COPYRIGHT IN DIGITAL FORMAT (DATA STORAGE AND PROCESSING)

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Abstract

Having established in previous article (Digital Infringement and Administration of Copyright in Nigeria) that the technologies raising serious issues for copyright and its laws are those related to storage, identification and transmission or distribution of works held in digital format, this article aims at taking a cursory look at protection of works of computer storage and output as applicable in United Kingdom. The copyright originality concept, which was prompted by databases, is a subject of controversy. Though the importance of databases as a commercial phenomenon in their own right is not only a necessity but have found expression in the letters of the law, the importance of this need has also been reinforced by the fact that most Member States have refused to abandon their inglorious test of originality in its definition of works of digital format eligible for copyright. The originality test practically requires such protectable work to be the product of personal intellectual creativity. This paper makes the assertion that the requirements for protection of work held in digital format should not be hinged on personal intellectual creativity, which the creativity standard is rather too high, but that digital work resulting from an exercise in skill, labour and judgement will and should be protected.

Key Words: Database Copyright, Digital format, Test of Originality, Computer Output, Moral Rights and Digital Manipulation

1. Introduction

The storage of data in computers and other electronic servers is a highly significant element in digital information systems, and there is no gainsaying the fact that the twin steps of storage and extraction should attract copyright protection. Where the material on the base is itself copyright that is in the hands of the database provider,[1] that enterprise is protected already against extractions which involve making a computer copy, even if it is only on a transient basis. More difficult are the cases of enterprises that collect information, including works which are not their copyright, for provision to subscribers. These providers act like anthologists or directory compilers or cataloguers. Traditionally, if they contributed sufficient skills, judgment and labour to this compilation process, *albeit* entirely through collecting and recording mundane data, they are treated in United Kingdom law themselves having copyright in their database. Their right will be infringed only if there was substantial reproduction (or

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[1] Say a publisher or record producer.

other taking) of their contribution. They had rights against the pirate who tooks the whole base and against many whom for commercial purposes, extracted some significant part in order to re-utilize it, perhaps in re-edited form. But the hacker, who extracts small amounts of the total, even if what he took was itself a protected work, would not be said to have infringe the copyright in the database. Nigeria has a lot to garner here.

1.1 Database and the Test of Originality

Database can be defined as a collection of independent works, data or other materials electronic or other means. Black's Law Dictionary defines database as "a compilation of information arranged in a systematic way and offering a means of finding specific elements it contains, often today by electronic means".[2] Continuing, it further states that "Unless the information itself is original, a database is not protected by U.S copyright law. Elsewhere, it may be protected as a distinct class of 'literal works', or it may be the subject of sui generis intellectual property laws" under sweat of the brow doctrine[3]. The importance of database as a commercial phenomenon in their own right has found expression in the Database Directive.[4] Database Directive, also termed Directives on the Legal Protection of Databases, is "a 1996 European Commission initiative that sets uniform copyright protection among members for databases of original content and requires a sui generis system of protection for databases that do not qualify for copyright protection because their content is not original"[5]. This has been incorporated into United Kingdom (UK) law from January 1, 1998 and affects both pre-existing and new database.[6]

The legal need for it is accentuated by the hard fact that most Member States refuse to abandon their test of originality in copyright, which requires a protectable work to be the product of personal intellectual creativity. The Dutch Supreme Court, for instance, held that the compiler of a dictionary will have copyright in the words selected for entry (as distinct from the definitions supplied) only if there is shown to be sufficient individuality in choosing them. In similar spirit, in the case of *Feist Publications v. Rural Telephone,*[7] the United States (US) Supreme Court, having been sufficiently moved by notions of "authorship" to hold that a

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[2] Bryan A Garner (ed), *Black's Law Dictionary* (9th edn, West Publishing Company 2009) 452.

[3] Emphasis mine.

[4] The introduction of the Directive's rights coincided with a sudden rise in the number of new database companies in Europe, but that rise has not since been sustained and was probably one result of dot.com mania; Maurer, Hugenholtz and Onsrud (2001) 294 Science 789; European Commission's Report; Ginsburg in Dreyfuss *et al*., *Expanding the Boundaries of Intellectual Property (2001)* Ch.3.

[5] Bryan A Garner (ed), *Black's Law Dictionary,op. cit,* (n 2) 527

[6] Directive on the Legal Protection of Databases, March 11, 1996 [1996] OJ L77/20. Implementation in UK law is by the Copyright and Rights in Databases Regulations 1997 (SI 1997/3032 – hereafter "Database Regs"). For database copyright these amend the CDPA 1988. For the *sui generis* right of the database maker, the Regulations themselves prescribe the law in Pts III and IV and associated schedules.

[7] 499 U.S 340 (1991).

"White Pages" telephone book cannot be copyright because it did not reflect a "minimal level of creativity", ruled against copyright in white pages telephone book which lists all subscribers. In Canada, in the case of *CCH Canadian Ltd. v. Law Society of Upper Canada*[8], misconstruing the approach of the U.S Supreme Court in *Feist Publications v. Rural Telephone*[9], as one that requires something closer to a patent standard of novelty or non-obviousness, applied the same exclusion to a yellow pages book which categorises subscribers by business type, however, held that creativity standard is too high, that a work resulting from an exercise in skill and judgement will be protected. The controversy embedded in the copyright originality concept. However, copyright protection simply means method of securing information stored on a computer from being either physically lost or seen by an unauthorised person.

2. The Database Directive

2. 1 Copyright in the Compilation

The Database Directive engages in a highly elaborate strategy in order to bypass this difficulty. First, it defines what is meant by a database: "a collection of independent works, data or other materials electronic or other means".[10] Then it allows copyright in a database (as distinct from its contents), but only on the basis of authorship involving personal intellectual creativity.[11] This is a new limitation, so far as common law countries are concerned, and one that may foreshadow a raising of the standard of originality throughout UK copyright law. Intellectual judgment which is in some sense the author's own must go either into choosing contents or into the method of arrangement. One must look for creative choices in the selection or arrangement of contents, as opposed to decisions made as a result of technical considerations, rules or constraints.[12] Skill and labour in creating the data will no longer

[8] [2004] 1 SCR 339.

[9] *(Supra)*

[10] Database Directive (D.D) art.3; CDPA 1988 s. 3A(1). For a discussion of the breadth of this definition see Declaye 5 Jnl. W. Int. Prop. L. (2002) 281; Aplin, *Copyright Law in the Digital Society* (2005) 44-52. In light of various Court of Justice of the European Union (CJEU) rulings, the Court of Appeal has described this definition, shared for copyright and *sui generis* database – as *acte claire*: see *Football Dataco Ltd v Sportradar GmbH* [2013] EWCA Civ 27; [2013] ECC 12 paras 24-30.

[11] *Ibid*, art. 3(1); CDPA ss. 3(1)(d) 3A(2). The UK distinguishes between "database" and "tables or compilations other than a database" with the result that the new test of originality applies to the former and the old test of "*labour, skill and judgment"* apparently applies to the latter. Given that vast majority of compilations will fall within the definition of database there are likely to be few non-database compilations and so the disparity in originality tests should not have a pronounced effect; C-604/10 *Football Dataco v Yahoo! UK Ltd* [2013] FSR 1 CJEU paras 48 – 50 indicating that copyright could not be granted to databases under conditions different to those stipulated in art. 3(1) of the D.D.

[12] Where rules prescribe a particular form of expression, or constrain the exercise of human choices this will undermine any independent intellectual effort: *Telstra Corp v Phone Directories* [2010] FCA 44 FC Aust.

suffice.[13] A selection dictionary will no doubt be a clearer case for copyright than the classificatory telephone directory, but each may have some hope; the merely comprehensive will be precluded, that is the silliness of the whole construct. Where this copyright arises, it is an author's right. Accordingly, it will last for life plus 70 years; so a couple of youngsters should be on the production team.[14] The author's right will be available under the Berne Convention to Nigerians, which was acceded to by the Federal Government on June 10th, 1993, and Americans and others entitled to national treatment. The right covers a comprehensive list of copying and like activities, and of public communication and similar steps.[15]

2.2 Database Right[16]

In International Review of Intellectual Property and Competition Law (I.I.C), and in *A & M Records v. Video Collection,*[17] it was observed that a separate *sui generis* right given to the maker of a database (the investor who initiates it) against extraction or re-utilisation of the contents of the database was established.[18] Five essential points may be highlighted:

a. The right applies to databases whether or not their arrangement justifies copyright and whatever the position may be regarding copyright in individual items in its contents.[19]

b. The focus upon contents, rather than organizational structure, is intended to give a right where the contents have been wholly or substantially taken out and re-arranged (generally by a computer) so as to provide a quite different organization to essentially the same material, a re-organisation which would not necessarily amount to infringement of copyright in the original arrangement.[20] This, however, is not to discount the relevance of structural arrangements of the material.[21]

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[13] C-604/10 *Football Dataco v Yahoo! UK Ltd* [2013] FSR 1 CJEU para. 42.

[14] With their "personal intellectual contributions" carefully recorded. Note that the inability to identify authors of a database may make establishing originality impossible: *Telstra Corp v Phone Directories* [2010] FCA 44 FC Aust.

[15] D.D art.5; and for the exceptions which Member States may adopt: art. 6; in the CDPA 1988 this follows from characterising an original database as a literary work. A contract which deprives a person of the freedom to abstract material outside the scope of this copyright is void: CDPA 1988 s.50D; *Navitaire v easyJet* [2006] RPC 3 at 275.

[16] Davison, *Legal Protection of Databases* (2004); Derclaye, *The Legal Protection of Databases* (2008); Derclaye (2005) 36 IIC 2; Waelde [2006] IPQ 256; Galli (2006) 37 IIC 452; Laddie *et al,* Ch. 32.

[17] [1995] EMLR 25

[18] By Rec. 41 of the Database Directive which adopts an equivalent approach, the "maker of the database" is the person who takes the initiative and the risk of investing, not any sub-contractor.

[19] Database Directive Recs 38 – 40, 45, 46.

[20] *(Ibid)* Recs 38; Cerina (1993) 24 IIC 579

[21] E.g. Berlin CA, June 9, 2000.

c. The database has to be the product of substantial investment. It cannot, for instance, consist merely of different works collected together on an ordinary music CD.[22] In some European states, there were early decisions that website files of articles, news items or advertisements from the continuing numbers of a paper or magazine would constitute a database.[23] The question has now become intertwined with the issue of whether the investment has been made in creating the informational material, as distinct from constructing the database.

d. The right protects "extraction" and/or "re-utilisation" of the whole or a substantial part, evaluated quantitatively and qualitatively, of the contents. "Extraction" here means the permanent or temporary transfer of contents to another medium by any means or form; "re-utilisation" means making the contents available to the public by any means.[24] It is expressly stated that repeated and systematic extraction of insubstantial parts of a database can constitute infringement.[25]

e. The right lasts for 15 years from completion of the database, or 15 years from its becoming available to the public during that 15-year period.[26] However, further substantial investment in additions, deletions or alterations starts time running afresh.[27] This means in effect that a living database has indeterminate protection, just as does a copyright textbook from regular editions containing revised material.[28]

The *sui generis* right has its place in the Database Directive because there is no harmonized law of unfair competition as between EU states by which undue misappropriation of information could be attacked.[29] The five essential elements in the right constitute some attempt to define what is to count as unfair. Database right goes beyond copyright (points a and b) yet it confines protection to substantial investment in a roughly proportionate way (points c and e). Accordingly, it seeks the sort of balance that was, for instance, so signally lacking when the UK engaged in its extraordinary experiment with copyright in industrial

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[22] DD Rec. 19: such a collation would give no compiler's copyright either.

[23] E.g. Munich DC, 18 September 2001; 18 March 2002.

[24] DD art. 7(2) and Recs 40 – 41; Database Regs reg.12; *Newspaper Licensing Agency v Marks & Spencer* [2003] 1 AC 551 HL.

[25] *Ibid* art 7(5).

[26] *Ibid* art 10(1)(2).

[27] *Ibid* art 10(3). For verification, see Rec.55; it seems to have been wrongly omitted from Database Regs reg. 17(3)

[28] Cornish, Llewellyn and Aplin, *Intellectual Property: Patents, Copyright, Trademarks and Allied Rights* (8th edn, Sweet & Maxwell, Thompson Reuters South Asian Edition 2016) 850 para 20 – 42.

[29] DD Rec. 6. The *sui generis* right will be accorded to nationals, habitual residents and companies of non-EU countries only where there is a Community agreement, based presumably on sufficient reciprocity. This necessarily assumes that the new right does not already fall within the unfair competition provisions of the Paris Convention art. 10*bis.* The contrary could be argued, not least in a TRIPS dispute settlement proceeding.

designs (1968 – 1988).[30] Even so there are uncertainties about how that balance is to be achieved, some of which have now been ruled upon by the Court of Justice of the European Union (CJEU).

From the outset courts around the EU had difficulty in deciding what is an adequate minimum investment to justify this form of protection. One source for the *sui generis* right was the "catalogue" protection in Nordic copyright statutes, which is given for a short term to collections of data as such. The "catalogue" right was limited in various ways and courts in those countries showed some tendency to lean in favour of treating the *sui generis* right under the Directive as similarly limited.[31]

In *British Horseracing Board (BHB) v. William Hill,*[32] The European Court of Justice (ECJ) has adopted a parallel ruling, which affects the existence of the right, rather than just its infringement. BHB, the claimant, maintains a large, costly database concerned with horseracing across Britain as part of its management of the industry. Details of entries and results at race meetings are constantly being added. This information is sold to two companies, who are then entitled to distribute it under their own contacts with bookmakers and others. The defendant, the UK's largest betting firm, obtained the information in this way for publicizing each day's racing programs in its betting shops. However, when it set up an internet betting service, partly based on this source of information, the BHB relied upon its database right to demand a separate charge. Laddie J., at first instance, found for the BHB, deciding, inter alia, that the database right was not limited to the appropriation of the database more or less as a whole.[33] In this he was assisted by the Directive's provision that repeated and systematic extraction or re-utilisation of insubstantial parts amounts to substantial taking.[34] Laddie J. was prepared to find infringement either on that ground or on the basis that the takings were substantial. The Court of Appeal, however, considered that these and other issues must be referred for interpretation by the ECJ. At the same time, references were made from courts elsewhere in the EU in which database right claims were also being made in relation to internet betting, the subject matter being the fixture lists of English football associations.

The Court's ruling on these cases has very substantially truncated the scope of the *sui generis* database right. Identifying the object of the right as the promotion and protection of investment in data "storage" and "processing" systems, it drew a fundamental distinction between investment in creating the information in the first place and investment in storing and

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[30] Laddie [1995] European Intellectual Property Reports (EIPR) 253.

[31] *British Horseracing Board (BHB) v. William Hill* [2004] ECR 1-1045 European Court of Justice (ECJ).

[32] *(Supra)*; Aplin [2005] IPQ 52; Davison and Hugenholtz [2005] EIPR 113; Derclaye [2005] Eur. LR 420; Kur, Hilty *et al*. (2006) 37 IIC 520. For application of judgment by the CA [2005] RPC 35; Masson [2006] EIPR 261.

[33] In argument this was inelegantly expressed as a need to show a taking of the "database-ness" of the database.

[34] DD art 7(5); Database Regs reg. 12.

processing it in the database. To claim database right it was necessary to show substantial investment in the latter in both qualitative and quantitative terms. In relation to the case in suit, the listing and checking of horse and rider details for each race were activities belonging to the former category; they were concerned with creating the information, not with storing it.[35] There was accordingly no substantial investment that qualified for database right. Nor could there be in football fixtures listings put out by professional associations of clubs.[36] The same outcome has since been reached in the Netherlands in respect of an estate agent's list of properties which it is marketing for clients.[37] The same may be true of a land registry which sets up a database to give the prices at which different titles have been sold, when the information is a by-product of the registration of transfers of title. A contrasting case may be a commercial service which takes the price information from the land registry site and adds information from other sources about (say) the period that each property was on the market or the difference between asking price and sale price. There will surely be cases where it is difficult to assign expenditure to acquiring the information as distinct from placing it in a database. According to the Court of Appeal, a commonsense approach to what constitute creating versus collecting data is required, otherwise we risk the "absurd" outcome that there are rarely, if ever, protected databases.[38] The purpose of the Directive, to encourage and protect investment in data collection, must be borne in mind in applying the subsistence criteria.[39]On this basis a collection of live football data involving substantial financial and human resource has been held to attract the *sui generis* database right.[40]

Where the collection and storage investment is substantial, database right will still arise. For there to be infringement, there has to be a substantial extraction or utilization, including in that repeated takings that are in themselves insubstantial. Both "extraction" and "re-utilization" rights have been broadly construed by the ECJ, neither being limited to direct acts nor, in the case of "re-utilization", the first making available to the public of the database contents.[41] As for where the acts occur, the CJEU has ruled that where a party abroad has an intention to target members of the UK public, the act of making available to the public has occurred in the

[35]*BHB v. William Hill* [2004] ECR I – 1045 ECJ; C-604/10 *Football Dataco v. Yahoo! UK Ltd* [2013] FSR 1 CJEU paras [74] and [84].

[36]*Fixtures Marketing v. Oy Veikkaus; Fixtures Marketing v. OPAP; Fixtures Marketing v. Svenska* (judgments given by the ECJ contemporaneously with that in *BHB v. William Hill* [2004] *(supra)*. Also C-604/10 *Football Dataco v. Yahoo! UK Ltd (Supra).*

[37]*Zoekallehuizen.nl v. NVM* unreported July 27, 2006 Arnhem CA.

[38]*Football Dataco Ltd v. Sportradar GmbH* [2013] EWCA Civ 27; [2013 ECC 12 paras 39 – 41.

[39]*(Supra)* paras 44 – 46.

[40]*(Supra)* para 69

[41] Case 304/07 *Directmedia Publishing GmbH v Albert-Ludwigs-Universitat Freiburg* [2009] CMLR 7; Case 545/07 *Apis-Hristovich EOOD v Lakorda AD* [2009] 3 CMLR 3.

UK.[42] What is substantial depends both on the quantity of what is taken and its quality. In the *BHB* case, the ECJ held that quality is to be judged by referring back to the elements of investment which give rise to the existence of the right in the first place. This, rather than the value of the extracted material itself, is the measure to be assessed, a somewhat strained distinction.[43] On the facts of *BHB* and the associated cases it was easy to decide that there could be no infringement, even assuming the existence of database right. As to the provision about repeated extractions of insubstantial content, the Court was careful to insist that this would constitute infringement only if it allowed the defendant to, "reconstitute and make available to the public the whole or a substantial part of the contents of the BHB database and thereby seriously prejudice the investment made by BHB in the creation of that database".[44]

2.2.1 An infringer in one of these senses will escape liability only if:

a. there is fair dealing by way of illustration for teaching or research, a defence open only to those who are already lawful users[45]; or
b. certain exclusions relating to parliamentary and judicial proceedings and other public administration apply[46]; or
c. control by the Copyright Tribunal of licensing schemes and collective licensing of database rights can be relied upon.

As to the first of these, it is unacceptable that the defences should not be as embracing as those available against claims to copyright infringement.[47] As to the last, Tribunal's jurisdiction is defined in terms corresponding to those for copyright.[48] Beyond this lie the corrective measures which may be taken against abuse of dominant position under article 102 of the Treaty on the Functioning of the European Union (TFEU) 2007 (ex 82 TEC). The *"Magill"* case authorises the imposition of compulsory licences where, exceptionally, it is found that IP is being licenced only on unacceptable terms.[49] This power could prove to be of some significance in relation to database right, where the owner refuses any licence at all or offers terms so extravagant as to have the same effect. This may be particularly important where the database owner has exclusive access to the data, there being no special treatment of such "single source" information in the Directive as it finally emerged in the legislative

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[42] C-173/11 *Football Dataco v Sportradar* [2013] FSR 4 CJEU

[43]*BHB v Wm Hill* [2004] ECR I – 1045 ECJ at para 71.

[44]*(Supra)* para 91.

[45] Database Regs reg. 20(1).

[46]*Ibid* reg. 20 (2).

[47] Kur *et al* (2006) IIC 551, 556 – 7.

[48] Database Regs reg. 24

[49]*Radio Telefis Eireann RTE v Commission of the European Communities (EC Commission)* [1995] ECR 1-743. Even in the absence of IPRs, a refusal by a sole source provider to licence data may be anti-competitive: *Atheraces v British Horseracing Board* [2007] ECC 7 CA, although Court of Appeal found on the facts that this was not the case.

process. Since the Directive preserves the operation of other types of IP and related rights to databases, cases that do not satisfy the *BHB* criteria for the *sui generis* right could, where appropriate, be protected as trade secrets. Recalling older British attitudes favouring "sweat of the brow" copyright in the compilation of information, courts in the UK might take a wide view of what constitutes database copyright satisfying the requirement of personal intellectual expression inserted into the law by the Directive. That however would run against the division laid down by the Directive between copyright and *sui generis* right in databases and has been firmly rejected by the CJEU.[50] Where Member state systems that have an unfair competition law covering slavish imitation, it is equally doubtful whether their courts should fill the gaps by reference to this cause of action.

As it was obliged by the Directive to do, the European Commission issued a Report in December 2005, on the experience with the right. With remarkable frankness, it noted there was no evidence from practice that introducing the right had encouraged any increase in database production, whereas in the U.S, where there is no equivalent protection, their number has grown strikingly. Given the cautionary effect of the *BHB* and associated judgments, the most likely consequence is that the law will be left in its present convoluted and uncertain form. That perhaps is a reasonable outcome, given that, as a matter of political reality, the law will not be completely withdrawn. The real mistake was in introducing the right in the first place without careful assessment of the need for it and identification in some detail of the situations which really called for it.[51]

3. Computer Output

Where a computer is utilised to produce material that is recognisable as a "work" in any copyright sense, the question of copyright in that output can arise. According to the Whitford Committee:

> the author of the output can be none other than the person, or persons, who devised the instructions and originated the data used to control and condition the computer to produce the particular result. In many cases it will be a matter of joint authorship.[52]

This analysis may fit expectations when an individual or an organization is responsible for its own data and program. The outcome can be secured by express assignment, or, if it has to be assumed from the circumstances, by an assignment implied by a court.[53] It is a solution which preserves the essence of copyright even in this strange territory, and so accords with the tenets

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[50] C-604/10 *Football Dataco v Yahoo! UK Ltd* [2013] FSR 1 CJEU paras 48-50.

[51] Kur *et al* (2006) IIC 551.

[52] Cmnd. 6732 (1997) paras 514, 515; Also National Commission on New Technological Uses of Copyrighted Works (CONTU) Final Report 43 – 46; Davison and Hugenholtz [2005] EIPR 113; Geiger [2006] EIPR 366.

[53] cf. similar implications in the program cases: Cornish, Llewellyn and Aplin, *Intellectual Property: Patents, Copyright, Trademarks and Allied Rights, op. cit*. (n 28) 820 – 822 para 20 – 08.

of an author's right approach to the subject.

Abandoning any such purism, however, The Act[54] introduced the 'computer-generated work', a work produced "*in circumstances such that there is no human author"*.[55] Dazzled by ideas that computer-aided design and computer-aided manufacture (CAD/CAM) were lighting a road towards industrial and informational productions from the "intelligence" of computers, parliament felt that this precautionary intervention was needed. Where it can be said that there was no human author, but where a software house is commissioned by a client to provide the program, it may well be reasonable for the client to assume that it holds copyright in the output. This unique provision has not been adopted elsewhere and courts have denied that computer generated works cannot be original works of authorship.[56] The more general application of the EU "intellectual creation" standard may make the UK's retention of this provision problematic.

The copyright in a computer-generated work endures for 50 years from making the work[57] and is accorded initially to *"the person by whom the arrangements necessary for the creation of the work are undertaken"*.[58] These rules make plain the borrowing from ideas affecting the older neighbouring rights, particularly in films. But their transposition to this new field is less than happy. As between the provider of a database (such as Lexis) and a user who extracts information from it, who undertakes the arrangements for creation? Perhaps this is a case of joint authorship, as the Whitford Committee suggested, but is there really a 'common design'? Computer-generated work has been part of the law for years, but the uncertainties about when a human author can and cannot be identified remain as great as ever. In international circles the concept has been greeted with skepticism; partly because the idea is antipathetic to "authorship" and partly because there is no rush of actual cases wherein investment would otherwise go unprotected. The experimental concept has not so far proved successful and some consider that it should be abandoned.[59] It is probably better at the moment to wait and see, or better still researched further upon.

4. Multi-Media: Program and Content Mixed[60]

In the 1990s the cabled linking of computers to provide email services and access to databases grew apace. These extraordinary capacities were harnessed to form the internet, which originated as an electronic network designed to disperse defence information and so to guard it from central attack. Scholars were soon enticed by the ready exchange of ideas that it

[54] Copyright, Designs and Patent Act (CDPA) 1988

[55] *Ibid* s. 178

[56] *Telstra Corp v Phone Directories* [2010] FCFCA 149 Full FC Aust.

[57] CDPA 1988, s. 178.

[58] *Ibid* s. 9(3); for the exclusion of moral rights, ss. 79(2) 81(2).

[59] e.g. Tapper, in Lehmann and Tapper (eds), *Handbook of European Software Law* (1993) 150.

[60] Stamatoudi, *Copyright and Multimedia Works* (2002); Aplin, *Copyright Law in the Digital Society* (2005).

offered; others with interests and obsessions, high and low, were drawn to its frenetic interchanging of information across continents. By the early 1990s, the World Wide Web (www) blossomed within it. As ever in the history of education, entertainment and culture, a new technology for the expression of ideas soon enough began to be commercialized. The super-highways for information supplied by the internet now attract those who will supply only upon payment and who deal in products attractive enough to find customers at a price.
Digital technique is the same whatever information is being recorded. It may be retrieved as written text, graphic display, moving images, spoken words, music or other sounds. So long at least as digital recording is not compressed for purposes of transmission, it can be endlessly reproduced without loss of quality. It may be transmitted in hard form, as in a CD-ROM, but equally it may be displayed from a computer's random access memory (RAM) or downloaded onto its read only memory (ROM).[61] Users can interact with it in many novel ways: stopping it, asking questions of it, going down particular tracks of interest, ordering and paying through it. The result of these diverse possibilities has been labeled multimedia and it poses interesting issues for copyright laws which were drafted for more rigid and separate methods of production and distribution. These we may relate to traditional copyright concepts.

4.1 Work

Works which otherwise qualify under our definitions of literary, dramatic, musical and artistic works are nonetheless copyright for all that their fixation or recording occurs in digital form; likewise, with sound recordings and films. However, the range of material which may be combined together in digital recording (as in a multi-media product) is such that the result may not easily fit into any one of these relatively limited categories.

Where, for instance, does one place an electronic encyclopedia which can illustrate its basic text by films, recordings of music and of animal sounds, and which offers the user the capacity to re-draw and re-colour artistic works? Like songs and films before it, such a compendium can be conceived as a coalescence of different copyrights. In so far as it is a film, as well as constituting an accumulation of contributory copyrights, the digitized encyclopedia will also be a work in itself. But large parts of it may not produce moving images; the whole (or perhaps those parts) may therefore not fit within the definition of film. What the electronic editor does in assembling the whole seems akin in skill and judgment to the work involved in creating a printed encyclopedia and so ought to qualify for literary copyright, and, in appropriate cases, musical and artistic copyright as well. A court would seek to find copyright in any substantial work of this kind so as to be able to stop substantial unauthorized borrowing. If there proves to be difficulties over this, it may be necessary to add

[61] cf. *KK Sony Computer Entertainments v Stevens* [2005] HCA 58 HC Australia.

some inclusive form of definition to the statute.[62]

As with other forms of collated material, what is described as "editorship" may at one extreme call for highly sophisticated judgment and at the other be no more than indiscriminate assemblage, of the same order as choosing the titles for a newsagent's shelves. Legal systems use different tests of originality in order to settle where exactly copyright begins on the line between these poles. The common law approach takes a liberal view, but even it will exclude matter which fails to embody any sufficient labour, skill and judgment.[63]

The investment needed to put together factual information which is complete, rather than significantly selective, can be very considerable where the material is being collected in digital form. It is the rapid development of such databases, and the prospect that they could be commercially hijacked, that led to the EU's Database Directive with its double tier of rights. Despite its considerable complexity, it provides an ample basis for protecting investment in digital compilations.[64] Accordingly there seems to be no urgent case for protecting multi-media works in a category of their own.

4.2 Author

Copyright law already has a highly flexible notion of authorship which operates on twin planes: where a work within a particular category (literary, musical, etc) results from the joint planning of two or more creators, they become joint authors of a single work; if that is not the case, successive work can create successive copyrights. Where the works are in different categories (words and music of a song), or where a first work is in some way re-worked (translated, put into a comic strip, etc) a succession of distinct copyrights is generated, each with its own authors, on whose lives the various terms will depend.[65] In detail these rules may vary between legal systems, thus bringing marginal divergences in their train. But because copyright interests can be collected into a single hand for purposes of exploitation (by means of assignment, exclusive licensing or a presumption in employment), the law operates with considerable subtlety. There seems no strong reason for distinguishing multi-media products from other material equally complex in its constitution, such as operas and films.

Computer technology allows developments in the electronic treatment of material at a wholly new level. First, a program may be written to operate upon automatically recorded data so as to produce interpretations which have the appearance of a new work: the generation of

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[62] In 1994, New Zealand attempted this by defining "compilation", as a form of literary work, to include compilations of works and/or other data of any kind. "Work" covers the same broad range of matter as in the CDPA 1988.

[63] Cornish, Llewellyn and Aplin, *Intellectual Property: Patents, Copyright, Trademarks and Allied Rights, op. cit.* (n 28) 437 para 11-06.

[64] *Ibid* 847 – 848 para 20–37.

[65] *Ibid* 435 – 436 para 11-04.

weather reports from continual atmospheric monitoring is the common example; automatic translation will prove to be another. It has been with such instances in mind that the UK legislation has introduced the concept of a computer-generated work, for products which have no sufficiently identifiable author. As we have seen, the character of this right is in the nature of a long-stop.[66] It has not as yet been taken up in most other legal systems, since it dispenses with authorship as the prime justification for copyright protection. That caution is possible partly because it is not yet clear that there is any strong demand in practice for protection of this sort of material. In most cases it is possible to assign authorship to some person or persons.

Secondly, programming can allow interaction by a person who receives material, so as to add to it or alter it, and this step can occur not only when a further commercial service (such as a database) is being generated but also when an individual user receives it. The circumstances in which this technique might be employed seem vast. Accordingly, the actual conditions in which intervention might confer significant added value on the original are still very hard to predict. As problems emerge an adequate legal solution can probably be fashioned within copyright law. It is hard to see that any *sui generis* alternative would produce surer justice, and as always it would be immensely cumbersome and time-consuming to develop.

4.3 Adaptation

A digitized encyclopedia or other databank may well draw pre-existing works directly into its content, either in their original form or with alterations. The step of putting material into digital form for the first time, as also of transferring it from one digital bank to another, amount to copying within the right of reproduction. The immense new capacity for combining and modifying works of all kinds may indeed give their first form a merely conditional quality but it will enjoy copyright nonetheless.

The relevant copyright test to apply to an adaptation is whether the result still contains a substantial reproduction of the original work.[67] This requires judgment and so leaves scope for considerable argument. One particular problem may prove to be the endless divisibility of digitally recorded material: for what, then, is the *work* from which assessment starts? Nonetheless the test seems as appreciate to this medium as to others, such as a film or broadcast. A rule which would instead ask whether there had been sufficient addition or re-fashioning to create a "new work", might result in fewer claims, but it would be at least as uncertain in operation.[68] On the other hand, a rule which imposed liability for any provable borrowing, even when nothing of the original ultimately remained, would be unduly severe.

At present, there is much concern about the amount and complexity of "permissions" work for

[66] *Ibid* 447 para 11-22.

[67] *Ibid* 470 – 473 para 12-06.

[68] cf. the fate of such a test in relation to lampoons: *ibid* 474 para 12-10.

putting together elaborate digital collections. Mixed with it are complaints about the unreasonably high demands of copyright owners, when asked to grant licences. Some multi-media projects have been abandoned, so it is said, in the face of such intransigence. The essential difficulty is that regular markets for the material are only slowly emerging, and owners have suspicions still to be overcome. It is a problem, however, for which a market solution would seem wholly appropriate. Electronic shops of copyright material are open with prices in their windows. Much photographic and other design material is available in this form. If a market fails to come into being, it would be possible for the law to subject owners of copyright works to statutory licensing requirements. But why should such a solution be imported for multi-media works, if it does not also apply to films or broadcasts?[69]

4.4 Moral Rights and Digital Manipulation

The ease with which digitized material can be transformed is likely to raise difficulties in the sphere of moral rights.[70] These can be over the failure to identify the author or one of the authors, or the false attribution of authorship, or the integrity of the original work and most of all in that intermediate territory where alterations have been made. As for the original author's concern to protect the integrity of his creation, the moral right against derogatory treatment supplies a reasonable basis for intervention. It may be recalled that in the United Kingdom the writing of computer programs has been considered so technical an activity as to warrant the exclusion of moral rights in relation to them.[71] That is a difficult proposition, since programs are constantly being worked upon by others in order to eliminate bugs, to add new uses and for many other intrinsically valuable purposes. Indeed, it is the basic thrust of the Free Software initiative to encourage such serial collaboration as a necessary ethos for program development. But there will be cases where the intervention proves harmful because poor quality work can easily reduce the value of the whole. There is thus a case for treating egregious cases of harmful intervention as an attack on the integrity of the program, since it will go to its very core. The problem is no different from that over translation, which is for the most part a valuable activity but in the wrong hands can be seriously damaging. That too is currently outside the bounds of the moral right of integrity in UK law. Both deserve to be brought within. At least with digital copyright material other than programs, whether the medium is a hard copy or an internet source, the general principles concerning moral rights apply. Brainless comrade.

5. Conclusion

If sufficient skills, judgment and labour are contributed to any compilation process by way of collecting and recording mundane data, same not being copied elsewhere, such database

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[69] There would in any case be grave difficulties in distinguishing such types of work, one from another.

[70] De Souza [2002] IPQ 265; Harding and Sweetland (2012) 7 JIPLP 565; Lea in Pollaud-Dulian (ed), *The Internet and Author's Rights* (1999); Pessach (2003) 34 IIC 250.

[71] *Ibid* 512 – 513 para. 12-81.

deserves protection as done in the United Kingdom law. Yes, the UK distinguishes between "database" and "tables or compilations other than a database" with the result that the new test of originality applies to the former and the old test of "*labour, skill and judgment"* apparently applies to the latter lacks precision. Given that vast majority of compilations will fall within the definition of database, and that there are likely to be few non-database compilations makes the disparity in originality tests have a pronounced effect, and very unfair to investors. To create digital files of total number of tricycle (keke) riders within Anambra State of Nigeria, or a hundred or more number of medical journals or a national art collection or the daily business of world stock exchanges is a costly business and an investment which could be shattered by free access for re-copying. If control is not possible, the investors will become prey both to pirates who are looking to create rival services and to those who want to extract material for their own benefit without payment. Therefore, a shift from typical computer programs to input and output of information in database is desirable for eligibility of copyright protection, this is to strengthen the concept of copyright law as modern time envisages.