

Databases and lawful users: The Chink in the Armour

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The Database Directive,¹ maligned by some² but loved by others,³ was the subject of a review by the European Commission in 2005. In looking to its operation primarily from the perspective of the database industry the Commission came to the considered view that the economic impact of the sui generis right on database production was unproven.⁴ Far from increasing investment in the creation of databases in Europe as had been anticipated and on the basis of which the measure had been justified⁵, the industry had not expanded and despite the belief of some database makers, there was no empirical evidence to show that measures in the Directive were to their benefit. The Commission even went so far as to suggest that one possibility was to repeal the Directive in its entirety.⁶

The enquiry in this discussion is as to the possibilities the Database Directive might hold for a lawful user of the contents of a protected database. The focus is as between the maker of the database⁷ and the original licensee (rather than further downstream use). Are there any benefits for this group of users in retaining the Directive? Should the interests of this group be considered before final decisions are made on the future of the right?

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¹ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases OJ L 77, 27.3.1996, p. 20-28 (hereafter Database Directive)

² The criticisms tend to focus on the introduction of the right as being unnecessary and/or that the limitations on the database right do not do enough to balance the scope of the right. e.g. Reichman, J.H and Samuelson, P, *Intellectual Property Rights in Data?* (1997) 50 *Vanderbilt Law Review* 51; Cornish and Llewellyn *Intellectual Property Rights Sweet & Maxwell* 5th ed. 2003, Para 19.42; Freedman, CD *Should Canada Enact a New Sui Genreis Database Right?* (2002) 13 *Fordham Intellectual Property Media & Entertainment LJ* 35, Lipton, J. *Balancing Private Rights and Public Policies: Reconceptualising Property in Databases* 2003 *Berkeley Technology LJ* 773

³ Those involved in the database industry are particularly keen on the right. See in general First evaluation of Directive 96/9/EC on the legal protection of databases Brussels 12 December 2005. (hereafter First Evaluation).

⁴ *Ibid* para 1.4

⁵ Database Directive Recitals 7, 9, 10, 12.

⁶ First Evaluation Para 6.1.

⁷ The maker of the database is the person who has expended the relevant investment in the obtaining, verification and/or presentation of the contents of the database. Database Directive Article 7.

This examination takes place within a much broader discussion as to the proper protection of scientific data. Multifarious strands are entangled in the debate.⁸ How can or should investment in the collation of data be protected or rewarded without impeding the progress of science?⁹ Should data or the investment in the collation of data be protected at all or rather should the data be used to support future progress? When public funding supports the discovery of scientific data should that data be regarded as a 'public good' and thus accessible at a reasonable cost and re-usable in the name of progress?¹⁰ When data are held across jurisdictions do differences in laws impede progress?¹¹ Whereas one can envisage the creation of a contractual nexus between data collators and users which encourages innovative use of data, the development of derivatives and downstream products, how can such a framework be constructed when an overriding concern for some is the protection of investment in the collation of the data?¹² Is the free market and private bargaining really the best mechanism for safeguarding the public interest in the progress of science? As will be discussed below, absent the database Directive and its provisions for lawful users there would appear little to prevent control exerted through private ordering dictating use and re-use of datum even in the face of the well-known mantra that facts as such cannot be protected.

To illustrate the argument the example of geospatial data and geospatial databases will be used. In this sector there appears to be widespread confusion as to the nature and extent of the rights that subsist in a geospatial database and consequently little understanding of the exceptions for users. In this paper it will be argued that, as a result of the introduction of the Database Directive in 1996, the relevant right in a geospatial database is the sui generis database right. The discussion will go on to examine the rights of lawful users vis a vis the maker of a geospatial database and its contents.

⁸ See generally Digital Data and Information for Science: Proceedings of an International Symposium (2004) Esanu, M. and Uhler P (eds), U.S. National Committee for CODATA, National Research Council 2004. Available from <http://www.nap.edu/catalog/11030.html> (hereafter Digital Data).

⁹ Reichman J and Uhler P A Contractually Reconstructed Research Commons for Scientific Data: International Considerations in Digital Data

¹⁰ See e.g. Science, Technology and Innovation for the 21st Century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level, 29-30 January 2004 - Final Communiqué at http://www.oecd.org/document/15/0,2340,en_2649_34487_25998799_1_1_1_1,00.html

¹¹ See generally Digital Data Session 1: Legal, Economic, and Technological Framework for Open Access and the Public Domain in Digital Data and Information for Science pp 15-40

¹² See generally Digital Data Session 5: Innovative Models for Public-Domain Production of and Open Access to Scientific and Technical Data and Information pp 95-160.

What is geospatial data?

Geospatial data are information or data about the world around us. Some refer to geographic information or data as 'information that can be related to a location defined in terms of point, area, volume on or of the earth, at a specific point in time, particularly information on natural phenomena, cultural and human resources'¹³. Others prefer to use the term geospatial information (or data) arguing that it 'is more precise in many ... contexts than 'geographic,' because geospatial information is often used in ways that do not involve a graphic representation, or map, of the information'.¹⁴ The term 'geospatial data' will be used in this discussion and 'geospatial database' to refer to the database that holds the geospatial data.

Geospatial data are used in many different walks of life. One, and probably the best known to the majority, is the mapping business.¹⁵ But geospatial data are also used to deduce information about the world about us for many other reasons. For instance to plan the location of wind farms in the most environmentally friendly way possible; to predict where crimes are most likely to take place; to maintain overview of the location of underground pipes to ensure the most appropriate maintenance.¹⁶ With increasingly sophisticated techniques being developed in the ways in which data are captured and manipulated, the range of possibilities for the use of geospatial data are growing all the time.¹⁷

Perhaps surprisingly few statistics are publicly available which would indicate the size of the sector, at least not comparing like with like. In 1996 DG XIII estimated that the amount invested by governments, commercial and industrial organisations for the collection, provision and use of geospatial information in Europe was 10 billion ECU per year (£6.6 billion).¹⁸ In 1997 NOP estimated that the total UK domestic market for geospatial data was valued at £204m.¹⁹ At a slightly later date, 1999, OXERA claimed

¹³ <http://www.gipanel.org.uk/gipanel/docs/GIPanelMinutesSept05approved.pdf>

¹⁴ <http://www.opengeospatial.org/resources/?page=glossary#G>

¹⁵ For example maps produced by Ordnance Survey <http://www.ordnancesurvey.co.uk/oswebsite/Getmapping> at <http://www1.getmapping.com/home.asp>

¹⁶ Examples taken from <http://www.mapzone.co.uk/giszone/english/>

¹⁷ See also Rao, M. Geospatial Information for Development Open Access and the Public Domain in Digital Data.

¹⁸ DG XIII (GI2000 initiative) (1996), Towards a European Policy Framework for Geographical Information: A Working Document, November 1996.

¹⁹ OS (1998), 'Marketing Strategy', November.

that Ordnance Survey data underpinned £79 - £136bn of economic activity in the UK.²⁰ In 2005 it was estimated that in Scotland at least 80% of government information had a geographic basis.²¹ What the statistics do is to indicate that, economically, this is a large sector and one which is growing.

The creation of a geospatial database

Data fed into a geospatial database can be gathered from a variety of sources. Historically at least, some geospatial database makers digitised paper copy maps, feeding the derived information into the database.²² That process appears less common now as increasingly sophisticated techniques are developed. These include gathering data captured directly from images taken from aeroplanes and satellites and by running an electronic cursor over these images;²³ from surveyors working in the field directly inputting data on physical features on the ground into the database;²⁴ from Global Positioning System (GPS) data generated by satellites orbiting the earth producing signals which are in turn captured by GPS receivers.²⁵ In addition information obtained from third parties may be included in the database, such as local census information; details submitted by builders of recent housing developments and information from utility owners as to the positioning of cables and pipes.

Each individual piece of datum, such as information as to the location of a tree or a house, may be assigned a unique identifying number depending on the manner in which the database maker has designed the database. Sometimes the unique identifying numbers are automatically assigned by the database software used. This is then represented as vector²⁶ or raster²⁷ data in the database each element of which is defined in relation to other features within the database.

²⁰ <http://www.ordnancesurvey.co.uk/oswebsite/aboutus/reports/oxera/index.html>

²¹ <http://www.scotland.gov.uk/Topics/Government/Open-scotland/OneScotland/Introduction>

²² For an informative description of the way in which this process was carried out by the Ordnance Survey see <http://www.ordnancesurvey.co.uk/oswebsite/gisfiles/section2/>

²³ <http://www1.getmapping.com/home.asp>

²⁴ <http://www.ordnancesurvey.co.uk/oswebsite/gisfiles/section2/page4.html>

²⁵ For information on the GPS see http://www.colorado.edu/geography/gcraft/notes/gps/gps_f.html

²⁶ Vector data are captured as points, lines (which consist of a series of point coordinates), or areas (which are shapes bounded by lines). All that the computer stores of vector data are a set of 'xy' coordinates making up the shape of an object (for example a tree). In other words, the data represents the object.

²⁷ Raster data are represented by coloured rows of uniform cells (much like a grid) which are coded according to the data values. The data stored in the cells represents the nature of the object on the ground.

and permission to extract and re-utilise the contents is given. Where the sui generis database right subsists in the database, this person is called the 'lawful user'.²⁸

The rights in a geospatial database.

It appears to have only been in recent years that the nature of the intellectual property rights subsisting in a geospatial database has been the subject of debate. There seems to have been a loosely articulated or unspoken assumption in some jurisdictions that copyright is the relevant IP right. This may have been because, historically, the major use of geospatial data was to create maps. In Britain a map is protected by artistic copyright under the Copyright Designs and Patents Act 1988 (CDPA).²⁹ At the time when this provision was introduced maps would have been created by surveyors measuring and locating physical features on the ground and representing them in map form. Now, as described above, the process differs significantly with the majority of data being directly inputted into a geospatial database whether by surveyors working on the ground, by the extraction of data from images taken from aeroplanes or satellites, or, increasingly, co-ordinates being taken directly from satellite data flows (the GPS system).

Whether, and the extent to which copyright might subsist in satellite or aerial imagery which might then be infringed by the representation of that information in co-ordinate form within a geospatial database must be for a separate enquiry.³⁰ This discussion will proceed on the basis that the geospatial data are obtained from the GPS system and accordingly, once allocated a unique identifying number, looks like the list represented in Figure 1 above. The argument will be made that it is the sui generis database right that is the relevant IP right.

The Database Directive

Prior to the implementation of the Database Directive it might have been argued that copyright subsisted in the geospatial data as shown in Figure 1 as a table or compilation

²⁸ Lawful user is not defined in the Database Directive but the person to whom this might refer is discussed below.

²⁹ As a graphic work. Copyright Designs and Patents Act 1988 s 4(2)(a).

³⁰ In the context of US law and alluding to the uncertainty surrounding copyright and geospatial data see *Licensing Geographic Data and Services*, Committee on Licensing Geographic Data and Services, National Research Council ISBN: 0-309-09267-1, (2004) (Hereafter *Licensing Geographic Data and Services*) pp 103 – 114.

within the meaning of the CDPA³¹. However, in implementing the Directive changes were made to the CDPA which now provides that a literary work includes 'a table or compilation *other than a database* [emphasis added]'.³² Thus the first port of call is to ascertain whether a collection of geospatial data falls under the definition of a database. Only if it did not would it be necessary to look to the law on literary copyright in tables and compilations.

The Directive provides for copyright protection for those databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation³³ although copyright protection is not extended to the contents of the database.³⁴ The contents may, where the requisite criteria are met, be protected by copyright in their own right (such as copyright subsisting in an article included in a database). The sui generis database right³⁵ gives to the maker of the database (the person who provides the investment necessary for such compilation)³⁶ exclusive rights to prevent unauthorised extraction and re-utilisation of the whole or a substantial part of the contents of the database,³⁷ (the sui generis right) which may be licensed or sold to third parties. It is the sui generis right that is the focus of this discussion.

The ECJ and the Database Directive

Since its introduction the extent of the sui generis right has been the subject of much speculation. Many thought the right over broad in that it protected data as such and thus went far beyond any protection that would have previously been accorded by copyright.³⁸ However, in 2005 the European Court of Justice (ECJ) had the opportunity to rule on

³¹ CDPA S 3(1)(a). *Express Newspapers v Liverpool Daily Post and Echo* [1985] 1 W.L.R. 1089 tables comprising grids of five-letter sequences for a monthly newspaper competition; *Exchange Telegraph Co Ltd v Gregory & Co* [1896] 1 Q.B. 147 a list of Stock Exchange prices; *Payen Components South Africa Ltd v Bovis Gaskets C.C.* (1996) 33 I.P.R. 406 (South Africa) a price list; *Microsense Systems Ltd v Control Systems Technology Ltd* noted at [1992] I.P.D. 15006 three-letter mnemonics comprising the language code for communication with a pelican crossing controller.

³² CDPA s 3(1)(a)

³³ Database Directive Article 3.

³⁴ *ibid*

³⁵ Database Directive Chapter III

³⁶ Database Directive Article 7.

³⁷ Database Directive Article 8.

³⁸ See articles cited at fn 2.

the interpretation of a number of provisions of the Directive referred to it in four cases.³⁹ Of these cases one concerned details of horseracing fixtures,⁴⁰ the three others details of football league matches.⁴¹ In giving judgement the ECJ stressed that data as such were not the object of protection, but that the purpose of the sui generis right was to 'promote the establishment of storage and processing systems for existing information.'⁴² Given the stress the ECJ laid upon this justification for the right, it provides a backdrop against which the extent of the sui generis right should be considered.

Does a geospatial database meet the definition of a database?

In order to benefit from the regime set out in the Database Directive, a database has to meet the definition set out in Article 1(2). It should be:

'a collection of independent works, data or other material arranged in a systematic or methodical way and individually accessible by electronic or other means.'⁴³

Questions referred to the ECJ included requests for clarification of this definition.

Independent materials

In *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE (OPAP)*,⁴⁴ the ECJ ruled that, to be classified as a database there had to be a collection of 'independent materials' which should be 'separable from one another without their informative, literary, artistic,

³⁹ *British Horseracing Board v William Hill* C-203/02 (from the Court of Appeal, England and Wales) (hereafter BHB); *Fixtures Marketing Ltd. v Svenska Spel AB* C-338/02 (from the Hogsta Domstol, Sweden) (hereafter Svenska); *Fixtures Marketing Ltd v OY Veikkaus Ab* C-46/02 (from the Vantaan Darajaoikeus, Finland) (hereafter Veikkaus); and *Fixtures Marketing Ltd. v Organismoa Prognostikon Agnon Podosfairou (OPAP)* C-444/02 (from the Monomeles Protodikio Athinion, Greece) (hereafter OPAP). The opinions were delivered on 8 June 2004 and the judgements by the ECJ on 4 November 2004.

⁴⁰ BHB

⁴¹ Svenska, OPAP and Veikkaus

⁴² BHB Para 31

⁴³ The wording of the CDPA is similar: 'database' means a collection of independent works, data or other material which –a. are arranged in a systematic or methodical way, and b. are individually accessible by electronic or other means' CDPA s3A

⁴⁴ OPAP C-444/02

musical or other value being affected’⁴⁵ and ‘systematically or methodically arranged and individually accessible in one way or another.’⁴⁶

Thus a number of tests require to be satisfied:

- The data/information/materials need to be independent
- The data/information/materials need to be separable without their informative value being affected
- The data/information/materials need to be systematically or methodically arranged and individually accessible

Arranged in a systematic or methodical way and individually accessible

In dealing with the requirement that the materials should be ‘arranged in a systematic or methodical way’ the ECJ in OPAP stated:

‘While it is not necessary for the systematic or methodical arrangement to be physically apparent... that condition implies that the collection should be contained in a fixed base, of some sort, and include technical means such as electronic, electromagnetic or electro-optical processes ... or other means, such as an index, a table of contents, or a particular plan or method of classification, to allow the retrieval of any independent material contained within it.’⁴⁷

Within a geospatial database data are arranged in forms and fields in a systematic way such that the data on one particular aspect (such as the location of McEwan Hall in Edinburgh) are arranged systematically by reference to all the other information in the database both around the information itself (e.g. other buildings in Edinburgh) and more broadly (e.g. the location of McEwan Hall within Scotland). The base is fixed – the geospatial database. Technical means are provided for the retrieval of the information – querying the database for specific purposes and by which independent material (the name of McEwan Hall) can be retrieved.

⁴⁵ OPAP Para 29

⁴⁶ OPAP Para 30

⁴⁷ Ibid Para 30. In OPAP the ECJ was satisfied that the criteria for independence and systematic arrangement were met by the arrangement of data according to ‘dates, times and names of teams in those various football matches’. Para 35

Independent materials and informative value

If only one element of the geospatial data are taken is that independent and does that have informative value? Any element of geospatial data are represented, within the database, relative to all other elements in the database. It might be argued that a single piece of datum, for instance representing information on the location of McEwan Hall, would be meaningless unless there is data present representing other features, such as the location of the road running beside the Hall and its relation to other buildings in the vicinity, and by virtue of which the location of the hall can both be calculated and understood. In other words, if the datum that is taken represents only one 'floating fact', is it independent and have informative value? The answer to this must be in the affirmative. However 'useless' a single floating fact might seem to some that fact nonetheless is of informative value. It may be unusual to take one piece of datum (the height of McEwan Hall) and use that but it is not the use that is the focus of the enquiry. The datum is separable (independent) without its informative value being affected.

The argument is all the stronger if consideration is given to larger parts of the database as falling within the definition of 'independent works, data or other materials.' So instead of individual datum, the focus could be on data sets. Reverting to the example of McEwan Hall, that dataset might contain a number of records with each record containing the following information: location, name, height. The dataset could easily fit within the definition of independent materials. Here, the juxtaposition of the name, location and height would certainly have autonomous informative value and be separable from, for instance, the data representing the nature of the remainder of Edinburgh.

Does a geospatial database qualify for the sui generis right of extraction and re-utilisation?

Merely because a geospatial database falls within the definition of a database, it does not thereby mean that it will also attract the sui generis right.⁴⁸ For the right to subsist there has to be have been substantial investment on the obtaining, verifying or presenting the

⁴⁸ In each of the cases considered by the ECJ the material fell within the definition of a database. In BHB the ECJ gave a strong steer to the effect that the database did not qualify for the sui generis right because of the absence of relevant investment.

contents of a database consisting in the deployment of financial resources, and/or the expending of time, effort and energy.⁴⁹

Obtaining

Despite the ECJs attempts to clarify what amounts to the relevant investment in 'obtaining' data for the purposes of the subsistence of the database right, questions do remain. The ECJ said the relevant investment 'must... be understood to refer to the resources used to seek out existing independent materials and collect them in the database and not [emphasis added] to resources used for the creation as such of independent materials'.⁵⁰ So the materials to be placed in the database must already exist as independent materials. Any investment expended in creation of materials will not count towards the subsistence of the sui generis right. Only when those materials exist, and thereafter investment is expended in the collection of those materials, will this criterion be met.

But what is collected and what is created? In *British Horseracing Board v William Hill (BHB)*⁵¹ the database in question comprised inter alia information on over one million horses, and in particular pre race information on races held in the UK. The latter information included the name, place and date of the race concerned, the distance over which the race is to be run, the criteria for eligibility to enter the race, the date by which entries must be received, the entry fee payable and the amount of money the racecourse was to contribute to the prize money. When trying to find the line between the creation and the collation of the data, the ECJ said that the investment in the selection of the horses admitted to run in the race concerned related to the creation of the data which made up the lists for those races.⁵² BHB had expended resources to establish (emphasis added) the date, the time, the place and/or name of the race and this was investment in the creation of materials contained in the BHB database and not in their collation.⁵³ Thus it would seem that if the data do not exist as such, then any investment expended in establishing what that data are amounts to creation of the information and not mere

⁴⁹ Database Directive Recital 40; Article 7.

⁵⁰ OPAP Para 40.

⁵¹ C-203/02 .

⁵² Ibid Para 38.

⁵³ Ibid Para 80

collation. Thus the investment by BHB was not relevant when considering the criterion of obtaining for the subsistence of the database right.

So what of the data in a geospatial database? Are they created or collated? Is the material established for the purposes of incorporating it into a geospatial database? Or is it already created merely awaiting collation?

There can be no doubt that geospatial data exists – a point that argues in favour of a finding that the data are collated and not created. The location and height of McEwan Hall exist whether or not that information is recorded in any particular form. It is certainly the case that operations are carried out on those data, but many of these are carried out relative to the other data within the database. Thus, for example, the information relating to any particular object needs to be represented in relation to all other objects within the database; the unique identifying number will be allocated. But that is to ensure that the data are represented as they should be within the database and relative to other data. It is not, in other words, done in order to create or establish the information.⁵⁴

In addition, and unlike the position in BHB where it was only BHB who was in a position to establish the information on horse races, it is open to anyone to collate geospatial data. Considerations of financial resources aside, geospatial data from, for example, satellite imagery, from images obtained from pictures taken by aircraft or from the GPS system⁵⁵ can be acquired by anyone.⁵⁶

Verification

The Directive also talks of investment in the verification of the contents of a database as being relevant for the subsistence of the sui generis right.

⁵⁴ For a discussion concerning 'official' databases in light of the Court of Appeals determination of the BHB case see Kon, S and Heide, T BHB/William Hill – Europe's Feist 2006 EIPR, 60-66

⁵⁵ It would appear that the majority of information from the GPS system is freely available http://en.wikipedia.org/wiki/Global_Positioning_System

⁵⁶ It may be that the controllers of the satellites filter what data are available within the GPS system. For example, in the interests of national security, certain data may be filtered out.

In relation to this point the ECJ has said the expression 'investment in ... the ... verification ... of the contents of a database must be understood to refer to the resources used, with a view to ensuring the reliability of the information contained in that database, to monitor the accuracy of the materials collected when the database was created and during its operation'.⁵⁷

It would seem that any relevant investment in verification of the data must take place at the point at which the data enters the database (the accuracy of the materials collected when the database was created) and once the data are in the database (during its operation) rather than verification in the course of creating data i.e. verification establishing whether the data are correct in the first place (is McEwan hall really there?). So when might investment in relevant verification take place for geospatial data? Looking to the processes of collection of data, when a surveyor is out in the field, she may take measurements of a particular building. Verification that takes place at the point of collection of the data (when the measurements are taken – are they correct?) should not count for relevant investment. However, once the data has been collected, there may be special features built into the database that would check that particular entry against other entries within the database – a process that might be carried out automatically (through the operation of a program in which investment has been expended) or manually – through the operation of certain choices made by an individual manipulating the software. So, for example, if the height of the McEwan building in Edinburgh is (erroneously) entered, through either automatic or manual processes it could be established that such a measurement is impossible, thus enabling the correct figure to be re-checked and amended accordingly. The relevant investment for the verification of the data would be the processes of checking – and not the establishment of the correct measurement when it was discovered the first was wrong.

It may be that substantial investment has been expended in developing software that checks the accuracy of the data when entered into the database or once in there. At this point it should be stressed that the Directive makes it clear that the term database does not extend to computer programs used in the making or operation of a database⁵⁸ and that protection under the Directive does not apply 'to computer programs used in the making or

⁵⁷ OPAP para 43

⁵⁸ Database Directive Recital 23.

operation of databases...⁵⁹ As computer programs have their own framework of protection in the Computer Programs Directive⁶⁰ it would appear this is intended to avoid cumulation of protection. However there appears no reason that would preclude either the investment necessary in developing a computer program that would support the verification of the data, or indeed the investment necessary in operating a program which enabled data to be verified from being counted towards the investment necessary for the subsistence of the sui generis right.⁶¹ It is just that the protection does not extend or apply to the computer program per se.

Presentation

On the relevant investment concerning the presentation of the contents, the ECJ in OPAP, Svenska, and Veikkaus said that this referred to:

‘... the resources used for the purpose of giving the database its function of processing information, that is to say those used for the systematic or methodical arrangement of the materials contained in that database and the organisation of their individual accessibility.’⁶²

It appears that the relevant investment is that which is linked to the presentation features that are integral to the processing system as such, and not the presentation features that would count towards the ‘look’ of the end product. Thus, in a geospatial database, the relevant ‘presentation’ investment would relate to the way in which the data were arranged within the database itself (in the fields within the geospatial database for example). What it would not appear to cover is the investment needed to present the data in its final form – for instance whether the roads are coloured red or blue.

⁵⁹ Database Directive Article 1(3)

⁶⁰ Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs

⁶¹ See e.g. Aplin, T, *Copyright Law in the Digital Society: The Challenges of Multimedia* Hart Publishing 2005 (hereafter Aplin) questioning whether investment in a computer program as such would be counted as relevant investment (in the context of presentation) but noting that if none of the investment could be counted it would be difficult to envisage what kind of investment could be applied to presentation of the contents that did not relate to the design of the underlying software. P. 70.

⁶² OPAP para 43; Svenska para 27; Veikkaus para 37

Such a conclusion would make sense in that any skill, labour and effort⁶³ (intellectual creation⁶⁴) that goes towards the final presentation of the geospatial data in the form of the final product, for example the manipulation of the data through a GIS to create a map will be concerned with copyright subsisting in that product. It can thus be separated from, and does not overlap with, the sui generis database right which is solely concerned with the investment needed in developing the means by which the information can be processed.

Extraction and re-utilisation

There are powerful arguments for saying that a collection of geospatial data within a database meets the definition of a database within the Database Directive and that relevant investment is expended in obtaining, verification and presentation of the data. Thus a geospatial database would qualify for the sui generis right. What then is the extent of the right?

As discussed above, the rights of the maker are to prevent the extraction and/or re-utilisation of a substantial part of the contents of the database without authorisation.⁶⁵ The Database Directive defines extraction as the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form,⁶⁶ and re-utilisation to mean any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission.⁶⁷ In other words, if a substantial part of the contents of a geospatial database are printed out, placed on a CD Rom or other medium that will infringe the right of extraction, and if a substantial part of the contents are distributed to the public for instance over the Internet, that will infringe the right of re-utilisation.

⁶³ The requirement for copyright subsistence in the UK: *Ladbroke v William Hill* [1964] 1 All E R 465 at 469.

⁶⁴ The requirement for the subsistence of copyright in the organisation of a database. Database Directive Article 3.1.

⁶⁵ Database Directive Article 7.1.

⁶⁶ Database Directive Article 7.2.(a).

⁶⁷ Database Directive Article 7.2.(b).

In BHB the ECJ said that as acts of unauthorised extraction and re-utilisation from a source other than the database concerned 'are liable ... to prejudice the investment of the maker of the database' so, 'direct access to the database was not a prerequisite' for infringement of the right.⁶⁸ Further, while the sui generis right does not extend to cover consultation of a database,⁶⁹ the consent of the maker of the database to consultation does not entail exhaustion of the sui generis right. Thus, it does not matter whether the data are extracted or re-utilised directly from the geospatial database, or through the medium of a third party. If a substantial part of the contents of a protected geospatial database is in issue, then the rights of extraction and re-utilisation will be infringed no matter the source of the data.

Exploitation of a geospatial database

Assuming that the argument is correct to this stage; that the sui generis database right subsists in a database containing a collection of geospatial data, how then might the contents of that database be exploited by the maker? Generally the relationship between the database maker and the first user will be contract.⁷⁰ This may be a contractual relationship formed on-line (such as the contract between Google Earth and users⁷¹) or perhaps by way of a paper based contractual relationship beyond the digital environment combined with an on-line contract at the point of use.⁷² The terms and conditions of use may be shaped by the underlying law of copyright or database right depending on the understanding of the database maker (and user) of the relevant rules.⁷³ There is no legal obligation to give access to the contents of a database to a third party whether or not

⁶⁸ BHB Para 53.

⁶⁹ Ibid para 54.

⁷⁰ Oddly, in the First Evaluation the Commission seemed to think that the existence of the Database Right would mean that databases would be 'openly' available (presumably in the sense of not incorporating access restrictions). This is drawn from the discussion in Para 5.1 where the Commission state, that as a result of the interpretation the ECJ gave to 'obtaining' 'It can be expected that database makers will devise legal strategies to get around the distinction drawn in the ECJ judgments and that this might result in online databases increasingly being secured by systems of access.' It would be interesting to know whether any database maker who wished to gain monetary return from granting a lawful user rights in respect of the contents of a database made the database available without access controls and relied solely on what was thought to be the extent of the sui generis right. As the ECJ said in BHB: 'Of course, the maker of a database can reserve exclusive access to his database to himself or reserve access to specific people'. Para 55.

⁷¹ <http://earth.google.com/>

⁷² Clearly here there are issues as to the incorporation of terms into the contract: contract law will determine whether the bargain is validly created which terms have been incorporated.

⁷³ See Licensing Geographic Data and Services p 114.

rights subsist in the contents of the database. As was pointed out in *Attheraces Ltd v British Horse Racing Board*⁷⁴

'I agree with BHB that it is entitled, in principle, to impose a charge for use of its pre-race data....., whether or not BHB has IP rights in respect of the data, and, in particular, database rights under the Databases Directive and the Databases Regulations or copyright, and irrespective of the extent of any such rights. BHB has, in the data, a valuable commodity, for which it is entitled to charge. There is no authority to the contrary, including the *William Hill* case'.⁷⁵

Competition law may well come in to regulate the behaviour of database makers in a dominant position if unfair trading terms or excessive prices are imposed⁷⁶. Beyond that, and in the absence of the sui generis right, as between the database maker and the first comer the terms of the contract will regulate the bargain between the parties. It is here that the Database Directive contains an important limitation on the contracting power of the database maker where the sui generis right subsists. And it is here that the Database Directive may prove its worth, for users, in the database market.

Lawful users and the sui generis right.

There are limitations on the sui generis right provided for in the legislation. The Directive contains a number of permissive exceptions which include extraction (but not re-utilisation) for the purposes of illustration for teaching or scientific research as long as the source is indicated and to the extent justified by the non-commercial purposes to be achieved.⁷⁷ The weakness of these limitations is that their permissive nature means that take-up and implementation may vary from Member State to Member State. They have been the subject of criticism.⁷⁸

But of potentially greater import to the lawful user is that this person has the right to extract and/or re-utilise an insubstantial part of the contents of a database for whatever

⁷⁴ [2005] EWHC 3015 (Ch) (21 December 2005)

⁷⁵ *Ibid* Para 285

⁷⁶ *Ibid*. See OPSI report on its investigation of a complaint (SO 42/8/4). *Intelligent Addressing and Ordnance Survey*. July 2006. (OPSI investigation)

⁷⁷ Database Directive Article 9(b)

⁷⁸ See above n. 2 and First Evaluation Para 4.

purposes whatsoever.⁷⁹ Critically, any contractual provision seeking to override this measure is null and void.⁸⁰ In other words, a lawful user cannot be constrained from making insubstantial extractions from a database, nor from re-utilising what has been extracted for any purposes whatsoever.⁸¹ It should be noted that this provision only applies to a 'lawful' user. Unfortunately this term has not been defined in the legislation but it has been suggested that it refers to a person who lawfully acquires the database – e.g. by way of gift, rental sale or as a licensee.⁸² Thus a first comer contracting with the maker of a geospatial database to extract and re-utilise the whole or a substantial part of the contents of the geospatial database would be a lawful user.⁸³

Insubstantial/Substantial part

A key question in determining the extent of this right of a lawful user is to determine what amounts to an insubstantial part of the contents of the database. Here two tests are relevant: quantitative and qualitative.

Quantitative part

The ECJ has said that a substantial part evaluated quantitatively refers to the volume of data extracted from the database and must be assessed in relation to the volume of the contents of the whole of that database. If a user extracts and/or re-utilises a quantitatively significant part of the contents of a database whose creation required the deployment of substantial resources, the investment in the extracted or re-utilised part is proportionately equally substantial.⁸⁴

⁷⁹ Where authorised to extract and/or re-utilise only part of the database, then the right applies to only that part of the Database. Database Directive Article 8.

⁸⁰ Database Directive Article 15

⁸¹ Aplin p181

⁸² Aplin p.177

⁸³ In implementing these provisions into UK law, the Copyright and Rights in Databases Regulations 1997 provide that 'a lawful user of a database... shall be entitled to extract or re-utilise insubstantial parts of the contents of the database for any purpose and where under an agreement a person has a right to use a database, or part of a database, ... any term or condition in the agreement shall be void in so far as it purports to prevent that person from extracting or re-utilising insubstantial parts of the contents of the database, or of that part of the database, *for any purpose* [emphasis added]..Reg 19

⁸⁴ BHB Para 70.

So how much is substantial? The ECJ did not quote a figure or percentage when considering the cases before it. In BHB despite having suggested that the investment was in the creation of the data per se, the ECJ went on to comment that the extraction by William Hill of the names of the horses running in a particular race, the date the time and/or name of the race and the name of the racecourse did not constitute a substantial part evaluated quantitatively – being only ‘a very small proportion’ of the whole of the database. Unfortunately there was not much indication of the size of the overall database.

Some guidance may be taken from the part of the judgement in BHB dealing with the repeated and systematic extraction and/or re-utilisation of insubstantial parts of the contents of the database.⁸⁵ On this, and in considering when such activities would infringe the sui generis right, the ECJ said that this measure

‘prohibits acts of extraction... which could lead to the reconstruction of the database as a whole, or at the very least a substantial part of it... whether those acts were carried out with a view to the creation of another database or in the exercise of an activity other than the creation of a database’⁸⁶.

If a similar test is used in relation to determining a quantitatively substantial part of a database, it would appear that the threshold would seldom be reached. Substantial must relate to something over 50% even if it did not result in reconstitution of the database.

How big is a geospatial database?

An example might be the Ordnance Survey product, Mastermap. In August 2005 (version 6 of Mastermap) the database containing the data was said to stand at 600 Gbytes in size.⁸⁷ By comparison a large novel is 1 Mbyte, a compressed digital film is 10 Gbytes; the annual production of refereed journal (~20k journals; ~2M articles) is 1 Tbyte, and the annual production of information (print, film, optical & magnetic media) is 1500 Pbytes.⁸⁸

⁸⁵ Database Directive Article 7(5)

⁸⁶ BHB Para 87

⁸⁷ http://en.wikipedia.org/wiki/OS_MasterMap

⁸⁸ The example is taken from Hey, T and Trefethen, A, *The Data Deluge: An e-Science Perspective* available at [http://www.ecs.soton.ac.uk/~ajgh/DataDeluge\(final\).pdf](http://www.ecs.soton.ac.uk/~ajgh/DataDeluge(final).pdf)

It may be that the owner of a geospatial database gathers data into one large database, but then splits that into other products. For example, Google earth not only makes a product available for free, but it also has a number of other products for which it charges.⁸⁹ Such a 'splitting' of the contents should not detract from the fact that there needs to be substantial investment in the database for the right to subsist. Thus, if the original database cost, say, £1m, splitting that into ten separate products should not produce ten separate sui generis rights. Rather the question should be as to whether substantial investment has been expended in any one of those products and thus whether the right subsists in that part of the database. The more parts into which a database is split, the less likely it should be that the relevant investment would subsist in one small part. If that were not the case, it would be possible for any database maker to 'split' a database into a large number of small databases, and yet claim rights in each – in effect avoiding the 'quantitative' rule.

Qualitative part

A substantial part of the contents of the database is determined not only by a quantitative test, but also by a qualitative analysis which is a much more difficult criterion to operate. On the matter of a qualitative part of the contents of a database, this refers to 'the scale of the investment in the obtaining, verification or presentation of the contents ... regardless of whether that represents a quantitatively substantial part of the general contents of the protected database'.

The intrinsic value of the data must be ignored in deciding what, qualitatively, is a substantial part of a database. To argue otherwise would be to accept that the data per se were protected. Thus, in BHB it was irrelevant that the data extracted and reutilised by William Hill was essential to the organisation of the horse races organised by BHB and others.⁹⁰ However it may also be that a quantitatively negligible part of the contents of a database may in fact represent, in terms of obtaining, verification or presentation, significant investment.⁹¹ Determining what might amount to a qualitatively substantial part where there may have been large scale investment is far from easy – particularly where the concern is to avoid protecting datum per se. So, for example, if £10 million is invested in the collation, verification and presentation of the data in a geospatial database

⁸⁹ <http://earth.google.com/>

⁹⁰ BHB Para 72

⁹¹ Ibid Para 71.

which is 1Tbyte, would taking of 1/10th of the database in which £1 million pro rata had been invested amount to qualitatively a substantial part? Would £10,000 and 1/1000th of the database qualify? What if the database is actually very small and consists of 1000 pieces of data but in which £1 million has been spent on the relevant investment? On this analysis it could be that the datum would be protected and that is clearly not within the thinking of the ECJ. In a very expensive but small database, where is the dividing line between protection of data in which there has been a substantial investment in its obtaining, verification and presentation, and protection of the data per se? What level of investment is considered substantial and thus capable of protection?

On both the quantitative and qualitative analysis there may be a desire to limit the rights of the lawful user by reference to the size of the final product. So, for example, if the maker of a database contracts with a lawful user who wishes to produce maps, the maker may seek to restrict the size of the final map that can be disseminated by the lawful user – for example by limiting the representation of the map to a certain geographic area (e.g. no more than 2km(square)) or to size representation on paper (e.g. A3). These considerations should be wholly irrelevant in determining a substantial part, assessed either quantitatively or qualitatively, of the database. As discussed above, the tests require assessment of the investment in the database. Only if that final product involved the extraction and re-use of a substantial part of the database would the maker have the power to determine how much might be reused.

The lawful user and the two step test

So a lawful user may not be enjoined from extracting and re-utilising an insubstantial part of the contents of a database. As indicated above, whereas there is some guidance on what a quantitatively insubstantial part of a database might be (subject to further clarification on what amounts to substantial investment) much more difficult is the question of a qualitatively insubstantial part. Again guidance on ‘how much’ amounts to substantial investment would help to clarify this test, but in its absence, there is a further provision in the database Directive that might aid interpretation.

Article 8.2 of the Directive states that any acts by the lawful user must not perform acts which:

- conflict with the normal exploitation of the database, or
- unreasonably prejudice the legitimate interests of the maker of the database.⁹²

The wording is familiar from the Berne Convention Article 9(2) which provides:

It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works

- in certain special cases, provided that such reproduction
- does not conflict with a normal exploitation of the work and
- does not unreasonably prejudice the legitimate interests of the author.

This is commonly referred to as the Berne Three Step Test. It has also been incorporated into the TRIPS Agreement Article 13 where the word 'confine' is used instead of 'permit' and where its application has been extended beyond reproduction to all the other exclusive rights enjoyed by the copyright owner. It is also found in the WIPO Copyright Treaty Article 10.

While the two step test in the Database Directive is modelled the three step test in the Berne Convention there are differences. The Berne three step test is directed towards states as to what they may and may not put in their legislation; the Database Directive is directed towards the activities of lawful users. The Berne three step test includes reference to 'certain special cases' while the Directive does not contain this reference.⁹³

⁹² Database Directive Article 8.2

⁹³ The two step test appears in the Database Directive but not in the UK implementing regulations. The question arises as to what would happen if a case was raised before a national court. Could the claimant rely on this provision? In accordance with settled jurisprudence, and recently summarised by the ECJ in *Vasiliki Nikoloudi v Organismos Tilepikoinonion Ellados AE*. Case C-196/02, if the provisions of the Directive are unconditional and sufficiently precise then they may be relied upon by an individual claimant as against the State. The State in this context is construed widely and includes bodies subject to the authority or control of the State or which have special powers beyond those which result from the normal rules applicable to relations between individuals (see, to this effect, Case C188/99 *Foster and Others* 1990 ECR I3313, paras 16, 18 and 20, and Case C-187/00 *Kutz-Bauer* 2003 ECR I2741, para 69). However, obligations cannot be placed upon individuals and cannot be relied upon as such as against an individual (see, inter alia, Case C-91/92 *Faccini Dori* 1994 ECR I-3325, para 20, and Joined Cases C397/01 to C-403/01 *Pfeiffer and Others* 2004 ECR I-0000, para 108). But where a situation falls within the scope of a Directive, the national court is bound, when applying national law, to interpret it, so far as possible, in the light of the wording and the purpose of the Directive concerned in order to achieve the result sought by the Directive (see, inter alia, Case C-106/89 *Marleasing* 1990 ECR I-4135, para 8, *Faccini Dori* 1994 ECR I-3325, para 26, and *Pfeiffer and Others* para 113). This last is termed the 'interpretative obligation'. Looking to the wording of Article 8.2 it is both unconditional and precise, albeit that it requires to be interpreted. Should a claimant have a grievance against Ordnance Survey (the UK's largest geospatial data provider) then reliance could be placed on this Article as against that organisation which has 'special powers' arising

The two step test by analogy with the three step test

The Berne (and TRIPS) three step test has been the subject of academic analysis⁹⁴ while the test as incorporated into TRIPS has been considered in some depth in a case heard before the WTO Panel concerning whether the United States Copyright Act section 110(5) conformed to obligations to be found in the TRIPS agreement.⁹⁵

The Berne Three step test evolved as the scope of the exclusive right of reproduction expanded. During negotiations for the Stockholm Conference in 1964 it became clear that if the authors' right of reproduction was to be all encompassing, so it would be necessary to consider the nature of limitations or restrictions on that right.⁹⁶ Domestic laws of signatory states to the Berne Convention contained diverse limitations on subject matter. What was needed was a general formula that might permit the introduction of other exceptions within domestic laws while at the same time recognising the commitment to the advancement of author's rights. These negotiations resulted in the Berne three step test. This test means that if Berne Convention countries introduce limitations or exceptions on use of works protected by copyright in their domestic laws over and above both the limitations to be found in the remainder of the Berne Convention⁹⁷ and the limitations in domestic laws present at the time of the Stockholm negotiations⁹⁸ then they must be in conformity with the three step test.

both from its position as an executive arm of the State and as a Trading fund. If the claimant were seeking to litigate against an independent geospatial data provider (for example Getmapping), then the Court's interpretative obligation may come into play.

⁹⁴ Ricketson, S and Ginsburg, J, *International Copyright and Neighbouring Rights: the Berne Convention and Beyond* Oxford 2006 (hereafter Ricketson and Ginsburg). Ricketson, S. *WIPO Study on Limitations and Exceptions of Copyright and Related Rights in the Digital Environment SCCR/9/7* (hereafter Ricketson WIPO); Ricketson, S. *The Boundaries of Copyright: Its Proper Limitations and Exceptions—International Conventions and Treaties*, (1999) IPQ 56-94; Ricketson, S. *The Three-step Test, Deemed Quantities, libraries and Closed Exceptions*, Advice prepared for the Centre of Copyright Studies Ltd., Centre for Copyright Studies, Sydney 2003; Ficsor, M. *The Law of Copyright and the Internet*, Oxford, 2002; Reinbothe J., and von Lewinski S., *The WIPO Treaties 1996*, Butterworths LexisNexis, UK, 2002; Ginsburg, J. *Towards Supranational Copyright Law? The WTO Panel; Decision and the "Three-Step Test" for Copyright Exceptions [2001]* *Revue internationale du droit d'auteur*, January 2001.

⁹⁵ United States - Section 110(5) of US Copyright Act - Report of the Panel DS160 June 15, 2000 (hereafter DS160).

⁹⁶ See Ricketson and Ginsburg Chapter 13 generally.

⁹⁷ Ricketson and Ginsburg: 'their operation is unaffected by it, and ... the uses allowed under them are therefore excluded from its scope' Para 13.10

⁹⁸ '.. article 9(2) was conceived of as being capable of covering all existing exceptions to reproduction rights under national laws, apart from those already covered by other provisions of the Convention'. Ricketson and Ginsburg, Para 13.25.

By analogy, and looking to the wording in the Database Directive, it could be argued that over and above the right of the lawful user under the Database Directive to extract and re-utilise insubstantial parts of a database for any purpose, or act within one of the other permissive exceptions to be found in the Directive, a lawful user should be able to carry out acts so long as they did not conflict with the normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker of the database.

However, the juxtaposition of the two step test in the Database Directive needs to be considered. The two step test is in Article 8.2 coming after the general right of lawful users to extract and re-utilise insubstantial parts of the contents of the database. Thus the purpose of the two step test may be to operate as an interpretative aid as to what amounts to and what can be done with an insubstantial part of the contents of a database rather than as a ground on which the user can found arguments for greater relaxations. Either way, it could be used as a means by which interests of various parties within the database framework might be balanced and through which a clearer idea may be gained as to what amounts to an insubstantial part of a database.

The options will be canvassed below.

WTO Panel on United States–Section 110(5) of the US Copyright Act.

A starting point for discussion is the interpretation by the WTO Panel of Article 13 TRIPS in the dispute that arose concerning s 110(5)(b) of the US Fairness in Music Licensing Act 1998. This section exempted a majority of bars and restaurants and more than 45% of shops and boutiques in the US from having to pay copyright royalties for the public performance of music (through the use of TV or radio) in their premises. The EC instigated proceedings against the US before the WTO Dispute Settlement Body. In finding that the exception was not in conformity with TRIPS the WTO Panel analysed TRIPS Article 13 in some depth.

Normal Exploitation

On the second part of the test, that of ‘normal exploitation’, the Panel focussed exclusively on economic reasoning to determine its breadth. The Panel considered that

this step meant that an exception must not interfere with the normal mode in which the author exploits a work on the market whether currently or at some point in the future. Exempted uses should not compete with actual or potential sources of gain from economic exploitation of the right such as to deprive the author 'of significant or tangible commercial gains'.⁹⁹

In considering whether a factor to be taken into account was the potential commercial gain to the user the Panel said '...in our view, not every use of a work, which, in principle is covered by the scope of exclusive rights and involves commercial gain, necessarily conflicts with a normal exploitation of that work. If this were the case, hardly any exception or limitation could pass the test of the second condition and Article 13 might be left devoid of meaning because normal exploitation would be equated with full use of exclusive rights.'¹⁰⁰

In other words, the focus is on loss of actual and potential sources of gain to the author, rather than on commercial benefit to the user from which it has been argued that 'Exceptions under national law that do not enter into economic competition (present or potential) with non-exempted uses should therefore not be contrary to the second condition of article 9(2)'.¹⁰¹ Although it would appear from the words used by the Panel that commercial gain to the user might be a factor to be taken into account as suggested by its use of the word 'every'.

In coming to its decision, the Panel was exclusively concerned with economic reasoning. In other words, it was a quantitative assessment (however difficult particularly when looking to potential future gains). This approach has been the subject of academic criticism by commentators who argue that normative and not just economic factors should be brought to bear in deciding whether a particular use would conflict with normal exploitation.¹⁰² In this sense normative would include underlying public policy interests that shape the contours of the law. An example is given in the domain of research: 'an important question ... where the exception relates to research and scholarship or to uses by libraries'¹⁰³

Legitimate interests and unreasonable prejudice

⁹⁹ DS160 Para 6.183

¹⁰⁰ DS160 Para 6.182

¹⁰¹ Ricketson and Ginsburg Para 3.18

¹⁰² Ricketson WIPO p25.

¹⁰³ Ricketson and Ginsburg Para 13.20

The third part of the Berne Three Step test mandates that any limitation should not unreasonably prejudice the legitimate interests of the author. So what might these legitimate interests of the author be? It has been argued that they are both economic and moral.¹⁰⁴ Given the focus of the Berne Convention on the author, this conclusion seems reasonable. The Panel in the WTO case said that one way of looking at legitimate interests 'is the economic value of the exclusive rights conferred by copyright on their holders'¹⁰⁵ but was also quick to point out that legitimate interests are not necessarily limited to this economic value suggesting a balancing test drawing on non-economic factors is indeed to be applied in determining its scope. However these interests should be author centric as the focus of this part of the test is on the author rather than any wider public interest. Thus whereas moral interests such as the right of attribution should be respected the enquiry should not go further into wider public policy concerns. If these are a factor, they should be confined to the second step.

On the matter of the degree of prejudice might be considered as unreasonable, the Panel pointed out that 'a certain amount of prejudice has to be presumed justified as 'not unreasonable'.¹⁰⁶

'In our view, prejudice to the legitimate interests of right holders reaches an unreasonable level if an exception or limitation causes or has the potential to cause an unreasonable loss of income to the copyright owner.'

So once again the Panel was concerned with economic analysis and the interests of the right holders. Nonetheless it is clear that not all loss of income to the copyright owner would be considered as prejudicial as this would not be considered unreasonable. Some have suggested a proportionality test could satisfy this condition. Where prejudice suffered by the author might be considered unreasonable, conditions could be included to make that prejudice reasonable. An example might be the introduction of a compensation scheme where the number of copies made of a particular work exceeds a number considered to result in reasonable loss of income.¹⁰⁷

¹⁰⁴ Ricketson and Ginsburg Para 13.24

¹⁰⁵ DS160 Para 6.227

¹⁰⁶ DS160 Para 6.229

¹⁰⁷ Ricketson and Ginsburg Para 13.26

The two step test and the Database Directive

Going beyond copyright, what then are the implications for the 'two step test' to be found in the Database Directive?¹⁰⁸

As suggested above, the Berne three step test is directed towards ensuring that authors are protected under national laws and that those national laws are in compliance with the obligations to be found in the Berne Convention. The Database Directive is addressed to Member States but the specific Article (8) in the Directive concerns the rights and obligations of lawful users of the contents of a database rather than setting parameters for Member States should they decide to introduce further exceptions to the sui generis right.

So the first line of enquiry – that the two step test is over and above the right of lawful users to extract and re-utilise insubstantial parts of a database - is as to what a lawful user might be able to do over and above extracting and re-utilising an insubstantial part of the contents of a database for any purpose which, but for the two step test, would fall within the sui generis right of the maker.

A lawful user may not perform acts with conflict with the normal exploitation of the database

It will be recalled that the primary function of the Database Directive is to protect the investment of database makers. This is reflected not only in the recitals and Articles of the Directive, but also in the ECJs rulings in the Database cases. That court stressed that the relevant investment was to: 'promote the establishment of storage and processing systems for existing information.'¹⁰⁹ So it is not just investment in general that is the focus of the enquiry, but investment in the establishment of storage and processing systems. Thus

¹⁰⁸ Note also that Article 7(5) of the Directive provides that repeated and systematic extraction and/or re-utilisation of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of the database or which unreasonably prejudice the legitimate interests of the maker shall not be permitted. This was the subject of analysis by the ECJ in BHB where the court said the purpose of this was to prevent extractions and re-utilisation the cumulative effect of which would be to seriously prejudice the investment by the maker of the database. This was 'for the purpose of reconstituting, through the cumulative effects of extraction' the whole or a substantial part of the database and thus prejudicing the investment by the maker of the database. Para 89. For comment see Aplin p146.

¹⁰⁹ BHB Para 31

any activities by lawful users should not conflict with the normal exploitation of the database where those activities impact on the relevant investment of the database maker – other economic harms should not be relevant

The nature of the right under discussion should also be borne in mind. Normal exploitation of a geospatial database may involve the licensing of the data to third parties – i.e. licensing of the database right to extract and/or re-utilise the whole or a substantial part of the contents. But normal exploitation of the database should not be conflated with the development or exploitation of products or works that may be derived from manipulation of the data. Quite different rights are likely to subsist when that data has been further manipulated and, for example, rendered in graphic form by a third party (e.g. copyright in a map). Those rights would not lie with the database maker, but with those who have manipulated the data to render it in a meaningful and visible form. Even where the database maker might manipulate their own data to produce outputs which compete with third parties to whom the data are licensed, such exploitation should not be taken into account in determining the range of ‘normal exploitation’ of the database. To do otherwise would be to leverage the database right into adjacent markets where exploitation (and competition) is on the basis of quite different underlying rights.

Thus any economic prejudice to the database maker should be considered in relation to the economic investment in, and potential exploitation from, the database and not the downstream products. In this way, there would only be conflict with the normal exploitation of the database to the extent that a use by a third party entered into competition with the database maker qua database maker. For instance if a lawful user collected insubstantial parts of the contents of the database originally obtained from the maker such that a substantial part of the original database was reconstructed, and made available through a competing database, then there would be no room to claim that such behaviour was excused on the grounds of this step of the two step test as the activity would such as to deprive the maker ‘of significant or tangible commercial gains’.¹¹⁰ Indeed such behaviour is already enjoined by the Directive.¹¹¹

Problems may however arise where processes are carried out on data by the lawful user. Here arguments as to the underlying public interest may be relevant. For instance a

¹¹⁰ DS160 Para 6.183

¹¹¹ Database Directive Article 7.5 see also fn 108 above

geospatial database maker makes a substantial part of the database available to a lawful user under contract. That lawful user might then carry out extensive (and expensive) checks (verification) and other manipulation on the data such that when complete, the data look little like those originally derived from the first database.¹¹² Would the making available of those derived data deprive the original maker of 'significant tangible commercial gains'? There certainly might be gain to the user but as we have seen, that is not (as) relevant as loss to the original maker. The answer of course might be yes – the original database maker may be deprived of gains because third parties might prefer to licence the manipulated data rather than the original. Would there then be room to argue that the wider public interest possibly underlying the operation of this second step of the test should come into play? It seems for instance that there is a broad public interest in ensuring that resources are not wasted in duplicating effort as where a downstream party has to revert to the original database maker and perform its own expensive operations on the data to come to the same conclusions as the original lawful user. A fortiori where public funding might have been expended in the manipulation of the data¹¹³ or there is a desire to make it available for research and education.¹¹⁴

Control over derived data brings other issues: if derived data on which substantial investment has been expended can be controlled by the original database maker, this is to reach the powers of the database maker into adjacent markets. It means that the original database maker is claiming to itself the value of the investment in downstream derivations and perhaps also the ownership of the resulting product. In the competition law field, public policy has already come to regulate such behaviour in the arena of patent, know-how and software copyright licensing agreements.¹¹⁵ There are compelling arguments to say that such behaviour should not be permitted under the Database Directive. Whether the rather uncertain public policy considerations underlying this part of the test would be capable of being brought to bear in such a scenario is a moot point.

The step as a guide to the interpretation of 'substantial part'

¹¹² There is a temptation here to argue by analogy with the law of copyright – where significant emendations are made to a work then it can form a new work. But the sui generis right is a different right and should perhaps not be interpreted through copyright eyes.

¹¹³ See e.g. Waelde, C and McGinley M, *Public Domain; Public Interest; Public Funding: focussing on the 'three Ps' in scientific research*, (2005) 2:1 SCRIPT-ed 83 @: <http://www.law.ed.ac.uk/ahrb/script-ed/vol2-1/3ps.asp>
Three ps

¹¹⁴ Ricketson and Ginsburg *ibid* n 94.

¹¹⁵ Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements (TTBER).

Thus this first part of the two step test could be useful in judging whether the activities of a user are lawful especially if there is a public interest argument that might be brought to bear. This also brings in the second line of enquiry – that the two step test may be used as an interpretive aid as to the rights of lawful users in relation to an insubstantial part of the contents.

As has been discussed above, the meaning of ‘qualitatively’ a substantial part of a database is hard to determine and there is much room for debate. Reverting to the example given above concerning a geospatial database of 1Tbyte and a third party wanting to publish a map containing data derived from the database. There it was questioned as to what level of investment amounted to a substantial part. Assume now that the pro rata investment in the part to be reused is £50000. At this level it becomes harder to argue that it is qualitatively an insubstantial part of the database even though it is currently unknown what the absolute level of investment should be for subsistence of the right. But assume also that the purpose for which the extraction is to be used is to manipulate the data to create a map to be included within a scholarly journal article. This use most certainly does not conflict with the normal exploitation of the database. The normal exploitation of the database is to licence the contents of the database to third parties and not to create maps for research purposes. Public policy considerations in the advancement of science may argue for this to be judged a qualitatively insubstantial part of the database.

Legitimate interests

On the question of legitimate interests it will be recalled that the Panel considered that these included, even if they were not limited to, the economic value of the rights conferred by copyright on their holders. As with the discussion above, given that the interests of the makers of the database are almost exclusively economic then it is those legitimate interests that should be considered. Once again if an enquiry focuses on the ways in which the maker exploits the database then any prejudice to the legitimate interests would require an assessment of the impact of the use by a lawful user on the investment that the maker has or might be prepared to put into developing the storage and processing system. If this is compromised then so the legitimate interests of the

maker will be prejudiced. A database maker is only likely to suffer unreasonable loss of income where a lawful user creates a database that can be substituted for the original product. That, as with 'normal exploitation' is likely only to be the data in its original raw form – and not where processes have been carried out on it – as it is unlikely, at that point, to be a substitutable product.

Beyond that, it has been suggested that legitimate interests should include moral as well as economic. But this argument is made in the context of authors' rights where moral interests are integral to the construct. It is hard to argue that there are equivalent interests of a database maker that go beyond the economic to the moral. Certainly a database maker may wish to be credited as being the source of the original data but such identification cannot be equated with the moral right of attribution adhering to authors of creative works¹¹⁶.

There is much to be said for deploying the two step test as an aid to interpretation of what amounts to an insubstantial part of the contents of the database. Where the economic interests of the database maker are not harmed,¹¹⁷ where there is no loss of significant economic gain to the database maker, and where public policy considerations could be taken into account so the parameters of what is meant by an insubstantial part of a database could develop balancing the interests of all those affected in this area

Conclusion

Much of this discussion has been speculative. The concern, as stated at the outset, was to consider how useful the Database Directive might be for lawful users using geospatial data as a case study. It was suggested that for this constituency there might be merit in retaining the Directive despite its unproven value for the database industry. The boundaries might be uncertain but with the Directive in place a lawful user has rights which, without the Directive, would not exist.¹¹⁸

¹¹⁶ Berne Convention Article 6bis 1.

¹¹⁷ This is not a requirement for infringement of the sui generis right BHB Para 47

¹¹⁸ Commentators have for a number of years been debating the limits on IP rights, and the extent to which either or both of competition law and human rights might act as a temper on the exercise of those rights. Some argue that factors taking into account these areas should be and are already built into the rights. Deploying the two step test in the ways suggested above would be find room for them also within database law. For a research project mapping the interfaces between IP, competition and human rights see www.law.ed.ac.uk/ahrb and Brown A and Waelde, C *Intellectual Property, Competition and Human Rights: the*

What also needs investigation is how the market might structure itself with, and without the database right in place. Many comments have been made in relation to the utility of private ordering. It has been argued by some that, as contractual relationships are difficult to enforce as between second and third comers (beyond the lawful user or first comer) so in reality control cannot be exerted over data (multiple users with shallow pockets).¹¹⁹ Those arguments are usually made in the context of click-wrap or browse-wrap licences in the densely populated sphere of Internet bargaining and mass market contracting.¹²⁰ In the more organised world of science however the situation differs. It is a world populated by scientists who know something of the law and are generally law abiding. Whether they work within public or private institutions they are buttressed by systems within often risk-averse organisations keen to remain within the boundaries of the law and bargains. With or without the database directive in place, it is unrealistic to believe that databases are going to be developed and their contents made available for free. But this begs a whole series of questions as to how the industry might be structured with the database Directive in place as compared to what it might look like without that protection. How might, for instance, the price of access compare as between having the database directive in place and not having the database directive in place? Might it be lower with the database directive in place because of the ability to control re-utilisation of a substantial part? What does the structure of the scientific database market look like as between systems with protection and those without? Would licensing strategies, dependent on innumerable factors, differ with and without protection and in whose favour might they operate?¹²¹ Without the Directive and competition law aside, it would seem that there is nothing to stop database makers refusing to permit entry to their databases to third parties either at all, or only at a price and on conditions dictated by the

past, the present and the future, (2005) 2:4 SCRIPT-ed 450 @: <http://www.law.ed.ac.uk/ahrb/script-ed/vol2-4/utopia.asp>.

¹¹⁹ Conley J.M et. al, Database Protection in a Digital World, 6 Rich J.L. & Tech. 2, (Symposium 1999) <http://www.richmond.edu/jolt/v6i1/conley.html>

¹²⁰ For an argument in favour of these mechanisms on the Internet see Stone R. and Pernick, J. Protecting Databases: copyright? We don't need no stinkin' copyright 1999 Computer Lawyer Vol. 16 No. 2: 17-21

¹²¹ See generally Licensing Geographic Data and Services. Also for discussion on how a contractual research commons might develop Reichman J and Uhler P A Contractually Reconstructed Research Commons for Scientific Data: International Considerations in Digital Data and Weiss, P. 2002. Borders in Cyberspace: Conflicting Public Sector Information Policies and Their Economic Impacts—Summary Report, at http://weather.gov/sp/Borders_report.pdf for discussion on conflicts between government policies to the protection and exploitation of publicly funded data.

maker conditions which may seek control over even the smallest portion of data within the database enforceable at least as against first comers.¹²²

Before jettisoning the Directive what is needed is much clearer guidance on what amounts to an insubstantial part, and consideration as to how the two step test might be deployed in ensuring that the economic interests of the maker are balanced with those of a lawful user and wider public policy concerns. That investigation needs to take place within the broader context of a consideration of the scientific database industry as a whole and most importantly with the interests of users of data firmly in mind.

¹²² What is interesting is that the provisions making it unlawful to circumvent technological measures (Directive 2002/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society Article 6.3) only come into play where the sui generis right subsists. Thus, if a database is not protected by the sui generis right then it is not unlawful to circumvent technical measures that might be guarding access to the contents. This might suggest that lawful users would be better off without the Database Directive in place as they could simply hack into the contents without fear of liability. However this is not a practical suggestion for technical luddites (like myself) and it is possible that the courts might, in the face of widespread hacking, find alternative causes of action for the database maker, such as trespass to chattels. See for example *Ebay v Bidders Edge* 100 F.Supp. 2d 1058.