Department were their technocratic scribes.

257 The Court of Appeal in *Pioneers & Leaders* said at [75] that:

> … [W]e should add that it is not necessary to name each and every author to make out a claim for copyright protection but *it has to be shown that the work product in question has been generated from human author(s) working alone or collaboratively, ie, the existence of such persons must be clearly established.*
>
> [emphasis added]

I am satisfied on the facts that the authors of the compilations in the form of the Yellow Pages directories as a whole were either the product managers of the respective publications (who were themselves individual employees in the Marketing Department) or the Marketing Department collaborating to produce the directories as a whole.

258 The defendant's reliance on *Fylde Microsystems Ltd v Key Radio Systems Ltd* [1998] FSR 449 ("*Fylde Microsystems*") also does not aid its argument. The facts of *Fylde Microsystems* are far-removed from those at present. The plaintiff in that case produced printed circuit boards loaded with software for use in portable radios. The defendant was the sole importer of a

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[159] Defendant's Closing Submissions at para 387.

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particular design and make of radio hardware. The plaintiff developed a printed circuit board and software for the defendant's mobile radio. As the business relationship developed, the plaintiff stopped pre-loading the printed circuit boards with the software, but sent the software to the defendant for the latter to upload itself. The defendant used the plaintiff's software to programme printed circuit boards that were not bought from the plaintiff, but from another manufacturer. The plaintiff sued for copyright infringement. The defendant argued that it was a joint author of the computer software because its employee had spent substantial time and effort assisting with the troubleshooting and perfecting of the software. Laddie J rejected the defendant's argument. Whilst the defendant's employee had valuable exchanges with the plaintiff's employee had provided an extensive and technically sophisticated contribution, they did not amount to contributions to the authoring of the software.

259 For the above reasons, I find that copyright subsists in the plaintiff's directories as a whole (inclusive of the introductory material, *etc*), as well as the compilation of all the classifications and listings as a whole in each edition of the Yellow Pages directories.

(2) The Business Listings

260 The same lack of clarity identifying the work arises where the Business Listings as a whole is concerned. In the plaintiff's pleadings, the focus appears to be only on the compilation of the entirety of the listings in the Business Listings. In its closing submissions, however, the plaintiff states that the Business Listings as a compilation would typically include multiple segments such as:[160] (a) Emergency Telephone Numbers; (b) Important/Useful Numbers;

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[160] Plaintiff's Closing Submissions at para 132.

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(c) Know more about Yellow Pages; (d) Singapore Phone Book Listings Information; (e) Abbreviations Used In This Phone Book; (f) Directory of Public Services; (g) Government & Quasi-Government; (h) Index; (i) Alphabetical List Of Ministries, Government Departments & Statutory Boards; and (j) Alphabetical List of Business Subscribers.

261 Whilst I am prepared to accept that copyright subsists in the Business Listings as whole (including the introductory material, the various segments and the actual subscriber listings), there are difficulties with this position. First and foremost, there is no allegation that the defendant has copied anything apart from the listings in the Business Listings, as is the case with the Yellow Pages directories, which I have discussed at [238] above. Second, it does not appear that there is any evidence on who was responsible for the selection and arrangement of the multiple segments in the Business Listings, nor does it appear that there is any evidence on the process through which that was done. Further, at least some of the multiple segments such as Emergency Telephone Numbers, *etc*, appear to be routine and commonplace.

262 The difficulty with the position taken in the plaintiff's pleadings (*ie*, that copyright subsists in the compilation of the listings in their entirety) is a more fundamental one. Laying aside the requirement of authorship for a moment, the plaintiff has not established how the selection and arrangement of the listings in the Business Listings as a compilation meets the requisite threshold of originality necessary for copyright protection to attach. There was no creativity involved in reducing the Business Listings to its final form of expression as a compilation. The Business Listings, a whole-of-the-universe directory, is, by definition, exhaustive. The Business Listings derived its purposefulness and efficacy not from the selection of the individual business subscriber's data to be included in the compilation, but from the lack of it. The alphabetical

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arrangement of the individual listings within the Business Listings is also commonplace. Like in *Feist*, there is nothing creative about the selection and arrangement of the individual listings within the compilation.

263 The plaintiff relies on what is known as the "Sort_PLA" rules to show how its employees could still "exercise authorial decisions" even *within* the scheme of an alphabetical arrangement.[161] For example, under the sorting rules, the subscriber "7-11 Pte Ltd" would be entered into the Sort_PLA field of the plaintiff's master database as "S 7-11 Pte Ltd", and the subscriber "3 @ 11 Pte Ltd" would be entered as "T 3 @ 11 Pte Ltd". This was done manually by the Records Maintenance Team.[162] The result of the Sort_PLA entry is that the listing "7-11 Pte Ltd" would be arranged in alphabetical order together with the listings starting with the letter "S" instead of the digit "7". Similarly, the listing "3 @ 11 Pte Ltd" would be arranged together with the listings starting with the letter "T" instead of the digit "3".

264 Mr Anil Kumar, who worked in the plaintiff's IT Department from 1998 to 2012, and who was the Director of IT from 2009, gave evidence on the function or purpose of the Sort_PLA rules. He said that it was to prevent subscribers from "tak[ing] advantage" of the alphabetical system:

> A. I only meant subscriber himself, sometimes they want to have their listing to go on top, they may come with funny, funny names to put on the top. AAA -- I remember vaguely that a customer had A space A space A space A -- it is unlimited. …

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161 Plaintiff's Closing Submissions at para 117.

162 NE 10 October 2014 p 95 lines 2–10.

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265 I accept that the Sort_PLA rules may have been intellectual effort that was directed by the plaintiff's employees to the final form of expression in the sense of the arrangement of the listings within the directory. But I do not think it crosses the requisite threshold of creativity to make the arrangement of the listings original. The Sort_PLA rules are in no way a departure from the age-old method of alphabetical arrangement. Quite the contrary, they are predicated upon and intended to reinforce the alphabetical selection by ensuring that the alphabetical approach to arrangement is not upset by rogue, or in the words of Mr Kumar, "funny" listings.

266 The requirement of authorship is also problematical. While some ex-employees in the Marketing Department gave evidence that they were "involved in" the production of the Business Listings,[163] there does not appear to be any evidence showing that they expended any intellectual effort or made any authorial choices to determine the selection and arrangement of the listings. The evidence instead is that the compilation process for the Business Listings was an entirely automated one. It was initiated and completed by applying the COM module to the compilation database.

267 Indeed, the plaintiff's Mr Kumar gave evidence that the compilation of the Business Listings had nothing to do with classifications; it was a straightforward alphabetical arrangement of all the subscribers in the plaintiff's master database. The subscribers in the master database were included as long as their data was not erroneous or obsolete, or they were not "x-pub" (*ie*, had

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[163] NE 21 October 2014 at p 51 lines 14–18.

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not paid the plaintiff not to list certain numbers) or had not made requests not to be listed:[164]

> Q. Maybe we draw a contrast now to the Business Listings. If a classification is not present, will the Business Listings data be extracted from your database?
>
> A. It has nothing to do with classification, so it doesn't care for classification.
>
> Q. And that's because the Business Listings as a product is basically an alphabetical order arrangement of all companies that have a telephone number and are subscribed to one of the service providers for this business line; correct?
>
> A. Yes, that's so it doesn't care about classification.
>
> …
>
> Q. … [I]s it correct to say that when you extract the listings for these Business Listings, is it correct to say that all the business subscribers will be extracted into this book?
>
> A. Yes, with the condition that they satisfy all the conditions of extraction criteria, for example, I mentioned earlier that they should have a valid address and phone line, because we do keep obsolete days(sic) also in the system.
>
> Q. As long as it's a business listing that is not obsolete, it will be extracted into the [Business Listings]?
>
> A. Plus all the relevant criteria like it is not ex-pub or it's not been asked by the customer not to list them, so there could be few such exceptions, so those could be excluded.

268 The plaintiff argues that there are differences between its Business Listings and the white pages directory produced by Rural in *Feist*.[165] These differences include:

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164 NE 16 October 2014 at p 28 line 18 – p 29 line 6.

165 Plaintiff's Closing Submissions at para 133.

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(a) Under the plaintiff's agreement with SingTel, it had the discretion to determine which subscribers to exclude (see [26] above). Rural, on the other hand, was required to publish all the names and telephone numbers of its subscribers as determined by the Kansas Corporation Commission.

(b) SingTel had the right to object if the content or appearance of the Business Listings did not comply with relevant laws in Singapore, or departed materially from the format, content or appearance of the immediate previous edition, which departure affected the usability or efficiency of the directories. This meant that the plaintiff had "room to maneuver [*sic*] in the creation of the Business Listings". Rural, on the other hand, published *all* the data provided by its subscribers.

(c) The plaintiff's employees categorised and enhanced the data. Rural, on the other hand, published only the names and telephone numbers given by its subscribers.

(d) The plaintiff had the *option* to "priority sort" listings (*ie*, by placing advertisers "in front, or in front of each alphabet"), although this was not done. The alphabetical arrangement of the listings was also affected by revisions to the sorting rules. Rural, on the other hand, listed the data from subscribers alphabetically by surname.

269 In my judgment, these differences between the present case and *Feist* are nothing to the point. None overcome the lack of originality or the absence of any identifiable author(s) in the directory compilation process. Distinction (a) does not involve intellectual effort or creativity directed at the final form of expression (*ie*, the compilation of listings in the Business Listings). Distinction (b) is not relevant and in fact undermines the plaintiff's case that it has an

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unguided hand in deciding how to select and arrange the listings in the Business Listings. Distinction (c) collapses into the plaintiff's argument that it is entitled to copyright in the individual listings, which I have addressed and dismissed above. Distinction (d) relates to the Sort_PLA rules (which I have addressed at [265] above) and is also factually inaccurate—nowhere in the evidence was it suggested that "priority sorting" was considered for the arrangement of listings in the Business Listings. On the evidence of the plaintiff's own witnesses, priority sorting was considered and implemented *only* for the 2005 edition of the Yellow Pages Consumer. There is nothing that suggests it was ever contemplated for the Business Listings.[166]

270 Whilst I am prepared to accept that the Business Listings directory as whole (including the introductory material, *etc*, as well as the actual subscriber listings) is an original work, this will come to nought if the only parts copied are the subscriber listings set out in a largely alphabetical format.

(3) The online directory

271 The plaintiff states that "the arguments for copyright protection of the [printed directories] as a whole … are applicable to … each daily edition of the Online Directory as being a work as a whole".[167] The listings in the online directory could be arranged in various permutations, depending on whether the user "searched by (i) keyword or (ii) categories" [original emphasis omitted].[168] These permutations were "due to the implementation of decisions made by

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166 Anil Kumar's affidavit at para 32.6; Tracy Koh's affidavit at para 31.3.

167 Plaintiff's Closing Submissions at para 148.

168 Plaintiff's Closing Submissions at para 151.

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relevant product manager(s) for the Online Directory depending on user experience and what the relevant product manager wishes to show" [original emphasis omitted].[169]

272 It will be recalled that the plaintiff's online directory is produced with the information stored in the master database maintained by the plaintiff (see [66] above). The online directory is published daily using its own extraction criteria. A data file called the Web Daily Data is generated daily from the plaintiff's master database. From here, the content of the data file is transferred into the search engine database where it is indexed and optimised for searching by users.

273 It is not exactly clear as to what the plaintiff means by the online directory. It is not the master database—that much is clear. Does it refer to the Web Daily Data or the search engine database? The evidence is that the listings in the online directory mirrored the classifications in the Yellow Pages directories. That said, the online directory has an additional unique categorisation system enabling drill-downs and sub-categories. The online directory was also said to include various keywords and filters to assist the user. What remains unclear is whether these keywords and filters, *etc*, to improve user experience was part of the search engine (computer program), the online directory, or both. Indeed, the evidence suggests that the actual form in which the online directory appears to the user on-screen when a search is made depends on the user's choice of key words or filters or search terms. It may be thought that the keywords and filters were part of the computer program. Nevertheless, the parties did not draw any distinction between the database and

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169 Plaintiff's Closing Submissions at para 151.

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the search engine. For this reason, I am prepared after considering the evidence to treat the drill-down and sub-categories and keywords, *etc*, as part of the online directory as a whole.

274 In my judgment, the online directory as a whole is entitled to copyright protection. However, as I expressed in relation to the Yellow Pages Business and Yellow Pages Consumer at [251] above, the protection conferred on it will be "thin". Copyright protection is limited to the arrangement of the listings through the entire scheme setting in place the various categories (including drill-downs and sub-categories), filters and keywords that were employed in the online directory.

275 Mr Leo Tsoi was the product manager for the online directory for most of the relevant period. He was the person "taking care"[170] or "in charge"[171] of the online directory and his duties included:[172] (a) determining the content and classifications/categories for the online directory; (b) developing the user experience for the online directory; and (c) fine-tuning sales, marketing and pricing strategies relating to the online directory's listings, classifications and advertisements.

276 Mr Tsoi gave evidence that as the product manager, he had control over the extraction criteria that were applied to the online directory. He could, for example, decide how much information was displayed for the individual listings

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170 NE 8 October 2014 at p 9 lines 17–18.

171 NE 8 October 2014 at p 11 line 12.

172 Leo Tsoi's affidavit at para 5.

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of subscribers who had not purchased any advertisements with the plaintiff as opposed to those who had.[173]

277 He also had the final say as to whether new categories should be included in the online directory.[174] In his oral evidence, he described how requests would often come from the Sales Department about advertisers wanting to be placed in new categories in the online directory. He would have to consider those requests and decide whether a new category should be included.[175]

278 In my judgment, Mr Tsoi and other members of the plaintiff's Online Team exercised sufficient creativity and intellectual effort in the arrangement of the listings in the online directory in three ways. First, in the control they exercised over the maintenance and introduction of new category headings. Second, in the decisions they made as to the depth of sub-categories or drill-downs that were permitted. Third, in the choice of "filters" that were incorporated to assist users of the online directory.

279 In relation to the first point, Mr Tsoi's and the Online Team's roles mirrored those of the Marketing Department in relation to the printed directories. He would have to decide whether certain categories proposed by the Sales Department (usually on the request of potential advertisers) should be included in the online directory. One example Mr Tsoi gave was a request that the category "fusion food" be introduced. Mr Tsoi gave evidence that he was

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173 Leo Tsoi's affidavit at para 13.

174 Leo Tsoi's affidavit at para 15.

175 NE 8 October 2014 at p 21 line 20–p 22 line 2; p 23 lines 1–3.

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adamant the category not be permitted because it would affect the usability of the online directory:[176]

> A: [T]here [will be] only one listing under [that category] if you open [it] and it will never happen again in thirty years. Just for a category open [*sic*] for we have just one listings [*sic*] it's not a – it's not enough for us to open a new category like that …

280 Mr Tsoi was cross-examined further on what considerations he took into account when deciding whether or not a new category should be accepted. He said that he was guided by the "user experience" and "public benefit":

> A: The first concern is not for the advertising dollar. *For us, the first concern is the user experience. So advertisers only come up with new ideas or even more creative keywords or categories, suggesting we should use it. But these are not for the public benefit at all. If too many categories, which is quite -- depends on one or two businesses, the public will get confused* also, one thing. The second thing is: once we create a category, it cannot be removed later on. … *So when we are creating a new category, or receiving such a request, we are very careful about creating it. This is the most concerns we are talking about.* [emphasis added]

When he was asked what minimum number of listings was required before he would be prepared to create a new category, Mr Tsoi replied "if it's relevant, one listing is enough".[177] He added that where he was hesitant to create a new category, he would prefer the prospective advertiser to purchase a keyword instead, because that would achieve a similar effect but leave the categories in the online directory "[u]ntouched and undamaged".[178]

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176 NE 8 October 2014 p 93 lines 1–8.

177 NE 8 October 2014 p 96 lines 9–11.

178 NE 8 October 2014 at p 94 line 25.

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281 In relation to the second point, Mr Tsoi explained that, unlike in the printed directories where this was less readily perceptible, the online directory contained sub-categories or drill-downs. So, for example, under the main category of "Food", there would be multiple sub-categories such as "beef, also vegetables, also dressings, that is the categories … all these are under food category, because food itself is the main category that we classify".[179] There were multiple levels of drill-downs in the online directory. The "industry practice [was] about six to seven" layers of drill-downs, but the online directory only used "about three to four".[180] The online directory departed from industry practice because of the size of the local market. There was "not enough data to fit into the seven or six level down".[181] So the Online Team always controlled the number of drill-downs and restricted them to three to four levels down.

282 Finally, Mr Tsoi also gave evidence on the filters that were used in the online directory. These filters assisted the user in identifying the "ideal business provider" to meet that user's needs. Mr Tsoi explained in cross-examination how the filter system worked:

> A: … You give me dentals, I give you a list of category matching with dentals keyword, dental surgeon, dental equipment, dental whatever. *Then I also can give you another filtering, like the location, opening hours, charges of the operations. These are the filters I help you to identify which are the ideal business provider for a user.* So I live in Choa Chu Kang, then I might -- don't [want] to go into Batok or Toa Payoh for dental surgeons, so when I do a searching in Yellow Pages, I would say that dental surgeons, Choa Chu Kang, and then limited to actually charge only $100 below. That kind of things. And this has also applied to other categories, which is I

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179 NE 8 October 2014 at p 42 lines 18–21.

180 NE 8 October 2014 at p 42 lines 24–25.

181 NE 8 October 2014 at p 43 lines 4–7.

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> help you to actually filter out all those informations which is not really helpful for you to decide which business provider to help you or you to spend on. [emphasis added]

283 The filtering system was elaborated on in the evidence of Mr Lim Hong Kiat.[182] He was a system analyst with the plaintiff's IT Department who had worked closely with Mr Tsoi during the relevant time. Mr Lim was asked about the originality in the filters and the thought process that went into selecting the filters for various categories:[183]

> COURT: Are you saying that the originality is not in the concept but your choice of what filters to put in for what types of information which you think the users may find useful?
>
> A. *I would say it's a concept that is actually used by our product team, our product team actually imagine this scenario, where the users cannot search, drill down to what they want, and we are the ones who implement it for them*, because we don't see other online directories that are actually doing this. So in a way this is actually an original idea imagined by our product team.
>
> COURT: *So you are trying to imagine what would be the sort of data that might be useful?*
>
> A. *Yes, correct.*
>
> COURT: *And then try and build information and filter around that?*
>
> A. *Yes, correct.*
>
> [emphasis added]

284 Leaving aside my earlier comment on whether the filters and keywords are part of the database as distinct from the search engine, in my judgment, these three aspects of the arrangement of the subscriber listings within the online

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182 NE 17 October 2014 at p 29 line 9–p 30 line 3.

183 NE 17 October 2014 at p 33 line 14–p 34 line 5.

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directory illustrate the textured considerations that preoccupied the minds of the Online Team as they attempted to fashion the online directory in a manner that was most useful, accessible and relevant to the user. In doing so, the Online Team helmed by Mr Tsoi controlled the categories present in the Online Directory, they determined the appropriate depth of the drill-down menus, and they also set in place filter parameters by reconstructing or "imagining" the user's thought process. There was creativity and intellectual effort in the arrangement of the information and content in the online directory sufficient to entitle those original aspects to copyright protection.

285 The defendant argues that "factually there is no human author that selects or arranges the contents of the [online directory]".[184] I have dealt with this argument in relation to the Yellow Pages Business and Yellow Pages Consumer at [252]–[257] above, and I do not think the position in respect of the Online Directory is materially different. I should point out that when Mr Tsoi was asked in cross-examination whether he was the "creator of the online product" he replied that he was, because he came up with "… the user experiences, and how the website interface".[185] Whilst the answer may be said to be self-serving, I am on balance, but with one reservation, in agreement that the online directory as a whole is an original compilation.

286 The reservation is that there is no evidence before me as to how many changes, if any, would be made to the Online Directory on a daily basis. It is said that the online directory was updated daily. It was the most up-to-date of the plaintiff's directories. If there were new subscribers or changes to existing

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184 Defendant's Closing Submissions at para 887.

185 NE 8 October 2014 at p 12 lines 7–12.

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subscribers, the information from the telephone service providers, after being received and processed, would be reflected in the appropriate classification in the online directory well before the printed directories. But as noted already, there is no copyright in the subscriber data as such. Whether there were other daily changes such as new sub-categories or keywords, *etc*, is unclear. But it seems unlikely that these would be made on a daily or a frequent basis.

287 It is perhaps for this reason that the defendant argues that copyright does not subsist in the online directory because it was not reduced into material form. There must, "at the very least, [be] certainty of subject matter".[186] Since the online directory was updated daily, there was "no certainty of subject matter … the [selection and arrangement] is constantly changing and at no point in time will it remain in a fixed form for more than 24 hours".[187]

288 In my judgment, the defendant's argument misses the point. The problem with digital databases which are updated or revised daily (to greater or lesser extent) is not so much a matter of reduction to material form. Material form does not require that the material record must endure for any particular length of time. A hand-written note that is incinerated may still be a material form into which the note was reduced. The real problem is the difficulty with establishing that there are sufficient changes (day-to-day or week-to-week, *etc*) to make each daily version of the online directory an original literary work in its own right. To give a simple example, if on Day 185, the plaintiff adds five new subscribers under the appropriate headings, this will not be sufficient to cloak the Day 185 online directory as a new original literary work. More must

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186 Defendant's Closing Submissions at para 896.

187 Defendant's Closing Submissions at para 897.

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be done. But a defendant who copies (for example) the whole of the Day 185 online directory will be indirectly copying the Day 184 online directory, which is in turn a copy of the Day 183 online directory and so on. So long as the plaintiff can show on a balance of probabilities that there is indirect copying of a substantial part of the online directory that is an original work, copyright infringement will arise. Copying, for purpose of copyright law, includes indirect copying; the copying of a copy of an original is still a copy.

Whether copyright subsists in the seeds

289 The seeds were false entries deliberately introduced into the plaintiff's directories to detect instances of copying. These seeds were tied to the plaintiff's address and PO Box, but they had fictitious names, telephone numbers and unit numbers.[188] The claim is to copyright in each individual seed as well as the compilation of all the seeds.

290 These are a sampling of the seeds that were planted in the 2004/2005 edition of the Yellow Pages Consumer:

> **Seeds in 2004/2005 [Yellow Pages Consumer]**
>
> …
>
> **Movers & Storage Service**
>
> | | | |
> |---|---|---|
> | Fragile Handlers Transport Service | 1 Lor 2 Toa Payoh, #02-202 | 63511496 |
> | Best Care Movers Pte Ltd | Newton P.O. Box 94 | 63511498 |
>
> **Pest Control**
>
> | | | |
> |---|---|---|
> | Best-Stop Control Pte Ltd | 1 Lor 2 Toa Payoh, #02-302 | 63511496 |

[188] NE 21 October 2014 at p 8 line 14–p 9 line 17.

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Keep-It-Off Pte Ltd	Newton P.O. Box 94	63511498
Gift Shops		
Centra Gifts Pte Ltd	1 Lor 2 Toa Payoh, #02-402	63511496
4-Pro Marketing Pte Ltd	Newton P.O. Box 94	63511498
Interior Decorators & Designers		
Elegant1 Design Consultant Pte Ltd	1 Lor 2 Toa Payoh, #02-502	63511496
Complete ID Interior Pte Ltd	Newton P.O. Box 94	63511498

…

291 Approximately 55 seeds were each introduced into the Business Listings, the Yellow Pages Business and the Yellow Pages Consumer every year.[189] The fictitious names were modified slightly year on year with a unique identifier that could be used to trace the year in which the seed was introduced.[190] For example, the seeds in the 2005/2006 edition of the Yellow Pages Consumer each used the identifier "Byd" (*ie*, "Fragile Handlers Transport *Byd* Service", "Best Care Movers *Byd* Pte Ltd", and so on), whilst the seeds in the 2006/2007 edition of the Yellow Pages Consumer each used the identifier "Buyo" (*ie*, Fragile Handlers Transport *Buyo* Service", "Best Care Movers *Buyo* Pte Ltd", and so on). Different unique identifiers were inserted for each directory in each edition.

292 The seeds in the 2003/2004 editions of the Printed Directories were created in 2003 by Ms Tracy Koh, then an employee in the plaintiff's

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189 Plaintiff's Closing Submissions at para 120.

190 NE 21 October 2014 at p 14 line 16.

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Production Department.[191] Ms Koh's evidence was that whilst she had created fictitious company names for the seeds, the telephone numbers and addresses for the seeds were in existence and belonged to the plaintiff.[192]

293 The seeds in the remaining editions of the directories between 2004 and 2009 were created by Ms Karen Toh, who was then employed in the plaintiff's Marketing Department.[193] Ms Toh worked from scratch when formulating fictitious names for the seeds in 2004,[194] but it appears that she copied the telephone numbers from those that were used in the seeds created the previous year.[195] Ms Toh also said that she did not create new seeds on a yearly basis; rather, she created the seeds for the entire five-year block (*ie*, 2004 to 2009) at one sitting in 2004.[196] Ms Toh's evidence is inconsistent with Ms Koh's to the extent that the former suggested that the telephone numbers were fictitious, and not those belonging to the plaintiff.[197]

294 The defendant does not dispute having copied some of the seeds. The defendant, however, argues that copyright does not subsist in the seeds. The seeds were *de minimis* and not intended "to afford either information and

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191 NE 10 October 2014 at p 6 line 13.

192 NE 10 October 2014 at p 52 lines 6–13; p 56 lines 22–24.

193 NE 21 October 2014 at p 20 lines 10–17.

194 NE 21 October 2014 p 20 line 18–p 21 line 4.

195 NE 21 October 2014 at p 36 lines 9–20.

196 NE 21 October 2014 at p 21 lines 5–7.

197 NE 21 October 2014 at p 36 lines 9–20.

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instruction, or pleasure in the form of literary enjoyment".[198] The seeds did not even possess the requisite level of creativity to be protected by copyright.[199]

295 It is clear that the purpose of including seeds was to facilitate proof of copying. The difficulty for the plaintiff, however, is that copyright is not a simple law against copying. The defendant can copy whatever he likes as long as the copied material is not protected by copyright, or some other right. The defendant does not deny referencing the plaintiff's directories for information on subscribers and listings. They do not deny copying some of the seeds.

296 The first hurdle is for the plaintiff to show that the seeds enjoy copyright, either individually or as a compilation of seeds. Each seed contains a fictitious subscriber. According to Ms Koh, the telephone numbers of the seeds belonged to the plaintiff; according to Ms Toh, they were fictitious. The address and postal code numbers for each of the seeds belonged to the plaintiff. The problem in conferring copyright on very short "works" such as titles, slogans and names is well-known. In order for these to be protected, they must be an original *work*. Whilst it may be said that a fictitious name (or newly coined word or phrase) is original simply because it is a figment of a person's imagination and not copied, this alone is not enough to make the same an original *work*. Some names may be protected as a species of artistic work, but there is no claim to artistic work copyright in the present case. Outside of copyright, slogans and names may sometimes be protected under trade mark law or by the law of passing off. The question is when, if ever, it is appropriate to treat a piece of writing comprising a fictitious name, an address and phone number as an original *literary work*.

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198 Defendant's Closing Submissions at para 949.

199 Defendant's Closing Submissions at para 950.

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297 A literary work is generally regarded as a work expressed in print or writing for the purpose of providing information, pleasure or instruction. The defendant argues that more than a *de minimis* amount of information is necessary. A quick review of case law reveals the considerable difficulty that the courts have had in deciding whether a name or slogan or title qualifies for copyright protection:

(a) *Maxwell v Hogg* (1866-67) 2 LR Ch App 307, *dictum* to the effect that there is no copyright in the title "Belgravia" for a magazine;

(b) *Francis Day and Hunter v Twentieth Century Fox* [1940] AC 112, no copyright in the title "The Man who broke the Bank at Monte Carlo";

(c) *Kirk v Fleming* (1928-35) MacG Cop Cas 44, no copyright in the slogan "Goodsight is your most valued asset. Avoid predicament of being without your glasses. Let us make you a spare pair. Broken lenses promptly and accurately repaired";

(d) *Green v Broadcasting Corporation of New Zealand* [1989] RPC 469, no copyright in the game show slogan "Opportunity Knocks";

(e) *Sullivan v FNH Investments Pty Ltd* (2003) 57 IPR 63, no copyright in phrases "Somewhere in the Whitsundays" and "The Resort that offers Precious Little";

(f) *Exxon Corporation v Exxon Insurance Consultants* [1982] Ch 119 ("*Exxon*"), no copyright in the name "Exxon";

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(g) *State of Victoria v Pacific Technologies (Australia) Pty Ltd* (2009) 177 FCR 6, no copyright in the phrase: "Help-Help-Driver-in-Danger-Call-Police-Ph.000"; and

(h) *IceTV* (see [115]–[129] above), generally no copyright in a programme title (at [27], *per* French CJ, Crennan and Kiefel JJ).

298 In contrast, courts have found short literary works to qualify for copyright protection in the following instances:

(a) *Express Newspapers* (see [254] above), copyright found to subsist in a 25-letter card grid as well as sequences of five letters used as part of a newspaper game;

(b) *Shetland Times Ltd v Wills* [1997] FSR 604 ("*Shetland Times*"), an arguable case that copyright subsisted in an eight-word newspaper headline: "Bid to Save Centre after Council Funding cock-up"; and

(c) *Sunlec International Pty Ltd v Electropar* (2008) 79 IPR 411 ("*Sunlec*"), copyright in the marketing slogan "Field Friendly – the best choice for field work".

299 The point that arises from the above cases—which is far from a comprehensive review of the examples in the case law—is that with all things *de minimis* and originality, it is a matter of judgment whether there is sufficient intellectual input and content to qualify very short phrases as original literary works. The closer the phrase comes to an obvious description, or a hackneyed phrase, or a common expression, the less the room for originality. Then again, it does not follow that if the word or phrase is newly coined that it must qualify as an original literary work, although this will help. It has been suggested in

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Exxon that there may be cases where a single word or title, which is too short to attract copyright on its own, may be of such significance to the larger work of which it forms a part that to copy it will be to take a substantial part of the larger work, which does enjoy copyright. The problem, however, is this approach may provide what is in effect back door protection for that which cannot be directly protected.

300 *Shetland Times* was an interlocutory decision on the back of a concession by the defendant that a headline could be a literary work. *Express Newspapers* involved a competition based on a 5x5 grid of 25 letters against which subscribers matched a sequence of five random letters which they received. A prize was won if the sequence matched. Copyright was held to subsist on the 25-letter grid and the winning sequences.

301 In the *Sunlec* case, the slogan was used in connection with a portable electrical wire marking gadget. The evidence was that a snappy memorable phrase was devised to describe the usefulness of the gadget. After considering a number of options the slogan was chosen. Wylie J sitting in the New Zealand High Court rightly stressed the principle that there was no requirement of literary merit for a work to qualify as a literary work. Neither was there any principle that a slogan or title could never qualify as a work simply because it was a mere slogan or title. After all, an award-winning short poem might be used as an advertising slogan tomorrow. Wylie J held that the slogan was a product of intellectual effort and judgment. The words offered information. The slogan was accordingly an original literary work: the words were used in a succinct and relatively memorable way and according to Wylie J, the phrase was not hackneyed.

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302 In my judgment, each individual seed does not qualify as an original literary work. In coming to this conclusion I do not doubt that some effort was expended and that the seeds served a useful purpose of providing the fingerprints of copying. But it is not enough simply to prove that the seed has value or utility. That is not the law of copyright. The amendments made in 1999 and the earlier discussion of the case law on factual compilations has served to place renewed emphasis on the importance of creativity. The observations of French CJ, Crennan and Kiefel JJ in *Ice TV* at [28] bear repeating:

> Copyright does not protect facts or information. Copyright protects the particular form of expression of the information … That facts are not protected is a crucial part of the balancing of competing policy considerations in copyright legislation. The information/expression dichotomy in copyright law is rooted in considerations of social utility. Copyright, being an exception to the law's general abhorrence of monopolies does not confer a monopoly on facts or information because to do so would impede the reading public's access to and use of facts and information. Copyright is not given to reward work distinct from the production of a particular form of expression.

303 In the present case, I am of the view that there is insufficient skill in devising the individual seeds to qualify them for copyright protection. Each seed is nothing more than the name, address and telephone number of a fictitious subscriber. Even assuming the telephone number was fictitious, the address was a real one belonging to the plaintiff. Earlier, I held that there is no copyright in each individual listing. The only difference with the seeds is that the names and telephone numbers are fictitious. This falls well short in my view of casting the seeds as an original literary work. I note in passing that the evidence is clear that the efforts to make changes to the seeds each year were to assist pinpointing the actual volume from which the seed was taken. The changes made were small and wholly insufficient to recast each updated seed as an original literary work even if the start seed was an original literary work.

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304 Finally, I am unable to agree with the plaintiff's assertion that the totality of seeds constitutes an original compilation. It is not clear what the plaintiff means by this: all the seeds together as an original compilation or the seeds as part of the entire compilation of listings? A "compilation" is defined as a compilation of material which by reason of the selection or arrangement of its contents constitutes an intellectual creation. Whilst the term "compilation" is not defined in the Copyright Act, it means in this context a collection of works or material that has been assembled together. The coherence and assembly is reflected in the need for sufficient selection or arrangement such as to constitute the collection as an intellectual creation. In my judgment, even if the seeds were put together as a collection, there is insufficient basis for me to conclude that the "collection" constitutes an intellectual creation for the purposes of the Copyright Act.

305 To be clear, even if I am wrong and there is copyright in the seeds that have been copied, this does not mean that the defendant is *ipso facto* liable for infringing copyright in the other works claimed by the plaintiff. The defendant does not deny copying the seeds. Earlier I held that there is no copyright in the individual listings or the compilation of listings under each heading or classification. If there is copyright it is confined to the directories as a whole as discussed earlier. To infringe, what must be proven is that a substantial part of the directories as a whole has been taken. This is considered next, after a consideration of the defendant's business processes.

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The defendant's business processes and how the defendant's directories are produced

An overview of the defendant's operations

306 The defendant is a smaller company than the plaintiff and its operations are significantly less sophisticated. It employs approximately 100 full-time staff and there is a great deal of manual labour involved in the publishing process. The moving spirit behind the defendant is its managing director, Mr Francis Teo Chai Tiam. He was the founder of the defendant's predecessor, Promedia International Pte Ltd ("Promedia International"), in 1980.[200]

307 The defendant was incorporated in 1992 and took over the business of Promedia International. The defendant published The Green Book Industrial and Commercial Guide and The Green Book Commercial and Consumer Guide until 2007, when these two directories were merged and renamed The Green Book Industrial and Commercial Guide. The defendant also produces a digital directory which is published as a CD-Rom, and also maintains an online directory at the URL http://www.thegreenbook.com.

308 Mr Teo remains a substantial minority shareholder in the defendant and is in charge of its daily operations. It will be apparent from his evidence that he is a very systematic and meticulous man. He agreed that he was a very "hands-on manager",[201] and ran "a tight ship"[202] in the operations of the defendant. He made all the "final major decisions", and was responsible for determining the

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200 Teo Chai Tiam's affidavit at para 4.

201 NE 28 October 2014 at p 19 lines 8–10.

202 NE 28 October 2014 at p 19 line 13.

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extraction criteria and thus the content of the defendant's directories.[203] All classifications that were sought to be introduced into the defendant's directories had to be approved by him.[204] He also gave evidence that he required his employees to record detailed time sheets logging the time spent on every task they attempted every day.[205]

309 Because of comparatively low degree of automation (and thus greater involvement of human labour) in the defendant's directory production process, the defendant streamlined its operations by creating standard operating procedures, or "SOPs" that were documents setting out detailed and step-by-step instructions for the defendant's employees to follow in relation to the performance of various tasks. Each SOP generally ranged from one to ten pages in length, and often contained illustrations of the aspects of the processes they sought to govern. For example, the SOPs governing the procedures for telephone verification included scripted lines and responses for various contingencies that the caller may be presented with. SOPs setting out instructions for the operation of web applications were accompanied by illustrated screenshots depicting the computer interface the employees would encounter. The defendant maintained an impressive number of SOPs in its operations, which numbered in the thousands. There was an index sheet to keep track of the SOPs which ran into 55 pages, with approximately 65 SOPs indexed on each page.[206] Most of the SOPs were reviewed and approved by Mr Teo.[207]

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203 NE 27 October 2014 at p 35 line 22–p 36 line 7.

204 NE 27 October 2014 at p 16 lines 9–13.

205 NE 29 October 2014 at p 65; B10/517C/5554.

206 NE 29 October 2014 at p 72 lines 11–13.

207 NE 29 October 2014 at p 64 lines 13–15.

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The SOPs were the best source of contemporaneous documentation of the defendant's business processes, or at least, the processes that the defendant required its employees to comply with.

310 Five phases of the defendant's directory-production process are relevant to these proceedings. First, the defendant's collection of subscriber information, or data, from various sources. Second, the defendant's verification and updating of its information. Third, the defendant's classification procedures. Fourth, the defendant's "market intelligence" which was used to identify potential advertisers and to assist with sales canvassing. Fifth, the defendant's selection and arrangement of the individual listings within its directories. The evidence for each of these processes came almost exclusively from Mr Teo. His evidence on the first four areas came under particularly sharp scrutiny during cross-examination. I address each of these in turn

Data collection from various sources

311 It will be recalled that the plaintiff obtained subscriber information almost exclusively from telephone service providers. The defendant did not have such resources at its disposal. The defendant instead obtained its subscriber information from third-party sources. Mr Teo agreed that this was "almost like a DIY approach to obtaining information".[208] Mr Teo sought to establish that the defendant tapped a wide variety of sources. These sources included (ranked by Mr Teo in decreasing order of importance):[209]

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208 28 October 2014 at p 28 lines 5–8.

209 28 October 2014 at p 66 line 23–p 68 line 13.

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(a) Delivery orders. The defendant delivered 100,000 copies of its directories free-of-charge to businesses every year. The directories were delivered to the businesses' doorsteps together with delivery orders. The businesses were required to sign and complete the delivery orders with their company information and/or attach their business name cards in exchange for copies of the directories.[210] Once these delivery orders were collected and sorted by the defendant, the information on them would be entered manually into the defendant's master database.[211]

(b) Marketing collateral from exhibitions.[212] The defendant's staff attended trade exhibitions where they collected brochures and name cards from businesses that participated in those exhibitions. These businesses were also generally regarded as a potential source of advertising revenue. The information from these brochures were entered manually into the defendant's master database.

(c) Online or mail updates. Companies already listed in the defendant's directories wrote to the defendant updating it about changes to company information. This information was entered manually into the defendant's database.[213]

(d) Field surveys. The defendant sent part-time employees on door-to-door visits at commercial or industrial buildings grouped according

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210 Teo Chai Tiam's affidavit at para 57.

211 Teo Chai Tiam's affidavit at para 58.

212 Teo Chai Tiam's affidavit at para 74.

213 Teo Chai Tiam's affidavit at para 82.

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to postal code district to obtain information about companies manually.[214]

(e) Company websites. The defendant's employees plied company and trade organisation websites for information on businesses.[215]

(f) Other publications. The defendant's employees obtained information from publications such as brochures, pamphlets, newspapers and flyers. These were verified and updated into the defendant's master database manually.[216]

(g) Telephone calls. The defendant's employees were given calling scripts for calling businesses directly and verifying the requisite information.[217]

(h) Calling cards. These were name cards that were "picked up from multiple sources such as at trade exhibitions, from [the defendant's] mailbox, from companies and businesses during delivery of [the defendant's directories]".[218]

(i) Other sources. These included information found in display advertisements on bus panels and taxis, company vehicles, road shows,

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214 Teo Chai Tiam's affidavit at para 63.

215 Teo Chai Tiam's affidavit at paras 76–79.

216 Teo Chai Tiam's affidavit at paras 72–73.

217 Teo Chai Tiam's affidavit at para 68

218 Teo Chai Tiam's affidavit at para 75.

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> shop displays and banners hung in public places, *etc*.[219] This also included the plaintiff's directories as a source of information.[220]

The plaintiff, on the other hand, sought to downplay the importance of these sources to show that the subscriber information that the defendant obtained originated from the plaintiff's directories.

312 I am satisfied that the defendant engaged in independent data collection from third-party sources. There was documentary evidence which corroborated these meticulously planned and coordinated data collection efforts. For example, there was in the evidence SOPs relating to the collection of collateral at exhibitions,[221] and even the plaintiff's witness, Mr Richard Sim, acknowledged that the defendant had a stronger presence at exhibitions and trade fairs than the plaintiff.[222] There was also contemporaneous documentary proof of updates from companies themselves,[223] and scripts for telephone verification across the years.[224] These points were not disputed by the plaintiff.

313 In my judgment, however, the defendant had overstated the efficacy of these data collection procedures from third-party sources. It seems clear to me that whilst these independent data collection efforts were important and substantial, they could not have been the defendant's sole mode of obtaining the subscriber information and updates that were necessary for the sustenance of a

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219 Teo Chai Tiam's affidavit at paras 85.

220 NE 28 October 2014 at p 66 lines 7–12.

221 B11/614C/6090.

222 NE 8 October 2014 at p 22 line 23–p 23 line 22.

223 B8/475C/3990; B10/560C/568; B15/636C/8877.

224 B11/617C/6099; B10/522C/5569; B11/618C/6106.

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telephone directory. There was also strong evidence that the defendant relied heavily on the plaintiff's directories as part of its data collection and verification processes.

314 I shall focus on the delivery orders and field surveys, both of which were areas where it appeared the defendant had overstated the efficacy of its independent data gathering processes. I shall then turn to the "research" that the defendant engaged in, which showed that it relied heavily on the plaintiff's Business Listings to supplement its data collection procedures.

Delivery orders

315 Mr Teo said that each year during the litigation period, the defendant sent out approximately 101,000 copies of its directories.[225] The return rate of usable delivery orders was 80%, or an average of about 80,000 of all the directories that were sent out.[226] This was, in my judgment, an implausibly high rate of return on the delivery orders.

316 In cross-examination, it was suggested to Mr Teo that there was no evidence that even hinted at delivery orders being collected on such a large scale or magnitude as Mr Teo was suggesting. All the samples of the delivery orders in the evidence were blank forms, save for seven completed delivery orders.[227] Mr Teo responded by stating that the defendant would process the delivery orders, and once they were processed and updated, the defendant would sell the

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225 NE 28 October 2014 at p 71 line 13–p 72 line 1.

226 NE 28 October 2014 at p 73 lines 9–22.

227 NE 28 October 2014 at p 77 lines 1–15.

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delivery orders off "to the Karung Guni".[228] ("Karung Guni" is a colloquial term for a rag-and-bone man.) I reject this position for three reasons.

317 First, this position appears to contradict the defendant's own SOP entitled "Delivery Orders Processing Plan 2003" which suggests that the delivery orders were to be archived once the information on them was entered into the defendant's master database. The relevant SOP stated:[229]

> DELIVERY ORDERS (D.Os) PROCESSING PLAN 2003
>
> …
>
> e. The DELIVERY ORDERS (D.Os) AMENDMENT LIST must be placed on top of the individual file before passing the file to Data Entry for correction.
>
> IMPORTANT: DO NOT REMOVE ANY OF THE D.Os OUT OF THE FILE!
>
> …
>
> **j. Pass back all the files to Logistics Department for packing once the whole project completed.**
>
> **k. All handling and taking over of Delivery Orders from / to individual departments must be documented in the DELIVERY ORDERS (D.Os) TASKS REPORT (see SOP I 0334 DELIVERY ORDERS (D.Os) TASKS REPORT).**
>
> [original emphasis omitted; emphasis added in bold]

Another SOP on the delivery order procedure also indicated that the final step of the process was to "CHECK THE QUANTITY OF THE RETURN D.Os AND SEAL UP THE BOX KEEP IT IN THE STOREROOM".[230]

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228 NE 28 October 2014 at p 78 lines 1–5.

229 B6/358C/3208.

230 B5/225C/2498.

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318 Mr Teo's response to these documents was that they related to the *first stage* of the delivery order procedure (*ie*, data entry), whilst the delivery orders were disposed after the *second stage* (*ie*, review by information executives).[231] Mr Teo, however, did not point to any documents setting out this alleged second stage in the delivery order procedure.

319 This leads to the second point. It is incongruous that Mr Teo, who ran the defendant's business in a detailed and systematic manner, and documented in the form of SOPs almost every process which could conceivably be documented, would order the destruction of the delivery orders in a haphazard and undocumented manner. Subscriber information is the lifeblood of a telephone directory; Mr Teo's evidence was to the effect that the defendant's foremost source of subscriber information was the delivery orders. If these delivery orders were so essential to the defendant's operations, I doubt they would have been destroyed in an undocumented fashion, in the context of how scrupulously planned and documented the defendant's other processes were. There was nothing in the documents which cohered with Mr Teo's explanation. The defendant points to an SOP in its closing submissions to support Mr Teo's position, but this is equivocal at best.[232]

320 Third, it was suggested to Mr Teo that *even if* the defendant was in the habit of destroying the completed delivery orders once the information had been entered into the defendant's master database, the defendant should have at least retained the delivery orders once the litigation had commenced, since that would have been very relevant and material evidence. Mr Teo's response was a terse:

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231 NE 28 October 2014 at p 79 lines 9 – 20.

232 Defendant's Closing Submissions at para 1152.

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"Well, we didn't know that the DO would be useful to … for the case. (Pause). Because it's very bulky."[233] With respect, I find this explanation unconvincing.

321 My attention was drawn to a time study done by the defendant in 2006 which indicated the number of delivery orders that had actually been collected that year.[234] The time study stated that the delivery exercise that year commenced on 2 April 2006. As at the date of the time study, 24 April 2006, a total of 43,750 usable delivery orders had been collected.[235] The time study further projected that at the end of the delivery exercise on 26 June 2006, the "Max No. of D.Os to be updated" was anticipated to be 56,000, after unusable or problematic delivery orders had been discounted. Thus whilst I accept that the plaintiff did undertake substantial data collection efforts through the delivery order process, I do not accept that the defendant received 80,000 returns, as Mr Teo suggested.

Field surveys

322 The field surveys were also held out by Mr Teo to be a main or major source of subscriber information. Mr Teo's evidence was that every few years, the defendant would employ part-timers to conduct field surveys to gather and update the defendant's information.[236] However, there were documents which suggested that the several attempts at implementing field surveys met with only limited success.

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233 NE 28 October 2014 at p 80 lines 8–15.

234 B25/1145C/17912.

235 B25/1145C/17917.

236 Teo Chai Tiam's affidavit at para 63.

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323 The first document was a 13-point decision-making matrix that compared the pros and cons of collecting information through field surveys as opposed to online.[237] The online method was a clear winner, prevailing over field surveys in 10 of the 13 points in the decision-making matrix. The second document was an SOP for the conduct of outdoor verification projects.[238] The SOP, in the "review" section, concluded that the field survey exercise was "unsuccessful" because of concerns over the safety of the surveyors, transport allowance costs, and the inability of the surveyors to meet the daily quotas, amongst others.[239]

324 There was also no evidence of completed forms containing information obtained from field surveys. The process flowchart for the project indicated that the completed field survey forms were to be stored in a cupboard and archived. It was put to Mr Teo that there was no evidence whatsoever of any completed field surveys. Mr Teo's response was that once the field surveys were done and the information entered into the defendant's master database, the forms were thrown away.[240]

325 While I do not doubt that the defendant attempted to carry out field survey exercises, I have my reservations as to the success of the exercises and their reliability as a source of data collection.

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237 B25/1133C/17810.

238 B28/1179C/19212.

239 B28/1179C/19213.

240 NE 28 October 2014 at p 117 lines 11–14.

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Research based on the Business Listings

326 Apart from the plaintiff's independent attempts at data collection, there was documentary evidence suggesting that the plaintiff's directories, especially the Business Listings, played a central role in the defendant's data collection and updating efforts.

327 A striking example of this is an SOP titled "BUSINESS LISTING PROJECT 2008", which had the dual objectives of updating the information in the defendant's database and "ensur[ing] all co in [the] Business Listing[s] are in our database as well".[241] This exercise entailed printing out the information of all the companies in the defendant's master database in alphabetical order as well as "[p]hotocopy[ing] and enlarg[ing] every page of Business Listing" for a side-by-side comparison. The project took place in a few phases:

(a) The first was the "reviewing" and "updating" phase, where the physical copies of the defendant's database were compared against the Business Listings. Manual corrections were made to discrepancies in the information, and additional information and new companies were also recorded down.

(b) Thereafter there was a "calling" process, where the defendant's employees were tasked to call any *new* companies that were recorded in the first phase. It does not appear from the SOP that the defendant's employees were required to call and verify discrepancies in information or additional information in relation to companies that already existed in the plaintiff's database.

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241 B25/1155C/17999–180009.

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(c) There was then a process of verifying new companies which could not be contacted in the calling process by cross-checking with the ACRA website.

(d) Finally, there was the "updating" process in which the Data Entry team entered the amendments which had been made to the physical printouts of defendant's master database into the defendant's electronic database.

328 In cross-examination, it was suggested to Mr Teo that in respect of *existing* companies already in the defendant's master database, the defendant "basically accept[ed] without any verification all the information [in the Business Listings]".[242] Mr Teo disagreed. He explained that all the updated information (whether relating to existing companies or new companies) were entered into a *temporary* staging database and not the defendant's master database. All the information in the temporary database was then verified before it was introduced into and merged with the defendant's master database.[243]

329 Another illustration of the defendant's reliance on the Business Listings is the SOP titled "[Business Listings] DATA ENTRY UPDATE PROJECT" which appears to have originated in 2004.[244] This was a project to update the defendant's master database of "approximately 40 000 companies which are not listed in the [Green Book]".

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242 NE 29 October 2014 at p 107 lines 12 – 18.

243 NE 29 October 2014 at p 108 lines 6–12.

244 B40/2833C/26670–26671.

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330 The SOP indicated that information for the defendant's master database was "extracted from the Yellow Pages' Business Listings … [which was] scanned and input into a database using a document scanner and [the] information merged to complete the database". The SOP also indicated that the information was verified (through telephone calls) by the defendant's employees, but that there were difficulties encountered during the verification process. These included the lack of permanent staff and insufficient data entry terminals to perform the verification. The proposed solutions included "deploy[ing] attachment students to update" and implementing a "Night Shift … to fully utilise the terminals".

331 When Mr Teo was cross-examined on this SOP, he said that this project involved a wholesale scanning of the Business Listings into a temporary database or a staging server.[245] This scanned information in the temporary database would then be compared against the information in the defendant's master database, and it would thereafter be verified (through telephone calls and websites)[246] and updated. This verified and updated information would then be introduced into the defendant's master database.[247]

332 A third and final illustration of the defendant's reliance on the Business Listings is a document setting out the defendant's goals for 2005. One of them was to "scan the [Business Listings] and write a programme to do a comparison between [Business Listings] address and [Green Book] address and report the

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245 NE 29 October 2014 at p 119 lines 9–19.

246 NE 30 October 2014 at p 2 lines 21–25.

247 NE 30 October 2014 at p 1 line 13–p 2 line 9.

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[different] in address and any new information".[248] When Mr Teo was cross-examined on this document, he indicated that these were just "ambitious plans" that were not eventually carried out.[249]

333 Whilst Mr Teo's evidence and the SOPs make clear that the Busines Listings were photocopied and scanned by the defendant, there remain two final points I should address before concluding this section. First, the plaintiff disputes that the Business Listings were scanned into temporary databases on the defendant's server.[250] The plaintiff's position appears to be that the defendant scanned the Business Listings directly into its master database. In cross-examination of Mr Teo, counsel for the plaintiff put to Mr Teo that the reference to temporary databases was "essentially an afterthought"[251] because these temporary databases were not mentioned in the affidavits of the defendant's witnesses.

334 It will be apparent from my conclusions further below that it is not necessary for me to resolve this factual dispute. If I had to, however, I would accept Mr Teo's position that the Business Listings were scanned into a temporary database, and that the defendant's employees were required to perform verification checks on the information before it was merged with or entered into the defendant's master database. I come to this conclusion for three reasons:

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248 B28/1185C/19240.

249 NE 30 October 2014 at p 36 line 16.

250 Plaintiff's Closing Submissions at para 185.2.

251 NE 30 October 2014 at p 55 lines18–21.

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(a) I accept Mr Teo's explanation that the Business Listings could not be scanned into the defendant's live master database as "there would be serious problems, because there is duplicate records [*sic*]".[252] It seems sensible that the scans were stored in a temporary database, where, at the very least, duplication was eliminated before the information was updated into the live master database.

(b) Mr Teo's evidence on the use of a temporary database was internally consistent through the course of his oral evidence,[253] and was also consistent with the evidence of Mr Sooraj Jayaraman, who was the general manager and information technology manager of the defendant, and the defendant's only other witness. Mr Jayaraman explained that the defendant's internal server comprised multiple databases.[254] Some were live databases which were used for the actual creation of the defendant's products, while others were temporary databases which were used to house a "big dump of data" from "research projects"; data which had yet to be verified or classified.[255] When Mr Jayaraman gave his evidence (which was before Mr Teo gave his own), it was not suggested or put to Mr Jayaraman that his evidence on the "live" and "temporary" databases was false or not correct.

(c) I do not think there is anything sinister in Mr Teo's omission of the temporary databases from his affidavit of evidence-in-chief. Mr Teo

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252 NE 29 October 2014 at p 119 lines 5–18.

253 NE 30 October 2014 at pp 15–20.

254 NE 27 October 2014 at p 7 line 20–p 8 line 13.

255 NE 27 October 2014 at p 80 line 17–p 81 line 5.

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explained that it was not necessary to mention the temporary databases because "every database operates this way",[256] and that even the affidavits of the plaintiff's witnesses did not "explain in detail" the intricate workings of the plaintiff's databases.[257] His essential point was that this was technical minutiae which he had omitted from his affidavit, but that he could explain if it was required of him.

335 The second and final point I would like to address is the evidence on exactly which parts of the Business Listings were photocopied or scanned by the defendant. The evidence on this is very thin. But in my judgment, it is more likely that only the listings section from the Business Listings were photocopied or scanned. This inference follows naturally from the defendant's stated purpose of the photocopying or scanning exercises, which was to compare the *listing information* in the Business Listings with that in the defendant's database. There is no evidence (nor is it alleged by the plaintiff) that *other* sections of the Business Listings, such as the front matter or introductory material, were photocopied or scanned. Indeed, it would have been senseless or illogical for the defendant to do so, since all that was useful to the defendant was the listing information.

336 I therefore conclude that information from the Business Listings also formed a key source of data for the defendant's master database. While I accept that the defendant's independent data collection efforts were a substantial source of the defendant's information, they were insufficient to cope with the demands for accurate and up-to-date information that the publication of a

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256 NE 30 October 2014 at p 18 lines 19–20.

257 NE 30 October 2014 at p 19 line 22–p 20 line 3.

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telephone directory necessitated. The defendant thus had to supplement its data collection efforts with the information from the plaintiff's directories.

Data verification and updating

337 The defendant's SOPs were also replete with instances where the plaintiff's directories were used to verify or ensure the accuracy of the information the defendant had collected. These are a sampling of the documents that bore this out:

(a) Information obtained in delivery orders was to be cross-checked against the plaintiff's directories before it was entered into the defendant's master database.[258]

(b) Information obtained in field surveys was cross-checked against the plaintiff's directories before it was entered into the defendant's master database.[259] A flowchart in an SOP indicated that certain companies were to be referenced against the plaintiff's online directory for accuracy, and verified by telephone or from other online sources in the event of an inconsistency. One of the "[p]ossible problems encountered" was: "[Yellow Pages] server unstable. From time to time their server is either down or slow, resulting in lower productivity."[260]

(c) Information of companies obtained from various third-party sources, including brochures, emails, exhibitions, faxes, flyers,

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258 B25/1145C/17920.

259 B25/1135C/17817.

260 B25/1135C/17817.

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magazines and name cards, were required to be cross-checked against the plaintiff's online directory before the information was entered into the defendant's master database.[261]

(d) Exercises were carried out for the *en masse* verification of the information in the defendant's master database. The SOP titled "23000 COMPANIES INTERNET REVIEW & CALLING PROCEDURES" was a document evincing one such exercise.[262] This exercise took place in two stages. First, companies were searched within the plaintiff's online directory and differences in listing information were recorded. Second, the defendant's employees were required to verify "all information … including the Company's Name, Address, Fax, Website, Email and their Nature of Business". Once this was done, the "company information form will be sent to data entry for updating process".

(e) Exercises were carried out for the *en masse* verification of the companies' classifications and information in the defendant's database with that in the plaintiff's directories. An SOP titled "CLASSIFICATION REVIEW PROCEDURE – COMPANIES WITH SINGLE CLASSIFICATION" evinced one such exercise.[263]

338 It bears mention that the SOPs in each of these cases almost always required the defendant's employees to undertake further verifications (through telephone or other online sources) in the event of discrepancies between the

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261 B25/1132C/17808.

262 B10/522C/5569–5575.

263 B17/747C/13620–13655.

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defendant's information and the information in the plaintiff's directories. This was a point repeatedly made by Mr Teo when he was cross-examined on these SOPs—that his employees were always asked to verify any information that was taken from another directory.[264]

339 There were, however, exceptions. Mr Teo was cross-examined on an SOP for the companies' classification verification exercise which indicated that information on the plaintiff's online directory could be recorded without further verification, and that "NO calling is required for this Scenario".[265] Mr Teo said he was "surprised to see this SOP", because his instructions to all his staff were that all information obtained from other sources had to be verified. He added: "apparently my manager has not been following the instruction given by the management".[266] While Mr Teo generally studied all the SOPs of all his departments, that was "physically impossible, so there would be some SOP[s] that will miss [his] attention".[267] Mr Teo also admitted that some of his employees, when recording subscriber information from the plaintiff's directories, probably took shortcuts and did not comply with the standing instructions to verify the information before it was entered into the defendant's master database.[268] That is likely what accounted for the presence of seeds in the defendant's directories.

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264 NE 29 October 2014 at p 49 lines 18–19, p 54 line 22–p 55 line 4; NE 30 October 2014 at p 20 lines 10–12.

265 B17/747C/13627.

266 NE 29 October 2014 at p 35 lines 5–17.

267 NE 29 October 2014 at p 37 lines 3–7.

268 NE 30 October 2014 at p 4 line 16–p 5 line 9.

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340 The plaintiff's directories thus played an important role in the defendant's data verification and updating procedures. The defendant attempted to institutionalise independent verification through telephone calls or other online sources, but this was not always complied with. This resulted in bare copying on some occasions of the information from the listings in the plaintiff's directories without further verification.

Classifications

341 There was clear evidence that the defendant's employees referenced the classifications in the plaintiff's Yellow Pages and online directories as part of the defendant's attempt to ensure that its own classifications remained relevant and up-to-date.

342 The shape of the evidence that emerged, and which I accept, is that the referencing of the plaintiff's directories for classifications was only a starting point; the defendant's employees thereafter conducted independent research before recommending to Mr Teo for approval new classifications or amendments to existing classifications. This is consistent with Mr Teo's insistence that the entire scheme of classifications in the defendant's directories was very much different to that in the plaintiff's Yellow Pages directories. This is a point I return to further below.

343 I start first with the SOPs that document the referencing of classifications in the plaintiff's Yellow Pages and online directories. The SOP produced in 2009 titled "R & D CLASSIFICATIONS ENHANCEMENT PROCEDURE" is one such example.[269] The stated objective of the procedure

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269 B15/653C/8985–8990.

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was to "ensure that ALL … classifications are relevant to the current market trends and to stay ahead of competitors". It required the defendant's employees to access the plaintiff's online directory and compare the classifications used by the plaintiff with those used in the defendant's directories. The defendant's employees further had to list down any additional classifications that were assigned to companies in the plaintiff's online directory, which did not have similar classifications in the defendant's directories. There were also stipulations for independent verification through telephone calls and other online sources.

344 To similar effect is the SOP from 2001 titled "INSERTION OF NEW CLASSIFICATION".[270] The objective of the procedure was to "ensure the new classification keeps up with the industry trends & jargons [*sic*]". The SOP indicated that the "resources required" for the process included "[t]he Yellow Pages Directory if the server for The Yellow Pages [online directory] is down".

345 When Mr Teo was cross-examined on these documents, he insisted that the defendant merely used the plaintiff's directories as the point of departure for its employees to conduct further independent research into potential classifications. The essential difference between the Green Book and the Yellow Pages directories was that the former had "a lot of specific classifications that is [*sic*] not in the Yellow Pages at all. So we cannot rely on the Yellow Pages to introduce our new classification [*sic*]".[271] While the Yellow Pages generally assigned each subscriber to only one classification, the Green Book sought to assign each subscriber to multiple classifications which best matched the entire

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270 B5/251C/2649–2651.

271 NE 29 October 2014 at p 28 lines 8–10.

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gamut of goods and services that the subscriber had to offer. The effect of this was that the Green Book had a greater number of more specific and specialised classifications than the Yellow Pages' broader classifications, which were maintained at a higher level of abstraction.

346 Mr Teo's explanation of the distinction between the classification system in the defendant's directories and the plaintiff's Yellow Pages and online directories is pertinent, and bears setting out at length. In cross-examination, Mr Teo elaborated on how the different classificatory approaches manifested themselves in respect of a company, "Avac System", which manufactured vacuum systems and pumps:[272]

> Well, I would like to point out at this point that that's exactly why I point out that the [classifications], if we licence it from the Yellow Pages, it's useless, because Yellow Pages only have pump -- or this company, Avac, is only listed under 'Vacuum Equipment & System' [in the Yellow Pages] right? So 'Vacuum Equipment & System' can refer to many [types] of vacuum equipment. That is a very general classification. So Green Book has done their own independent research, we approach Avac System and ask them in detail, what are the specific products that they sell. So we find out from Avac System that they sell all these other products: blowers, filters, gauges, and they sell different kinds of pumps. They have other products that they sell. So you can see that, in this example, right, Green Book classification is different, and we do not follow the classification from the Yellow Pages. And this classification, like 'Gauges: Vacuum', you will not find it in the Yellow Pages. 'Meters Vacuum', the 'Pump: Chemical', 'Pumps: Rotary', 'Pumps: Vane', 'Vacuum Fittings', 'Vacuum Pumps', this classification will not be available in the Yellow Pages.

347 Mr Teo's evidence that the Yellow Pages classifications were only used as a starting point for further research into more sub-divided and specialised

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[272] NE 29 October 2014 at p 41 line 20–p 42 line 16.

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classifications is also borne out by the defendant's SOPs. The SOPs directed the defendant's employees to take the following steps when conducting research with a view to creating or recommending new classifications:[273]

> **Steps On How To Begin With the Review & Research**
>
> 1. Go in to our competitors' website & key in classification keyword and see what related classification are there
>
> - www.yellowpages.com.sg
> - www.thomasnet.com
> - www.eguide.com
> - www.googles.com.sg
> - companies own websites
> - printed advertisement from YP directories
>
> 3. Key in classification keyword and see what related classification are there. Copy down these related classification and check against our classification database whether we have it.
>
> 4. If there is any new classification/cross reference to be proposed, write it on I 0456 – New Classification And Cross Reference Form.

348 Mr Teo's evidence is also consistent with his own evidence on how he had envisaged the Green Book as a directory from its inception. He had modelled the Green Book on the "Thomas register" which was, in his view, the "best … industrial directory" in America because of the "detailed and specific classifications".[274] The difference in classificatory approaches between the plaintiff's Yellow Pages directories and the defendant's directories is best illustrated by the empirical data on the average number of classifications per company in each of the respective directories:[275]

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273 B28/1184C/19239; B5/215C/2649–2651.

274 NE 29 October 2014 at p 14 lines 7–21.

275 D2/23/334-12554.

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Edn	Green Book Printed Directories			Yellow Pages Printed Directories		
	Classifications	**Companies**	**Avg**	**Classifications**	**Companies**	**Avg**
‘04	134,051	42,958	**3**	103,498	96,839	**1**
‘05	137,086	44,241	**3**	105,398	98,727	**1**
‘06	131,263	40,641	**3**	118,041	111,150	**1**
‘07	83,480	12,608	**7**	116,235	109,793	**1**
‘08	83,009	11,821	**7**	115,940	109,772	**1**
‘09	89,759	12,043	**7**	-	-	-

These figures show the divergence in classificatory approaches in the defendant’s directories and the plaintiff’s Yellow Pages and online directories. Each company in the defendant’s directories was placed in *an average of seven classifications*, whilst each company in the plaintiff’s directories was placed in *an average of one classification*.

349 I therefore find that whilst the defendants systematically referred to and recorded the classifications that the plaintiff used in its Yellow Pages and online directories, it was for the purpose of grounding their own research into new classifications. The plaintiff’s classifications were assessed, built upon and adapted for suitability to the classificatory approach that the defendant’s directories adopted.

Market intelligence

350 The final aspect of the defendant’s processes that came under intense scrutiny in cross-examination was its “market intelligence” efforts. That label was shorthand for the defendant’s elaborate and complex processes for

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identifying potential advertisers for its directories. The lion's share of the defendant's market intelligence efforts was directed at identifying companies which advertised in other directories and so were more likely to advertise in the defendant's directories. In short, the defendant took note of the more aggressive advertisers in competitor directories so that its own sales staff could approach these subscribers with sales canvasses for advertisements in the defendant's own directories.[276]

351 An example of these market intelligence efforts were documented in an SOP titled "GENERAL PROCEDURE FOR UPDATING [YELLOW PAGES BUSINES] AND [YELLOW PAGES CONSUMER]".[277] This SOP contained step-by-step instructions for the defendant's employees to log down advertisers in the Yellow Pages directories. These included recording the advertisement's "ad size", its "MC Size Rating", its "MC Class No" and the page of the relevant directory that it appeared on. The "MC Size Rating" was a scale that the defendant devised to record the size of the companies' advertisements in other directories. There were four ratings: "A", for "Advertisement"; "B", for "Box Advertisement"; "C", for "Bold Listing"; and "D", for "Ordinary Listing". The "MC Class No" was the number code that was allotted to the particular classification that the listing was found in.

352 The SOP also instructed the defendant's employees to "[a]mend whatever fields required". This was presumably an instruction to amend the company's listing information in the defendant's master database if it differed from that in the Yellow Pages Business or Yellow Pages Consumer. Mr Teo

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276 NE 29 October 2014 at p 81 lines 10–18.

277 B24/1114C/17501–17505.

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said in cross-examination that any information that was amended or updated this way would be subsequently verified by the defendant's employees.[278]

353 Another SOP, titled "GENERAL PROCEDURE FOR UPDATING [YELLOW PAGES CONSUMER] ORDINARY LISTINGS",[279] had a less clear purpose. This required the employee to carry out the same steps above but for companies with *ordinary listings* and not advertisements. During the cross-examination of Mr Teo, the plaintiff's counsel, Mr Bryan Ghows, said that he could understand the purpose of market research to "make comparisons of advertisement sizes for advertisers", but asked Mr Teo to explain why there was a need to do market research for subscribers with ordinary listings (and thus, were not advertisers).[280] Mr Teo responded by referring the court to a company profile of "AIM Chemicals" that the defendant maintained in its master database.[281]

354 The profile contained information on various aspects of AIM Chemicals. It indicated the classifications in the defendant's directories that AIM Chemicals was categorised under. It also indicated the names of the company executives. But more importantly, the profile contained AIM Chemicals' "Advertisement Record with Other Publications". This showed the history of AIM Chemicals' appearance *in multiple directories* (including the Yellow Pages) *since 1992*. The advertisement history showed which categories in each of these directories AIM Chemicals appeared in, and also whether AIM Chemicals had purchased advertisements. Where AIM Chemicals had purchased advertisements in other

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278 NE 29 October 2014 at p 92 line 22–p 93 line 5.

279 B25/1152C/17984–17988.

280 NE 29 October 2014 at p 94 line 23–p 95 line 4.

281 B40/2837C/26685–26686.

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directories, the company profile also indicated the size and type of advertisement as well as the estimated cost of the advertisement. The level of detail of the information in the company profile was remarkable, considering the defendant's market intelligence efforts were undertaken almost entirely manually.

355 Mr Teo said that the defendant had been updating its database with market research not only for the Yellow Pages directories, but also directories in other print and digital media.[282] The fact that Mr Teo had been able to coordinate a data collection exercise on such a large scale is testament to his industry and meticulousness, which I alluded to earlier. Through this industry and meticulousness, Mr Teo also came to develop a keen understanding of the plaintiff's directories and how they operated. This led the plaintiff's counsel, Mr Ghows, to remark at the close of Mr Teo's cross-examination that Mr Teo probably knew the yellow and white pages better than his (Mr Ghows's) clients.

356 Thus, the documentary evidence discloses that the defendant was involved in wide-scale and coordinated market intelligence effort to create a database of various companies and their advertising behaviour. In the course of aggregating that information, the defendant also concurrently updated its master database with information of companies that the defendant had in its master database.

Selection and arrangement of listings

357 Finally, I should mention the selection and arrangement of listings within the defendant's directories, although this was not disputed or tested

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[282] 29 October 2014 at p 99 lines 6–15.

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vigorously in cross-examination. The companies in the defendant's internal database were rated A, B, C or D based on their advertisement expenditure (this was in accordance with the "MC Size Rating", which I alluded to at [351] above).[283] Companies with a "D" rating were those found not to have advertised in any other publications that the defendant researched, while companies with an "A" rating were the most aggressive advertisers in other directories and publications.

358 The extraction of listings for publication in the defendant's directories was based on the MC Ratings assigned to the company. For its printed directories, the defendant usually excluded all "D" rated companies. This was done because the defendant assumed that "if the D rated companies do not advertise in [the Yellow Pages], in the newspapers or other media, the D rated companies are probably not really worth publishing in [the defendant's printed directories]".[284]

359 The compilation system also allowed Mr Teo to adjust the percentage of companies within each rating which would be extracted and included in the defendant's directories. He could stipulate, for example, that the defendant's printed directories for a year would include 100% of "A" rated companies, 100% of "B" rated companies, 50% of "C" rated companies and 0% of "D" rated companies. Mr Teo fine-tuned these percentages based on the final page count of the defendant's printed directories each year, so as to manage printing costs.[285] For the defendant's digital and online directories, however, where space

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283 Teo Chai Tiam's affidavit at para 105.

284 Teo Chai Tiam's affidavit at para 107.

285 Teo Chai Tiam's affidavit at para 108.

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was not a constraint, the extraction criteria were less restrictive, and included "D" rated companies. This approach to the extraction criteria explains the apparent aberration that none of the plaintiff's seeds appeared in the defendant's printed directories. The seeds, being dummy listings, were necessarily "D" rated companies with no advertisement expenditure. They were thus passed over in extraction for inclusion into the defendant's printed directories.

360 The defendant's extraction and selection criteria thus differed markedly from the plaintiff's (whether the printed directories or the online directory). Whilst the plaintiff's directories appeared to prize inclusivity and exhaustiveness, the defendant's directories (*especially* the printed directories) were built around potential advertisement revenue. The defendant had no qualms about leaving out of its printed directories companies which it thought would likely not advertise in them.

Summary of findings

361 In summary, these are my findings on the defendant's business processes:

(a) The defendant took efforts to collect data from multiple independent third-party sources (at [311]–[325] above).

(b) The defendant also relied on the Business Listings to supplement its independent data collection efforts (at [326]–[332] above). For some of these exercises, the Business Listings were photocopied and scanned.

(c) The scanned copies of the Business Listings were stored in a temporary database to enable the defendant's staff to verify those listings before they were entered into or merged with the defendant's master database (at [334] above).

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(d) The evidence on what exactly was photocopied or scanned is very thin, but there is no evidence which suggests that the Business Listings was photocopied or scanned in its entirety (*ie*, including introductory material). Instead, it is more likely that only the subscriber listings were photocopied and scanned. This inference follows naturally from the stated purpose of the photocopying and scanning exercises, which was to compare the listing information to that in the defendant's master database (at [335] above).

(e) There was extensive use of the plaintiff's directories in verification and updating of the information in the defendant's master database (at [337] above). The defendant generally required any information that was taken from the plaintiff's directories to be independently verified through telephone calls or against other online sources (at [338] above). This was, however, not always complied with by the defendant's employees, as evidenced by errant SOPs (at [339] above) and the fact that seeds were found in the defendant's directories.

(f) The defendant used the classifications in the plaintiff's directories as reference points to do further research into new classifications (at [342] above). But ultimately the classificatory approaches in both the plaintiff's and the defendant's directories were different.

(g) The defendant conducted extensive market intelligence on advertisers in the plaintiff's directories and other directories. The defendant had painstakingly built up a database on various companies and their advertising habits (at [350]–[355] above). In the course of conducting this market intelligence, the defendant also concurrently

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updated the information in its master database. Some of this information was entered into the defendant's master database without further verification.

(h) The defendant's approach to the selection and arrangement of its directories was markedly different from that of the plaintiff's. The defendant's directories cross-listed companies under multiple classifications (at [345]–[349] above), and the classifications in the defendant's directories were more specific and focused than the more general classifications adopted in the plaintiff's Yellow Pages and online directories. The selection of which listings to publish in the defendant's printed directories also differed, because it was done on the basis of the advertising potential of the subscribers (at [357]–[360] above).

Whether the defendant infringed any copyright found to subsist in the plaintiff's directories

362 The plaintiff argues that the court should adopt a qualitative approach in determining whether there has been substantial copying.[286] Engaging in a side-by-side comparison, especially where factual databases are concerned, is prone to lead to "farcical mathematical deductions".[287] Once copying has been established, any further side-by-side comparison is inappropriate when addressing the question of whether what was copied is a substantial part of the plaintiff's work. In view of the defendant's SOPs and admissions made by Mr Teo, there is an abundance of evidence showing that the defendant copied

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286 Plaintiff's Closing Submissions at para 169.

287 Plaintiff's Closing Submissions at para 171.

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the plaintiff's works in a "quotidian, systematic and accretive method".[288] Four factors show this:

(a) First, the defendant's "referencing" or "verification" of information from the plaintiff's directories was no more than bare copying. There was no verification. Even if there was verification, "it does not change the fact that verified information came originally from the Plaintiff".[289]

(b) Second, the admissions of wholesale copying of each of the plaintiff's printed directories. Mr Teo admitted that the defendant keyed in and scanned all the listings in the Business Listings into a database.[290] Mr Teo also admitted to updating the information in the defendant's database concurrently with market research on the Yellow Pages Business and Yellow Pages Consumer.[291]

(c) Third, the presence of fingerprints in the defendant's directories in the form of seeds.[292]

(d) Fourth, the presence of listings containing additional entries (or further enhancements) were found in the defendant's directories.[293]

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288 Plaintiff's Closing Submissions at para 173.

289 Plaintiff's Closing Submissions at para 177.

290 Plaintiff's Closing Submissions at paras 184.1–184.2.

291 Plaintiff's Closing Submissions at para 186.

292 Plaintiff's Closing Submissions at paras 205–209.

293 Plaintiff's Closing Submissions at paras 210–212.

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363 I have earlier found that copyright does not subsist in the individual listings, the compilation of listings under each classification, or the seeds. I have, however, found that copyright subsists in (a) the printed directories as a whole (*ie*, inclusive of forward and introductory material as well as other sections); (b) in the compilations of the listings in their entirety in respect of the selection of which classifications appear in which Yellow Pages directories; and (c) the compilation of the listings in their entirety in the online directories, but not in the compilation of the listings in their entirety in the Business Listings.

364 In order to establish copyright infringement, it must be shown that the defendant copied a substantial part of the copyright work. The principles governing substantiality of copying are well known. It is generally not copyright infringement to merely reference a work for information. Infringement arises where the referencing goes beyond mere use of the information and into a reproduction of a substantial part of the expression of the information that is protected by the copyright. In the case of factual compilations what is protected is the original selection or arrangement that cloaks the compilation as an intellectual creation with copyright.

365 It thus follows that the bare entry of listings into a database (temporary or otherwise) does not infringe the copyright in the directories as a whole. In order for such lifting or referencing of information to amount to infringement, it has to be shown that the defendant entered in so many of the listings such that he can properly be regarded as having taken the original *selection or arrangement of the directory as a whole*, which is what is cloaked with copyright.

366 In respect of the Business Listings, the defendant accepts that they were photocopied or scanned into a temporary database (from where the process of

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checking, verification as described earlier took place). I have pointed out earlier that the evidence as to just what was meant by this was unclear, but it is more likely that only the listings portion of the Business Listings was photocopied or scanned in its entirety.

367 The defendant argues that plaintiff did not plead photocopying or scanning into the temporary database as an act infringement.[294] I reject this argument because the amended statement of claim, which is framed in broad and general terms, pleads that the defendant has infringed copyright by "reproducing and/or authorizing the reproduction of the whole of the Plaintiff's Works or substantial parts thereof".[295] It is apparent that the fact of photocopying or scanning emerged only during the trial. In my judgment, this pleading is sufficient to cover the point.

368 I am satisfied the acts of photocopying and scanning the Business Listings constituted unauthorised reproductions despite the fact that the database produced was just a temporary database. The question as to whether this amounts to a substantial taking, which is necessary to establish copyright infringement, is a far trickier matter. If the defendant had scanned in the whole of the Business Listings including all the introductory material, *etc*, then clearly there would infringement; I have noted that it is doubtless that copyright subsists in the Business Listings as a whole, including the front matter and introductory material.

369 The question, however, is whether there is substantial taking when *only* the listings (albeit in their entirety) were photocopied or scanned without the

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294 Defendant's Reply Submission at para 105.

295 Statement of Claim (Amendment No 6) at para 12.

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other material. Each individual listing does not enjoy copyright on its own. There is no selection of the listings in the Business Listings, which, as a whole-of-the-universe directory, prizes exhaustiveness. The sorting and arrangement of the listings into alphabetical format (as described earlier) is obvious and requires little ingenuity or intellectual effort. To be clear, originality does not require inventiveness. Nevertheless, I am of the view that the portions of the Business Listings that were reproduced by the defendant, although voluminous, were not substantial in the copyright sense. Not an iota of originality rested in the material that the defendant reproduced. All that was taken by the defendant was the facts that constituted the listings. What may have made the Business Listings original as a whole was the selection and arrangement of the listings *together with* the other material such as lists of emergency phone numbers; important/useful numbers; Government and quasi-government listings, *etc*. It has not been alleged, much less established, that the defendant's directories reproduced such material. For this reason, I find that the defendant's photocopying or scanning of the entirety of the listings in the Business Listings did not amount to copyright infringement. I emphasise that the plaintiff's claim is based on infringement of copyright in the Business Listings as a *literary work*. There is no claim to infringement of any publisher's right which would subsist in the Business Listings, by virtue of the typeset and layout, *etc*, under ss 86 and 91 of the Copyright Act.

370 In reaching this conclusion, I am aware of the English High Court decision in *Waterlow Directories Limited v Reed Information Services Limited* [1992] FSR 409 ("*Waterlow Directories*"), where Aldous J found a strong case of substantial copying when 1,600 out of 12,600 entries were copied by the defendant into a computer from the plaintiff's directory. The plaintiff in that case published a legal directory containing the name and addresses of firms of

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solicitors and barristers. The defendant produced a similar directory. In order to update its directory, the defendant compared it with the plaintiff's and highlighted those entries which did not appear in the defendant's. The highlighted entries were copied into a computer and used to generate invitations to the lawyers to appear in the defendant's directory. Aldous J held that the act of copying into the computer amounted to reproduction (*Waterlow Directories* at 417). He found that there was a strong case that the amount copied was a substantial part of the copyright work, and granted the interlocutory relief that the plaintiff sought.

371 It seems to me, however, that the *Waterlow Directories* decision came on the back of the defendant's concession that the legal directory was original. In determining substantiality, there was little discussion of the nature of the originality, which is, in turn, an important matter when determining whether there has been a substantial taking. For this reason, the *Waterlow Directories* decision—as representing the industrious collection approach to originality and factual compilations—sits uneasily with the *Feist* decision of the US Supreme Court, the *IceTV* decision of the High Court of Australia and the *Telstra* decision of a Full Court of the Federal Court of Australia, discussed above.

372 In respect of the Yellow Pages and online directories, all that has been established is the referencing of information in the listings or classifications for the defendant's use. Some of the listings were copied by the defendant without any further verification. But whether or not verification was done by the defendant is immaterial. I have found that copyright does not subsist in these individual listings or the classifications, and so there can be no infringement from copying this information. Copyright protects the final form of expression, and not the underlying facts or data contained within that form of expression. Painstaking and laborious though the plaintiff's efforts at collecting that data

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may have been, it is not protected by copyright. At a higher level of abstraction, I am satisfied that there were sufficient differences in the defendant's method of selecting and arranging the material in its directories, such that it did not reproduce a substantial part of the aspects of the plaintiff's Yellow Pages and online directories that I found to have contributed towards originality in the Yellow Pages and online directories as a whole. Whilst the defendant may have noted or recorded (as part of their research) new classification headings or headings which did not appear in the Green Book, this is not in my view sufficient to amount to a substantial taking of the selection and arrangement of the classifications into the two Yellow Pages directories.

373 It follows that the plaintiff's claim for copyright infringement fails in its entirety. It is not necessary accordingly to consider the question of defences. Nevertheless, because of the lengthy submissions and in the event that the matter proceeds further and I am wrong (for example, because the scanning in of the Business Listings is a substantial taking) I will briefly touch on the main defences raised.

Whether the defendant can avail itself of any defences to copyright infringement

374 Leaving aside the denial of infringement, the main defences relied on are (a) laches, delay and acquiescence; (b) innocent infringement; (c) fair dealing; and (d) the public interest defence. Some are defences to liability whilst others are in respect of certain remedies.

Laches, delay and acquiescence

375 The defendant submits that the plaintiff is not entitled to seek equitable relief in the form of an injunction to restrain the continued publication of its

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directories. In brief, the argument is that the plaintiff had sufficient knowledge of the allegedly infringing acts as early as 2003, but it only commenced suit in 2009.[296] Because of the delay or inaction, the plaintiff is not entitled to seek an injunction or damages. At best, monetary relief should be confined to a licence fee for whatever infringement that is found.[297]

376 The plaintiff, on the other hand, submits that there is no extraordinary delay and that the litigation period for the suit is, in any case, based on the statutory limitation period of six years. It denies any acquiescence or delay,[298] or detrimental reliance on the part of the defendant.[299] The plaintiff relies on *Fisher v Brooker* [2009] FSR 25 ("*Fisher v Brooker*"), a decision of the House of Lords involving copyright infringement, where it is said that a claim made after "some 38 years" was found not to be barred by estoppel, laches or acquiescence.[300]

377 I would have rejected the defendant's argument if it were necessary for me to decide this point, for two reasons. First, the only prejudice the defendant says it has suffered is the impairment of its ability to "present comprehensive evidence before the court" in defence of the plaintiff's claim.[301] As a result of the alleged delay, the defendant destroyed its documentary records, including the completed delivery order forms.[302] This argument is disingenuous because

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296 Defendant's Closing Submissions at para 1276.

297 Defendant's Closing Submissions at para 1283.

298 Plaintiff's Closing Submissions at para 250.

299 Plaintiff's Closing Submissions at para 251.

300 Plaintiff's Closing Submissions at para 245.

301 Defendant's Closing Submissions at para 1267.

302 Defendant's Closing Submissions at paras 1267–1268.

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Mr Teo's own evidence is that the defendant continued with the destruction of its documentary records even *after* the commencement of proceedings against it (see [320] above). There is nothing to suggest that the defendant would have been in any better a position to defend the claim against it, had the plaintiff brought proceedings earlier.

378 Second, there is nothing to suggest that the defendant was led to believe that the plaintiff would not enforce its rights against the defendant, nor was there any detrimental reliance by the defendant. I agree with *Fisher v Brooker*, where Lord Neuberger of Abbotsbury (with whom the other members of the House of Lords agreed) said that detrimental reliance was usually necessary for the defence of laches to equitable relief to succeed. The defendant must show that "it would be practically unjust to give a remedy" bearing in mind the length of the delay and the nature of the acts done (*Fisher v Brooker* at [64]).

379 The defendant has not raised any evidence which shows that it was led to believe the plaintiff would not enforce its strict rights against the defendant. Nor has the defendant shown how it has detrimentally relied on the plaintiff's alleged failure to bring the action earlier, apart from the destruction of evidence. Whilst there may have been some delay, it was not, in the circumstances, of such a length so as to render it unjust to grant equitable relief, bearing in mind the benefits the defendant had obtained from the inaction.

Innocent infringement

380 The defendant relies on s 119(3) of the Copyright Act, which sets out the defence of innocent infringement. This is a defence to damages if it can be shown that, at the time of infringement, the defendant was not aware of and had no reasonable grounds for suspecting that the act constituting infringement was

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an infringement of copyright. Innocent infringement, however, is not a defence to a claim for an account of profits. The defendant submits that it is relevant that it did not have "actual or constructive knowledge that what [it] was doing is an infringement".[303] It takes issue with the wording of the copyright warning notices in the plaintiff's directories and in any case denies knowledge of at least some of the notices.[304]

381 The plaintiff takes the reverse position and argues that it is "inherently unbelievable" that the defendant did not have reasonable grounds for suspecting that the act constituted copyright infringement.[305]

382 If it was necessary for me to decide this, I would agree with the plaintiff. The defence of innocent infringement is predicated on whether a defendant has reasonable grounds for *suspecting* that the act constituted infringement. In *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (1999) IPR 32 ("*Milwell*") a Full Court of the Federal Court of Australia held (in respect of identical Australian provisions) that it was necessary to show two elements to make out the innocent infringement defence. First, an active subjective *lack* of awareness that the act was an infringement of copyright, and second, that objectively there were no reasonable grounds for suspecting the act complained of was infringing (*Milwell* at [52]).

383 There remains a controversy over the relevance of a mistake of law as to whether the act complained of infringes copyright. The Full Court in *Milwell* thought that a mistake of law could never avail the defendant of the statutory

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303 Defendant's Closing Submissions at para 1304.

304 Defendant's Closing Submissions at paras 1308–1317.

305 Plaintiff's Closing Submissions at para 257.

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defence of innocent infringement; *Pollock v JC Williamson* [1923] VLR 225 was cited in support of that proposition (*Milwell* at [62]–[63]). The Full Court also expressed caution over the comment in *Kalamazoo (Aust) Pty Ltd v Compact Business Systems Pty Ltd* (1985) 84 FLR 101 ("*Kalamazoo*"), that a mistake of law could be relevant if it was made after a reasonable inquiry. The position in *Kalamazoo*, however, is that endorsed in Staniforth Ricketson & Chris Creswell, *The Law of Intellectual Property: Copyright, Designs & Confidential Information*, (Law Book Co, Looseleaf Ed) ("*Ricketson & Creswell*") at para 13.770. *Ricketson & Creswell* express the view that evidence that the defendant had been encouraged to believe in the legality of its actions by the plaintiff may help to open the door to the defence.

384 I shall not attempt to resolve that controversy since parties have not provided detailed submissions on the applicable legal principles. Nevertheless, it does not appear from the evidence before me that the defendant made any independent inquiry as to whether copyright might have subsisted in the claimed material or whether there might be a case of infringement. Indeed, Mr Teo's evidence was also that the defendant had not sought legal advice on the propriety of its photocopying, scanning or referencing the plaintiff's directories prior to the commencement of proceedings against it.

385 The defendant has made much of the inadequacy of the plaintiff's copyright notices to establish its subjective lack of awareness that infringement had occurred. Even if that is accepted (which is doubtful), it only establishes the first of two requirements necessary to make out the defence of innocent infringement. It is necessary to go further and establish that objectively, there were no reasonable grounds to suspect copyright infringement. And in my judgment, if it was necessary to decide the point, I am of the view that the defendant has failed to establish this on the facts before me.

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386 I have found that the defendant photocopied the entirety of the listings in the Business Listings and scanned them into a temporary database. This is not a case where the defendant subconsciously photocopied and scanned the Business Listings. The defendant was well aware of what it was doing. It would have been unreasonable for the defendant to not have suspected that it may be infringing the plaintiff's copyright.

Fair dealing

387 The defendant also relies on the fair dealing defence under s 35 of the Copyright Act. It relies on a range of factors including the purpose for which the plaintiff's works were taken and the nature of the plaintiff's works to show that its taking was fair.[306]

388 The plaintiff, in contrast, argues that the focus of the defence should be on whether the infringer's new work is "transformative in nature or … merely supersedes the objects of the original creation".[307] The defendant merely copied the plaintiff's listings, which are indistinguishable from the listings in the defendant's directories.[308] Further, the defendant's taking also allowed it to operate at a lower cost of business and undercut the plaintiff.[309] The defendant ought to have sought a license for the use of the plaintiff's works.[310]

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306 Defendant's Closing Submissions at paras 1288–1302.

307 Plaintiff's Closing Submissions at para 229.

308 Plaintiff's Closing Submissions at para 231.

309 Plaintiff's Closing Submissions at para 232.

310 Plaintiff's Closing Submissions at para 233–234.

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389 These arguments will be better situated in their context with a brief overview of the legislative history of the fair dealing provisions in our Copyright Act, which Prof Ng-Loy has rightly commented, are "truly an indigenous species" (*Law of Intellectual Property of Singapore* at para 11.3.2). The fair dealing provisions originally enacted in the Copyright Act 1987 (No 2 of 1987) ("the Copyright Act 1987") followed the Anglo-Australian approach. The defence was then tied down to three specified purposes: (a) research or private study (s 35(1) of the Copyright Act 1987); (b) reporting news or current events (s 36 of the Copyright Act 1987); and (c) criticism or review (s 37 of the Copyright Act 1987). Unlike in the US, there was no general defence of fair use that was not predicated on and limited to specific purposes.

390 In respect of the first specified purpose—research or private study—whether a dealing was fair was to be determined by considering four non-exhaustive factors. These included the purpose and character of the dealing, the nature of the work, the amount and substantiality of the part of the work copied, and the effect of the dealing on the potential market or value of the work (ss 35(2)(*a*)–(*d*) of the Copyright Act 1987). Further, "research" was expressly defined by s 35(5) to *exclude* "industrial research or research carried out by bodies corporate …, companies, associations or bodies of persons carrying on any business". The fair dealing defence for private study or research thus could not be relied upon by corporate bodies or businesses.

391 The original version of the fair dealing provisions had been hotly discussed by a Select Committee of Parliament. The bill was amended just prior to its eventual enactment: *Report of the Select Committee on the Copyright Bill (Bill No 8/86)* (Parl 9 of 1986, 22 December 1986) at D11. The amendment incorporated the restrictive definition of research that was found in s 35(5) of

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the Copyright Act 1987, and this was driven in part by the perceived concern that the defence might cover studying or research "for profit".

392 The litigation culminating in the Court of Appeal decision of *Creative Technology Ltd v Aztech Systems Pte Ltd* [1996] 3 SLR(R) 673 ("*Creative Technology (CA)*"), however, put a spotlight on the desirability of removing the limitation against commercial research in s 35(5) of the Copyright Act 1987. *Creative Technology (CA)* was a case where the defendant made a copy of the plaintiff's computer program (the firmware for a soundcard) by operating the program as part of the process of reverse engineering. The goal was to develop a competing soundcard. The defendant's soundcard was eventually found to be non-infringing as it did not reproduce a substantial part of the plaintiff's program. The defendant was nevertheless liable for making an infringing reproduction when the plaintiff's program was operated for the purpose of study and research. The defendant could not rely on the fair dealing defence, which was unavailable in dealings of a *commercial* nature (*Creative Technology (CA)* at [76]–[77]). Since the defendant's infringing reproduction of the plaintiff's program did not fall within the specified purpose of "research of private study", the Court of Appeal therefore did not go on to consider whether the defendant's dealing was fair.

393 As a result of the concerns raised by the result reached in the *Creative Technology* case, the statutory provisions were amended in 1998. Section 5 of the Copyright (Amendment) Act 1998 (No 6 of 1998) removed the restriction on the definition "research" in s 35(5), which excluded from its scope research done by corporations or businesses. The intended goal was to make the defence available for commercial research provided that the dealing was fair.

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394 The next and final change to the relevant provisions took place on 1 January 2005, when the Copyright (Amendment) Act 2004 (No 52 of 2004) came into effect. The amended provisions, which are the current provisions, essentially retain the basic structure of the fair dealing defence tied to specific purposes. What the amendment did, however, was to introduce (amongst others) a new US-style general fair dealing defence into s 35(1) of the Copyright Act. Section 35(1), thus amended, covers dealings for *any purpose* other than (a) reporting news or current events; or (b) criticism or review, both of which remain the subject of ss 36 and 37, respectively. Research and study is expressly stipulated by s 35(1A) to fall within the other purpose limb in s 35(1). The amendments also included a fifth to the list of the existing four non-exhaustive factors (see [390] above) to determine whether a dealing that falls within s 35(1) is fair. The fifth factor is the "possibility of obtaining the work or adaptation within a reasonable time at an ordinary commercial price" (s 35(2)(*e*) of the Copyright Act).

395 These latest amendments are of broad effect and raise important questions as to the relationship between the purpose-limited fair dealing defences in ss 36 and 37 of the Copyright Act, and the new open-ended fair dealing defence in s 35(1). US case law and experience indicates that time and appropriate case law will be needed to flesh out the scope of the new open-ended fair dealing defence in areas such as transformative use. It is not necessary to explore these questions at length in the present case.

396 I shall nonetheless set out some short observations on the fair dealing defence in the event that my conclusion on copyright infringement is wrong. Fair dealing is a defence to an act of infringement. It follows that in any consideration of the defence, attention must be paid to the nature of the act found to be infringing. In the present case, any infringement (in brief) will concern

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either (a) the competing directories of the defendant on the basis that these are a reproduction of a substantial part of the protected work(s) and/or (b) the making of copies of the protected works during the process whereby the defendant's competing directories were produced.

397 It will be helpful to discuss *Aztech Systems Pte Ltd v Creative Technology Ltd* [1995] 3 SLR(R) 568 ("*Creative Technology (HC)*"), which was the first instance decision that was a prelude to *Creative Technology (CA)*. Lim Teong Qwee JC in the High Court held that the defendant's dealing fell within the specified purpose of "private study and research", notwithstanding the fact that it was for a commercial purpose (*Creative Technology (HC)* at [58]). He also held that the defendant's dealing was fair, and he took into account the following considerations, amongst others:

(a) The copying was only into the computer memory. No copies were made for distribution (*Creative Technology (HC)* at [52]).

(b) The copying was for the purpose of observing the operation of the soundcard, with the aim of developing a compatible soundcard that could be marketed in direct competition (*Creative Technology (HC)* at [53]).

(c) The commercial nature of the dealing was a factor against fair dealing. But that had to be balanced against the fact that the defendant's sound card was not a copy of the plaintiff's program (*Creative Technology (HC)* at [54]).

398 It will be recalled that Lim JC's decision was reversed on appeal, because the Court of Appeal took the view that commercial research did not fall within the specified purpose of "research or private study". The Court of Appeal

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therefore did not have to consider whether the dealing was fair (*Creative Technology (CA)* at [72]).

399 In my judgment, and on the facts of the present case, I would have been inclined to find that the defendant is able to avail itself of the fair dealing defence. The complained acts of infringement relate heavily to the admission that the entirety of the listings in the Business Listings had been photocopied and also scanned into a temporary database. The purpose of this was clear: to facilitate comparison or identification of listings not found in the defendant's directories. The scanned copy was not distributed to the public. What was distributed was the defendant's printed directories. The scanned copy does not appear to have been made available in the form of the defendant's online directory. It will be recalled that the defendant's online directory is not an infringing reproduction of the plaintiff's works. No doubt the defendant's printed directories, *etc*, were direct competitors to the plaintiff's directories. Nevertheless, the defence of fair dealing for study or research or for any other purpose is not restricted to non-commercial dealings. Whilst the fact that a dealing is for non-profit educational purposes assists in establishing fair dealing, it is clear that the commercial nature of the dealing is just one of many factors to be taken into account. The importance and significance of the commercial nature of the dealing will vary from case to case.

400 It may well be that the scanning of the plaintiff's business listing into a temporary database was a convenient or efficient method of enabling the defendant's staff to reference the Business Listings for comparison; this might have been a quicker and more expedient method than making comparisons from the hard copy of the Business Listings. It remains a matter of judgment as to whether this tips the balance against a finding of fair dealing. Whilst it is *not* necessary for me to decide the point, I am of the view this very limited form of

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copying may well be protected; at least in circumstances where the resulting work which is exploited by the defendant is not an infringing work in itself. To be clear, I am not suggesting, even by way of a passing observation, that copying in the course of study or research generally falls within fair dealing. Much will depend on the circumstances including the effect on the value of the work, whether a copy of the work could be obtained within a reasonable time at an ordinary price, the nature of the study or research and so on.

401 In making these observations, I note that the defendant also submits that it was not in a position where it could obtain subscriber information directly from telephone service providers because of agreements between the telephone service providers and the plaintiff.[311] That said, it appears that the defendant never approached the plaintiff for a licence because it did not think the Yellow Pages were useful,[312] and that in any event, the terms of any licence would have been very unfavourable.[313] These are factors that work against a conclusion that the dealing was fair. It is clear that "referencing" Yellow Pages and indeed the Business Listings was useful to the defendant as part of its strategy of market research. Whilst the defendant asserts that its Green Book directory is different because it is a directory which organises listings into very specific sub-classifications, the point remains that the Yellow Pages was obviously useful. The fact that the defendant thought the terms would be unfavourable does not assist them on the facts before me.

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311 Defendant's Closing Submissions at para 1297.

312 NE 28 October 2014 at p 25 line 24.

313 NE 28 October 2014 at p 25 line 21.

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402 Nevertheless, on balance, if it was necessary to decide the point, I would be inclined to find fair dealing for research or other purposes has been made out in respect of the photocopying of the Business Listings or scanning them into the temporary database. Indeed, to the extent that the defendant may have copied new classification headings as part of their research into their own classification system this is also a fair dealing on the evidence before me. To give an example: a writer of a legal text book who notes from another recently published text that there have been 5 new decisions on a particular legal principle and who copies down the names of the cases in order to conduct his own research on the cases for possible inclusion and discussion in his own text appears to have a strong case for fair dealing. Whilst this example is not on all fours with the case at hand (the plaintiff asserts that it created the new headings), there is no claim to copyright in the headings as such and if there was—serious questions would have arisen as to whether a new classification heading is an original work. If there is any copyright at all, it must be in the overall selection and arrangement of the classifications into the two Yellow Pages directories. Even if what the defendant did amounted to infringement (by reference to that overall selection and arrangement and any scanning into a temporary database) I am of the view that fair dealing has been made out on the facts before me.

Public interest defence

403 The defendant also relies on the defence of public interest.[314] To succeed, the defendant faces two hurdles. First, establishing an extra-statutory defence protecting acts of infringement in the public interest. Second, showing that on the facts, the defence is applicable.

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314 Defendant's Closing Submissions at paras 1319–1328.

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404 The first question as to whether there is a stand-alone non-statutory defence of public interest is complex. Public interest in this sense is distinct from bars to relief such as the doctrine of unclean hands. It also goes further than the principle of law embodied in the maxim *ex turpi causa non oritur actio*. The latter principle prevents the court from enforcing a copyright where the work is (a) dishonest and misleading; (b) of a gross immoral tendency; and (c) written in breach of confidence or where it reeks of moral turpitude (*ZYX Music GmbH v Chris King* [1995] FSR 566 at 577). This is clearly not a case where the maxim has any applicability. Instead, what the defendant argues for is a broader defence of public interest on the basis that the public at large benefitted from competition in telephone directories.

405 This is not an appropriate case to delve into arguments for and against a stand-alone public interest defence. I note that in *Creative Technology (HC)* at [57], Lim JC appears to have accepted that an extra-statutory public interest defence was consistent with the architecture of the Copyright Act. While that may have been the case then, the Copyright Act has since been amended several times. New statutory defensive provisions have been introduced including an open-ended US-style fair dealing defence. The list of factors set out in s 35(2)—which are broad in themselves—relevant to determining whether a dealing is fair is not exhaustive. The question as to whether there is any need or indeed room for an independent defence of public interest therefore requires careful scrutiny, especially since *ex turpi* and unclean hands are already established principles which affect the granting of relief.

406 In any event, even cases from the UK, where a public interest defence appears to have statutory support, suggest—and rightly so—a cautious and restrained approach that places emphasis on whether the work is immoral, scandalous, contrary to family life or injurious to public life, public health and

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safety and the administration of justice. Whilst there may be other situations where the English courts will be prepared to apply the defence, it is likely that a restrained approach will be taken. Suffice it to say that on the facts, there is no basis or indeed assertion that the plaintiff's directories are immoral or scandalous or injurious to public life.

407 Given my earlier findings on subsistence of copyright and infringement as well as my observations on the fair dealing defence, it is not necessary to say any more about the alleged public interest defence than has already been said.

Whether the plaintiff is liable for groundless threats of copyright infringement

408 The defendant counterclaims under s 200 of the Copyright Act for the making of groundless threats of legal proceedings. The section provides:

> **Groundless threats of legal proceedings**
>
> **200.**—(1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with an action or proceeding in respect of an infringement of copyright, then, whether the person making the threats is or is not the owner of the copyright or an exclusive licensee, a person aggrieved may bring an action against the first-mentioned person and may —
>
> (*a*) obtain a declaration to the effect that the threats are *unjustifiable*;
>
> (*b*) obtain an injunction against the continuance of the threats; and
>
> (*c*) recover such damages, if any, as he has sustained,
>
> unless the first-mentioned person satisfies the court that the acts in respect of which the action or proceeding was threatened

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> *constituted, or, if done, would constitute, an infringement of copyright.* (emphasis added)
>
> (2) The mere notification of the existence of a copyright does not constitute a threat of an action or proceeding within the meaning of this section.

409 The defendant submits that a case of groundless threats has been made out; it relies on letters from the plaintiff dated 12 August and 9 September 2009 to ground its counterclaim.[315] It claims an entitlement to an injunction, costs and damages to be assessed, because the hearing before me was bifurcated.[316]

410 The plaintiff argues that the only relief that should be granted, in the event that its claim fails, is a declaration that the threats were unjustified.[317] There is no need for an injunction to restrain the plaintiff.[318] No reason or elaboration is given as to why this should be the case. The plaintiff also submits that only nominal damages should be awarded because no loss has been proven.[319] The plaintiff has given no explanation as to why proof of loss is necessary at this stage given the bifurcation of the suit. I therefore accept the defendant's position that so long as liability is established, the extent of the loss suffered will be determined at the hearing on the quantification of damages. I should stress that the evidence in relation to the threats of copyright infringement was very bare, but the plaintiff did not dispute that it sent the letters to the defendant, nor did it appear to dispute the alleged contents of the threats made in those letters.

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315 Defendant's Closing Submissions at para 1330.

316 Defendant's Closing Submissions at para 1330.

317 Plaintiff's Closing Submissions at para 258.

318 Plaintiff's Closing Submissions at para 261.

319 Plaintiff's Closing Submissions at paras 259–260.

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411 The sole issue before me is whether the defendant succeeds in establishing the plaintiff's liability under s 200 of the Copyright Act. In *Pioneers & Leaders* at [141]–[142], the Court of Appeal held that the counterclaim for groundless threats followed as a matter of course since the plaintiff's claim in copyright infringement failed. A similar conclusion was reached by the Court of Appeal in *RecordTV* at [66]. These decisions support the defendant's submission that a case of groundless threats has been made out. As I mentioned earlier, the plaintiff's closing submissions did not appear to deny that liability under s 200 will follow if its claim failed. Instead, its submissions are directed toward the appropriate relief. In his reply oral submissions,[320] however, the plaintiff's counsel, Mr Ghows, alluded to a line of Australian cases in respect of a similar provision in the Australian Copyright Act, which have cast doubt on the position that liability for groundless threats is strict.

412 The issue was considered by the Federal Court of Australia in *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2014) 316 ALR 590 ("*Telstra (Groundless Threats)*"), which was satellite litigation following in the wake of the series of *Telstra* decisions on subsistence of copyright that I discussed earlier (see [130]–[141] above). It suffices to recount that the plaintiff's claim for subsistence of copyright failed in the earlier *Telstra* litigation. This was because the High Court of Australia had, in *IceTV*, departed from the industrious collection approach that formerly held sway in prior Australian decisions such as *Desktop Marketing*.

413 Telstra argued in *Telstra (Groundless Threats)* that it had a good defence to a claim in groundless threat because it (Telstra) had relied *bona fide* on the

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320 NE 7 April 2015 at p 2 lines 3–4.

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law as it stood in *Desktop Marketing* when it made the threat. Murphy J agreed with Telstra, and adopted a nuanced interpretation of an earlier decision of the Supreme Court of Western Australia, *SW Hart & Co Pty Ltd v Edwards Hot Water Systems* (1980) 30 ALR 657 ("*SW Hart*"), which had held that "good faith and honest belief" were "no defence" to the grant of an injunction on the basis of groundless threats (*SW Hart* at 661). Murphy J acknowledged that whilst good faith was not a defence to a claim for an unjustifiable threat of copyright infringement, *bona fides* (or good faith) had to be understood as a reference to the subjective state of mind of the party making the threat (*Telstra (Groundless Threats)* at [670]–[671]). Murphy J elaborated that "unjustifiable" in the statutory provision was, however, a reference to the "objective strength of the legal position underpinning the threat" (*Telstra (Groundless Threats)* at [672]). The upshot of this analysis was that the *justifiability* of the threat was a distinct question from its *bona fides* (*Telstra (Groundless Threats)* at [675]). The former was objective and the latter subjective, and they "ought not be conflated". A threat could be subjectively *bona fide* yet still objectively unjustifiable. Murphy J concluded that Telstra's defence to the claim of groundless threats of copyright infringement succeeded. Telstra's threat of copyright infringement was justifiable because it was made on "strong Full Court authority", based on the law as it then stood in *Desktop Marketing* (*Telstra (Groundless Threats)* at [681]).

414 In the context of s 200 of our Copyright Act, the word "unjustifiable" appears in s 200(1)(*a*), in relation to an order for declaratory relief (see [408] above). The word "groundless" appears only in the section heading. Section 200(1) provides that the three forms of relief for groundless threats of copyright infringement (*ie*, declaratory relief that the threat was unjustifiable, an injunction and damages) may be sought, unless the person making the threat

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satisfies the court that the acts in respect of which the action or proceeding was threatened constituted, or, if done, would constitute, an infringement of copyright. When one considers the provision as a whole, including the section heading, there is something to be said for the approach taken by Murphy J in *Telstra (Groundless Threats)*. Even though the mere fact of an honest belief in the legitimacy of the threat is rightly no defence, the position may be different where it is shown that, at the time when the threat was made, there was *clear binding authority* that the acts complained of constituted copyright infringement.

415 But in the present case, I do not think that anything turns on the point, for two reasons. First, that was never the plaintiff's position to begin with. The plaintiff initially argued in its closing submissions that an injunction was not necessary and that damages should be nominal. It did not appear to dispute liability for groundless threats should its claim for copyright infringement fail. It was only in its reply submission that *Telstra (Groundless Threats)* was relied upon, and liability for groundless threats of copyright infringement was disputed. Second, and more importantly, I am of the view that there are clear differences between the position before me and that in *Telstra (Groundless Threats)*. There was no clear binding authority on the position of industrious collection and the creativity school of thought in Singapore. Whilst the District Court in *Virtual Map* supported industrious collection, I have made the point that the matter was not considered as such by the Court of Appeal when leave to appeal was refused.

416 Second, the threats of action in the 12 August and 9 September 2009 letters were overly broad and went even beyond the "industrious collection" approach which had been endorsed in *Virtual Map*. The letters stated that the defendant had infringed the plaintiff's copyright in *information, classifications*

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and *artworks* in the plaintiff's directories.[321] The reference to "information" in the letters goes beyond "industrious collection". There was no claim made, or any evidence led at trial for the subsistence or infringement of copyright in artwork.

417 These overbroad and unjustified allegations were *precisely* the type of threats that s 200 of the Copyright Act was meant to deter. The trial judge in the *IceTV* litigation, Bennett J, observed in his first instance decision that the purpose of the section was to deter unjustified threats, threats that did not result in infringement proceedings or could not be justified for actual infringement, and threats made to "frighten away competitors or damage such persons less directly": *Nine Network Australia Pty Ltd v IceTV Pty Ltd* [2007] FCA 1172 at [232], citing with approval *Ricketson & Creswell* at para 2.195. Whilst I do not find that the plaintiff had made "threats in the air", indeed, they may well have subjectively honestly believed in the legitimacy of their position, the question as to whether the threats are objectively groundless or unjustified, must depend at least in part of the contents of the threat.

418 In my judgment, the defendant's counterclaim under s 200 succeeds. The hearing before me was bifurcated as to the claim for damages. The defendant is entitled to the declaratory relief sought as well as an injunction in terms as set out in the prayer. Damages are to be assessed.

Miscellaneous issues

419 In view of my decision, there are several other points raised by the parties which are unnecessary to dispose of. These include the defendant's

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321 Defence and Counterclaim (Amendment No 4) at para 42.

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submissions on (a) proof of ownership and (b) the time-bar as well as the plaintiff's submissions on (c) additional or aggravated damages.

420 Nevertheless, it will be appropriate to make some short observations on the issue of ownership. The basic position taken by the defendant is that more than 90 per cent of the listings in the plaintiff's directories comprised subscriber information provided by SingTel.[322] Even if there is copyright in the subscriber information, that copyright belongs to SingTel because the plaintiff only enjoys an exclusive licence to use the subscriber data for producing its directories in its agreement with SingTel.[323] Further, the process of enhancement of the raw subscriber information provided by SingTel did not result in the creation of a new literary work. For example, where the plaintiff added in an additional phone number or an email address, *etc*, this addition would not qualify the listing as an original work as compared to the subscriber information provided by SingTel.

421 The plaintiff accepts that SingTel retains any intellectual property rights in the subscriber information (the raw data provided).[324] This is the effect of cl 7.1 of the Integrated Directory Agreement dated 31 May 2003 between the plaintiff and SingTel, which states that "SingTel shall, at all times, own all rights (including the Intellectual Property Rights) to the SingTel Subscriber Information …".[325] However, once that subscriber information has been "transformed" by the plaintiff and published in its directories, any intellectual

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322 Defendant's Closing Submissions at para 57.

323 Defendant's Closing Submissions at para 62.

324 Plaintiff's Closing Submissions at para 9.

325 B40/2827C/26521.

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property rights in the directories belong to the plaintiff.[326] The plaintiff relies on cl 7.2 of the Integrated Directory Agreement in support of this position. Clause 7.2 states:[327]

> 7.2 SingTel acknowledges and agrees that [the plaintiff] shall own any and all the Intellectual Property Rights, whether vested, contingent or future and all rights of action and all other rights of whatever nature in and to the following …:
>
> 7.2.1 each and every copy and edition of the Printed Directory …
>
> 7.2.2 each and every copy and edition or version of the Electronic Directory …
>
> 7.2.3 each and every copy and edition of and/or work produced pursuant to the YPS Uses and the New Uses.

422 In the light of cl 7.2 of the Integrated Directory Agreement, it is clear that the plaintiff must own any copyright that subsists in its directories as a whole, and the copyright in the compilations within each directory (if any). Indeed, the defendant's submissions make no attempt to address the plain effect of cl 7.2. The waters get muddied, however, in respect of the plaintiff's assertion that it also owns copyright in each individual listing in its directories, by virtue of the enhancements and further enhancements it made to the subscriber information. I have concluded that copyright does not subsist in the individual listings in the plaintiff's directories because they are essentially facts, and there cannot be copyright in facts. This in my view feeds into the difficulty with attributing ownership of copyright in the information found in each individual listing. It is senseless to speak of anyone—whether the plaintiff or SingTel—owning or having a copyright monopoly over the use of the information in each

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326 Plaintiff's Closing Submissions at para 9.

327 B40/2827C/26522.

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parcel of subscriber information or each subscriber listing. These are facts which no one can claim copyright ownership over; they are entitled to be used by everyone.

Summary of main findings

423 The plaintiff's claim for copyright infringement fails in its entirety and is dismissed.

424 The defendant's claim for groundless threats of copyright infringement succeeds. I therefore grant the defendant:

(a) A declaration that the plaintiff's letters of 12 August and 9 September 2009 stating that the defendant has infringed the plaintiff's copyright in unspecified information, classification and artworks are unjustifiable.

(b) An injunction to restrain the plaintiff, or any of its officers or agents, from making groundless threats of copyright infringement that the defendant has infringed the plaintiff's copyright in unspecified information, classification or artworks in the plaintiff's directories.

(c) Damages to be assessed.

(d) Costs to be agreed or taxed.

Concluding remarks

425 The litigation in this case commenced in 2009. The pleadings were amended many times. There were numerous interlocutory hearings. Part of the reason for the time it took for the case to come up for trial appears to have been the decision to order the plaintiff's action against the defendant to be heard

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together with similar claims against three other defendants, each in separate suits. The claims against the other three defendants were eventually discontinued, one of which was done only very late in the day. The trial took 23 days. Much of the evidence was directed to the business processes whereby the plaintiff and defendant obtained, collected, compiled and produced their competing directories. Given the use of computer technology (especially by the plaintiff) the evidence traversed at some length the architecture of the plaintiff's software system. Whilst some of the evidence (or details) were not necessary, a broad understanding of how the plaintiff's directories were produced was important, because of the issues that had arisen especially in relation to authorship, originality and the expression/idea or fact dichotomy in copyright law. Whilst the plaintiff has failed in its claim before me and the defendant has succeeded in its counterclaim for groundless threat of suit, I am mindful that the litigation involved fundamental principles of copyright law in an area which has attracted considerable litigation around the world including, the United States, Canada, the United Kingdom and Australia.

426 The proceedings and the hearing were robustly fought and argued by counsel. The variety and range of matters and issues raised on matters of procedure, evidence and law were considerable. Whilst I have alluded to the difficult questions of law that arose on key copyright principles, the hearing would have been less contentious and shorter if there had been a sharper and clearer focus on the main issues of fact and law. Nevertheless, given the complexity of the legal issues, I especially thank counsel for their helpful submissions.

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George Wei
Judge

Bryan Manaf Ghows and Wang Yingyu (Via Law Corporation) for the plaintiff;
G Radakrishnan and Mark Teng (Infinitus Law Corporation) for the defendant.

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