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Protection for databases : the European Database Directive and its effects in the Netherlands, France and the United Kingdom

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2 | The definition of a database

2.1 INTRODUCTION

When looking at the Database Directive, the very first thing to consider is the subject-matter it covers. This issue foregoes – and is not to be confused with – the question whether this subject-matter (a database)¹ meets the Directive's requirements for protection.² The Directive deals with these matters separately.³ The subject-matter to which it applies is defined in article 1:

Article 1

1. This Directive concerns the legal protection of databases in any form.
2. For the purposes of this Directive, 'database' shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.

In common parlance, a database is understood as having a digital form. The Oxford English Dictionary describes it as:⁴

'a structured collection of data held in computer storage; especially one that incorporates software to make it accessible in a variety of ways'.

However, the Directive's definition is more extensive since it includes databases in any form.⁵ Yet, it originally covered only electronic databases for its aim was to complement art. 2(5) of the Berne Convention, which already covered

1 In the past, a distinction was sometimes upheld between databases and databanks, but nowadays the legal field considers them synonyms. Compare the Follow-up to the Green Paper – Working Programme of the Commission in the field of copyright and neighbouring rights, COM(90) 584 final, Brussels, 17 January 1991, p. 18, para. 6.2.2.1 and the French Senate's Jolibois report 1997/1998. Following the Directive, we will only use the word 'database'.

2 Also compare Gaudrat 1995, pp. 195-196 as to the subject-matter which is eligible for copyright.

3 Unlike the database definition in the Dutch Databases Act. This requires a substantial investment, which is the condition for protection by the *sui generis* right, see section 3.1.1.

4 *Oxford English Dictionary*, Oxford: Oxford University Press 1992 (2nd edition).

5 Art. 1(1) and recitals 13 and 14.

non-electronic collections.⁶ According to the Explanatory Memorandum to the 1992 Proposal, it was uncertain whether the national copyright provisions on collections of the EU Member States already allowed for the copyrightability of electronic databases; a special directive would remove this uncertainty.⁷ However, after strong criticism of this form distinction, it was abolished in the final Directive.⁸ It was generally considered unwise to uphold a form distinction since works can nowadays be easily converted from an electronic into a non-electronic form.⁹ Moreover, such a 'technology-independent'¹⁰ definition for databases was also required by the 1994 TRIPS Agreement.¹¹ Thus, the final version of the Directive covers databases in electronic, non-electronic or any future form which is still unknown.¹²

Arts. 1(1) and 1(2) of the Directive jointly describe the characteristics of a database. It may have any form and any contents, so it seems, although art. 1(2) imposes several conditions as to its arrangement and the accessibility of

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- 6 Art. 2(2) of the 1992 Proposal and the 1993 Amended Proposal read: 'The definition of database in point 1 of Article 1 is without prejudice to the protection by copyright of collections of works or materials arranged, stored or accessed by non-electronic means, which accordingly remain protected to the extent provided for by Article 2(5) of the Berne Convention.' Also see the Explanatory Memorandum, pp. 41-42, paras. 2.1 and 2.2. The 1988 Green Paper, p. 205, para. 6.1.1 also concentrated on electronic databases.
 - 7 The Explanatory Memorandum, p. 14, para. 2.2.4 acknowledged that 'it would be logical to assume that all data bases should be protected, given that the physical form in which a work is fixed or commercialised is usually irrelevant in copyright terms, as far as its eligibility for protection is concerned.' Yet, it was argued on p. 22, para. 3.1.11 that the creation of a non-electronic collection in the sense of art. 2(5) BC differs from the making of an electronic database, and that the reduction of different genres to a common binary code representation radically alters the nature of the product called 'a compilation'.
 - 8 It was widened to any form as from the 1995 Common Position of the Council. This extension was criticised by French authors, among whom are Vivant 1995, pp. 197-199 and Pollaud-Dulian 1996, p. 540.
 - 9 See Hugenholtz 1992, p. 98 and the Opinion of the Economic and Social Committee on the Proposal for a Council Directive on the Legal Protection of Data Bases, OJEC 1993 C 19/5, para. 3.2. Lucas 1998-I, p. 26, no. 46 and p. 51, no. 103 remarks that the *corpus mysticum* of copyrighted subject-matter remains untouched by the conversion process, whether it is a musical work, a work of art, a database or something else. Moreover, Gaster 1999, p. 31, no. 34 observes that the form of a database is also irrelevant for protection by the *sui generis* right which only requires a substantial investment.
 - 10 See this term in the Ph.D. thesis of De Cock Buning 1998, pp. 245-247 (English summary).
 - 11 Its art. 10(2) speaks of: 'compilations of data or other material, whether in machine readable or other form'. It was the United States that suggested this technology-independent wording during the negotiating rounds for the TRIPS Agreement. See the GATT documents (Working documents within the Negotiating Group), MTN.GNG/NG11/W/70, 11 May 1990, Draft Agreement on TRIPS: Communication from the United States, p. 4.
 - 12 The WIPO Copyright Treaty – adopted in 1996, nine months after the Directive – also contains a technology-independent definition of databases: 'compilations of data or other material, in any form (...)'.

its contents.¹³ The Directive's definition of a database is clearly very broad, which has been widely acknowledged in the literature.¹⁴ This broadness may not be favourable to the Directive's aim of harmonisation because it could cause confusion as to the exact borders of the definition. It is however important to draw a clear picture of the Directive's subject-matter beforehand, as harmonisation of database protection largely depends on an equal interpretation of the notion of a database in all EU Member States. Otherwise, undesirable national differences would be the result, leading to products being protected in one country but not in another.

To sharpen the image of what a database is, this chapter discusses and tries to interpret the characteristic features of databases mentioned in art. 1 of the Directive. To create a more complete understanding, we will begin with a discussion of its forerunner, the collection or compilation.

2.1.1 Collections

2.1.1.1 History of copyright for collections

Since the Database Directive describes a database as a special sort of collection, the term 'collection' deserves a closer look. This term already occurs in art. 2(5) of the Berne Convention. Art. 10(2) of the TRIPS Agreement uses the term 'compilation'. The Directive considers these terms to be synonyms.¹⁵ However, Ricketson notes a slight difference: compilation implies the contribution of skill, whereas skill may be absent in a collection.¹⁶ Yet, like the Directive, we do not uphold this distinction and use the term 'collection' intending to cover compilations as well.

Copyright protection was introduced for collections in the Berne Convention (BC) in 1908. A revision conference took place in Berlin that year, during which the German delegation proposed to add '*recueils d'œuvres de différents auteurs*' (collections of works of various authors) to the non-exhaustive list of literary and artistic works protected by the Convention.¹⁷ This proposal

13 Moreover, paragraph 3 of art. 1 states that the protection under the Directive does not apply to computer programs used in the making or operation of databases accessible by electronic means.

14 See, for example, Spoor 1997, p. 528.

15 See the beginning of recital 13 of the Database Directive: 'This Directive protects collections, sometimes called 'compilations', of works, data or other materials (...)'. Also see note 2.04 accompanying art. 2 of the WIPO Draft Database Treaty: 'It is not intended that the proposed Treaty make any distinction between the two terms'.

16 Ricketson 1987, p. 300.

17 Union Internationale pour la Protection des Œuvres Littéraires et Artistiques, *Actes de la Conférence réunie à Berlin du 14 octobre au 14 novembre 1908 avec les actes de ratification*, Berne: Bureau de l'Union Internationale Littéraire et Artistique 1910, pp. 42, 186, 232-233, 286.

was slightly modified so that from 1908 onwards, '*recueils de différentes œuvres*' (collections of various works) were included in art. 2(2) BC, together with translations and other adaptations of copyrighted works.¹⁸ Since 1948, collections have been included in a separate article in the Berne Convention,¹⁹ which is the current art. 2(5):

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

According to this provision, a collection may contain literary or artistic works, which permits a collection to contain both sorts of works as well. Encyclopaedias and anthologies are only mentioned as examples; other works may be protected as collections, too. Ricketson holds that a collection under art. 2(5) may also be composed of works which were once protected but have now run out of copyright.²⁰ The same was already upheld by the German delegation in 1908.²¹

Art. 2(5) BC does not mention unprotected material as possible contents of a collection. Some national copyright acts expressly recognise the copyrightability of collections of unprotected material, while in other countries this possibility has been accepted in case law. Nowadays, it is accepted that arts. 2(5) and 2(1) BC together cover all collections that are original, whatever their contents.²² As from 1994, this has been explicitly acknowledged on an international scale in the TRIPS Agreement. The first sentence of its art. 10(2) reads:

Interestingly, the explanation accompanying the German proposal stated that the works could also be taken from the public domain, such as works by Voltaire, Goethe or Schiller.

18 Art. 2(2) read in French: 'Sont protégés comme des ouvrages originaux, sans préjudice des droits de l'auteur de l'œuvre originale, les traductions, adaptations, arrangements de musique et autres reproductions transformées d'une œuvre littéraire ou artistique, ainsi que les recueils de différentes œuvres.'

19 In 1948, the Brussels revision of the Berne Convention took place, which placed collections in art. 2(3). Union Internationale pour la Protection des Œuvres Littéraires et Artistiques, *Documents de la Conférence réunie à Bruxelles du 5 au 26 juin 1948*, Berne: Bureau de l'Union Internationale pour la Protection des Œuvres Littéraires et Artistiques 1951, pp. 144-145, 147, 151-152, 157, 159, 533.

20 Ricketson 1987, p. 302.

21 See footnote 17.

22 See WIPO document DB/IM/2 of 30 June 1997, *Existing national and regional legislation concerning intellectual property on databases*, Memorandum prepared by the International Bureau, p. 3, no. 7: 'In recent years, a general consensus seems to have emerged that collections of material other than literary and artistic works are indeed covered by the said provision [art. 2(1)] and are thereby subject to copyright protection under the Berne Convention, provided, of course, that they can be considered "works", that is, that they are original.'

Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such.

This provision includes both copyrighted works and unprotected subject-matter as possible contents of a collection. The same is true for databases, whose definitions in the WIPO Copyright Treaty²³ and the Database Directive are grafted onto art. 10(2) of the TRIPS Agreement. After all, the Database Directive qualifies databases as a special sort of collections.

2.1.1.2 *Inherent characteristics*

The Berne Convention and the TRIPS Agreement do not define their terms 'collection' and 'compilation', as opposed to the Directive's detailed definition of a database.²⁴ Nevertheless, both terms in our view presuppose certain inherent characteristics which distinguish them from amounts of items haphazardly brought together. Such a mere accumulation of unsorted material is not a collection, since in common parlance, a collection is understood to be a group of selected elements viewed as a whole and often arranged in a specific way.²⁵

Thus, a special relationship should exist between the constituent parts,²⁶ which gives the collection its added value.²⁷ This added value may, for example, be represented by the collection's organisational structure,²⁸ or its selection criteria.²⁹ For copyright protection, originality must be apparent

23 The first sentence of art. 5 of the WIPO Copyright Treaty reads: 'Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such.' The agreed statement concerning this article states: 'The scope of protection for compilations of data (databases) under Article 5 of this Treaty, read with Article 2, is consistent with Article 2 of the Berne Convention and on a par with the relevant provisions of the TRIPS Agreement.'

24 Neither Ricketson in his 1987 treatise on the Berne Convention, nor Gervais in his 1998 commentary on the TRIPS Agreement elaborate on the exact meaning of 'collection' and 'compilation'. The U.S. Code does define a compilation in its s. 107: 'A "compilation" is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.'

25 According to the *Oxford English Dictionary*, a collection is: 'a group of objects collected or gathered together, viewed as a whole; a group of things collected and arranged'. Also see Ricketson 1987, p. 299 quoting from the Berne Convention's 1908 revision documents: '(...) bringing together diverse works following a determined plan, according to a more or less ingenious grouping'.

26 See, for example, Quaedvlieg 2000, p. 178; Klos 2000, p. 3.

27 Also see Leistner 2000, p. 48.

28 Lucas 1987, p. 296 no. 261.

29 According to Ulmer 1980, p. 165, the unity displayed in a collection does not have to relate to a special discipline or a confined theme, since newspapers and periodicals are also generally regarded as collections.

from the selection or arrangement of the contents. Indeed, the Berne Convention and the TRIPS Agreement both determine that the content of a collection or a compilation is selected or arranged in such a way that it constitutes an intellectual creation.³⁰ It may be derived from this that at least one of the two features of selection or arrangement – whether original or not – should be present in a collection. For example, a private art collection which does not display an arrangement may in our view still be a collection in the sense of the Berne Convention and the TRIPS Agreement, as it represents a personal selection. This is however different for databases because their definition in the Directive requires that they have an arrangement.³¹

A second characteristic inherent in collections – and databases – is that they are identifiable wholes. This means that they are clearly demarcated as regards their contents.³² This aspect is closely related to the foregoing characteristic, as it is often the selection and/or arrangement which serve as the glue between the components so that these are viewed as belonging together and forming a whole unity. Still, the components do not have to be physically placed together. An electronic collection or a database on the Internet also qualifies as a clearly identifiable whole – although its contents may be stored on several computer servers in different locations³³ – because it may still be accessed from one source, such as a specific web site.³⁴ In this context, the characteristic of an identifiable unity is to be understood in an organisational sense in that a producer provides, under his control and responsibility, stable access to a specific collection or database.

2.2 THE DATABASE DEFINITION

2.2.1 Introduction

Although every database is a collection, not every collection is a database. Databases are *formae specialis* of collections since they need to comply with special requirements that collections in general do not have to satisfy. In order

30 The wording 'selection *and* arrangement' in art. 2(5) BC does not imply that both elements must be present in order for a collection to constitute an intellectual creation. Ricketson 1987, p. 301 explains that the word 'and' in this article is a translation error as the original French text of the Convention read 'ou' (meaning 'or').

31 See section 2.2.3.

32 Vogel in Schricker 1999, p. 1314 no. 1; Quaadvlieg 2000, p. 181. This does not exclude in our view that collections may grow or diminish as their contents may be learnt from an inventory or catalogue.

33 See Mayr 1997, p. 119.

34 Compare the database definition in s. 2(5) of the 2003 U.S. bill called the 'Database and Collections of Information Misappropriation Act' H.R. 3261: 'a collection of a large number of discrete items of information produced for the purpose of bringing such discrete items together in one place or through one source so that persons may access them.'

to qualify as a database, a collection must fit the definition in art. 1(2) of the Database Directive, which reads:

‘database’ shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means

Thus, a collection is a database if:

- it consists of independent items;
- the items are arranged in a systematic or methodical way; and
- the items are individually accessible by electronic or other means.

All three conditions must be met. A discussion of these conditions will follow below. We will also propose further criteria which will sharpen the concept of a database, because in our opinion the current definition is not yet sufficiently distinctive.

2.2.2 Independence of the items

In the first place, art. 1(2) states that the items contained in the collection must be independent. It follows from this requirement in combination with the condition of individual accessibility that each item must represent a value of its own. Indeed, the European Court of Justice has held that independent materials are materials which are separable from one another without their informative, literary, artistic, musical or other value being affected.³⁵

As opposed to *independent* items, *interdependent* items only make sense within the context of the work as a whole. Thus, a work consisting of inter-related items does not meet the definition of a database. Examples are a novel made up of chapters, a video game composed of images and sounds, or a film consisting of actors’ performances, scenery designs, costumes, et cetera. At the same time, a film technically consists of a sequence of images on a celluloid strip. Although individually accessible, these images cannot be considered independent within the context of the film itself.³⁶ Indeed, the creators of the works just mentioned intend these works as a whole to be enjoyed by the public. The result of the requirement of the items’ independency is that auto-

35 European Court of Justice 9 November 2004, Case C-444/02 (Fixtures Marketing Ltd v. Organismoa Prognostikon Agnon Podosfairou AE (OPAP)), ECR 2004, p. I-10549, consideration 29.

36 It is true that sometimes they are separately exploited in the form of still photographs for posters or merchandising. Yet, the fact that parts of a work are marketable in their own right does not suffice the conclusion that they are independent parts *within* the work itself.

nomous works as such which consist of interrelated parts are not databases. This is explicitly declared at the end of recital 17:³⁷

(...) this means that a recording of an audiovisual, cinematographic, literary or musical work as such does not fall within the scope of this Directive.

In practice, however, this recital may not be as clear as it looks. Gaster states that one work may meet two qualifications at the same time.³⁸ For example, a multimedia CD-Rom may qualify both as an audiovisual work and a database. Gaster welcomes this possibility of accumulating qualifications and he approves of the fact that in one product, several parties are awarded rights for their different creative or investing performances.³⁹

Yet, the list of autonomous works in recital 17 is arguably not exhaustive.⁴⁰ It could also have mentioned artistic works.⁴¹ In fact, with artistic works understood in a broad sense such as films, novels, music, or works of visual art, it is clear that their creator intended to make an autonomous artistic work, not a database.⁴² For example, a contemporary form of art called 'installation art' is composed of three-dimensional parts. Yet, installations are not databases because their parts are not independent; they only function as subordinate parts of the work of art as a whole. Another example of an artistic work made of interdependent parts is a series of photographs meant as a unity by the photographer. In our opinion, the intention of the creator is the most authentic and useful factor in determining whether 'a work as such' in the sense of recital 17 or a database is at issue.⁴³

37 The word 'or' after 'recording' in recital 17 of the Directive's English version should have been 'of', since the original French text of the Directive reads: 'une fixation d'une oeuvre audiovisuelle, cinématographique, littéraire ou musicale en tant que telle'.

38 Gaster 1999, p. 40, no. 81.

39 Under the British Copyright Act, a database may qualify for several work categories, such as that of a cable program, or a broadcast or something else, according to Derclaye 2002-II, pp. 472-473. She argues that a single work should not give rise to two or more copyrights in respect of the same creative effort, given the risk of protection-shopping and overprotection. Instead, a borderline work should in her opinion be confined to only one category, namely that which best suits the work's characteristics. She advocates that the only regime to be applied to databases should be that of the Database Directive. In her view, this is a *lex specialis* which excludes the cumulative applicability of copyright under other work categories.

40 Gaster 1999, p. 39, no. 79 holds that this recital is merely of a declaratory nature.

41 Artistic works are one of the two main categories of works recognised by the Berne Convention, next to literary works. The list in recital 17 therefore seems to have been drawn up rather haphazardly.

42 Also compare section 2.2.3.1 on the requirement of a systematic arrangement, and section 2.2.6.

43 Another – in our opinion less suitable – criterion could be the purpose of the user. Although this criterion would in many cases have the same outcome as the criterion of the creator's intention, there may be exceptions. For example, the Zapruder tape showing the assassination of John F. Kennedy could be considered by investigators as a database of chronological-

2.2.3 Systematic or methodical arrangement

2.2.3.1 *Systematic or methodical*

In addition to their independence, items in a collection must also be arranged in a systematic or methodical way in order for the collection to qualify as a database. Whereas collections in general require only a selection *or* an arrangement,⁴⁴ an arrangement is compulsory for every database. The European Court of Justice has ruled:⁴⁵

‘While it is not necessary for the systematic or methodical arrangement to be physically apparent, according to the 21st recital, 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, in the terms of the 13th recital of the preamble to the directive, 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.’

This still leaves the question of when such an arrangement is ‘systematic or methodical’.⁴⁶ In the Netherlands, for example, the courts have dealt with the question whether newspapers in paper form are systematically or methodically arranged. This was denied in two cases. In the first case, the court stated that neither a newspaper nor its job vacancies subsection are arranged in a way that enables a fast and efficient search through individual articles or job vacancies.⁴⁷ The court upheld that the Directive required such an arrangement. However, this decision was overruled by the appeal court which argued that the Directive does not ordain such a specific arrangement.⁴⁸ In a second case, the court argued that a newspaper lacked the character of a reference book

ly arranged pictures which each represent a separate informational value. Also compare footnote 36 on the marketability of individual items.

⁴⁴ See section 2.1.1.2.

⁴⁵ European Court of Justice 9 November 2004, Case C-444/02 (Fixtures Marketing Ltd v. Organismoa Prognostikon Agnon Podosfairou AE (OPAP)), ECR 2004, p. I-10549, consideration 30.

⁴⁶ We believe that these adjectives are more or less synonyms. Also see Bensinger 1999, pp. 173-174.

⁴⁷ President District Court Groningen 18 July 2002 (Wegener v. Hunter Select), CR 2002/5, p. 315; AMI 2002/5, p. 196 note K. Koelman; *Mediaforum* 2002/5, p. 301 note T. Overdijk; *JAVI* 2002/3, p. 100 note W. Pors.

⁴⁸ Court of Appeal Leeuwarden 27 November 2002 (Wegener v. Hunter Select), CR 2003/1, p. 67 note H. Struik; AMI 2003/2, p. 59 note P.B. Hugenholtz; *IER* 2003/1, p. 25 note F. Grosheide; *Mediaforum* 2003/2, p. 60 note T. Overdijk. In the meantime, an index had been added to the job vacancies sections of the newspapers at issue.

in which items are individually searchable and accessible.⁴⁹ Several Dutch authors⁵⁰ state that the text of the Directive does not subject the arrangement to such strict standards as the aforementioned lower courts had done,⁵¹ whereas others express doubt as to whether a newspaper in paper form is a database.⁵²

In the literature, some authors support a restrictive interpretation of the wording 'systematic or methodical'. Derclaye argues that 'the arrangement must be sufficiently useful, i.e. that a sufficient number of people must be able to use the collection in order for it to qualify as a database'.⁵³ Quaedvlieg implies the same, arguing that a database needs to be arranged in such a way that its items can be adequately accessed as information.⁵⁴ In his opinion, an arrangement is not systematic or methodical when it has an aesthetical or a technical, functional, practical, or commercial purpose. He implies that these sorts of arrangements are found only in works which consist of dependent items.⁵⁵ Indeed, such dependent parts are typical for autonomous works and recital 17 excludes these works from qualifying as a database.⁵⁶

Quaedvlieg moreover states that works in which the items are arbitrarily arranged or according to personal taste or preference cannot qualify as databases. They may be collections, but not databases as they are not systematically or methodically arranged. Bensinger argues the same; a database must be arranged by objective and logical criteria.⁵⁷ Collections of music, poetry or something else, which have been composed according to personal, aesthetical criteria do not count as databases in her view, because their essence is in the personal selection and not in the arrangement. However, as soon as such a personal selection is given a logical arrangement, whether by alphabet or in another manner, Bensinger accepts that these collections may qualify as databases.

49 District Court Amsterdam 4 September 2002 (PCM e.a. v. Euroclip), CR 2002/6, p. 381 note H. Struik; *Mediaforum* 2002/5, p. 329 note T. Overdijk; *JAVI* 2002/3, p. 100 note W. Pors; *JAVI* 2002/3, p. 102 note A. Quaedvlieg; *AMI* 2003/1, p. 22 note J. Spoor; *IER* 2003/1, p. 21 note F. Grosheide.

50 Spoor, Struik, Pors and Overdijk in their annotations on the mentioned judgments. Spoor and Pors observed that an unjustified discrepancy would occur if newspapers in a traditional paper form would not qualify as databases, whereas digital newspapers clearly are databases in accordance with recital 21.

51 As a result of their judgments, Dutch newspapers have since added an index to the job vacancies section.

52 Bosboom 2003, p. 15 and Koelman in his annotation on the case *Wegener v. Hunter Select* in *AMI* 2002/5, p. 198. Bojkovski 2003 denies that a newspaper qualifies as a database.

53 Derclaye 2002-I, p. 992.

54 Quaedvlieg 2000, p. 182.

55 For example, a work with elements arranged aesthetically will often be an artistic work, and products with technically arranged parts may, for instance, be household appliances or cars et cetera.

56 See section 2.2.2.

57 Bensinger 1999, p. 133.

Other authors do not support this restrictive interpretation.⁵⁸ Leistner argues that a systematic or methodical arrangement is a *de minimis* threshold which merely requires that the items are arranged by a devised plan, so as to distinguish a database from a disorderly quantity of materials.⁵⁹ In his opinion, an arrangement following aesthetical or personal criteria may also qualify as systematic or methodical.⁶⁰ We do not agree and instead support the more restricted view upheld by Quaedvlieg and Bensinger. A systematic or methodical arrangement requires that the database items are individually retrievable by users other than the maker himself. A user should be able to find one individual item without having to check the whole database contents.⁶¹ This requires an arrangement according to objective, non-personal criteria which are both useful and obvious for users.⁶² We thus believe that the function of the systematic or methodical arrangement is to enable the individual accessibility of the items.⁶³ This might perhaps be expressed more clearly in the Directive's definition.

2.2.3.2 Arrangement as a copyrighted intellectual creation

Protection by copyright is available for a database provided that its selection or arrangement constitutes the author's own intellectual creation.⁶⁴ The copyright condition of 'own intellectual creation' probably requires the author's personal creativity.⁶⁵ One may question whether an arrangement which is systematic or methodical can meet this requirement, since its required usefulness may well prevent it from being an intellectual creation.⁶⁶

58 Kaye 1995, p. 583; Vogel in Schricker/Vogel 1999, p. 1314 no. 1 and p. 1332 no. 6; Leistner 2000, pp. 53-54; Klos 2000, p. 6.

59 Leistner 2000, pp. 53-54. Moreover, recitals 20 and 21 clarify that physical storage of the items in an organised manner is not needed; it seems sufficient to add an index and/or a search program to a disorderly quantity of materials, in order that the user can find his way. Laddie/Prescott/Vitoria 2003, p. 1065, para. 30.21 footnote 2 remark that recital 21 is essential because electronic data may not physically be stored in a way which could be called systematic or methodical.

60 For example, a list of the world's best novels according to the Nobel Prize winner John Coetzee, numbered from one to a hundred in the order of descending quality, would in his view be a perfect database.

61 The list by Coetzee mentioned in the preceding footnote is thus not a database in our view.

62 As Derclaye 2002-II, p. 468 argues, an arrangement must be understandable to at least a selected group of users, such as experts in the field. We agree with her where she writes: '(...) a non-haphazard collection of materials which is arranged in a very personal way, not readily understandable to anyone other than its maker/author, would not qualify.' See Derclaye 2002-I, p. 992 and Derclaye 2002-II, p. 469.

63 Also see Quaedvlieg 2000, p. 185 and Bensinger 1999, p. 130.

64 Art. 3(1) of the Database Directive.

65 See more extensively on the Directive's originality criterion section 3.2.1.

66 On the contrary, a collection with an original arrangement which is not systematic or methodical does not even qualify as a database. Yet, it may qualify for copyright as a collection under art. 2(5) BC.

Quaadvlieg suggests that the Directive's originality criterion may not be so stringent as to require a database's selection or arrangement to bear the personal imprint of the author or reflect his personal view. In his opinion, the Directive possibly uses a lower threshold.⁶⁷ He consequently argues that a small category of databases could still enjoy copyright for an arrangement which is original and systematic or methodical at the same time.⁶⁸ Kéréver and Derclaye support the same view.⁶⁹ On the other hand, a database with a non-original systematic or methodical arrangement may still enjoy copyright for its original selection, in accordance with art. 3(1).⁷⁰

2.2.3.3 Fixation

The European Court of Justice derives from the requirement of the systematic or methodical arrangement that a database must be fixed.⁷¹ Indeed, electronic databases and databases in general cannot very well be imagined without fixation. The Directive explicitly requires fixation for electronic databases; recital 13 demands these to be 'arranged, stored and accessed by means which include electronic, electromagnetic or electro-optical processes or analogous processes'.⁷²

The Directive does not explicitly impose storage requirements on non-electronic databases.⁷³ Yet, it prescribes that the items of a database are individually accessible. Thus, a database should offer users the possibility to retrieve its data.⁷⁴ This requirement together with the arrangement require-

67 Quaadvlieg 2000, p. 184.

68 A database with an arrangement which has not been introduced before could be considered original, while at the same time this would not exclude that it has a sufficiently systematic and/or methodical arrangement in the sense supported above.

69 Kéréver 1987, p. 77; Derclaye 2002-I, p. 994.

70 Copyright is generally not available for databases with an ordinary alphabetical or chronological arrangement which also lack an original selection. An example may be a database which is comprehensive, e.g. containing all chair designs by Ludwig Mies van der Rohe. Still, it may perhaps be argued that an original, personal selection is, for example, present in a *catalogue raisonné* containing all authentic paintings by Rembrandt or Van Gogh given that the authenticity of several of their works is in dispute. Also see section 3.2.1 on the originality criterion in the Directive.

71 European Court of Justice 9 November 2004, Case C-444/02 (Fixtures Marketing Ltd v. Organismoa Prognostikon Agnon Podosfairou AE (OPAP)), ECR 2004, p. I-10549, consideration 30. See its quotation in section 2.2.3.1.

72 A database does not necessarily have to be fixed on just one carrier. For example, an online database may be stored on several computer servers, see section 2.1.1.2. Moreover, it seems irrelevant whether the storage is permanent or transient since the Directive also covers dynamic or real-time databases which are constantly being updated, such as databases with stock market transaction data or racing results.

73 The relevant recital 14 merely states: '(...) protection under this Directive should be extended to cover non-electronic databases.' According to Gaster 1999, p. 30, no. 29, recital 13 deals with electronic databases, while recital 14 concerns non-electronic databases.

74 Also see section 2.2.4.

ment imply that non-electronic databases must also be stored. Therefore, a database by its nature is fixed. To remove any legal uncertainty – fixation is not required for protection by copyright under continental legal systems⁷⁵ – it may be useful to add the fixation requirement to the Directive's database definition.

2.2.4 Individual accessibility of the items

The database definition requires that the items are individually accessible, which supplements the requirement that they must be independent.⁷⁶ Individual accessibility means that users have the possibility to search among individual items in the database. In our view, this requirement is not met when a user has to check the whole contents in order to find a specific item. Searching and finding may be done directly by using the database's arrangement, or indirectly by means of an index, a thesaurus or computer program.⁷⁷

Quaadvlieg remarks that individual accessibility relates to the information purpose of the database and that it thus is an important requirement.⁷⁸ Klos argues, on the other hand, that this requirement has little value next to the requirement of independence. In his view, the individual accessibility is a technical requirement which will become obsolete in the future.⁷⁹ However, we believe that usability and usefulness are important features of a database. The Directive recognises this as well, since the three requirements of the database definition are clearly instrumental to the usability and usefulness of a database. Moreover, these requirements are interdependent⁸⁰ and all three must be fulfilled in order for a collection to qualify as a database.

According to Hugenholtz, individual accessibility implies that a user should be able to find every single item in the database; otherwise the database can only obtain protection on the part of items that can actually be found.⁸¹ Quaadvlieg argues that all items in a database should permanently be available for users.⁸² He takes a library as an example; as soon as an important part

75 However, in common law countries such as the United Kingdom, fixation (or recording) of the work is a general requirement for copyright protection. The addition of a fixation requirement would thus also serve harmonisation purposes.

76 Klos 2000, p. 5; Bensinger 1999, p. 130.

77 Also see Bensinger 1999, p. 131.

78 Quaadvlieg 2000, pp. 184, 185.

79 Klos 2000, p. 5.

80 For example, a database's arrangement is indispensable for the individual accessibility of its parts, while such accessibility is vital given that the parts are independent so that each represents a value of its own.

81 Hugenholtz 1996, p. 132.

82 Quaadvlieg 2000, p. 185.

of its books is lent out, it is no longer a database.⁸³ This may seem an arbitrary approach; popular libraries would thus not qualify as databases, whereas rarely visited libraries would.⁸⁴ Furthermore, the same library will be a database one week but not another week.⁸⁵ It also raises the question whether a library ceases to be a database as soon as books are stolen.⁸⁶ Moreover, in Quaadvlieg's approach, the fact that items in non-electronic databases are not always completely available could put them at an unjustified disadvantage compared to electronic databases.⁸⁷ It may thus be arbitrary to require the contents of a database to be always fully available.⁸⁸ Another objection is that the Directive does not explicitly contain this condition.

2.2.5 Contents

2.2.5.1 Introduction

Although the component 'data' in the term 'database' could suggest otherwise, a database in the sense of the Directive may be composed of far more than data. According to art. 1(2), a database may contain works, data or other materials. This is specified in recital 17:

the term 'database' should be understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data

The wording 'other material' in this recital seems to imply that anything goes, as it is accompanied by a non-exhaustive list of examples. Consequently,

⁸³ In the same approach, for example, museum collections would not be databases, as objects are often lent to other museums. Quaadvlieg seems to presuppose that the contents of a non-electronic database need to be physically together, although the Directive does not explicitly contain this condition.

⁸⁴ Archives could also qualify as databases according to Quaadvlieg, as they do not allow visitors to take material home. However, one could object that even within an archive, an original document used by one visitor is not available for another visitor.

⁸⁵ One could also argue that the subset present in the library building is a database in itself, although one may doubt its identifiability (see section 2.1.1.2) given that this subset's content is only arbitrary.

⁸⁶ We doubt this in the same way as we doubt that a telephone directory from which a page has been torn ceases to be a database.

⁸⁷ Not only are the contents of an electronic database always completely available but an online version can even be consulted by a multitude of users at the same time. Still, for licensing reasons, an online database is sometimes technically installed in such a way that one item can only be consulted by one user.

⁸⁸ Derclay 2002, p. 1009-1011 also disagrees with Quaadvlieg; she states that individual accessibility does not imply the permanence of the items, so that the temporary removal of items does not disqualify a collection from being a database.

several inventive examples of databases have been suggested in the literature such as a student's room,⁸⁹ a carnival parade,⁹⁰ a china cabinet,⁹¹ a deck of cards,⁹² a collection of butterflies⁹³ et cetera.⁹⁴ They led Gaster to admit that the criticism of the broadness of the definition is not entirely unsound. Although collections of stamps or minerals may satisfy the definition of a database, he believes that these are far-fetched examples.⁹⁵

Interestingly, the Explanatory Memorandum to the 1992 Proposal restricted the contents of a database to "information", in the widest sense of that term'.⁹⁶ It should, however, be noted that this explanation accompanied the first draft of the Directive, which only covered databases in electronic form. Given that it is not easy to imagine an electronic database containing three-dimensional objects, such objects were excluded from its definition.⁹⁷ However, the Directive finally adopted covers databases in any form and this appears to have opened the door to contents of any sort.

2.2.5.2 Works

Art. 1(2) and recital 17 expressly include as database contents works in the sense of copyright, which may well cover works in three-dimensional form, such as works of art, books, et cetera. This is not new where the database's *genus* of collections is concerned, since art. 2(5) of the Berne Convention already covered collections of literary and artistic works. This article mentions encyclopaedias and anthologies only as examples, which leaves room for other works to qualify as collections as well.

Case law on the copyrightability of collections of three-dimensional works is scarce, but a few cases have appeared in which such collections were deemed eligible for copyright. In 1997, the Paris court of appeal granted copyright protection to a museum collection by qualifying it as a work, although not

⁸⁹ Quaadvlieg 2000, p. 177.

⁹⁰ Visser 1999-III, p. 374.

⁹¹ Speyart 1996-I, p. 153.

⁹² Karnell 1999, p. 330 footnote 5.

⁹³ Hugenholtz 1996, p. 132.

⁹⁴ In our view, the first four examples may be ruled out by the requirements already dealt with. The first three most probably lack a systematic or methodical arrangement, while a deck of cards does not contain independent items which represent a value of their own.

⁹⁵ Gaster 1997-I, p. 673. He argues that recitals 17 and 19 to 21, along with the requirement of individual accessibility in art. 1(2), can lock out such far-fetched examples. Also see sections 2.2.5.2 and 2.2.5.4.

⁹⁶ Explanatory Memorandum, p. 19, para 3.1.1.

⁹⁷ Explanatory Memorandum, p. 41, para. 1.1: "The term "database" is to be taken to include collections of any types of materials in the literary, artistic or musical fields such as texts, images, sounds, and also numbers, data, facts and pieces of information and the like. It is not intended to include three-dimensional objects (...)'.

specifying it as a collection.⁹⁸ The Dutch Supreme Court has acknowledged that a stylist may be granted copyright for his or her creativity in selecting and arranging several objects for a photograph, which was taken by someone else.⁹⁹ In Germany, an exhibition of works of art was granted copyright.¹⁰⁰ However scarce, this case law shows that courts are willing to accept that collections of three-dimensional subject-matter are eligible for copyright. Several authors in France, Germany and the Netherlands also hold that an exhibition of works of art may be considered a collection in the sense of copyright.¹⁰¹ This seems not to be accepted in the United Kingdom, where the Copyright Act categorises compilations as a subset of literary works. This allows a compilation to contain text and/or images¹⁰² but its categorisation as a literary work arguably does not permit it to consist of artistic works.¹⁰³

98 The mise en scène of the collection of the Paris Musée du cinéma was awarded copyright and the heirs of the creator could thus successfully invoke moral rights in CA Paris 2 October 1997 (*Association Henri Langlois et autres v. Cinémathèque française et autres*), *D.* 1998, p. 312 note B. Edelman; *RIDA* 1998/176, p. 422 (appeal against TGI Paris 5 March 1997, *RIDA* 1997/172, p. 306 where copyright was denied), also see Cornu/Mallet-Poujol 2001, pp. 218-228. In 1988, a collection of cars was denied copyright as a work of art but, instead, it was qualified as an 'œuvre de l'homme' (work of man) and awarded protection *sui generis* akin to copyright's moral right (CA Paris 15 March 1988 (Schlumpf), *D.* 1988, p. 542 note B. Edelman). Also see Cornu/Mallet-Poujol 2001, p. 216. See Dufour 1999 on the copyright qualifications of an exhibition.

99 HR 1 June 1990 (*Lamoth v. Kluwer*), *NJ* 1991, no. 377 note D. Verkade; *Informatierecht/AMI* 1991, p. 7 note J. Spoor; *Ars Aequi* 1991, p. 71 note H. Cohen Jehoram. However, in a similar British case, the setting for a photograph was not held eligible for copyright as it did not fit into the work categories known in the CDPA (*Creation Records Ltd. & Ors v. News Group Newspapers Ltd.* [1997] *E.M.L.R.* 444, as described in Hoffman 1999, pp. 140-142).

100 Oberlandesgericht Düsseldorf 30 July 1981 (Wanderausstellung), *Schulze OLGZ* 246, p. 4.

101 In France, this point of view is expressed by Dufour 1999, in Germany by Fromm/Nordemann 1998, p. 98, no. 2 and Zimmermann 1993, pp. 107, 177, and in the Netherlands by Spoor/Verkade/Visser 2005, para. 3.6, p. 62 and para. 3.57, p. 136. Van Lingen 2002, p. 32 argues that a building with matching sculptures, wall paintings and stained-glass windows created under the supervision of an architect is a compilation, as well, but we believe that the architect's intention was to make an artistic work as such (a *Gesamtkunstwerk*). Edelman accepts a museum collection to be a work, but not a compilation in his annotation on the 1997 Paris case of the Musée du cinéma (see footnote 98); mentioning a judgment of 1983 (CA Paris 8 June 1983, *D.* 1983, *inf.rap.*, p. 511), he writes: 'On observera, néanmoins, que cet arrêt avait ouvert la voie: si une exposition pouvait être, fût-ce indirectement, l'émanation d'un catalogue, alors il fallait bien en déduire un rapport d'homologie entre l'un et l'autre! En d'autres termes, rien ne s'opposerait à ce qu'une exposition «réalise», *in concreto*, un ouvrage.' In other words, if an exhibition catalogue is considered a work, nothing prevents the exhibition itself from being recognised as such.

102 Copinger and Skone James 1999, p. 62, no. 3-14; Laddie/Prescott/Vitoria 1995, p. 32, no. 2.29.

103 See section 3.1.3. In the German Copyright Act, collections are not expressly categorised as literary works, but Ulmer 1980, p. 164 states that they are to be regarded as such. Hence, he holds that they cannot consist of coins, stamps, minerals, butterflies, beetles, works of art, et cetera. According to Ulmer, such material can only form collections when *reproduced* in anthologies, catalogues or suchlike.

As for databases, common sense feels uncomfortable about accepting that all possible material may form a database. It is especially the three-dimensional subject-matter that causes friction.¹⁰⁴ However, since the definition of a database in art. 1(2) expressly includes works of authorship, the Directive apparently accepts three-dimensional copyrighted material as database contents. Thus, for example, collections of books (as in libraries), works of art (galleries, museums), or gramophone records (jukebox) are all capable of qualifying as databases.¹⁰⁵ It would be legally unjustified to treat a music collection stored in a computer memory differently from the same collection in the form of gramophone records in a jukebox.¹⁰⁶ The Directive has acknowledged this by accepting both electronic and non-electronic databases within its scope.

Even though a collection with three-dimensional material may in principle qualify as a database – whether its content is copyrighted or not (or no longer) – it still has to satisfy the three requirements in the database definition. Especially the requirement of a systematic or methodical arrangement is not always met with collections of three-dimensional material.¹⁰⁷ Such an arrangement will probably be present in collections which primarily serve the information purposes of the public, such as those in libraries or archives.¹⁰⁸ Yet, a database has to overcome still more hurdles in order to obtain protection under the Directive. Even if some collections with three-dimensional material will meet the copyright and/or *sui generis* right threshold, they will probably be of limited economic importance in practice so that legal conflicts are less likely to occur than with databases containing information.¹⁰⁹ Indeed, the more people are interested in reproducing its contents, the more a database will profit from the Directive's protection.

104 According to the 2003 U.S. bill called the 'Database and Collections of Information Misappropriation Act' H.R. 3261, databases contain information, which is defined in s. 2(8) as 'facts, data, works of authorship or any other intangible material capable of being generated or collected'. All contents must thus be intangible.

105 In the same sense Galli 2006, pp. 457-460.

106 Also compare Galli 2006, pp. 457, 460. On the other hand, Derclaye 2002-I, p. 1003 advocates excluding collections of tangible materials from protection under the Directive. Her main argument is that the dissimilarity between the markets of collections of tangible and intangible materials supports their different legal treatment. She discusses arguments both for and against the exclusion of physical objects on pp. 998-1003.

107 For example, a temporary exhibition in a museum is not always presented in a systematic or methodical way (see our strict interpretation in section 2.2.3.1) but according to personal preferences. Still, other presentations may perhaps qualify. Mayr 1997, p. 116 indeed argues that exhibitions and museum collections may qualify as databases. Derclaye 2005, p. 22 implies the same.

108 See section 2.2.6.

109 See Quaadvlieg 2000, pp. 178 and 179. Also see Spoor/Verkade/Visser 2005, para. 16.5, p. 614.

2.2.5.3 Data

Apart from copyright works, a database may also contain non-copyright material which art. 1(2) calls 'data or other materials'. This wording seems to cover virtually anything.

The Directive does not define data. The 1992 draft of the Directive did not yet mention the term 'data', but only 'works and materials'. According to the European Commission, 'materials' covered data as well.¹¹⁰ Nonetheless, data were added as a separate category as from the 1993 Amended Proposal.¹¹¹ A sound interpretation of 'data' is the 1984 definition¹¹² by the International Organization for Standardization (ISO), reading:¹¹³

a representation of facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing by human beings or by automatic means.

To be capable of being communicated, facts, concepts or instructions must be represented, for example, in writing, drawing, photography, film or other form, whether analogue or digital. The resulting representations are called data, provided that they do not qualify for copyright, in which case they represent works.

Gaster states that data discovered in nature are not covered by the Directive, but neither he nor the Directive supplies any grounds for this.¹¹⁴ In our opinion, representations of scientific facts perfectly fulfil the ISO definition and the Directive. However, as data are man-made (or computer-generated) representations, they do not include biological material belonging

110 During a 1992 LAB meeting, suggestions were made to use 'data' or 'information' instead of 'materials', but the European Commission replied that it preferred 'materials' above data or information as it is the widest term possible. See Réunion du Legal Advisory Board (LAB), Luxembourg, DG XIII, 1 juillet 1992, Dossier No. 92/2: 1. La proposition de directive relative à la protection juridique des bases de données: synthèse des discussions (par J.P. Triaille), p. 4: 'Le terme "matière" a été retenu parce qu'il a semblé le plus large possible, de préférence à "data" ou à "information" (...)'.
 111 The Explanatory Memorandum to the 1993 Amended Proposal, p. 2 called this addition (proposed by the European Parliament) a modification of an editorial nature. However, it was very probably inspired by art. 10(2) of the TRIPS Agreement, which was then still in a propositional phase.

112 This definition was already mentioned by Hugenholtz 1989, p. 10. The current ISO definition of data includes the ambiguous notion of information (see section 2.2.6), which makes it less suitable. It reads: a reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing (ISO/IEC 2382-1:1993 Information Technology – Vocabulary – Part 1: Fundamental Terms).

113 ISO 2382-1:1984 (01.01.01).

114 Gaster 1999, p. 37, no. 66. Also see Klos 2000, p. 3 footnote 11.

to nature.¹¹⁵ Moreover, in common parlance, data do not include three-dimensional material, either.¹¹⁶

2.2.5.4 *Other materials*

The residual category of ‘other materials’ seems nearly all-embracing. Yet, like data, ‘other materials’ only include non-copyright subject-matter. Recital 17 mentions texts, sound, images, numbers, or facts as examples of ‘other material’. Since the wording ‘such as’ foregoes these examples, ‘other materials’ may include three-dimensional objects. Consequently, a collection of mounted butterflies or a botanical garden may arguably qualify as databases, too. Still, as we concluded at the close of section 2.2.5.2, the commercial and practical significance of databases containing three-dimensional material will probably not be great.

From the examples in recital 17 it may be derived that the categories of ‘other materials’ and ‘data’ might well overlap to a great extent. Indeed, the numbers and facts mentioned are already covered by the category of data, while the texts, sound and images in recital 17 are forms of expression which data (but also works of authorship) can have as well. However, a difference is that ‘other materials’ do not have to represent facts, concepts or instructions and may be three-dimensional as well. This category is therefore potentially larger than that of data.¹¹⁷ Thus, the ‘data’ in the Directive appear to be a subset of the category of ‘other materials’, which corresponds with the point of view expressed by the European Commission in 1992.¹¹⁸

2.2.6 Information purposes

Several authors have challenged the broad database definition by arguing that a restrictive interpretation follows from the tenor of the Directive. Hugenholtz states that the Directive covers only information products,¹¹⁹ while referring

115 Thus, ‘material’ such as animals and human beings (living or dead), organs, biological samples from which genetic information can be derived (e.g. blood, also see Bovenberg 2005), plants, trees, stones, et cetera are not called data. However, they can still be covered by the category of ‘other materials’.

116 The *Oxford English Dictionary* describes data as: ‘the quantities, characters, or symbols on which operations are performed by computers and other automatic equipment, and which may be stored or transmitted in the form of electrical signals, records on magnetic tape or punched cards, etc, or: facts, esp. numerical facts, collected together for reference or information’.

117 For example, recorded bird whistles and photographs of the earth taken by a satellite may be other materials but perhaps not data. Also see footnote 115.

118 See footnote 110.

119 Hugenholtz 1996, p. 132. Also see Vivant 1995, p. 198 calling a database an ‘ensemble informationnel’.

to the Explanatory Memorandum of the First Proposal which restricted the contents to “‘information’, in the widest sense of that term’.¹²⁰ According to Hugenholtz, limiting the database contents to information would imply that collections of stamps or butterflies cannot be databases. However, both collections can equally well be considered information products in our view depending on the context in which they are presented, for example, in a museum.¹²¹ Although there are many different definitions of the term ‘information’, most have in common that they define information as the meaning which data convey to a recipient. Thus, what is information for one person would not be perceived as such by another person who already possessed the knowledge. This dependence on the recipient’s level of knowledge makes ‘information’ a subjective and ambiguous notion.¹²² Moreover, it could lead to a confusion in interpretation because in a copyright context, the notion of information is sometimes used as a broad term covering also works of authorship, such as three-dimensional works of art.¹²³ Some authors convincingly consider this to be a devaluation of works of authorship.¹²⁴ The term information thus does not seem suitable to restrict the sort of contents included in a database.

Nevertheless, common sense is certainly in favour of a restriction of an ‘informational’ character. Already in 1982, Spoor defined a database as ‘a storage place of data for information purposes’.¹²⁵ Quaedvlieg applauds Spoor’s definition and argues that the term ‘information’ is interwoven with the condition of the items’ individual accessibility, as this accessibility serves information purposes.¹²⁶ In his opinion, what makes a database is not the nature of its contents, but the fact that this content as a whole of independent items is made individually accessible via a specific system.¹²⁷ In other words,

120 However, see the end of section 2.2.5.1.

121 In the same sense Quaedvlieg 2000, pp. 179, 186; Galli 2006, p. 459-460.

122 Also compare Gerbrandy 1992, p. 42.

123 Grosheide 1986, p. 317 advocated the introduction of the term ‘cultural information’ in copyright legislation, instead of science, literature and art. Hugenholtz 1989, pp. 65 and 181 defended the ‘informational’ character of copyright works. Also see the WIPO Draft Database Treaty, which speaks of ‘many kinds of works and other information materials’ in note 2.02 on the treaty’s database definition.

124 Gerbrandy 1992, p. 43; Lucas 1998, pp. 24-27, nos. 42-46; Lucas/Lucas 2001, p. 65 no. 57: ‘Or toutes les informations ne sont pas des œuvres et ce n’est que par une approche exagérément réductrice qu’on peut ramener les œuvres à des informations. (...) *Roméo et Juliette*, la *Vénus de Milo*, le *Boléro* de Ravel sont-ils des «informations»? Peut-on encore parler de la finalité culturelle du droit d’auteur s’il faut s’interdire d’opérer la moindre distinction entre des résultats sportifs et un poème de Kipling?’.

125 Spoor 1982, p. 95.

126 Quaedvlieg 2000, pp. 184-186. Also see Bensinger 1999, pp. 126 and 169.

127 In the same sense Bensinger 1999, p. 130.

it is crucial that the author made the database for information purposes.¹²⁸ Derclaye agrees with Quaedvlieg and she is in favour of revising the Directive's definition so that it includes only databases with information purposes.¹²⁹ This specification would conveniently disqualify far-fetched collections of three-dimensional materials such as carnival parades, zoos, works of art,¹³⁰ product displays in shops,¹³¹ et cetera.¹³² We agree with Derclaye that adding information purposes to the database definition would be sensible as it considerably narrows the current broad definition.

2.2.7 A large number of items

Some authors have argued that a collection must contain a considerable amount of items in order to be a database.¹³³ The Directive does not require this¹³⁴ and the insertion of such a requirement was rejected by both the European Council and the Commission.¹³⁵ Although the Directive imposes no minimum numerical threshold,¹³⁶ it has been suggested that the number of items in a database is not irrelevant to the requirements in the database definition. A database must be systematically or methodically arranged and for this, a critical number of items are needed according to Quaedvlieg.¹³⁷ However, Klos argues that an arrangement can be present also in a collection

128 Quaedvlieg's approach, we believe, bears a resemblance to the importance we attached to the intention of the creator in section 2.2.2. Indeed, when the creator meant his work to contain independent items for information purposes, this is a clear indication that his intention was to make a database rather than another sort of work.

129 Derclaye 2002-I, pp. 1009, 1010. She proposes to introduce the term 'infobase' instead of database in a future international treaty on database protection.

130 See the close of section 2.2.2.

131 Like, for example, in a market stall, supermarket or snack bar.

132 Collections in libraries or archives may still qualify as they are compiled to inform and educate the public.

133 For example, Derclaye 2002-I, pp. 997, 1010.

134 Explanatory Memorandum 1992, p. 41 para. 1.1: 'This Directive cannot determine the minimum number of items to be selected or arranged in order to qualify for copyright protection as a collection. Each case will have to be decided on its own merits.'

135 Common Position adopted by the Council on 10 July 1995, *OJEC* 1995 C 288/14, p. 24: '[The Council] has not accepted, for the same reasons as the Commission, the European Parliament amendment which sought to include in the definition of database 'a large number' of works, data or other material: this amendment would have given rise to problems of interpretation and is inconsistent with the definition in the Trips Agreement and with the discussions in progress in the WIPO on a possible protocol to the Berne Convention.' Also see Leistner 2000, p. 45.

136 Grützmacher 1999, p. 168 argues that in common parlance, a collection is understood to contain a considerable amount of items. Klos 2000, p. 2 is of the opposite opinion and argues that the term collection does not imply a minimum numerical threshold. Quaedvlieg 2000, p. 178 agrees with Klos.

137 Quaedvlieg 2000, p. 186. Also see Derclaye 2002-I, p. 997.

of only two or three items.¹³⁸ They both agree that small collections may well represent a substantial investment so that they can be eligible for the *sui generis* right just as much as large collections.

Derclaye rejects protection for small collections and she proposes to introduce the requirement of a large amount of items.¹³⁹ Its interpretation should in her view be left to the courts. This requirement of a large amount of items is already known from the so-called 'catalogue rule' in Scandinavian copyright law.¹⁴⁰ The catalogue rule affords copyright to catalogues, tables and similar compilations subject to the main condition that they contain a large number of items. This condition is assessed by the Nordic courts on a case by case basis. Bensinger points out that the rationale of the catalogue rule is to protect high investments in labour and money.¹⁴¹ Because difficulties were expected in demonstrating the required investment, it was decided to protect catalogues with a large number of items as they were presupposed to represent the required investment. However, it has been objected in the Nordic literature that a catalogue with a small number of items may have required a high investment as well. Moreover, a large catalogue that lacks a high investment cannot be refused protection under the current Scandinavian copyright acts, and it was advocated that the requirement of high investment should have been added in these acts.¹⁴²

Furthermore, Bensinger points out that the catalogue rule's requirement of a large number of items also serves to prevent that access to individual data is blocked.¹⁴³ Under the Database Directive, the *sui generis* right may provide protection against the extraction or reutilisation of an individual item in a database subject to the condition that this item represents a substantial part of the total database. Many authors have put forward that this could amount to an undesirable monopolisation of mere facts or data.¹⁴⁴ Moreover, this is contrary to recitals 45 and 46 which declare that the *sui generis* right does not constitute an extension of copyright protection to mere facts or data, nor does it create a new right in the works, data or materials themselves. To avoid the monopolisation of an individual fact or data by the *sui generis* right, we

138 Klos 2000, p. 2.

139 Derclaye 2002-I, p. 997. Similarly, a database is defined in s. 2(5) of the 2003 U.S. bill called the 'Database and Collections of Information Misappropriation Act' H.R. 3261 as: 'a collection of a large number of discrete items of information produced for the purpose of bringing such discrete items together in one place or through one source so that persons may access them.' See footnote 104 for this bill's definition of information.

140 Karnell 1991, p. 71. See extensively on the catalogue rule Bensinger 1999, pp. 3-81.

141 Bensinger 1999, pp. 27, 154.

142 Bensinger 1999, pp. 29-30. She questions, however, whether a large catalogue made without much effort will enjoy protection under the catalogue rule, as she argues that even a strict application of the requirement of a large number of items sometimes needs interpreting according to the rationale of the catalogue rule.

143 Bensinger 1999, p. 28.

144 Chalton 2001, p. 299; Colston 2001; Klos 2000, p. 2; Bensinger 1999, p. 210.

therefore argue that a database should at least contain so many items that one of them cannot be considered qualitatively or quantitatively as a substantial part. This is the appropriate approach in our opinion to assess whether a collection consists of sufficient elements to be a database.¹⁴⁵

2.3 SUMMARY

A database is a *species* of the *genus* of collections, which was already known from the Berne Convention and the TRIPS Agreement. Although these treaties left the concept of collection (or compilation) undefined, we believe collections have certain inherent characteristics. Firstly, the items in a collection have been selected and/or arranged according to a specific guiding principle, which causes the total value of the collection to exceed the values of its individual constituent parts. Secondly, collections are clearly demarcated, identifiable wholes.

A collection has to meet extra conditions in order to be a database. The Directive's definition of a database contains three requirements regarding the database contents, which must cumulatively be fulfilled. Firstly, its items should be independent. This criterion distinguishes a database from an autonomous work, in which the parts are interdependent. In our view, the intention of the creator is the decisive factor for this assessment. Yet, it may sometimes occur that a work may be qualified both as a database and a work as such, causing it to enjoy several different rights. The second requirement in the database definition is that the contents of a database must be systematically or methodically arranged. This requires an arrangement according to objective, non-personal criteria which are both useful and obvious for users. Thirdly, the items in a database must be individually accessible. This means that a user, by way of the systematic or methodical arrangement, is able to find one individual item without having to check the whole database contents. Databases may be either electronic or non-electronic and they require fixation, whether permanent or temporary.

The contents of a database may consist of works, data or other materials. This enables collections of three-dimensional material to qualify as databases. A useful addition to the database definition would be to specify that a database must be for information purposes. This could clarify the intentions of the Directive and exclude far-fetched databases. No requirement concerning the amount of items is needed in our opinion. Nevertheless, we believe that a database should at least contain so many items that one of them cannot be considered qualitatively or quantitatively a substantial part.

¹⁴⁵ Also see section 4.5.2.1 on the substantial part criterion.

In view of the above, we are of the opinion that it would be useful to restrict the broad database definition in art. 1(2) of the Directive. A revised definition could have the following wording:

A 'database' shall mean a collection *for information purposes, in a fixed form*, consisting of independent works, data or other materials, arranged in a systematic or methodical way *so that they are* individually accessible by electronic or other means.