# LEGAL PROTECTION FOR MULTIMEDIA WORKS

by

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## ABSTRACT

The protection of multimedia presents a significant challenge for the contemporary legislator. Being one of the greatest technological developments and added-value assets in the Information Society, multimedia prevails as a phenomenon. However, law and practitioners treat multimedia as being many different products and services, rather than as a new 'work', since multimedia per se is not expressly protected under a single regime of protection. This perplexed situation necessitates clarification, as it is unclear what multimedia really is, and how it should be protected.

It is therefore necessary to establish a clear picture of what multimedia entails, and identify which elements, factors and attributes distinguish it from other subject matters, and justify its treatment as a new 'work' rather than as an existing one. Through this analysis the proposed definition and scope of multimedia is firm, but flexible enough to accommodate future technological developments. The reasons for protecting multimedia are assessed, and different regimes of protection are compared bearing in mind the interests of authors and users, while ensuring that producers can also benefit from its commercial exploitation.

Along these lines, copyright law is found to be more suitable amongst other regimes, calling for a comparison between multimedia and those copyright subject matters akin to its nature (compilations, computer programs, databases, films) that could justify its adequacy and applicability across the European Community, and worldwide. In the absence of a coherent and consistent copyright law solution, the sufficiency of other non-copyright law mechanisms of protection including contracts, technical devices, competition law, and a sui generis right is examined in the context of the Information Society.

The lack of a consistent and adequate form of protection of multimedia worldwide, necessitates the introduction of a new scheme for protecting hybrid and creative multimedia works, once the supporting market and regulatory conditions are met. In the meantime, a series of preparatory actions should be taken by policy makers and market leaders in the context of a self-regulatory and user-friendly scheme of protection from which the developing multimedia market can benefit.

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# CHAPTER 1
# THE SCOPE OF MULTIMEDIA WORKS

## 1. Introduction

In this thesis we shall investigate which legal regime can appropriately protect multimedia works. Before initiating this discussion, it is important to establish first a clear picture of what multimedia is, and provide a firm, but broad and flexible, definition of the subject matter of this thesis[1].

Multimedia is a technological development that has attracted almost everyone's attention appearing to be something new and alien compared to what people have experienced so before. In particular, multimedia is perceived as the one and only technology that enriches users' experience of what they do, say, see, hear, and in the future, touch, when compared with what they could look at and use or feel through traditionally separate means and media.

When people refer to multimedia, they usually think of different objects, products, applications, and services. These vary, and might include the enriched version of Encarta Encyclopaedia, a film on DVD, high quality computer games, virtual reality applications, retrieval and exchange of movie clips and instant news on-demand via wireless devices, pay-TV, and other applications currently under development. Although these products, applications and services may share certain characteristics that qualify them to be categorised as 'multimedia works', not all new information technology based products and services can be defined and protected as such.

It should be clarified that in this thesis preference will be shown to use of the term 'works' instead of 'products' when referring to multimedia.[2] The term 'products' may be used by some academics as referring to both 'products' and 'services', and

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[1] Notably this definition shall be broad and flexible enough to achieve the objectives identified in this chapter, albeit firm enough to reflect the key-elements of multimedia that will not be technologically outdated.

[2] In this respect it is necessary to use a broad and loose term but one safe enough to accommodate the dimensions of multimedia experienced not only yesterday but also today and tomorrow.

encompassing only the market value of multimedia works which calls for legal protection. This fact is neither doubted, nor disregarded when referring to multimedia 'works' rather than 'products'.

However, by 'products', one may either disregard or undervalue another value of multimedia, the artistic value usually found in what we see in a multimedia work through its use.[3] In saying this, the author does not mean to suggest that all multimedia works are characterised for their artistic dimension apart from their informational and utilitarian attributes, since this would lead us to the false presumption that multimedia works are only artistic works.

The potential for artistic creativity found in a multimedia work, irrespective of frequency or level of presence, is something that cannot be disregarded. The level of artistic value put in a multimedia work, which can attribute an accepted level of creativity and originality to that work, cannot be outweighed by any kind of market value criteria. A highly artistic, and in this sense creative and original, multimedia work will not necessarily be appreciated as such in the marketplace. These artistic value dimensions of multimedia works are not portrayed by 'products'.

Not surprisingly, 'multimedia' has become one of the most popular terms used by consumers, scientists, producers and artists concerned with latest technological developments, just as some time ago their preference was use of the then fashionable terms of 'cyberspace', 'e-commerce', and 'electronic'.[4] Today almost in a similar way, the term 'multimedia' is so widely used and perceived to be the greatest development following the Internet, signifying the departure from the early electronic

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[3] Art and technology, craft and discipline may co-exist in the user interface design and its interactive functioning.

[4] These terms were widely and interchangeably used by the time the print epoch gave way to the electronic epoch and not everyone knew the true meaning of these terms. By 'epoch' (from Greek 'epokhe', meaning the fixed point of time) we refer to a past period of time, the beginning and end of which are fixed points of time and can be determined as such by means of representing the life cycle of notable events, such as certain discoveries and other technological developments.

epoch to the digital era.[5] Nonetheless, not everyone really agrees on a definition of multimedia.

As usually happens with new technological concepts affecting public activities, discussions have been initiated as to what multimedia is. Scholars from various scientific and academic fields have attempted to provide the most appropriate definition, according to their experience of multimedia. As such, the term has been employed not only by consumers but also by different groups of market players, scientists, artists and academics for designating different kinds, and new forms of communication methods, informational, utilitarian and entertainment products and services, based on the combination of different technologies and standards.[6] As a result, the term suffers from vagueness and uncertainty as to what it really entails. In fact, the term may constitute a 'legal misnomer', potentially confusing and misleading anyone interested in clarifying its notion and nature.[7]

Any attempt to provide a comprehensive definition for multimedia is welcome. However, the problem remaining is that the concept of multimedia is new and still evolving. Hence, the technology facilitating the implementation and distribution of multimedia is still developing. Inevitably the concept of multimedia is, and will be to some extent elusive and vague, and no single definition can escape from these characteristics. Even more so, the prediction of how it may develop is fraught with difficulty. Any attempt to define the ways in which multimedia may develop would not be sensible, since it might be considered akin to "asking Mack

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[5] In contrast to the use of the term 'epoch' (ibid.), by 'era' we refer to a period of time, the beginning of which is a new epoch, however, it is still evolving, since the end of this is neither known nor foreseen. In this sense by 'epoch' we refer to the past and by 'era' to the present and future.

[6] Commission of the European Communities DG XIII, 'Report on Multimedia', September 30, 1992 at p.1 et seq.

[7] As has been supported by Sookman, B, 'Developments in information technology' [1997] 5 *CTLR* 233 at p. 234; Lehman, B, and Brown, R, 'Intellectual property and the National Information Infrastructure', *Report of the Working Group on Intellectual Property Rights,* US Patent and Trademark Office, Washington DC, September 1995, at p.41. As will be discussed at note 42 below.

Sennett to define cinema in 1911", and "then blaming him for not being able to explain how the special effects in Star Wars were produced".[8]

With respect to these complexities and uncertainties, in this chapter we shall attempt to establish the scope of multimedia, and thus, clarify from a pragmatic and conceptual perspective what multimedia is. For this purpose we shall first examine some representative examples of the definitions so far provided for multimedia, and then determine whether they are still valid in the light of evolving technologies. Following the conclusions of this etymological analysis we shall then attempt to portray its nature while identifying; (a) the key-elements of multimedia that distinguish it from other objects, (digital technology, multiplicity of works and media, integration and interactivity); and (b) the main reasons justifying why multimedia should not be treated as a phenomenon, rather as a different form of work, (the 'look, use and feel' of multimedia) that should be promoted and protected as such. This issue of legal protection of multimedia works shall be considered in the following chapters.

## 2. In Search of Multimedia

If one attempts to find a definition of the term 'multimedia' either in an encyclopaedia, a lexicon of information technology terms, or simply through a popular search engine on the Internet, such as Yahoo, one will come across a plethora of different definitions. This is because scholars from various scientific, artistic and academic circles have attempted to provide one definition for multimedia based on their experience contributing to the provision of multi-multimedia definitions. In order to alleviate potential misunderstandings and frustration, attention shall first focus on a few examples of those definitions representing different approaches, in order to highlight their main similarities and differences. The thesis will then continue to identify and define the key-elements of multimedia.

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[8] Kelly, O, *Digital creativity,* Calouste Gulbenkian Foundation, London, 1996, at p.23, where she discusses extensively the nature of multimedia.

## 2.1. What is 'Multimedia' ?

At first it should be noted that etymology of the term suggests that multimedia constitutes a combination of multiple media, means and intermediaries.[9] It is expected then that most if not all definitions to be referred to, cannot ignore this aspect of multimedia. For example, in following a general search for the definition of this term in the 'Encyclopaedia Britannica Online', one has to choose between the following definitions:

(a) 'interactive multimedia', according to which multimedia, "integrate computer, memory storage, digital (binary) data, telephone, television, and other information technologies. Their most common applications include training programs, video games, electronic encyclopaedias, and travel guides...Interactive multimedia shift the user's role from observer to participant and are considered the next generation of electronic information systems"[10],

(b) 'CD-ROM-encyclopaedias'[11],

(c) 'online encyclopaedias'[12] and

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[9] The term is composed of two parts, the prefix 'multi' and the root 'media'. The Latin term 'multus' from which 'multi' comes means 'numerous' and 'media' is the plural form of the Latin word 'medium', which means 'middle', 'center' or 'intermediary'. As such the term 'multimedia' should mean 'multiple intermediaries' or 'multiple means'. Fluckiger, F, *Understanding networked multimedia - applications and technology,* Prentice Hall, 1995, at p.4.

[10] While searching for the term multimedia in the Encyclopaedia Britannica Online, this was found in the path interactive multimedia at http://members.eb.com/bol/topic?eu=1461&sctn= .

[11] As suggested, a CD-ROM Encyclopaedia is "the electronic medium developed most quickly and visibly on CD-ROM by smaller encyclopaedias or those intended for younger readers". At first a CD-ROM Encyclopaedia incorporated text-only versions, then in the 1990s still illustrations were added, and in 1992 audio and video addition followed, which resulted in the New Grolier Multimedia Encyclopaedia. Four years later the Microsoft Corporation released the Microsoft Encarta Multimedia Encyclopaedia, which enhanced the text of Funk & Wagnall's New Encyclopaedia with extensive graphics, audio, and video. See the Encyclopaedia Britannica Online at http://members.eb.com/bol/topic?eu=108518&sctn=13.

[12] A brief historic reference is made at this path, where the main characteristics attributed to an online encyclopaedia are that it is was first presented to the mass market online by the licensing of its text to commercial data networks, further on it has been released for subscription purposes on the Internet and it contains full text database and thousands of illustrations. An example of such an online

(d) 'multimedia databases'[13].

However, no distinctive definition of term 'multimedia' alone can be found in that encyclopaedia, nor in the dictionary of terms "from multimedia to virtual reality".[14]

Occasionally, some references are made to 'multimedia' alone as 'hypermedia', as well as to 'interactive multimedia'. The term 'hypermedia' though, is used in a broader context describing the whole spectrum of new interactive media spanning telecommunications, interactive cable TV, advanced computer games and other multi-media products.[15] Whereas, by 'interactive multimedia' reference is made primarily to "videodisc and CD-ROM based programs, which combine elements of graphics, animation, video, photographs, music and soundtracks with computer software."[16] In this sense, interactivity appears to be the principal element distinguishing multimedia from a simple data storage medium to a computer file. By

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encyclopaedia is the Britannica Online, which as stated has served to be a gateway to the World Wide Web by providing direct links to outside sources of information. See the Encyclopaedia Britannica Online at http: //members .eb.com/bol/topic?eu=108518&sctn=14 .

[13] Under the path multimedia databases reference is made to engines that "are also data objects, and the engine attribute of a particular vehicle will be a link to a specific engine object. Multimedia databases, in which voice, music, and video are stored along with the traditional textual information, are becoming increasingly important and also are providing an impetus toward viewing data as objects, as are databases of pictorial images such as photographs or maps. The future of database technology is generally perceived to be a merging of the relational and object-oriented views". See the Encyclopaedia Britannica Online at http://members.eb.com/bol/topic?eu=117723&sctn=8#384153.

[14] One such dictionary is the *cyberspace lexicon* offering extensive references to terms such as 'consumer digital video' (CD-I), 'compact disc read only memory' (CD-ROM), 'compression techniques' (such as the MPEG and JPEG standards), 'computer animation', 'digital video interactive' (DVI), 'interactive cable TV', and finally 'interactive multimedia'. Despite this variety of these references of terms related only to multimedia, which are provided by both textual and pictorial means, still, no single definition is provided for the term itself. See Cotton, B, Oliver, R, *The cyberspace lexicon: an illustrated dictionary of terms from multimedia to virtual reality*, Phaidon Press 1994, (hereafter, '*The cyberspace lexicon*').

[15] see examples given in previous footnote.

[16] Supra note 9 at p.151.

extension, the platform on which such a file is installed, or from which it is retrieved has also been described under this term.[17]

In the sphere of law, multimedia has attracted different and to some extent contradicting definitions. In France, for example, in 1994 multimedia was defined as "a set of interactive services using solely digitised media for the processing and transmission of information in all of its forms: text, data, sound, still images, animated real or virtual images".[18] However, in 1992 the European Commission had described 'interactive multimedia' as "presentation, storage, retrieval and dissemination of machine-processable information expressed in multiple media such as text, voice, image, audio and video", which is "situated at the cross-point of the information and communication technologies since it combines digital video, informatics and digital communications."[19]

Five years later a more comprehensive definition for 'multimedia' could be found on the European Commission's web-server. According to this later definition, multimedia is "a new generation of communication tools, which can draw on a full range of audio-visual resources from text and data to sound and pictures, and which store and process all these diverse data in a single integrated delivery system."[20]

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[17] See Vercken, G, *A practical guide to copyright for multimedia producers*, European Commission, DG XIII, 1996, at p. 14 et seq.

[18] In the early 1990s three different and contradictory definitions for the term 'multimedia' appeared in French official texts, which described multimedia as (a) "interactive services using ...digitised media for processing and transmission of information in all of its forms", (b) a "document which regroups two or more media...or which associates on the same medium, two or more documents which are subject to the obligation of deposit", and (c) "modes of representation of text, sound and image". As reported by Muenchinger, N, 'French law and practice concerning multimedia and telecommunications' [1996] 4 *EIPR* 186.

[19] See the EC Report on Multimedia, supra note 6, at p. 5.

[20] This site provides information related to EC funded projects stimulating the development of multimedia projects. It is also provided there that "integration is one of the primary concepts within multimedia; in this context then a *multimedia* presentation records text, data, sound and pictures on a single delivery medium. This is usually some form of 20 cm compact disc (CD), or computer disk." Further on, by "multimedia delivery system" reference is made to process of "both audio and visual signal and computer data within a single box for presentation through the screen and speakers of a computer or television"; http://www2.echo.lu/impact/projects/imm/en/mmulti.html.

A similar definition has also been adopted by informatics scholars, who state that "a multimedia-system" is characterised by "computer-based, integrated production, manipulation, representation, storage and communication of independent information, coded in at least one continuous (time-dependant) and one discrete (time-independent) medium".[21]

In addition to the above definitions, multimedia has been viewed not only as a new generation of tools, but also as a digital medium "combining sound, image and text, in fact data of every kind, and involving certain amount of interactivity, a software application allowing navigation, to a varying extent between the various types of data."[22]

Multimedia has also been defined as a field "concerned with the computer-controlled integration of text, graphics, still and moving images, animation, sounds, and any other medium where every type of information can be represented, stored, transmitted, and processed digitally".[23]

## 2.2. Key-Elements of Multimedia-Definitions

Most definitions seem to agree on certain points with regard to what multimedia consists of, in relation to its fundamental presentation and functionality features. In order to determine how valid these definitions can be, and to what extent the perception of multimedia reflects the real picture as of today, first we should identify the points of agreement and disagreement of past definitional approaches towards multimedia. Following this we shall be able to determine what are the key-elements of multimedia to be carefully considered, test their validity with respect to current technological and market conditions, and then attempt to propose our own definition.

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[21] Steinmetz, R, *Multimedia-Technologie, Einführung und Grundlagen,* SpringerVerlag Berlin 1995, at p.19.

[22] Vercken at p.14, supra note 17.

[23] Ibid.

### 2.2.1. The Constituents of Multimedia

With respect to multimedia content, most definitions agree that a particular product to be defined as multimedia should consist of at least two different categories of works or types of information elements, namely 'text', 'audio' and/or 'images', facilitated by technological means (digital procession, manipulation, accessibility and storage).[24] At this point it should be clarified that reference to 'text' should indicate any material in written form, data[25], operating materials such as indexes or tables of contents, dictionaries and help facilities, magazines, and newspapers. By 'audio' reference should be made to any kind of sounds either generated by natural means or any other means, noise, sound effects and atmospheric background music, songs, and speech. By 'images' what should be understood is any kind of still or moving images generated by any means, such as films, video clips, graphics, photographs, animations, drawings, maps, posters and any kind of artwork.[26]

### 2.2.2. The Presentation and Functionality of Multimedia

With respect to multimedia presentation and functionality, most references suggest that the following features characterise multimedia:

- interactivity, which allows users of such multimedia works to interact with either some or all contents,
- integration, as well as,

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[24] Today it is difficult to imagine of a multimedia work that could be composed only of one category of one type of such elements. The multi-dimensional nature of multimedia could be overlooked and it would be most likely to think of this homogenous work as a compilation rather than a genuine multimedia work, as will be discussed in Chapter 3 when comparing these two subject matters. See Strowel and Triaille, for instance, suggesting that a multimedia work could exist even if it consists only one category of work in combination with a software tool. Strowel, A, and Triaille, P, *Le droit d' auteur, du logiciel au multimedia* (*Copyright from software to multimedia*), Bruylant, Brussels, 1997 at p. 335. See also the conclusions of Chapter 3, at section 5.

[25] Such as tables, charts, graphs, spreadsheets, statistics and any kind of raw data. Fluckiger, at p. 5 supra note 9.

[26] Williams, A, Calow, D, and Lee, A, *Multimedia: contracts, rights and licensing*, FT Law & Tax, London, 1996, at p.3.

- fixation of different media forms and technologies with different types of elements and categories of works onto a single medium or a single platform[27], such as a CD or DVD, facilitated by the use of
- digital technology.[28]

Most references to the element of interactivity seem to suggest that this element alone distinguishes multimedia from other categories of works, without necessarily implying that interactivity is a new concept, as will be explained below. There is one issue of disagreement however, relating to the particular amount and form of interactivity necessary to be present in a particular work so as to be defined as multimedia.

Additionally, it is submitted that most definitions formed at the beginning of 1990s have emphasised the importance of fixation in addition to that of digitisation. At that time the general conception seems to have been that fixation should constitute a precondition to classifying a particular product as multimedia. This approach, however, reflects past technological constraints in terms of storage capacity and retrieval medium options compared to the technological developments taking place particularly since 1996.[29] For this reason the validity of this precondition should be doubted.

In fact, while considering the latest developments taking place across the European market aimed at the full convergence of communications networks and media infrastructures, it should be expected that the precondition of fixation on a

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[27] Vercken, supra note 22.

[28] Not surprisingly almost everyone would agree that digitisation is a fundamental feature of multimedia works. One exceptional case has been reported however according to which no reference was made to digitisation, processing or transmission of data, interactivity, nor to digitisation as 'medium'. This was the case with early 1990s' definitions, part of an official definitional response provided in France, as commented by Muenchinger, at p. 186 et seq. Supra note 18.

[29] Especially the developments taking place in the telecommunications market, and particularly in the mobile phone services market sector. This change of thinking prevails also in the later definition of 'multimedia' provided on the Commission's web-server as compared to the previous one. Supra note 20.

single machine normally controlled by the user will be out-dated[30] before the year 2005.[31] Taking this matter further it becomes questionable whether de-materialisation of information content and services, unlike fixation, is going to be the key-factor driving present and future technological developments in the developing multimedia market.[32]

As such, it appears that there are three commonly asserted key-elements of multimedia that can distinguish it from other products:

- digitisation,
- combination of various constituent elements and/or media forms (and perhaps integration), and
- interactivity.

All three elements should coexist. Each of these will be examined in detail below in relation to the impact of digital technology on multimedia and society, in so far as this can justify their validity in today's market place, and help us understand what multimedia really is.

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[30] Surely works are still fixed; just not on the users' computer systems, raising significant challenges to existing intellectual property (IP) concepts. See section 3.3.2. below.

[31] One has only to review the action plan eEurope2005, which was announced last summer (2002) by the European Union, and one will be able to imagine to some extent where the multimedia market is heading. It is expected that by the year 2005, broadband services equally affecting telecommunications, broadcasting, entertainment and publishing industries will become readily available to the public at large and the convergence of all telecommunications services will be successfully complete. Of course, all this remains to be seen. However, we cannot not disregard these announcements and action plans while attempting to define multimedia in a 'time-resistant' manner. Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, 'eEurope 2005: An information society for all - An Action Plan to be presented in view of the Sevilla European Council', COM 2002, 263 final, June 21/22, 2002 (hereafter, 'eEurope 2005 Action plan').

[32] Supra note 30.

### 2.2.3. Etymological Issues

With respect to the use of the term, it follows from the previous definitions that 'multimedia' has been used in two senses, either as an adjective or as a noun:

(a) In the first sense (that of an adjective) references to multimedia indicate new characteristics, elements, functions attributed to pre-existing products (such as 'multimedia database', 'multimedia encyclopaedia'), services, or concepts (such as 'multimedia system', 'multimedia market', 'multimedia technology'[33]), without necessarily suggesting that multimedia is a new product or a new service.[34]

(b) In the second sense (that of a noun) references to multimedia indicate something closely related to a new medium, tool, communications group or a field, that combines and integrates primarily, either different media forms, (such as text, audio or images), or different categories of works, (such as database, film, artwork), and/or different constituent elements, such as data, songs, photographs.

The fact that the term multimedia can be used in such a different way at the same time should be considered in further detail, in so far as it could lead one to misunderstandings and misinterpretation of what multimedia really is. It is also particularly problematic where attention is focused either on the multiplicity of media forms alone or the categories of works contained. Following this distinction, there are two main issues to consider; first, the significance of the descriptive role of multimedia, and secondly the question as to whether multiplicity of media forms and technologies used, rather than multiplicity of constituent elements should prevail in a well-established definition of multimedia works. These issues should be examined in further detail, in so far as it is necessary to comprehend the real nature of multimedia works.

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[33] By 'multimedia market' usually people refer to a set of sectors where business is conducted with multimedia products or multimedia services; by 'multimedia technology' reference is made to a set of specific technological fields enabling multimedia applications such as video compression, similar to these expressions are also the 'multimedia platform' or 'multimedia network'.

[34] As above mentioned, in France multimedia was defined as a set of interactive services for the purpose of processing all types of information, (see the 'Thery Report 1994'), as quoted by Muenchinger, supra note 18. Still, reference to 'services' in that context as such, does not suffice to establish that multimedia is a service, and should be protected as such.

### 2.2.3.1 'Multimedia' as an Adjective

Early definitions indicate that the term 'multimedia' has been used primarily as an adjective by those actively involved in the course of production, development and marketing of information technology (IT) based products.[35] They have used the term descriptively, so as to attribute distinctive new characteristics to the products they have been developing and marketing that could successfully attract more consumers.[36] In this context the fact that different technologies and/or media are combined in one carrier has been emphasised so much as if it is something completely new, and thus, deserving special attention.[37]

### 2.2.3.2 'Multimedia' as a Noun

Later references to the term appear to be more generic; the term is used as a noun designating either a new hybrid object, which combines different technologies and media[38], and thus, a new communications group[39], or a new tool, or medium that integrates primarily either different media forms, or different information elements and works. In the first sense the term suggests preferably the 'multi-media' technology underlying this new work[40], and in the second sense it suggests the 'multi-

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[35] See notes 133 to 137 below.

[36] See for instance, Alfred, V, Aho, Shih-Fu Chang, Kathleen R, McKeown, Dragomir, R, Radev, John, R, Smith, and Kazi, A, Zaman 'Columbia digital news project: an environment for briefing and search over multimedia information' (1998) 4 *International Journal on Digital Libraries*, pp. 377-385, and at http://link.springer.de/link/service/journals/00799/bibs /8001004/80010377.htm.

[37] Whereas in the past they could be used only separately. In a similar descriptive way to this, the terms 'electronic' and 'cyber' were also used when references to these were made for the first time. See also Loewenheim, U, 'Multimedia and the European copyright law' (1996) 27 *IIC* 41 at pp. 41 and 42.

[38] See Blomqvist, J, 'WIPO projects to respond to the challenges of digital technology' *International Bureau of WIPO, Legal aspects of Multimedia and GIS – Legal Advisory Board (LAB) Conference,* Lisbon, 27/28 October 1994. See also the EC Report on Multimedia at p.15, supra note 6.

[39] That is a communications group with a strategy of diversification in the various information sectors, such as written press, television, radio, and publishing music, as supported by Vercken, supra note 17.

[40] Meaning the multiplicity of different communications media used, such as sound, audio, video, etc.

works'[41] content that is incorporated. The fact that multimedia can be used as if implying two different notions at the same time indicates that the term itself can be regarded as a 'legal misnomer'.[42]

**(a) The 'Multi-Media' Dimension**

In legal practice, if emphasis is put primarily on the underlying 'multi-media' technology used for the creation of multimedia, one may assert that multimedia is only a new technological tool, a sophisticated computer program capable of integrating various and different types of media and information elements that were once used only separately, and nothing more than this. Nonetheless, multimedia is much more than just a computer program, for example.[43] In that sense, focusing primarily on the 'multi-media' dimension of multimedia can be misleading as to its real identity so far as it disregards other equally important aspects of its concept and nature.[44]

**(b) The 'Multi-Works' Dimension**

Alternatively, if emphasis is put primarily on the 'multi-works' type of multimedia constituent, one may consider multimedia as a new object that integrates only multiple categories of information elements and works, and nothing more that this. In this sense however, multimedia runs the risk of being regarded only as the extension of what it is made up of, a compilation, a database, or just as another derivative (secondary) work of multi-pre-existing-works. Supporting this approach would be again misleading, and could adversely affect the market value of multimedia, so far as it would entail that its value depends on the quality or quantity

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[41] Meaning the multiplicity of different categories of information elements and works, such as text for literary works, photographs for artistic works, video-films for audiovisual productions, and sound for musical works.

[42] Supra note 7. See also Strowel and Triaille in support of this view, at p. 332, supra note 24.

[43] In relation to this see Chapter 2, section 3.2, and Chapter 3, section 3.3.

[44] From a conceptual perspective this will be explained below at section 2.3. In a legal context it will be better illustrated in relation to compilations, computer programs, databases, films, and multimedia in Chapter 3, and particularly section 5.

of its 'multi-works' content alone. Nonetheless, the market value of multimedia depends also on the particular form of presentation of its 'multi-works' dimension, meaning the degree of interactivity, facilitated by the aforementioned 'multi-media' aspect, which enables users to look at, use, and/or feel multimedia content differently than with other works.[45] Both the 'multi-works' and 'multi-media' dimensions coupled with interactivity may lead to the realisation of the 'look, use and feel' of multimedia.[46]

## 2.3. The Problem of Conceptualising What Multimedia Is

Multimedia is neither 'multi-media' nor 'multi-works' alone.[47] Multimedia is more than this; it even goes beyond the 'multi-media' and the 'multi-works' aspects together; it is a new form of expression, which among other functions and values; (including combination of multi-media, interactivity) it also integrates 'multi-works' regardless of whether they are new or pre-existing. Showing any preference towards either the 'multi-media' alone, or the 'multi-works' dimension of multimedia may be confusing, and deceptive of its real notion and nature for the following reasons.

Focusing only on the 'multi-media' or the 'multi-works' aspect, may influence our stance to the problem of classifying multimedia under one particular regulatory category of (copyright) protected works or another, while trying to identify the most appropriate regime for its legal protection. For example, if a person given a CD containing a multimedia work was unaware of its underpinning software, attention would most probably be focused on the informational content; a presentation of moving pictures and sound would be considered and classed as a film. Conversely, a person seeing only the software might identify only a computer program than its resultant applications. As such, the risk of assimilating the multimedia work with the carrier medium, and considering multimedia as a computer program, or even a CD,

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[45] See note 94 below.

[46] The 'look, use and feel' of multimedia will be defined in section 3.5 below.

[47] Although it has been perceived as something new, simply because of the new opportunities and capabilities offered to us by digital technology to create, and/or present new works, either from scratch or from what had existed before, as something new, as will be discussed later in section 3.

for example, might have been avoided. This issue, however, shall be examined in the following chapters.[48]

Another reason for not focusing solely on one single dimension of multimedia (either the 'multi-media' or the 'multi-works') derives from the need to ensure a de minimis level of media and technology neutrality in the definition of 'multimedia', as well as in the ideal regime of protection for multimedia. Concentrating primarily on the 'multi-media' aspect alone, meaning the underlying technology used, or the 'multi-works' dimension, would ultimately amount in over-emphasising the particular form of that work's expression. For example, if attention is primarily focused on the underlying technology, multimedia would be considered as a computer program, since emphasis would be put on the 'look and feel' of it through which the uniqueness of a software program is expressed. In a multimedia work this form of expression captivating one's attention would be the interactive presentation of its constituents, which is in fact facilitated and realised by the underlying software program.

This means that we should be free to look at, use and feel what multimedia really is with all our senses, not just with some ones predetermined solely by the type of media or form of material used in the course of multimedia production, storage, distribution, or use. Whether holding a mobile phone, a palm-top, or a CD for listening to, watching, and playing with a particular multimedia work should not matter more than when participating in an interactive program through an Internet-TV enabled set-top box, and questioning ourselves about multimedia works' identity.[49] Nonetheless, suggesting that our understanding of multimedia should be technology, and particularly application neutral may be difficult, since technology has already affected the way we understand, define and protect pre-existing creative and information technology based objects.[50]

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[48] Chapter 2 section 3.2, and Chapter 3, section 3.3.

[49] On the other hand, it is not the author's intention to suggest at this point that focusing only on the categories of works incorporated in a multimedia work should be our main criterion, when defining or classifying a particular object or application as a multimedia work. As will be concluded in Chapter 3, attention should be focused on the overall nature and purpose of use.

[50] In other words, multimedia is application neutral to the extent it is largely dematerialised as will be emphasised in Chapter 3 in relation to the fixation requirement for literary works.

As will be explained later, multimedia can be expressed in different ways, some of which may remind us of an advanced database, or an advanced audio-visual work.[51] In an abstract way of thinking, multimedia could be seen as a not entirely new and alien form of expression. In this sense it could be said that: (a) multimedia has potentially existed before, but it could not have been realised; (b) any pre-existing creative object of work, such as a compilation, or a database, or an audio-visual work being expressed in a single[52] or mostly two-dimensional way[53] could be seen as a single-dimensional fraction of multimedia; and (c) all pre-existing single and two-dimensional informational, utilitarian and entertaining works together could be seen even as a primitive case of a multimedia work, though, expressed differently[54]; by extension, it could also be said that (d) multimedia stands above all pre-existing creative and information technology based works that are expressed only in a single or mostly two-dimensional way[55], since multimedia is expressed in at least a three-dimensional way.[56]

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[51] In other words, a multimedia work can be a database, however, a database cannot be multimedia as will be explained in Chapter 3, section 3.2. Additionally, multimedia can be perceived as a contemporary extension of a database, or even of all previous works, and forms of expression and communication in one single object of work. However, this perception is not correct, in so far as it misplace multimedia, undermining its individuality and totality, as will be explained in Chapter 3, section 5.

[52] Compilations are expressed so as to be read and thus they are expressed in a single-dimensional way. This however, will be better understood in Chapter 3 when comparing multimedia to compilations.

[53] In this sense, we could say that literary or music works are single-dimensional since they are expressed in a single object form meant to be primarily read or listened to respectively. Whereas databases and audio-visual (including films) works are two-dimensional works because they are expressed in a two-dimensional way so as to be primarily (a) looked at and used, and (b) looked at and listened to, respectively due to the richness of their content (text, sound, and moving images). See also Chapter 3, note 4 below.

[54] Unlike multimedia being multi-purposive as will be explained below, these single and two-dimensional works are necessarily expressed in different forms, since each one serves a different purpose of use.

[55] Meaning traditional copyright works; compilations, databases, computer programs and films. As such, it could be argued that multimedia should be protected in its own right as a separate subject matter, above all pre-existing literary and audio-visual works; neither as a subcategory of literary

Such perception of multimedia is due to technology rapidly progressing recently, offering us new tools and media combinations to sense in all possible ways the full amount of a (multimedia) work, meaning all the aspects and dimensions it can potentially have; as long as it can be captured by one's imagination, and expressed in an original creative way.[57]

However, in reality multimedia has only recently been realised with the advent of digital technology, communications' convergence, the emergence of high-speed capacity (broadband) networks, and the recent mergers between established traditional entertainment, publishing, media and technologies industries.[58] Even more of multimedia is expected to be seen to the extent digital technology will allow us to create more sophisticated multimedia works. As such, we must think of multimedia at least in a three-dimensional way.[59]

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works, nor as a subcategory of audio-visual works, although it could potentially fit in the broadly defined category of 'literary and artistic' works of the Berne Convention (Article 2), as will be discussed in the following Chapters 2 and 3. ·

[56] Multimedia is expressed in such a way as to be read, looked at, used, and felt, as a result of its 'look, use and feel' as will be explained in the following section. The third element that can be found only in genuine multimedia works is that of a high level of interchangeable interactive mode interrelated to its constituents in different ways. Of outmost importance is the presence of infinite interactivity that can potentially transform a three-dimensional multimedia work into an infinite multi-dimensional work. See section 3.4 below.

[57] The same may apply even more so for tomorrow's multimedia works because of present technological limits compared to forthcoming technological, and market developments due by the year 2005 as mentioned above; supra note 31.

[58] Such as: (a) the 2001 merger between America Online Inc (AOL), the US largest Internet provider and Time Warner Inc, a media conglomerate comprising a cable televisions system servicing about 20% of US cable households and various cable-programming networks publishing and recording interest and film libraries. See for example, http://news.com.com/2100-1023-250000781.html.; and (b) the 2002 cooperation between Apple, Ericsson and Sun Microsystems, aiming at enabling network operators to deliver standardised multimedia content to a variety of wireless devices, including mobile phones and PDAs (personal digital assistants). As reported at http://www.newsfactor.com/perl/printer/16326/.

[59] In other words, it should be understood that multimedia is not an object of only two dimensions alone (the previously referred to 'multi-media' and 'multi-works' dimensions); rather, it is an object of more than three dimensions that can be comprehended in all cases as such, and even more so, it can be

Hence, the advent of technology can potentially affect our perception and understanding of multimedia today, and potentially tomorrow.[60] This can explain also why no single previous definition is complete or up to date; neither the concept nor the nature of multimedia has been clearly and sufficiently reflected in any of these. While it is understandable that multimedia cannot be accurately defined if its real essence and potential cannot be fully understood and appreciated, nonetheless, provision of an ambiguous and vague definition entails the risk of mis-conceptualising, and thus, mis-protecting it. At the same time technological developments intensify the need for proposing a definition broad and flexible enough to accommodate those key-elements and aspects of multimedia, which have not yet been realised, but will become known tomorrow. These parameters shall have to be taken into account while attempting to define multimedia in a firm, albeit flexible and technology neutral way.[61]

Prior to this, we should examine, and comprehend the impact of digital technology on the creation, production, and dissemination of popular digital works, such as multimedia. This is so especially since digital technology has been both praised and blamed for all the goods and evils caused to right-owners and users, including the realisation of multimedia and the rise of digital piracy respectively. Most importantly digital technology has transformed what we do, say, see, hear; it has made a reality of the 'look, use and feel' of multimedia as will be illustrated in the following section.

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disseminated as such as a result of the convergence of technologies and communications networks. Hence, these technological developments require established industry leaders to start thinking of the multimedia market in a three-dimensional way of thinking, as will be discussed later in Chapter 4.

[60] The advent of technology keeps constantly facilitating the transformation of pre-existing works, the expression of new creations, as well as their distribution in some cases in disruptive ways as will be discussed in this thesis, and particularly in Chapters 2 in relation to 'P2P' practices.

[61] Supra note 50.

## 3. The Impact of Digital Technology

Digital technology has become more popular than analogue technology, and so sophisticated digital works such as multimedia have become popular, mainly for quantity and quality reasons; richness of content, distribution channels, and presentation, irrespective of limits of time or place. Thanks to digital technology, multimedia can potentially outweigh pre-digitised and pre-digital works in terms of reliability, speed and storage capacity, economy of resources, profitability, dynamic presentation and use, inter-operability; thus, it can be perceived as superior to any pre-existing work in terms of quality and quantity. In fact, it is the whole 'look, use and feel' of multimedia which makes it substantially different from any other work we have known.

### 3.1. Richness of Content

Digital technology offers the means for different types of information, (text, sound, picture, graphics), which were traditionally stored in different material forms and produced by different media forms, to be transformed into the same binary form of presentation.[62] Today, thanks to digital technology we produce not only digital but also digitised works.[63] Since digitisation has made the conversion of all types of information elements and categories of works into a single binary representation form possible, it has enabled their storage in one carrier, and their transmission by means of all existing communication lines. As such, high-quantity digital works can be realised not only in the course of production, but also in the course of distribution in both off-line and on-line environments.

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[62] Prior to this, analogue technology was dictating market developments until digital technology emerged. As everyone knows, works created using analogue technology, such as music, films (audiovisual works) could be stored only in different material forms (cassettes, videotapes) and delivered through different media forms and separate infrastructures (radio, broadcasting, television).

[63] By 'digital' we refer to the conversion of different work categories, into a digital format, and by 'digitised' we refer to the fixation of digital works with other works, such as analogue works.

### 3.2. Richness of Distribution Channels

A multimedia work, as with any digital work, can be stored in material form, though this is not necessary, and may be presented either off-line in a non-linear mode, or on-line. In the off-line environment, multimedia can be stored in any tangible information carrier appropriate for its use, either the most commonly[64] used CD-ROM ('Compact Disk-Read Only Memory'), DVD-ROM ('Digital Video Disc-Read Only Memory')[65], a MMCD ('Multi Media Compact Disc')[66], or the less known CD-I ('Compact Disc Interactive')[67], DVI ('Digital Video Interactive'), as well as a Data Discman, floppy disks or any other available non-linear medium. In the on-line environment, multimedia can be flexibly and dynamically transmitted, irrespective of

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[64] This preference has prevailed in most interactive multimedia content projects developed under the 'Info 2000' and 'Impact' projects funded by the European Commission. Some of these projects include; 'Gothic Cathedrals of Europe', and 'Health and Safety in the Workplace-HAZARD'. See these at http://www2.echo.lu/impact/projects/imm/en/gothic.html and http://www2.echo.lu/impact/projects/imm/en/hazard.html respectively.

[65] Testa, V, 'DVD: Risks and benefits for the European audiovisual market' [1999] 3 *Ent LR* 71 at p. 78.

[66] DVD or else MMCD was presented by Sony and Philips in 1995, and this as well as DV and DVB standards (digital tape and digital broadcasting) are based on the MPEG-2 system chosen by the industry as the proper video compression reference system for both medium-high and medium-low images as well as high-level and high-definition transmissions. DVD discs hold 4.7 GB of data and the format is standard to both the PC and the consumer electronics markets so that the drives can read legacy CD-ROM discs. As such, DVD-ROM disc shows a larger capacity compared to a CD-ROM disc format, because it has been produced using a high frequency laser light generation cheaper than a blue laser, which was applied to CD-ROM discs, but sharp enough to expand many times the CD data storage capacity. It is also noteworthy that subsequent iterations of the DVD format may increase capacities to 8.5GB for dual-layer designs, to 9.7GB for double-sided, single -layer implementations and to 17GB for double-sided, dual-layer designs. See for more Graznak, P, 'From atoms to bits and back: DVD technology and copyrighted content' [1998] 2 *Ent LR* 76 at p.78.

[67] Compact Disc Interactive (CD-I) is an all-digital medium storing video, graphics, text, computer and audio data as interleaved data, all of which is under the direct interactive control of the end-user. The system was launched by Philips in 1992 and as once said it has marked "the start of the race to create a market for the kind of interactive programmes previously only available to dedicated games players and personal computers/CD-ROM users". See Cotton and Oliver, *The cyberspace lexicon*, at p.38, supra note 14.

its original storage form, via fibre-optic cables, telephone lines, satellite, wireless broadband telecommunications systems and integrated digital networks, including without limitation LANs ('Local Area Networks'), WANs ('Wide Area Networks'), and the Internet. [68] In this way multimedia can be distributed via an analogue channel for analogue broadcast TV, as well as an ATM digital channel for digital video on demand or Interactive-TV services.[69]

So far the CD-ROM has been the most popular medium since 1990 for distributing databases and recently for multimedia. Originally these platforms were limited in terms of data capacity transfer rates, meaning the speed at which data is read off the disc and transferred into the controlling computer for display on the screen. To some extent the solution was found in data-compression techniques[70], such as squeezing more pictures onto a disc, and developing new chips for decompression in real-time before displaying the images on the screen. Blue laser technology was also another step forward, since focusing on smaller areas on the disc- surface

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[68] It is noteworthy that technological developments taking place since the 1980s have aimed at the design of a network technology which could act as a great unifier to support all digital services. The concept of such a network capable of integrating all ranges of digital services has been referred to ever since as 'Broadband Integrated Services Digital Network' (B-ISDN). In this context multimedia can be distributed either via cable systems, or via networks such as the LAN or WAN, using either the 'Synchronous Transfer Mode' (STM) or the 'Asynchronous Transfer Mode' (ATM). The latter has been most favourable, in terms of a high-speed WAN and was developed to support the B-ISDN services instead of the STM in order to optimise the then network recourses. ATM runs over a digital transmission infrastructure, which may also coexist with analogue transmission, if needed. See Fluckiger, at pp. 73 and 467, supra note 9.

[69] ATM technology can also co-exist with digital cable TV, satellite and terrestrial broadcast networks. It is questionable however, whether this choice will be appropriate in the light of future multimedia development. Ibid.

[70] Compression techniques are crucial to the successful development of multimedia systems for both data, storage and data transmission. Several different methods exist for compressing images, audio and other computer data. For instance, a well established still image compression standard is JPEG and a well known compression standard for motion video is the MPEG standard. See Cotton and Oliver at p.45, supra note 14.

amounted to filling the CD with more data.[71] Proliferation of CD-ROM based products, including CD-I and DVI (digital video interactive)[72] offering motion video at various frame rates and levels of image quality, was accepted by consumers most overwhelmingly.

Following these developments, some market commentators proclaimed that the CD standard would come to a halt when the CD-I and the Video CD standards were introduced and that the CD-ROM format would be threatened by DVD-ROM technology.[73] Since 1995, market leaders expected that DVD technology would be the leading technology-infrastructure by the year 2000 driving multimedia production, and consumption to higher levels.[74] It is submitted that this prophecy has not been fulfilled. The success of DVD technology in this is still doubted. In part, this delay also explains why the multimedia market is considered to be still developing, and its relevant sector cannot yet be firmly established, and thus, satisfactorily defined.[75] Even more so, one cannot refer to the multimedia market, albeit having reservations as to which products should be left outside its scope, when multimedia itself is still a vague concept and object.[76]

Furthermore, the latest trends and developments witnessed in wireless personal communications systems taking place since the year 2000 have raised one

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[71] However, blue laser technology might never arrive on the market because DVD discs "are being produced using a high frequency laser light generation cheaper than a blue laser". See Testa, supra note 65.

[72] Digital Video Interactive (DVI) was the first compression technology that allowed personal computers to display full-motion video (FMV), and characteristically it is said that due to this development, the true potential of the computer as a hyper-medium, a medium that could simulate all media was finally realised. Cotton and Oliver at p.56; supra note 14.

[73] See for instance, Testa, supra note 65.

[74] Squire, Sanders & Dempsey LLP, and Analysys Ltd, *Adapting the EU regulatory framework to the developing multimedia environment,* study report prepared on behalf of the European Commission DG XIII, Brussels-Luxembourg, January 1998, at pp. 1 to 6.

[75] As will be discussed later, the relevance of the multimedia market is an open and unresolved issue. This should be considered also in relation to the state of present convergence of telecommunications, in order to fully comprehend its extent.

[76] For instance, someone may regard a database as multimedia, whereas someone else may consider a software program as software.

more question; whether it will be the audio-visual industry along with DVD technology, or the telecommunications services sector of mobile phones and broadband infrastructure that will shape the future of multimedia market. All this remains to be seen, as well as what further implications may arise as a result of the particular type of protection for multimedia works chosen.

### 3.3 Richness of Computer Technology

The involvement of computers in the production, storage and presentation of multimedia is inevitable to a certain extent for the following reasons.[77] In the course of production, computers are involved from the moment the particular work or object is captured from the physical environment, and it has to be translated into digital format, as well as when this is generated following its computation. Further on, computers may control the device in which the work under consideration or its constituent elements are stored, as well as the mode of presentation of either of these to end-users.[78]

Until recently, there were a select few ways of accessing digital content, mainly through a personal computer. However, this situation is changing rapidly. The range of access devices today includes Internet-enabled cell phones, PDAs, desktop laptop, set-top boxes and wearable PCs. "Handcrafting"[79] digital content as suggested for each device, network and usage as well as each of their combination is no longer manageable. Apart from any other problems[80], if this approach is adopted, it will be expensive both in terms of time and money, whilst leading to multiple, inconsistent

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[77] To some extent this explains why multimedia had been regarded as a computer-based work. However, it is not implied at this point that multimedia constitutes primarily a 'computer program', as will be discussed in Chapter 2.

[78] See Fluckiger, at p. 27, supra note 9.

[79] As suggested by Gurminder, S, 'Content repurposing', paper delivered at IEEE Multimedia Computer Society, December 2002, available at http://www.computer.org/multimedia/CFPJan2004.htm.

[80] Such as the problem of inter-operability and standardisation to be discussed in relation to technological protection measures later; see Chapter 4, section 3.4.

versions of multimedia works.[81] Arguably the solution to this potential problem could be 'repurposing'[82] digital content, especially multimedia content, which is disseminated through various platforms, by means of taking that content designed for a particular scenario, and automatically repurposing it so as to fit another.[83]

In such cases a single computer display can be used for presentation of all visual information similarly, minimising different types of media systems, previously involved, and thus enabling storage of all previously variable information elements in a single type of device. In this sense, storage capacity is simplified and presentation of multiple constituent elements or categories of works becomes uniform. Ultimately any pre-existing differences of media type become invisible and insignificant to the user.[84] This effect of digital technology as supported by appropriate software tools is usually referred to as 'integration'.

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[81] In fact, it can potentially lead to multiple different versions of content integrated in multi-media and multi-works, as well as in multimedia. Ibid.

[82]'Repurposing' is "a catch-all-term for conversion of a broad range of different publishing types and components printed documents, digital documents, photos and other bitmap graphics, vector graphics." As defined at SCC110 Multimedia Design, Lecture 23, 'Repurposing media content for the web', http://www.deakin.edu.au/~agoodman/scc110/lecture23.pdf. As such, content repurposing allows all different types of content and works consist of a variety of data to become customisable, and thereby promotes their re-use, even in the course of producing a multimedia work. See for instance, the BELLE project aiming at the development of new models and tools facilitating content repurposing for educational multimedia works. Similar research initiatives have taken also by members of the IEEE Multimedia Computer Society in respect of multimedia; supra note 79. See http://belle.netera.ca/info_repurp.htm and http://www.computer.org/ respectively.

[83] Fundamental to this approach is the need to maintain a single copy of the content in its original form and to repurpose the content to fit the desired scenario in real-time and in an automated fashion. As supported by software engineers involved in this research and development field. See the IEEE Multimedia Computer Society, supra note 79.

[84] Uniformity of integrated literary and audiovisual works, for instance, will not be apparent to users of multimedia works. From a technical perspective, this explains also why the 'look and feel' of multimedia cannot be appropriately separated into 'look' and 'feel' in order to measure appropriately authors' creativity invested in these layers. This problem shall be considered from different perspectives in the following two chapters.

### 3.3.1. Integration and Computer Systems

Integration of multimedia constituent elements cannot be seen in complete isolation to the computer systems and software programs supporting the creation and use of the final multimedia work. In other words, whether integration will apply in respect of all constituents or just some of them cannot be a matter of the author's or producer's choice alone. This means that integration applied in whole or in part of multimedia elements cannot be the outcome of an author's or producer's process alone, independently of the technological means available at their disposal to materialise the desired resulting work. It will be technological advances in software, hardware, inter-operability, compatibility and standardisation that will determine to what extent integration of constituents can take place for the purpose of achieving the desired result.[85]

In this sense we may say that integration of elements and works included in a multimedia work will not be necessary in all cases. It will rather depend on other factors underlying the creation of the final work, such as the purpose of use, or the means of delivery.[86] In so far as integration of all constituents can be left aside, without affecting the originally perceived purpose or dynamic presentation of constituents to be materialised in the end result work, then we may assert that integration does not constitute a distinctive feature of multimedia works.[87]

### 3.3.2 Integration and Fixation or Dematerialisation?

To the extent integration of different categories of information elements and media in a uniform way is undermined by current levels of convergence of different media, platforms technologies, and infrastructures it is important to consider the latest trends in network and platforms related industries. The true convergence of technologies and communications, entertainment, publishing and media industries, is

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[85] Meaning the final work of which the outer form and presentation has been dictated by the author's creativity. Hence, the significance of inter-operability, compatibility and standardisation shall also be considered in relation to technological protection measures in Chapter 4.

[86] See note 94.

[87] Unlike interactivity, as will be noted below.

expected to be achieved in the on-line environment, irrespective of different types of network platforms or hardware devices traditionally used. Until recently one single way of transmission existed for each program or service, such as for voice communication or TV-programs, whereas in the era of convergence, all programs and services may be carried out by the entire range of (digital) network infrastructures. Thus, new modes and methods of transmission and exploitation in all market sectors are present in today's on-line environment for traditional products and services delivered via digital network platforms.

Market analysts have estimated that more than 600 different device profiles are available today for accessing on-line content.[88] These devices are connected through a wide variety of networks that include slow-speed wireless, 2.5/3G wireless, dial-up and local-area wired and wireless, as well as high-speed wired networks. As previously pointed out, market trends following technological developments and consumers' demands appreciate more sophisticated multimedia objects, services and applications, in the sense of accessing and enjoying all these in any environment (physical or virtual) irrespective of limits of time and space, storage media and platforms.[89]

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[88] As reported by Squire, Sanders & Dempsey LLP, and Analysys Ltd, supra note 74.

[89] As reported, "successful technologies harmonise with users' needs by supporting relationships and activities that enrich their experience. Users most appreciate information and communication technologies that offer them a sense of security, mastery and accomplishment. Such technologies enable user to relax, enjoy and explore. Technology developers must understand more deeply what users want and need" and they should "respond to this challenge by creating products that more people find useful and satisfying. The new computing must be innovative but also must focus on raising user satisfaction, broadening participations and supporting meaningful accomplishment." As supported by Schneiderman, B, 'Meeting human needs with new digital imaging technologies', (2002), October-December, *IEEE Multimedia*, http://www.computer.org/. Efforts by market leaders to respond to this demand are evident at least in both the software and hardware industries. Hence, in the year 2002 it was announced that Apple, Ericsson and Sun Microsystems have already established a strategic relationship in order to enable network operators to deliver standardised multimedia content to a variety of wireless devices, including mobile phones and PDAs (personal digital assistants). Supra note 58. In particular, the role of Apple's 'QuickTime' is to set the technological standard for content creation and encoding. This content delivery product will provide users with such high-quality multimedia services as movie clips and instant news on demand via wireless devices. Additionally,

In Europe, this tendency is strongly supported by the European Union, according to which, the future expansion of interactive multimedia services will be driven by broadband technology and advanced wireless platforms, such as 3G mobile phone systems.[90] In this context the EU has announced its preparatory actions related to the eEurope 2005, which will try to stimulate "a positive feedback between infrastructure upgrading, both broadband and multi-platform" as well as such service developments.[91] If one takes a look at the 3G mobile industry in Europe, one will notice that all operators of 3G services are busy exploring the next generation of messaging services that will offer the possibility to attach "multimedia objects, such as pictures, audio clips and ring tones"[92], following market demand for more sophisticated services. Additional new features for European 3G terminals are already available today, as reported, or can be expected in the near future, such as integration of special "multimedia functions, (e.g. MP3 player, radio, games, recording function,

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Apple has been focusing its efforts on multimedia and content creation more than any other company in the technology sector. Such best-of-breed products as 'Final Cut Pro', 'iMovie', 'DVD Studio Pro', 'iDVD' and 'iTunes', as well as recently acquired 'Shake and Tremor' multimedia special effects software, "all point to a strategy that involves winning the hearts and minds of digital content producers around the globe." As reported at http://www.newsfactor.com/perl/printer/16326/.

[90] The Commission has announced that it will support the upgrade and efficiency of technology for convergence of fixed and mobile networks, including the transition to the next generation Internet Protocol (IPv6), optical fibre access networks, mobile broadband wireless services (beyond 3G) and broadband access satellite systems. Public authorities in Member States and the private sector should aim to offer their content on different technological platforms, such as interactive digital TV, 3G etc. See the EC eEurope 2005 Action plan, (COM 2002, 263 final) at p.13. Supra note 31.

[91] As provided in the European Union's preparatory acts related to this action plan, "broadband technology is transforming the Internet and opening up new possibilities for interactive multimedia services only possible at very fast transmission speeds. Infrastructure investment is driven by availability of content and services and the development of new services and content depends on infrastructure deployment. The infrastructure evolves and upgrades when new services and applications emerge and vice versa." Ibid. at p. 5.

[92] See the Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, 'Towards the full roll-out of third generation mobile communications', COM 2002, 301 final, at p. 6.

sophisticated organiser functions, such as calendars, micro browsers and Java-enabled handsets)".[93]

In view of this rapidly evolving situation, any arguments supporting that integration and/or fixation should constitute a necessary precondition for the creation of multimedia become increasingly outweighed by new trans-frontier methods of dissemination of digital works, irrespective of any material or platform means used. Therefore, we may say that multimedia, as well as any other digital work, will become increasingly dematerialised in the near future, so far as dematerialisation is sought to satisfy such market demands following consumers' preferences and needs.

In other words, fixation of a high-level interactive multimedia work will take place, in so far as permissible by information technology, and only if necessary for marketing or such other purposes determined by the multimedia producer.[94] As such, neither integration nor fixation of constituent elements and works alone, irrespective of any other factors can explicitly constitute distinctive features of multimedia.[95]

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[93] Ibid at p.7.

[94] This may be the case, for instance, where the producer of such a multimedia work is also responsible for its marketing. In this context, he may have targeted a particular group of consumers, such as elderly people and a particular market region, such as a country where Internet penetration is low, for the dissemination and availability of the work. Such a profile of would-be consumers and market conditions will inevitably dictate the particular form of expression and distribution of that work, requiring fixation of this multimedia product in order to be (technically speaking) user-friendly to these consumers, who may not be very computer literate. Nonetheless, such restrictive parameters are not promising in terms of profitability, considering that multimedia authors and producers expect to be adequately rewarded for their investment. As such this case will be rare and possibly undertaken only under a funded research program aiming at the equal treatment of minorities, socially impaired persons, or the development of under-developed regions.

[95] A digital work, which is made up of multiple media and information works, integrated in whole, and/or fixed in a permanent material form, will not be characterised as multimedia simply as a result of its constituents' integration and fixation in one single information carrier. On the other hand, asking one to produce a multimedia work should not imply that one has to integrate all constituents in a single format for the purpose of having the end result fixed on one material form or place only. The technique of repurposing content can overcome this hurdle today. Hence, the concept of fixation becomes by default broader in the on-line environment, and it is increasingly transformed especially when coupled with interactivity. As such, the traditional concept of fixation and materialisation is out-dated in today's

Additionally, inter-operability and compatibility will be the next key-features and virtues of multimedia works. The more dematerialised multimedia works are on demand, the more inter-operable and compatible the communications networks and computer systems will be, in order to support appropriate dissemination of such multimedia to consumers. In this way, multimedia works will become equally attractive and easily consumed, and ultimately its market value will be increased in the new multi-dimensional environment. Hence, the leaders of the IT, publishing, entertainment, and communications industries interested in gaining the lead in the developing multimedia market should start thinking three-dimensionally, not two-dimensionally.[96] In this sense, dematerialised, compatible and inter-operable multimedia works will increasingly become essential and valuable.[97]

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on-line, virtual, three-dimensional environment. In this sense, there is no need for a certain form of stability, (such as that offered by a personal computer), sequence or permanence in dematerialised digital works, and especially in multimedia works being highly interactive.

[96] This is so especially since production of dematerialised, compatible and inter-operable multimedia is driven by market and public demand as it has been submitted by representatives of leading media groups of companies interested in multimedia. In support of this it is also expected that consumers shall be able to access any kind of multimedia regardless of any device or software incompatibilities, only if the industries involved in the developing multimedia market develop solutions vertically rather than devising their schemes horizontally across one industry, (such as the music or the film industry). This is the proposed three-dimensional way of thinking they should adopt. As suggested by Curran, T, on behalf of Bertelsmann, at the Digital rights management workshop, Brussels, February 28, 2002, See also note 178 at Chapter 4.

[97] The problem of standardisation in distribution media may be partly overcome, in so far as on-line distribution of multimedia works becomes more popular among consumers. This is said in so far as increased consumer demand for inter-operability succeeds in pushing market forces to overcome the problem of standardisation and satisfies consumers; ultimately increasing their sales. If this becomes true then the content of multimedia will still be the greatest key-feature with multimedia, and it will become even more significant for multimedia production. It is important then to leave some space free for this feature to prevail especially when concerned with the final shape of multimedia definition. Even if we succeed in this, it still remains to be seen whether content will still be the real value of multimedia when compared to higher levels of interactivity.

### 3.4 Richness of Interactivity

Digital technology has also facilitated more variably dynamic presentation and use of constituent elements of digital works than was possible before. Producers of digital works rich in information content can make their end products look more attractive to consumers if they have simply included a minimum amount of interactive options. Especially in cases where the market value of the final work is not found in the information elements per se incorporated, but in the way they are presented, then we may say that digital technology helps producers to overcome the potential risk of a market failure.[98] Once the constituents of a digital works are presented in a variably dynamic way, meaning in a high interactive mode, inevitably its market value becomes enhanced. Thus, the entire work can potentially become an added-value work by reason of its richness in the 'use' and 'feel' aspects of its constituents.[99]

#### 3.4.1. Interactivity and its Origins

The concept of interactivity, however, is not new, but somewhat older than that of digital technology. The idea of developing an interactive memory extension

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[98] Meaning their market failure to produce a high quality and/or quantity in terms of information content work for which they should be rewarded, and thus, being able to recoup their expenses. However, making most of such technological advances, as interactivity is, producers can somehow save their low quality works from being a complete failure in the market place, and thus, at least recoup their production expenses. See also the discussion in relation to the sui generis right proposal for protecting non creative multimedia only for what they are really worth, Chapter 4, section 5.

[99] Richness in the 'use' and 'feel' of multimedia ensures that users can use incorporated information materials and works without necessarily watching only as passive viewers. Instead they become active users of these materials by means of interacting with them to such a degree that the types of feelings they can get from this kind of use will not be the same as when they first initiated use of that work. As such the degree of 'use' and 'feel' users may experience when using a digital work with interactivity functions will very much depend on the level of interactivity entailed. This is important, because not any kind of digital work being interactive in some way, such as a database or a film recorded on a DVD, can be at the same time multimedia. The level of interactivity necessary for a multimedia work in addition to other prerequisites should be higher than that present to databases, for example, as will be explained in this chapter below, as well as in Chapter 3, while comparing multimedia with databases.

machine capable of including images, text and audio, and allowing users to make associational links between items of information is not a new phenomenon. It had originally been illustrated in some detail by Vannevar Bush in 1945, in a seminar article presented under the title 'As We May Think'. In particular, he proposed a new mechanical machine, the 'Memex', which would help someone find information based on association and context, rather than strict categorical indexing.[100] In this respect, Bush's article presaged the idea of digital technology, the Internet and the World Wide Web, and was directly influential on the pioneers of the hypertext and the Internet, as we know it today. In particular, Ted Nelson coined the term 'hypertext' in 1967, while commenting on the principles of Bush's novel idea, which as published some 30 years before the invention of the personal computer and 50 years before the web became a public phenomenon.

### 3.4.2. Interactivity and Digital Technology

Unlike integration, interactivity can be seen alone, in isolation from computer technology in a non-digital environment; this was proved in the early 1900s. In particular, there was a famous publishing event called 'Hopscotch' which was literally a package of documents, which the reader could put together to create his own unique novel.[101] Different feelings acquired through various interactivity functions, and

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[100] Bush perceived this idea because he wanted to help scholars and decision makers make sense of the then fast growing amount of information published in public. He said that "a memex is a device in which an individual stores his books, records and communications and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory." In this mechanism the process of tying two items together is the important thing. Furthermore, in the 'As we may think' and 'Memex revisited', Bush proposed the notion of blocks of text joined by links and he also introduced the terms links, linkages, trails and web to describe his conception of textuality. See Vannevar, B, 'As we may think', (1945) 176 *Atlantic Monthly* 100 at pp.101-8 (original publication), but retrieved from http://www.ps.uni-sb.de/~duchier/pub/vbush/vbush.shtml.

[101] This example was provided in the paper presented by MacGregor, B, and MacGregor, B, 'The multimedia microwave oven; reflections on audio visual delivery systems', paper delivered at the

stimulated by the use of digital technology can be found only in higher levels of computer-based interaction.

However, high-level or even infinite interactivity cannot be seen or felt without digital technology. In this sense, it is only by means of digital technology that users can amplify their capabilities interacting with the material to higher and perhaps one day to infinite levels and modes[102], and thus their perception of the 'look, use and feel' of multimedia.[103]

### 3.4.3. Levels of Interactivity

Interaction entails that users enjoy to a level predetermined by the underlying computer program, some kind of control of what is presented, and we could say that it can take place on four levels[104]:

(a) The simplest level of interaction involves the selection by the user of the time, the order or the speed at which presentation takes place, or the form of the information items. To this level, presentation of computer-controlled information should have

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Proceedings of the IEEE International Symposium on *Multimedia technologies and future applications*, Southampton, England, April 1993, (eds) Damper, Hall, and Richards, 1994, at p. 125.

[102] Unlimited interactivity among different recipients via TV-cables is not yet possible. This type of communication will become feasible in the so-called 'digital phase 2', in which "the traditional tree structure will be replaced by a general communications structure. Such a star-shaped communications structure of the TV-cable networks also permits the transmission of voice that has so far exclusively taken place via the public-switched telephony network or the mobile telephony networks. Hence, in this digital phase 2 competition may arise with regard to the transmission of voice between different network infrastructures". Bartosch, A, 'The Green paper on convergence - A contribution to the discussion on the road to the information society' [1998] 3 *CTLR* 103, at p.104.

[103] As will be noted below, high-level interactivity is only a de minimis requirement for a work to be considered as multimedia. Infinite interactivity will characterise the next generation of sophisticated multimedia works. Only through high-level interactivity will users be able to look, use and feel the full potential of multimedia.

[104] According to Choe, J, five standard levels of interactivity are said to exist: (a) no interactivity, (b) manual interactivity, (c) limited interactivity, (d) true and versatile interactivity, and (e) full interactivity. See Choe, J, 'Interactive multimedia: a new technology tests the limits of copyright law' (1994) 46 *Rutgers Law Review* 929, at p. 935.

been designed with the use of software tools in a non-linear mode, so that the user will not be restricted to viewing the end result from the beginning to the end. Instead, the user should be able to choose between a certain number of navigation routes through the constituent elements.

(b) At a higher level of interaction, the user input can be recorded to annotate, modify or enrich the contents of the information stored as the case is with computer games.[105]

(c) The third level of interaction involves the actual processing of the users input and the computer generation of genuine replies. This potential for recording and analysing users' interactions taking place has become a great advantage for multimedia works.[106]

(d) However, the real essence of interactivity is found in those cases, where users are allowed to control, manipulate, morph and sample the components to such a degree, that users may construct a completely new work, different from the original piece of work, though using the same components.[107]

At this point it should be understood that this high level of interactivity distinguishes multimedia from any other conventional type of work. Presentation of constituent elements and categories of works may be so dynamic that users are given the impression of controlling almost without limits the action or the flow of information presented. While this infinite level of interactivity is not possible since the presentation of the constituents has been predetermined and controlled by underlying computer programs[108], in the near future it is expected that multimedia will

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[105] See Kelly, supra note 8 at p. 23.

[106] Fluckiger, at p. 27 supra note 79.

[107] This situation has been classified as the fourth and fifth level of interactivity, where the fourth entails "true and versatile interactivity", such as "interfacing a video player with an external computer or allowing a user to control graphics, animation and video images", and the fifth relates to "full interactivity" such as "authoring and delivering with a complete hardware and software package". See Stamatoudi, I, *Copyright and multimedia works, a comparative analysis*, Cambridge University Press, 2001, at p. 26.

[108] For example, these could be as complex as having a computer remember every action the user makes, and then having it adjust the range of options presented at each stage of the piece on the basis of the user's previous behaviour. As suggested by Kelly, at p. 23, supra note 8.

be interactive irrespective of any limits.[109] This dynamic way of presentation (and use) of constituents should necessarily characterise any sophisticated multimedia work.

Additionally, the fact that interactivity enables the user of a multimedia work to form a new work within the first multimedia work raises important legal questions in relation to the concept of creation, authorship, and the role authors, producers and users can play.[110] This situation may become more complicated in a hypermedia environment where an author, for example, writes a hypertext story and invites anyone interested to encounter it so as to add, delete or alter any part of the author's original story.[111] As such, use of digital technology, and particularly the presence of interactivity in the on-line environment poses new challenges for law, and subsequently for the multimedia creators and producers.

### 3.4.4. Interactivity and Law

In the above context, the nature and identity of each player involved is called into question, especially that of the reader, who is actively engaged in such an explicit interaction with the hypertext story that it may be almost impossible to distinguish who is the author and who is the reader. In a hypermedia environment, almost everyone can potentially be either the reader or the writer.

On the other hand, the reader of a work with hypertext links is also aware that its co-authorship may be diffused or doubted, and that "the authorial voice of the

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[109] As expected this will take place in the second digital phase through Internet-enabled TV infrastructure and broadband services. Bartosch, supra note 102.

[110] In other words, it will not always be clear whether the user who initiated a new and different work can be considered as the author or the co-author of that new, and perhaps original creative work; or else, will the user of an interactive multimedia work be the author of a new work or the co-author of the former interactive work? In so far as interactivity is predetermined by the underlying software program, and thus, by the producer and editor perhaps, it is submitted that no authorship should be awarded to the user. See also the discussion following in the next section.

[111] Such as the stories published at http://www.transformationlist.com/story/.

artefact is plural, communal and de-centred".[112] Therefore, the reader becomes potentially co-author to a greater or less extent, and in this manner the process of reading leaves some trace upon a work that is not fixed. In this sense digital technology, by means of interactivity, enhances fluidity in the relationships of the subjects actively participating in complex and dynamic environments, such as a hypermedia or even virtual environment.

Another example is that of users of DVDs, who are enabled to modify the original film by means of viewing those scenes that were not included in the released version of that film.[113] Should use of this potential for interactivity constitute reproduction of that film or the creation of another totally new film attributed to a new author? Relevant to this is also the question as to whether digitisation of information, meaning the mere conversion of works into binary code constitutes an act of reproduction or whether it refers to a new work?

According to some, such conversion per se amounts merely to a transformation of data into another format; thus, it should not be regarded as producing a copy in the traditional meaning.[114] On the other hand, if one supports the view that digitisation per se leads to another set of original data, which in traditional terms may be considered as reproduction, it should be questionable whether digitisation alone leads to the existence of a new work. However, it is suggested that mere digitisation of a work neither refers to a new work, nor constitutes a new manner of using protected material.[115] In support of this view, it is submitted that there is nothing new in the combination of several types of works within one larger work or

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[112] Biggs, S, 'Speaking with the other' Ex Orient Lux, (ed.) Calin Dan, ArtA, Bucharest, Romania, 1994, and European Media Art Festival Catalogue, Osnabruck, Germany 1994, at http://hosted.simonbiggs.easynet.co.uk/textworks.htm.

[113] Graznak, at p.73, supra note 66.

[114] Loewenheim, at p. 46, supra note 37.

[115] See also Dreier, T, 'Copyright digitised: philosophical impacts and practical implications for information exchange in digital network' (1993) 24, *IIC*, http://www.intellecprop.mpg.de/Enhanced/English/Homep..HTM.

on one data carrier.[116] If this position is valid and applied by analogy to multimedia, at least when viewed as a composite of different works, then this work could not have been realised or fixed. If so, then we should ask ourselves whether multimedia constitutes a new form of work, and if so whether it should be protected as such.[117]

As such, in relation to the previously raised questions, the following points should be clarified. At this point we cannot accept that such modification results in the creation of a new work. This is so in so far as the modified outcome has been somehow foreseen by the multimedia producer and creator, and predetermined in the course of designing the particular user-interface and interactive mode, as well as the underlying computer program, necessary to make reality of this overall effect. As such, the 'new' work potentially created by users in the course of their interaction with the multimedia constituents, has actually been predetermined by the underlying computer program deployed by the multimedia producer and creator for that purpose, in a similar way to computer games' mode of use.[118] In a strict sense, the resultant outcome of users' interaction cannot amount to a genuinely original creative work, since it has not been created from nothing, but dictated by the multimedia producer and creator(s).[119]

### 3.4.5. Richness of Feelings

At this point it is important to understand that it is the multimedia author's and producer's aim to create a multimedia work, capable of giving users an unprecedented

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[116] Dreier, T, 'Copyright law and digital exploitation of works and the current copyright landscape in the age of the internet and multimedia', http://www.intellecprop.mpg.de/Enhanced/English/ Homep.. HTM.

[117] These questions will be answered in Chapters 2 and 3.

[118] As such in a German case, *Re Copyright Protection for Computer Games* Case 4 St RR 64/92 [1994] ECC 354 OLG (Bavaria), it was held that interactivity in computer games cannot amount to alleging that the changes made by the player constitute "a new film produced by him", since "all conceivable changes are already pre-programmed". For more see note 189 at Chapter 3.

[119] Supra also note 110. The issue of multimedia being a 'work' for legal purposes will be discussed in Chapter 2, and in relation to other copyright works in Chapter 3.

experience of use and feel, by means of interacting with the multimedia elements at such a high level that users may become to some extent creators.

As a result of this active rather than passive mode of use, multimedia users experience various feelings, such as the joy, pleasure and satisfaction of becoming a creator, rather than being just a user; that of playing, experimenting and being amused, while changing, reshaping and morphing the contents, rather than merely watching and/or using a static product.[120] In this context, multimedia users are engaged in a dialectical type of communication with the multimedia work itself, its authors, and its co-users (if any).[121]

Without doubt, the multimedia producer and authors' intention is to create exactly this dynamic in its 'look, use and feel', enough to be used for informational, utilitarian, entertainment and/or communication purposes.[122] The outcome of this creation should be a higher-quality, and added-value creative work, namely multimedia.

### 3.4.6 Interactivity and its Limits

The level of interactivity available to mass-consumption is limited by technological means, meaning underlying computer means and hardware systems.

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[120] Such as a computer program, a database, or a traditionally fixed film.

[121] It is hereby suggested that such a high level of interaction inevitably initiates an open dialogue between users and multimedia authors, who have designed the particular multimedia work to function as such. More than one user may enter this dialectic scheme, irrespective of their presence in the same or different location, as long as they can interact simultaneously on a real time basis, such as through the Internet, an interactive TV-programme, or a mobile phone.

[122] This multi-purpose use of multimedia emphasises even more its individuality and uniqueness compared to other complex informational and utilitarian as well as entertaining works, such as compilations, databases, and films. It emphasises also why multimedia was previously held to be at least, three-dimensional. Additionally, it should be clarified that referring to multimedia as a dynamic work, one should not understand what is implied by the so called 'dynamic' databases, meaning those databases that are subject to continual modification, and thus, to a perpetual type of copyright protection; see note 31 in Chapter 3 in relation also to *British Horseracing Board Ltd v William Hill Organisation Ltd* [2001] RPC 612 at para. 33.

Together these predetermine the level and degree of users' interaction with such constituents and works. In this sense we may assert that the user or viewer is not absolutely free to create whatever he wishes, and as such it is hard to say that the work resulting from such modification and re-synthesis of original material will be a completely new and original creative work.

However, when considering the future, and attempting to clearly establish the notion of multimedia, we cannot rely solely on our knowledge and perception of today's technological means. The imagination and creativity of authors and producers of future multimedia works that will enable users to interact at higher level, should not be constrained by today's technological limits. As noted, forthcoming technological developments and convergence of different infrastructures and media are expected to drive users' interaction to an unprecedented degree, and perhaps infinite ways of unexpected and unforeseen conjunctions of constituents. In this light, it is expected that "the ultimately limited imagination and foresight of the artist" will be "transcended through secondary authoring by the viewer".[123]

Interactivity therefore, is one of the greatest key-values found in multimedia, and it can potentially affect certain traditional notions of 'reading' and 'viewing', as well as the fundamental copyright law concepts of 'authorship', 'reproduction' and 'work'. It may affect these concepts in such a manner that they may develop in a revolutionary and unforeseen manner.[124] This effect of interactivity and principally the impact of (underlying) digital technology in the 'look, use and feel' of multimedia, may also shape to some extent the kind of legal protection afforded to multimedia, as we shall discuss later on.[125]

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[123] Biggs, supra note 112.

[124] In fact, it may cause "a new mode of historicity", as proclaimed by Jean-Joseph Goux, now that "the imaginary signifiers of paternity are called into question" and "at a time when the socio-historical meaning of creativity is overturned. As was commented by Goux J, in relation to the effects of techno-capitalism on human knowledge, creativity and paternity. Goux, J, Curtiss, J, and Gage, J, *Symbolic economies: after Marx and Freud,* Gage Trans. Ithaca NY Cornell University Press 1990, at p.1934. See also Botting, F, 'Culture and excellence' [1997] 2 *Cultural Values* 139, at p.153.

[125] As will be concluded in Chapter 3, multimedia cannot be adequately identified with any existing subject matter protected under copyright particularly because the outer presentation and multi-

### 3.5 Digitisation in Context

These features and effects of digital technology, irrespective of any other factor, such as degree of creativity-input and artistic value, can bestow a great level of quantity and thus of quality in multimedia.[126] The fact that by its nature digital technology alone can confer multimedia with high level quality[127], and thus increase the market value of multimedia, raises serious repercussions in relation to its particular form of legal protection.[128] In other words it should be questioned which particular attributes or contents of multimedia are valuable enough to be susceptible to piracy and misuse, and as such to qualify for legal protection? Or, which particular 'work' should be the subject matter of legal protection?[129] These questions however, shall be dealt with in the following chapters once we have become acquainted with

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purposive use of its constituent elements supersedes that of other works. This becomes possible because of multimedia works' higher-interactivity functions affecting what we see, use and feel through it.

[126] With photo compression techniques, for instance, the 'more' and 'heavier' data (in number of pixels) is put in a work without deteriorating the presentation quality (resolution), the higher the level of quality of the end result work will be.

[127] Including high-quantity.

[128] As will be discussed below, digitisation facilitates commoditisation of information at a goods and services level. This effect is strengthened, in so far as copyright protection is chosen as the most appropriate regime of protection even for complex and multi-dimensional works, at least information-based works, such as databases; albeit being two-dimensional as a result of their informational and utilitarian nature, and not stricto sensu single-dimensional as is any traditional literary work (excluding databases and films). By analogy, should multimedia, being multi-dimensional and multi-disciplinary be protected as a literary work under copyright? As already mentioned, multimedia is at least three-dimensional as a result of its 'look, use and feel', and its hybrid informational, utilitarian, entertaining and communicative nature and purpose of use. These questions shall be considered particularly in Chapter 3.

[129] From a strictly legal perspective, the subject matter will be defined in Chapter 2.

the basic conceptual features of multimedia, and its social ramifications erga omnes in the Information Society.[130]

Above all it has become apparent that digital technology has facilitated the realisation of a new complex and dynamic added-value work; multi-dimensionally rich in quantity and quality of information content, presentation and usage; the 'look, use and feel' of multimedia. This is:

- what we look, read, watch when using a multimedia work (such as text, compilations, databases, films); the 'look',
- the underlying software operation program, or else the technical base of multimedia, necessary for looking its constituent elements, interacting and communicating, ultimately for the purpose of using multimedia; the 'use', and
- the outer form of both presentation and use of what we look, and unavoidably use, by means of interacting with the constituent elements (such as the user interface) and communicating with other participants; the 'look use and feel'[131].

## 4. Digital Technology and Multimedia

Multimedia is not only a complex product but also a valuable work in which different information elements, media and categories of works are embedded and presented in a dynamic and often sophisticated manner; resulting in the homogenous end product referred to as multimedia.

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[130] Meaning towards right-holders, users, and the public alike, the main players in the Information Society, as the Commission had noted in relation to the growth of a new 'Information Society' brought about by the emergence, and convergence of new information and communications technologies. The Commission of the European Communities, White Paper on growth, competitiveness, and employment - the challenges of ways forward into the 21st century, COM (93) 700 final, Brussels. The Commission of the European Communities, Green Paper on copyright and related rights in the information society, Brussels, COM (95) 382 final, July 19, 1995 (hereafter, 'Green Paper 1995').

[131] Notably this should be distinguished from the commonly referred to as the 'look and feel' of user interfaces of computer programs (such as in *Lotus Development Corporation v Borland* F 3d 355 [1995]) that arguably should be protected under copyright.

As was illustrated above, digital technology has offered the means to anyone interested in the creation of multimedia to produce such a product. In practice, a number of physical persons and/or legal entities can be involved in the creation and production of multimedia investing their creativity, know-how, expertise, time and effort in many different ways; these may be the creators[132], the authors and artists[133], producers[134], right-holders[135], makers or developers[136], and perhaps editors.[137]

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[132] In this context when we refer to creators we mean authors and artists, those who have actually created the works incorporated in the final multimedia work. These may be either pre-existing or newly created, and/or commissioned material that may have been created either independently or in the course of their employment.

[133] Artists may also be responsible for the design of the interactivity functioning and presentation of the constituents as well as of the interface and layout. The extent of their involvement in these shall be decisive also for any artistic value embedded in the multimedia work as previously referred to.

[134] When we refer to the producer of a multimedia work we mean the person or legal entity usually responsible for the overall project design, and development following the original idea conceived for creating such a work. In most cases the producer is also in charge of acquiring, collecting, bringing together and perhaps combining all necessary constituents of the multimedia work under development, as well as any necessary licensing rights, especially for digital uses either from authors or other right-holders, including collecting societies. As such the greatest, if not all, part of the necessary investment, and thus value, in terms of time, effort and money, apart from any literary or artistic hints, is usually put in by multimedia producers.

[135] When we refer to right-holders, we mean the physical or legal parties holding certain proprietary rights of the works of aforementioned authors, such as the publishers, producers and collecting societies.

[136] The maker or developer should be distinguished from the producer to the extent that the former party is not in charge of planning and designing the end-result, which shall constitute the multimedia work. The maker will most often be responsible for the technical organisation and the physical development of the product, varying from the design of the software operating program, screen displays, functionality, digitisation and storage of constituents, to design of the look, packaging and form of the end-product. As long as makers and perhaps editors can share equally the glory of publishers, that of being creative in the course of multimedia production, they may all be considered as co-authors of the same work. However, the issue of authorship in multimedia works will be discussed in Chapters 4 and 5. See also Turner, M, 'Do the old legal categories fit the new multimedia products? A multimedia CD-ROM as a film' [1995] 3 *EIPR* 107 referring to makers as project participants.

[137] Nonetheless, development of the compilation and collection of multimedia elements may be carried out by another participant, such as the editor, without necessarily affecting the degree and level of

Digital technology has also facilitated new forms of interchangability through free combination of multi-media and multi-works, and reproduction of perfect quality copies of works (often copyrighted) at little or no cost. As such, it is also responsible for increasing public access to a great variety of works and a plethora of new and creative material.

These information works and elements may be either new or pre-existing, but where once available only in single media form, today they are found incorporated together in one single work. As such the level of use and distribution of existent works and that of creation of new creative works, such as virtual three-dimensional sculptures, have been similarly affected.[138] At this point we may say that digitisation has offered authors, artists, producers, and editors a new kind of freedom to explore and discover new and complex creative forms, which previously could not have been materialised, but only conceived by one's imagination.

### 4.1. Multimedia Works; an Amalgamation of Art and Science

Since computer graphics, for instance, were made available to scientists and artists, the science of philosophy and art has finally been re-united and can be developed in the form of new creative works. These works, such as multimedia, can be perceived both by ones' senses and reasoning[139]. All this is possible today with the use of digital technology.[140] In this context the line between art and science may

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producers' investment. Notably the users are not included in this list of projects participants in the course of creation and production of multimedia, since their role is creative only within limits, which are predetermined by the interactivity options available to them, and as such cannot be regarded as creative or significantly valuable in relation to the multimedia work, as previously mentioned. See Stamatoudi at p.35, supra note 107, referring also to users as project participants.

[138] Digitisation encourages entertainment producers to create and distribute products of all kinds in a single digital format, as commented by Kelly, at pp. 63 to 65 and note 65, supra note 8.

[139] Notably, Plato had argued that reality consisted "of pure essences or archetypal ideas, of which the phenomena we perceive are only pale reflections. These ideas cannot be perceived by the senses but by pure reason alone". See Kelly at p. 65, ibid.

[140] Involvement of computers in the production, process and operation of multimedia works satisfies the 'reasoning' condition. Involvement of various media forms and presentations that can capture our

become blurred, since artistic creativity and computer science can meet together with the use of digital technology.

In practice, this situation has been demonstrated in cases where the entertainment industry, for example, and Internet or voice service providers have collaborated for the development of a single multimedia work or service, where elements and works produced by both industries co-exist. As such, sophisticated web-sites and information services provided through the Internet and mobile-phones providers become increasingly popular subject to their particular content and presentation.[141]

The greater the amount of variable and up to date content available on a 24-hour basis, presented with sophisticated interactivity functions and some design, the more popular the end result of such work or service becomes among consumers and users alike. In fact, users are attracted not only by the quantity and quality of information they are provided, but also by its presentation, the design of the user interface, the lay-out, frames and fonts coupled with certain interactive functions. In other words, it matters to users and consumers how artistic and imaginative the entire work or service they are offered, can be.

Multimedia authors, artists and producers can create and develop such creative multimedia works satisfying even the most demanding consumer. Therefore, high-quality and creative multimedia can potentially be treated as a work of art and science. This amalgamation should be reflected in the dynamic interface of any creative and sophisticated multimedia work, albeit being also functional. [142]

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attention by means of watching, listening, doing, satisfies the 'senses' conditions, (such as inclusion of text, music, video, interactivity functions), their integration and inter-operability is facilitated by digital technology.

[141] Of course, the importance of inter-operability and compliance with other networks and supporting computer technologies should not be underestimated.

[142] Multimedia is neither artistic, nor functional alone, in so far as it is the result of both creators' and producers' creativity and imagination in the course of designing the end result of their work, rather than producers' investment alone (meaning a non-creative multimedia work, thus, a sui generis multimedia work). However, it can be (a) artistic and informational at the same time; and (b) artistic and functional, since informational and functional virtues can co-exist (in a database for example). (Whereas, not every literary or functional work can be artistic at the same time). As Gabo N, pointed

## 4.2. De-centralisation of Multimedia Protagonists

Today home users of PCs, who can afford medium-quality software tools and hardware components may create sophisticated entertainment products, which previously could only be produced by large corporations. This new societal phenomenon of 'de-centralisation' of creators, users, and distributors, the protagonists in the arena of multimedia works, has led to further implications. The prospect of informal arrangements between these parties, makes traditional practitioners worry that traditional contract and licensing mechanisms cannot accommodate such fluid and decentralised relationships.[143]

Especially in the course of multimedia works' production, where a large number of creators may be involved, certain implications may arise when determining the reasonable amount of remuneration for the digital rights, for example, and the criteria upon which such remuneration will be calculated.[144] This fluidity, mostly affecting the relationships of the main players in the Information Society, will be facilitated even more in the near future by ongoing developments in the field of

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out, "the artist and the scientist are looking in different directions for different things, although their original impetus for looking may be the same and often what they find are analogous to one another. However, this is not to say that art and science need be governed by or expressive of particular paradigmatic developments. Their histories may be parallel, but not necessarily the same", quoted by Biggs, S, 'Culture, technology and creativity', lecture delivered at the *Institute of Contemporary Arts*, London, 1991, at http://hosted.simonbiggs.easynet.co.uk/textworks.htm.

[143] As a result, some right-holders impose extra-contractual restrictions on users' scope of rights with respect to access and use of their work, especially through standard types of electronic contracts, in addition to strong technological protection devises. In relation to these measures see Chapter 4. See also Anonymous, 'Visual artists' rights in a digital age' (1993-94) 107 *Harvard Law Review* 1970 at p. 1981.

[144] In relation to these complexities see for instance: Hugenholtz, B, 'Licensing Rights in a digital multimedia environment' paper presented at the European Commission Legal Advisory Board Conference on the Information Society: Copyright and Multimedia, Luxemburg 26 April 1995; Fitzgerald, J, 'Licensing content for multimedia' [1998] 84 *Copyright World* 23 et seq; Loewenheim, U, 'Multimedia and the European copyright law' at p. 51 et seq., supra note 37; and Henry, M, *Publishing and multimedia law,* Butterworths, London, Dublin, Edinburgh, 1994, at pp 306 and 307; see also note 105 at Chapter 3.

interactivity.[145] If so, the status of classic copyright concepts of authorship and paternity is expected to be jeopardised. In this sense, digital technology may alter also the way a person views himself, as well as his position in society.[146]

### 4.3. 'Information Thrust' or 'Information Anxiety'

In addition to the above effects, as already observed most people today have become anxious more than ever before to consume as much information as possible. Sociologists concerned with the impact of information technology upon our post-modern societies and lives have referred to this phenomena by the terms 'information thrust' and 'information anxiety', the effect of which is widening the gap between what we understand, and what we think we should understand.[147] Analysts of the latter

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[145] According to the Green Paper1995, the parties to be the main players of the Information Society are; (a) authors and creative industries; they will be the main players in the field of copyright, and (b) performers, producers of phonograms, cinematographic works and broadcasting organisations in the fields of neighbouring rights. These two categories may also include other groups traditionally accepted, such as publishers, the producers of live performance. Attention also was focused on other co-players, those who have not been directly or immediately concerned with the protection of copyright and related rights, such as the network materials manufacturers, network operators, service and connectivity providers and information packagers and integrators. The public at large, meaning private, professional and institutional users, were also mentioned as playing an important role in the Information Society. See the Green Paper 1995, at pp.24 to 27, supra note 130.

[146] Arguably this information explosion may be viewed not only as "the height of human civilisation", but also as "the climax of its evolutionary existence". Along these lines, this kind of information gathering may indicate an evolutionary dead end. This means that it has become "not only a meaningless ritual, but also and even worse, a deadly destructive paralysing process". As such, "the most significant planetary pressure is no longer he gravitational pull", but "the information thrust", as supported by Stelarc; Stelarc, 'From psycho to cyber strategies: prosthetics, robotics and remote existence' [1997] 2 *Cultural Values* 241, at p. 242. See also the results of the research conducted by the US Congress, Office of Technology Assessment, *Intellectual property rights in an age of electronics and information*, Washington, DC, US Government Printing Office, OTA-CIT-302, 1986, at p. 40 et seq.

[147] The feeling of being anxious in gathering information and processing it has been referred to as 'information-thrust' and then as' information-anxiety'. By extension, sociologists concerned with this phenomenon have characteristically noted that today we mass produce and consume information the

phenomenon noted that the feeling of information anxiety has been strengthened by our dependence upon those who dominate the information we wish to collect and consume. These parties can be either those who design the information we receive, such as authors and editors, or those who are enabled and entitled to exercise their information-power in unjustifiably restrictive manner. Right-holders, and particularly producers and collecting societies, may fall in the last category, in so far as they restrict the flow of information by technical and contractual protection means, so as to preserve their information monopolies.[148]

### 4.4. Multimedia is Power

In relation to the power effect information has, the following distinction should be made. Prior to the dawn of digital technology, 'knowledge'[149] was power, since everybody was relying only upon personal knowledge.[150] This situation has been

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way we used to buy cars. See Davenport, T, and Prusak, L, *Information ecology mastering the information and knowledge environment,* Oxford University Press, NY, 1997, at p. 9 et seq. See also Wurman, R, *Information anxiety,* New York, Doubleday, 1989 at p.34 et seq.

[148] As will be discussed in Chapter 4, certain 'extra-technological' and 'extra-contractual' restrictions may be imposed by these parties to the detriment of users', and sometimes authors', fundamental rights to access and use information particularly in the course of fair-use and unfair-competition practices.

[149] The distinction between terms of 'data' and 'information' has itself become blurred today, and much of the related convergence is the outcome of powerful electronic capabilities affecting the acquisition, storage, and exchange of scientific data. Nevertheless any attempt to define knowledge per se should not disregard the fact that knowledge is the most valuable and the hardest form of acquired information to manage, because someone has given context and meaning, a particular interpretation and has added his own wisdom to it, once having considered its largest implications. Davenport and Prusak, ibid. In general, it is accepted that the present concept of data entails numerical data symbolic data, images and textual data. Overall, the distinction between all three terms of 'knowledge', 'information' and 'data' has become imprecise and with respect to the nature of this research defining these terms would displace its limits without adding greater value to the essence of the work. See the US National Committee for CODATA - Commission on Physical Sciences, Mathematics, and Applications, National Research Council, *Bits of power – issues in the transborder flow of scientific data*, National Academy Press, Washington, DC, 1997, at chapter 1 and p. 4.

[150] In relation to the dynamics of knowledge constituting power one may come across a whole body of research work dedicated to linking the power of sovereign states to furthering the power of modernism

altered now to the extent digitised information has been exploited as an alternative or replacement of personal knowledge.[151] Once information has been digitised (or digitally produced) to be delivered in any environment and by any means, ultimately it became more valuable and thus more vulnerable to be exposed to piracy and more powerful for its owner(s), something that was once attributed only to those who possessed knowledge.[152]

Once digital technology has facilitated this trend, information became a great source of power and today we can say that information is the power.[153] In this context, the more information is contained in a digital work, the more powerful and valuable it becomes for its authors and users. The more diverse information categories are contained in a multimedia work, and the richer the presentation of these in terms of interactivity, the more dynamic and more valuable the multimedia work will be.

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and science. See for instance, Poster, M, *The mode of information - poststructuralism and social context,* The University of Chicago Press, 1990, at p. 77, and Derian, J, 'The virtualisation of violence and the disappearance of war' [1997] 2 *Cultural Values* 205 at pp.205-218.

[151] For instance, decision-making computer systems such as expert systems have contributed to this mutation. Thus, personal knowledge has been surpassed by recorded information with the advent of computing, since any kind of information may be digitised, recorded, and stored in electronic places such as electronic databases; Poster, at p. 71.

[152] What was once proclaimed by Godfrey, D, and Parkhill, D, as the impossible ideal, meaning the availability of "all information at all places and at all times" is today realised as a result of this marriage of computers and existing communications-links; Godfrey, D, and Parkhill, D, *Gutenberg two*, Toronto, 1980, at p.1. As such, information may be readily disseminated from one person to another using any kind of communication means. However, digitised information, no matter how powerful, may be considered it is unable to replace knowledge because, it (knowledge) cannot be transferred so simply, even if it was found embedded in machines. Although one may mass-produce raw data and any kind of information, one cannot mass-produce knowledge since knowledge is created by individual minds, on the basis of drawing on individual experience, separating the significant from the irrelevant, while making value judgements.

[153] In the past two decades, vast amounts of information such as literary and artistic works have become the main source of content for the creation of electronic encyclopaedias and art galleries, which ultimately have been stored in electronic databases. Such works became available to a wide range of consumers through publicity of CD-ROMs, DVD-ROMs and the World Wide Web (www.).

Nevertheless, not everyone can access and possess proprietary information without restrictions, especially quality-information, access to which is deliberately restricted by its right-holders and legislators, unless this person is entitled by law and/or able by other means, such as technical protection devices.[154] Since contemporary societies have developed regulatory regimes imposing rights of use, remuneration rights, restrictions upon acquisition and reproduction of information, for the purpose of overcoming certain market inefficiencies[155], information has inevitably become, and functions as, commodity.[156] Even more so, the more information is integrated into a multimedia work, the more valuable and commoditised the multimedia work becomes.

### 4.5. Multimedia Works as Commodity

Most important of all social (including legal[157]), economic and cultural ramifications brought by digital technology is the ongoing transformation of

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[154] In theory raising such proprietary fences is necessary so as to overcome the potential of market failure and to reward creators and producers for their creativity, time and money invested, and thus, protect them against second-comers and information-pirates. Whether a balanced compromise between right-holders' interests and public policies is reflected in the market place and respective regimes, especially in the Information Society, will be considered in Chapter 4.

[155] As will be explained in Chapter 2, section 4.2.

[156] Information is a commodity, in the context of its being costly, and deliberately restricted in its availability. Once information becomes available only on condition that it is saleable, it is thus properly controlled by market forces. As such, it becomes comprehensible why the market structure of a contemporary society depends on information constituting a commodity. Poster, at p.73, supra note 150. In relation to the information economics and information being a commodity and copyright law, see Landes, W, and Posner, R, 'An economic analysis of copyright law' (1989) 18 *Journal of Legal Studies* 325, and Boyle, J, *Shamans software & spleens: law and the construction of the information society,* Harvard University Press 1996 at p. 35 et seq.; Wolpert, S, and Wolpert, J, *Economics of information,* Van Nostrand Reinhold Company, New York, 1986 at pp. 3-15.

[157] One of the most debatable issues raised as a result of digital technology has been the scope and amount of users' freedom to access and reproduce proprietary information, especially copyright protected information works, such as databases, particularly in view of the Information Society. Attention on these shall be focused while contemplating the effectiveness of the Directive 2001/29/EC

information per se into a commodity, and as such the 'commoditisation' of basic information goods and communication services. To some extent this situation has been facilitated by, (a) the phenomenon of de-centralisation of the roles of creators, users and distributors, (b) the phenomenon of presenting information as a scarce resource, and (c) the convergence of different media technologies and communications industries. In relation to the second factor, reference is made to information as raw material, especially to high-quality information, which is presented and treated as scarce resource.[158]

This practice has been facilitated to a large extent by the growing use of digital works containing vast amounts of variable types of information, such as electronic databases. It has also been mandated by certain lobby-groups made up of the right-owners of such quality-information. In a sense this practice has also been supported by policy makers, and legislators when introducing certain proprietary (copyright) 'fences' for the purpose of increasing information-productivity by means of restricting its flow.[159]

Following this reasoning, when placing multimedia in today's Information Society, it seems almost unavoidable for multimedia works not to be subject to a legal

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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, [2001] OJ L 167/10 (hereafter, 'Copyright Directive'), in Chapters 2 and 4.

[158] However, information is not depleted when it is consumed,, unlike other scarce resources, raw materials, such as oil, for example, as the term 'non-depletability' is used by economists. See Bettig, R, and Schiller, H, (ed), *Copyrighting culture: the political economy of intellectual property,* Westview Press 1996, at p. 97. See also Schurtz -Taylor, J, 'The internet experience and authors rights – an overview of some of the present and future problems in the digital information society', (1996) 2 *International Journal of Legal Information,* at p.132.

[159] The term 'fence' has been used by legal scholars in a way as to describe a wide range of physical and non-physical devices, techniques and arrangements used for securing such an exclusive control. In the digital environment for instance, copyright protection and technical devices can play that role. Iin relation to copyright functioning as such, and the potential problems raised in the Information Society in respect of multimedia, see notes 95, 96 and 97 in Chapter 2; Mackaay, E, 'The economics of emergent property rights on the internet', *The future of copyright in a digital environment,* proceedings of the Royal Academy Colloquium, Information Law Series 4, Kluwer Law International, 1996 at pp. 16 to 18.

regime facilitating commoditisation of its content, once multimedia is regarded as an information work.[160] What would the outcome be, however, should this rule apply irrespective of high-quality or originality of multimedia?[161] In other words, can all multimedia works be treated as a commodity, or just the most valuable ones? And if so, what factors should dictate which multimedia should not be treated as a commodity?[162]

## 4.6. Information Content for Multimedia or Digital Technology

While it is understood that placing certain restrictions upon the availability of information-content, may be necessary to some extent, we should not forget that information constitutes the essential material for the development of new creative

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[160] Most economists of the 20th century had foreseen that today's post-industrial society would be developing towards the provision of services, rather than products, and the source of added-value information would replace labour, whereas possession of information by legal (IP) means will increasingly confer power on its owners, and as such will be treated as commodity, as noted also by Mackaay, ibid. All this becomes so important for the future development of multimedia, especially in the light of the Information Society as envisaged under the Copyright Directive, where the importance of protecting and rewarding creativity, and investment put in "multimedia products", has been expressly noted in its Recital (10), as will be referred to in Chapter 4.

[161] This may be so, especially in these cases: (a) where users have to pay for what should be free, regardless of whether the information to which permission for access is sought is of high-quality, or not; in other words no matter if such restrictions are imposed only on creative, and thus, high-quality works, or even on low-creativity works, such as the sui generis protected databases; and (b) where users' and consumers' natural rights become increasingly undermined as a result of some strong right-holders' mega-information monopolies, and policy makers' failure to establish the necessary balance. In relation to these matters, see the analysis taking place in Chapter 4.

[162] Should it be determined while taking into consideration authors' creativity alone, and/or producers' merit of investment? Which parts of multimedia can be so valuable to be treated as such? These questions shall be considered in a stricto sensu legal sense in Chapter 2. See also the discussion related to a new sui generis right proposed for protecting multimedia works, and the scope of the reproduction right to be vested in the multimedia producer of a sui generis protected multimedia work, in Chapter 4, section 5.

works, such as multimedia, albeit being highly technologically dependant.[163] In the absence of information content, future creativity will be downgraded to the detriment of more sophisticated multimedia works' production. In this context, the prospect of living in a well-established Information Society will not be easily realised, and the vision of Information Superhighways may become unrealistic.[164] If information-content, especially high-quality information, becomes technically or artificially non-existent, new creative forms of high-quality information based works, such as sophisticated multimedia works may not see the light of the Information Society.[165]

As previously mentioned the development of multimedia has been facilitated to a great extent from the convergence of the communications and technologies. However, even if the true convergence of media and services is fully materialised, in the absence of inter-operability, and compatibility, not all consumers will have the necessary means to afford access to multimedia information through all necessary computer systems and devices.[166] Thus, it will be hard for one to create new multimedia works, and even worse for latecomers to be other than those already established, simply by means of relying only on certain technological devices, right-holders' authorisation and state protection.[167] Furthermore, any requisite[168], and thus,

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[163] Multimedia works would not be materialised if the technology was not available to facilitate such ways of expressing works, as discussed above.

[164] In a sense, the dawning of a multimedia era is often perceived as a radical change comparable to the first industrial revolution; see the EC White Paper on growth, competitiveness, and employment - the challenges of ways forward into the 21st century, supra note 130.

[165] This can be so either by extensive, and effective technical protection measures or by 'extra-contractual' restrictions imposed on users, consumers, and later creators in order to restrict their access and use of proprietary works, as will be discussed in Chapter 4.

[166] Although information-content and multimedia may be readily available in the future to be disseminated through high-capacity networks, in so far as the problem of compatibility and inter-operability is not appropriately overcome, those pipes of broadband services will not be filled with all the information they can take, because consumer demand will not be sufficient.

[167] The last one applies especially where lobby groups, right-holders of popular copyright works are keen on over-restricting users' access, and over-pricing their permission to grant users with access to information, even when access to this information should be for free. See section 3.2.2 and 3.2.3 in Chapter 4 in relation to the validity of fair use practices in the light of the Copyright Directive.

potential for producing and developing creative multimedia works becomes reality when creators have not only the means to express it, but also the ideas.

Therefore, availability of information is vital since it feeds creators' mind to produce more information. While digital technology (including convergence of technologies and communications) has been the necessary catalyst for more information power and knowledge, the creation of multimedia is the key to this power and knowledge.[169] The convergence of technologies, media and communications is the means for expressing authors, producers and artists creativity and imagination, when producing a dynamically interactive and sophisticated multimedia work. In other words, convergence seems to be the vehicle we missed in the past for visualising, reading, listening, writing, watching, playing and feeling, all at the same time through a multimedia work, irrespective of limits of space and time.

**5. Convergence and Multimedia**

Not only has creation of multimedia been affected by the use of digital technology. Its dissemination also, as well as its future development can be shaped by the convergence of communications, technologies and media, affecting also its regime of protection to a greater or lesser extent. Most importantly certain reasons related to the convergence phenomenon and reality may adversely affect the future of multimedia. These parameters should be taken into account prior to attempting to define multimedia per se, and determine which particular regime of protection may be appropriate for this new creative form of work. In this context the following points should be emphasised.

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[168] If multimedia is considered to be primarily an information based work worth protecting under intellectual property law, and also under copyright law, it will be creative multimedia works which qualify for such protection, since most literary works are intellectual creations. The problem of multimedia works' protection will be considered in the following three chapters.

[169] In so far as creative multimedia works consist of high quality information content, and access is secured for all interested parties on fair terms, then all Information Society players will be able to participate in it on equal terms.

## 5.1. Multimedia Works as Commodity

One of the most significant impacts of convergence has been commoditisation of information, not only at a products level but more so at a services level.[170] Transformation of information viewed as raw material into a commodity by digital technology alone, has been amplified by convergent technologies at a services level. This vicious circle of information-commodity classified as product, feeding information-commodity classified as service, has blurred the borders distinguishing information based products from information supported services.[171]

In this context, information content and more specifically, 'multi-media' and 'multi-works' as already referred to, have become the major commodity of the Information Superhighways at all levels, products and services, potentially affecting the shape of multimedia works' future. Hence, the leaders of traditional and popular entertainment products, including music, films and computer programs and games, have only recently realised that they should start thinking of their information-based works, and thus, of multimedia content as a value-added service, rather than only as a product.[172]

In this prospect, the leaders of media, publishing and entertainment industries are anxious to see whether it will be media, entertainment, and/or publishing works providers, or communications services providers, who will mostly affect the shape of multimedia? Or will it be the computer technology or the telecommunications infrastructure alone that will dictate market leaders' way of thinking, when making

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[170] As already mentioned above.

[171] It is not always clear when reference should be made to information-based goods or to information-based services, similarly this problem is applied with respect to multimedia goods, products, works and multimedia services. Though, such cases will not appear very often, we should become more familiar with such a situation in so far as convergence of technologies and of their subsequent markets cause this situation.

[172] As Cornish also points out, they "look with nervous excitement" to these potentialities. Cornish, W, *Intellectual property: patents, copyright, trade marks and allied rights* 4th edn, Sweet & Maxwell, London, 1999Cornish, at p. 531 and 532.

their works available to the public?[173] Even more, will multimedia works be treated as commoditised services?

Inevitably new players, along with traditional ones, have emerged due to new marketing and dissemination practices aiming at the provision of various and packaged information content on-demand, albeit in often disruptive ways.[174] Under these circumstances, open networks, and delivery channels through the Internet and well-established e-commerce practices have enabled information content and services providers, as well as information packagers to access customers at any place directly without any traditional intermediaries.[175] As such, marginalisation of monopoly network operators, such as incumbent network operators and broadcasters, who used to exercise their monopoly control separately in the past, has taken place at a service market level. Subsequently competition in these markets has become stronger, and facilitated a rapid development in information service sectors.[176]

Ultimately convergence in IT sectors and equivalent markets started becoming a de facto situation. Whether this situation should also become established de jure is an issue that legislators may have to face ultimately when confronted with conflicts in applying one or another law for the purpose of protecting such a market and its offspring; such as multimedia.[177] At present it remains to be seen how access to

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[173] In fact, this question should not be put forward, in so far as the leaders of the music, film and publishing industries need to think three-dimensionally as already mentioned, and benefit from their knowledge and experience of information works regarded, protected and marketed as products.

[174] Such as the so called 'P2P' ('peer to peer') activities of music files' exchanged over the Internet, engaged by 'Napster'. Although their practices were considered to be illegal, and caused too much harm to the music industry, Napster introduced a new marketing approach and a new business market, that of music, computer games, and films, video-on-demand (VOD) services. These issues shall be considered in relation to multimedia in Chapter 2, section 2.1.

[175] Such as Amazon.com.

[176] See the study conducted by Squire, Sanders & Dempsey LLP, and Analysys Ltd of behalf of the European Commission, at p.3, supra note 74.

[177] See Nikolinakos, N, 'Nature and scope of content regulation for on-line services' [2000] 5 *CTLR* at pp. 126-131. In other words, in so far as multimedia works are treated primarily as 'multi-media' works as previously discussed, they shall reflect the convergence of various IT sectors and infrastructures

copyright (related) protected works will be treated in the Information Society, particularly in cases of conflict of interests between communications service providers' being the intermediaries and traditional information content leaders' being the right-holders of such works.[178]

Overall such problems can become more complex at Community[179] and international level, considering pending market and regulatory inconsistencies, and insufficiencies in the field of wireless and on-line communications sectors, telecommunications and broadcasting services fields that could also affect the development of the multimedia market.[180]

## 5.2. Communications Inconsistencies and the Future of Multimedia

Although the convergence of technologies and communications phenomenon dates from the 1990s, only recently has true convergence started taking place, mainly

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mainly at a services level, let aside the 'multi-works' factor reflecting the convergence of variable information content at a products level.

[178] Although convergence of communications, technologies, and media sectors cannot necessarily imply an identical degree of regulatory convergence, the particular choice of one regime over another will ultimately have the potential of having a greater impact on investment and business planning. Nonetheless, it seems that major information packagers and content providers, and particularly music, software, and film industry's leaders, will be mostly favoured even at the expense of telecommunications providers' interests, should a conflict of interests arise between them. This potential is reflected in the Copyright Directive, at Recital (59), and Articles 4 and 8 (3) as will be explained in Chapter 4.

[179] Empirical research comparing member states' approaches towards regulation of these converging sectors, within the overall framework of Community law, has suggested that there are two main areas in which the current regulatory environment may create such obstacles, namely the telecommunications and broadcasting sectors. Such as the one prepared by Squire, Sanders & Dempsey LLP, and Analysys Ltd on behalf of the EC, at p. 3 et seq., supra note 74.

[180] In response of which it has been suggested that a cross-sectoral evaluation of the policies underpinning existing regulation in the markets most immediately affected by convergence may have to be undertaken, so that a complete transformation of the present communications, technologies and media regulatory frameworks, will reflect tomorrow's multimedia environment to the extent necessary. "In other words, services must be regulated independently of the form of distribution. Therefore, regulation will have to reflect the distinctive nature and characteristics of a given service." As supported by Nikolinakos, supra note 177.

due to the removal of market entrance obstacles, and regulatory inconsistencies in the sphere of telecommunications and broadcasting services. Hence, the level of users' penetration to the Internet within the European Union has only recently been significantly increased.[181] To a limited extent such a slow but persistent convergence can be justified by the fact that it was performed at variable levels, since traditionally separate industries and networks became united for first time. As such, convergence could first be facilitated at a technological level, secondly at market level, and finally at a services level.[182]

Accordingly true liberalisation of telecommunications services, whilst not a new issue in the Union's primary goals agenda, has not been sufficiently achieved across Member States.[183] In the telecommunications services sector, implementation of the harmonised licensing regime following the 1997 Licensing Directive has not been satisfactory, despite the fact that most licensing provisions will be swept away under the 2002 Framework Directive.[184] Consistent and effective controls will

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[181] The number of Internet connections in EU homes stood at 38% in December 2002, up slightly from 36% in June as reported on the web-site of the European Commission. Compared to a 10% increase between March and October of 2000, when Internet penetration stood at 28%, growth levelled off at the beginning of 2001. Still, the rate of Internet use taken up by businesses is far higher than the household rate. Almost 90% of enterprises with more than ten employees are connected to the Internet and 60% have a web-site. As reported at Europemedia news web-site, 'Internet penetration in Europe plateaus', as of 11/12/2002, at http://www.europemedia.net/shonews.asp?ArticleID=8308.

[182] As suggested by Squire, Sanders & Dempsey LLP, and Analysys Ltd at pp.2 to 9, supra note 74. See also Ungerer, H, 'Infrastructure, telephony, and competition - developing cable networks into full-scale multi-media networks - deregulation futures' *The second world CATV strategies summit*, European Commission DG IV, Cannes, France, 3-5 February, 1999, at p. 5 et. seq.

[183] Since the 1st January 1998, two major milestones were introduced in this arena. First was the full liberalisation of European telecommunication markets as stipulated in a series of such measures. Secondly, worldwide commitments were made by the EU, the US, Japan, and a number of other countries in accordance with their commitments under the World Trade Organisation (WTO) framework. Following this development, privatisation followed responding to the emergence of liberalisation, especially in Europe, where privatisation has significantly transformed the operation of communication networks. Ibid.

[184] Directive 97/13/EC of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorizations and individual licences in the field of telecommunications

continue to be required in respect of scarce resources such as the radio spectrum across the Community, and the financial environment for existing, and new alternative carriers has not been promising since 1998.[185]

Furthermore, the 3G mobile services regime framework for the purpose of full liberalisation at EU level has not been effectively implemented, potentially hindering the future development of multimedia through broadband services and the local loop telephony infrastructure, as well as through advanced wireless platforms.[186] Consequently, regulatory efforts are in demand for the purpose of harmonising market-entrance-criteria, licensing conditions and procedures, such as 3G mobile services licenses, across the sectors and infrastructures, mostly facilitating the provision of multimedia.[187]

As a result of these developments in the sphere of communications, the traditional conceptual dividing line between 'telecommunications' and 'broadcasting' may no longer be viable in a multimedia environment, where television, mobile phones, and computers are becoming increasingly 'multi-purpose'.

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services [1997] OJ L 117, (hereafter 'Licensing Directive'). Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services [2002] OJ L 108/37 (hereafter, 'Framework Directive').

[185] This is important to the extent such (scarce) resources are the next key-resources in today's communications, and broadcasting infrastructures. For example, provided future multimedia services call for increasing amounts of bandwidth, the role of the spectrum management will be crucial in so far as multimedia services are aimed to be delivered in whole, or in part by broadband services, and advanced wireless platform. Hence, particularly with respect to the cable operators' sector it has been argued that although there is an ongoing liberalisation trend, still, cross ownership between incumbent telephone operators and existing cable TV networks may still constitute the most critical impediment to the future expansion of this sector in Europe. See Ungerer, supra note 182.

[186] To the extent 3G advanced wireless platforms will play a key-role in future development and popularity of multimedia works and services, licensing of 3G will be crucial as was emphasised in the Barcelona European Council Presidency Conclusions in March 2002, at http://ue.eu.int/en/Info/eurocouncil/index.htm.

[187] As was suggested under the Barcelona European Council Presidency in March 2002, a harmonised 3G licensing regime will be an essential building block to achieve the goals of the Information Society in terms of consumer demand, productivity, competitiveness and job creation. Ibid.

In view of this situation one may argue that wireless communication of multimedia works should be classified as 'telecommunications', and on-line communication of multimedia should be classified as 'broadcasting' services. However, this runs the risk that use of multimedia works in an on-line environment may cause expansion of one or the other traditional regulatory category into areas which may be currently unregulated.[188]. Re-orchestration of the definitional scope of 'telecommunications' and 'broadcasting', 'interconnection' and 'access' services sectors, and the distinctive boundaries between them, may be necessary to reflect present technological developments and market conditions in the field of wireless and on-line communications.[189]

In this context it is suggested that the concept of traditional broadcasting services should be more narrowly interpreted[190], and application of traditional broadcasting rules should not apply by analogy, or mechanically, to new sectors, such

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[188] Of course, this could be suggested in respect of those situations that have not been dealt with under the Copyright Directive, such as the harmonisation of the right-holders' right to control distribution of their works as part of on-line services' provision, and the question of exhaustion raised in cases of services and on-line services, which have been excluded from its scope. See also Recital (28) and (29) and Article 4 of the Copyright Directive.

[189] Rapid expansion of the Internet has had such a blurring effect, especially, on the definitional boundaries between 'private' and 'public' communications and between their equivalent terms, 'one-to-one' and 'one-to-many' communications. Since the dissemination of communications over the Internet is often at the borders of these two forms of communication, traditional criteria can no longer be considered as foolproof when defining 'broadcasting' services, for example. Subsequently the notion of fixation has changed and new modes of dissemination have been introduced overriding the traditional borderlines between the 'private' and 'public' sphere of communication. See note 20 and point (vi) in section 2.1, Chapter. The Green Paper 1997 had suggested of course, that a reassessment was necessary to determine whether current boundaries between what is 'public' and what is 'private' remain valid in light of the latest technological developments. It is doubted however, whether this has been satisfactorily achieved under the Copyright Directive. See the Commission of the European Communities, Green Paper on the convergence of the telecommunications, media and information technology sectors and the implications for regulation-towards an information society approach, COM (97) 623, December 3, 1997 (hereafter, 'Green Paper 1997'), at p. 20.

[190] In order to achieve the most "onerous licensing conditions" in a multimedia environment, these conditions should be preferably limited instead of being expanded as suggested by Squire, Sanders & Dempsey LLP, and Analysys Ltd at pp. 17-19. Supra note 74.

as on-line services[191], or by extension, to new works, such as multimedia. The advantage of this scheme is that it does not contradict with proposals put forward for a regime of (regulated) self-regulation of on-line services, especially of digital television and radio services[192], and coincides well with the present difficult financial conditions for most alternative players. The latter is particularly so, at least with respect to the EU telecommunications market, where the availability of investment funds has been significantly reduced, especially for alternative carriers, and new entrants in the telecommunications sector.[193]

While several different industries involved in multimedia development are racing with their competitors to capture a particular market niche, problems regarding incompatibility, standardisation, and inter-operability among various networks and terminals available contribute to a general feeling of uncertainty and potential market distortions.[194] In the long run, if market distortion and uncertainty are going to be enhanced, some players may be prevented from participating more actively and dynamically in the market of multimedia. Overcoming these problems will be decisive to the extent it permits a fully integrated network approach (e.g. mobile and

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[191] This is particularly so with respect to one of the five major policy principles laid down by the Commission for the purpose of providing a common basis for future approaches in the regulatory framework of the communications sector. As supported by Nikolinakos, at p. 128, supra note 177.

[192] This is so especially in view of future expansion of transmission capacity and multiplication of channels together with the development of the Internet. In this context it is noteworthy that Pappas, S, Director General for Information, Communication, Culture and Audiovisual (DGX) by 1998, had pointed out that "we are seeing the emergence of lighter, simpler systems...e.g. pay-per-view TV only requires a minimal level of regulation, whereas free-to-air television will continue to need a higher level of regulation in the general public interest." Speech by Pappas S, Director General for Information, Communication, Culture and Audiovisual (DGX), 'The European Commission's thinking on audiovisual regulatory authorities', at pp. 67-68, presented at the seminar on *Audiovisual Media and Authorities: tasks and challenges for regulators in an evolving media landscape in Europe*, Vienna, November 26 and 27, 1998.

[193] See the Communication 'Towards the full roll-out of third generation mobile communications', COM 2002, 301 final, at para. 2.1. Supra note 92.

[194] See Chapter 4, section 3.4.

fixed) towards multimedia works' development, thus providing for a future-proven network concept.[195]

Overall this situation could result in slower expansion of multimedia works, at least through the on-line and wireless communications infrastructures. Even more the essential value of multimedia can be jeopardised and eventually disregarded, if multimedia works are not made appropriately available (disseminated) to all consumers.[196] All this can become more complicated when concerned with the protection of multimedia per se, since no official legal response has been given so far, albeit much discussion has been going on regarding the importance for the European Market to strengthen the development of multimedia.

In this light, the following questions are raised: should a consistent and technology-neutral[197], but still, market-oriented approach, such as that of a self-

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[195] Needless to say that inter-operability and functionality should necessarily co-exist to enhance consumers' confidence in these new and complex technological works. Most importantly, the overall value of multimedia will depend upon the fulfilment of these conditions, since its market value is ultimately determined by consumers' demands, likes and dislikes In relation to the problem of standardisation, "the strong push for preparing the introduction of the IPv6 protocol by the Commission, supported by a recent Council Resolution, is complementary" as suggested at the COM 2002, 301 final, at para.2.2. Supra note 92.

[196] Otherwise access to multimedia will be a privilege only of a few selective persons that can afford buying all necessary devices and platforms' standards, for instance. This is so especially since it will be networks in the long run that will offer the most for the delivery of multimedia content to a mass audience.

[197] In the sphere of on-line communications the paradigm of technology neutrality has been supported especially by German legislators, who have chosen not to focus on the technological form, since technologies change so rapidly, but prefer to focus on the function of the new technologies. As such, the 1997 'Multimedia Law' or else 'IuKDG' Act, does not differentiate between 'mass communication' and 'individual communication', per se. However, almost everything which from a user's perspective is to be considered an individualised form of communication comes under the scope of this law. See F. Furthermore, the concept of technology neutrality was granted to be the fundamental premise of all WTO obligations and commitments in 1996. It is also supported in the field of technical protection measures as will be referred to in Chapter 4, section 3.4. Maennel, F, and Noveck, B, 'Germany enacts sweeping Internet/Multimedia law' [1997] 6 *IP WorldWide* at http://www.ipww.com/nov97/p3germany.html. See the 1997 IuKDG Act at http://www.iukdg.de.

regulatory[198] or a hybrid of traditional regimes, concepts and practices[199], be reflected in the regulatory framework designed for promoting multimedia to all interested parties in the Information Society, and thus, for protecting multimedia? Whether there any readily available regimes that could appropriately and sufficiently protect the subject matter of multimedia works as defined in this thesis? These issues shall be considered later in line with this chapter's findings, and our proposed definition for multimedia.

## 6. Conclusions

In view of the complexity and vagueness characterising multimedia, a pragmatic, (including etymological and definitional) and conceptual analysis has been undertaken to clarify the currently perplexed picture of multimedia, before contemplating any further its nature, values and needs for legal protection.

Through this analysis it was concluded that despite the variety of multimedia-definitions put forward since the early 1990s, no firm and up-to-date definition has been, or indeed could be, unanimously accepted. The fact that the term per se constitutes a compound word, suggesting something like a composite of multiple media and/or works, suggests that multimedia is a complex and vague object. Multimedia is treated as a new digital object or a new phenomenon resulting mainly from the fact that multiple categories of information, works and media are integrated in a single work, which allows users some degree of interactivity with its constituents.

The underlying factor explaining why it has been difficult so far for one to fully comprehend the notion and potential of multimedia is our established perception of old and new objects of works in a technology (application) dependent two-dimensional manner. However, the latest advances in respect of interactivity, and convergence of technologies and communications facilitated by the use of digital technology, has changed all this, and will do so even more tomorrow.

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[198] Such self-regulatory protection mechanisms could be technological protection devices, bespoke contracts, and unified codes of practices. See Chapters 4 and 5.

[199] Such as that of a sui generis right regime to be considered in Chapters 4 and 5.

Use of digital technology has enabled the realisation of multimedia; its 'look, use and feel', which unlike pre-existing works, can be perceived by all our senses, introducing to all interested parties a new, at least three-dimensional way of perception and thinking.

As such, multimedia per se has three distinctive key elements:

(a) the combination of various different information works, elements and media;

(b) integration, in so far as required by contemporary computer technology; and

(c) high-levels of interactivity; all of this reflected in its 'look, use and feel'.

By extension of these key attributes the nature of multimedia is that of:

a hybrid creative and dynamic, informational, utilitarian, entertaining. In particular, a multimedia work can be:

- informational as a result of the large quantity of information content available with a multimedia work;
- artistic, in so far as the design and presentation of its constituents and interactive functioning can be distinguished also for their artistic attributes;
- utilitarian (functional) by reason of the dynamic and sophisticated presentation and integration of its constituents, as well as by reason of the user-friendly interactive capabilities offered for the purpose of making the most of the information content stored in such a work;
- entertaining (and creative) as a result of the interactive capabilities offered to users for the purpose of making use of multimedia work much more amusing, and thus, entertaining. In this sense it can also be creative when users are allowed to interact with the constituents and other participants to higher and almost infinite levels, while having the impression that they can create a new work through the original.

Accordingly multimedia is a multi-purposive informational, utilitarian, entertaining, and overall, communication work.

The convergence of technologies and communications also has affected the shape of multimedia into an application-neutral and dematerialised work, and thus, non-fixed within the traditional meaning. It is also submitted that it can largely

influence the future of the developing multimedia market in different ways since multimedia is such a multi-purposive communication work.

As such multimedia should not be considered as a new phenomenon, but rather as a new object of work. However, it is not clear to what extent it can be regarded as a completely new 'work' for purposes of legal protection, albeit being different from other pre-existing objects; three-dimensional rather than two-dimensional, particularly because of its highly interactive, and by extension, multi-purposive nature.

At this point, we shall attempt to suggest the following definition for multimedia in such a way as to best reflect its individuality. This definition has been designed so as to be complete, but still broad and flexible enough (a) to account for any possible, currently unprotected forms of works, that may be classified as multimedia in the near future, and (b) to allow new ways of synthesising material and content, and overall new forms of expressing and creating multimedia. In this context references to multimedia works hereafter will entail consideration of the following definition for the purpose of this thesis:

> 'A multimedia work is a combination of information elements, and works, whether novel or pre-existing, either of the same or different nature combined in an original way in a single object, and presented as a novel single work in a dynamic manner that can involve users' interaction, and may be stored in a single medium.' ('The elements of a multimedia work may retain their individuality and can be stored in a single medium, or can exist at different and remote locations, provided that they can be accessed by the synthesising and presentation tool.').

Thus, the subject matter of this thesis is the outer work, which has resulted from the dynamic synthesis and presentation of various information works and elements, (such as text, music, still and moving images, computer programs and data), in such a way that the outer value of the final work may be greater than that of its constituents cumulatively. The dynamic and sophisticated presentation (including interactivity) inherent in the multimedia synthesis will be in all cases supported by (the underlying) computer technology, which allows access either locally or remotely to the end result work and/or its constituents. However, this thesis does not principally entail focus on

the underlying, or supporting computer based technology, and on-line delivery media, or the peripheral communications infrastructure used. These underlying and peripheral technologies and media used alone, or its constituents per se, neither constitute nor ensure the creation of a multimedia work as such.

Multimedia is something more than the combination of all these. Overall, what one should be seeking in multimedia is a sophisticated interactive amalgam of multiple and different types of information and media combined in a homogenous form, but still presented in an interchangeable and dynamic way. This kind of integration of its constituents coupled with interactivity to higher levels, irrespective of the media or network platforms used, or of time and space constraints, should overall make the difference.

This is where the true power and value of multimedia itself lies, when compared to other traditional works, justifying also why established producers of popular and traditional works aim at gaining more power and value by means of producing and disseminating multimedia works. This potential source should be protected, and encouraged adequately taking account of present demands for more sophisticated multimedia works, regulatory and technological inconsistencies, societal implications and financial difficulties. Whether existing legal systems can afford such protection for multimedia works, and if so which particular one, will be discussed in the following chapter(s).

# CHAPTER 2
# MULTIMEDIA AND LAW

## 1. Introduction

Multimedia has demonstrated to be multi-dimensional. It has the potential to become the most valuable work of our era. Consequently the incentive to create such works must be preserved. The technology for creation of such works exists, and is developing. But the legal framework is uncertain, potentially jeopardising the incentive to produce such works.

On-line piracy of popular digital works already protected by law has caused a great distress and insecurity to right-owners, especially producers. In this light right-owners ask for further legal (copyright) protection to safeguard their interests and rights in respect of their creativity, and investment added in their works. Even if right-owners of the allegedly vulnerable works are exaggerating in requesting stronger (copyright) law protection, since their works are already protected, the same cannot be so with respect to multimedia works; such a great threat and degree of uncertainty would potentially be even worse for multimedia authors and producers, since multimedia is not expressly recognised or protected by law.

At this point one may question why the law should treat multimedia differently to any other information technology based work; in other words, why should we be concerned with multimedia works' protection alone, irrespective of other works. As was illustrated in the previous chapter, multimedia is highly and interchangeably interactive, as well as a hybrid and creative form of work, whose 'look, use and feel' attributes are so valuable, that they should be carefully measured so as to be accordingly protected.

In this chapter therefore, we should first investigate which particular reasons justify the need for multimedia works' protection, and then determine which legal regime can best achieve the justifications identified, and the necessary level of protection of this new creative and object of 'work' hybrid in nature. In particular, to the extent that multimedia constitutes a 'work', the result of one's intellectual creativity, which can be recognised and protected by law, further attention shall be

focused on the regime of intellectual property laws. In this context it should become clear; (a) whether multimedia should be preferably protected under patent or copyright law; (b) which arguments can be invoked to support the choice of copyright law, and subsequently weaken any opposing arguments; and (c) in respect of which, we should identify the most important legal complex issues to be concerned with in the sphere of intellectual property (copyright) law, and the developing multimedia market.

## 2. Justifying the Need for Legal Protection

Digital technology has been praised for facilitating the manipulation of existing works, as well as the creation of new ones, including multimedia. Nonetheless it has also been criticised for facilitating and increasing the levels of unauthorised access to, use, copying, and alteration of these works.[1] Although the threat of unlawful copying and misappropriation of proprietary (copyright) works is not a new challenge, it is the degree and type of digital piracy and misappropriation of protected works that has alarmed right-owners more than ever before.[2]

In particular, once a creative piece of work, such as multimedia, is stored in digital form, inevitably it becomes susceptible to unauthorised access, copying or modification either in part or in its entirety. Digital technology can be used by users (later creators and would-be competitors) of protected works, for the purpose of creating a new, potentially competitive product by means of re-using, copying and combining others' proprietary digitised information elements and/or works at little or no cost, and of equivalent quality. In this context the (unauthorised) alteration of

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[1] Unlike analogue technology, reproduction made by the use of digital technology can give us perfect quality copies of original works, and ensure one that no one will be able to tell the difference between original and first-generation or even tenth-generation copies of a particular object of work.

[2] In this sense, some scholars view digital technology per se as a more specific challenge to copyright than previous technological advances and others argue that it is only a matter of degree and not of kind. In support of the former view, see for example, Goldstein, P, 'Copyright in the new information age' (1991) 40 Cath UL Rev 829; in support of the latter see, Goldberg, M, and Feder, J, 'Copyright and technology: the analog, the digital and the analogy' in WIPO Worldwide Symposium on *The impact of digital technology on copyright and neighbouring rights*, 1993, at pp. 37, 38-40.

existing digital works entails the danger of creating derivative works, the actual author of which may not be recognised as the author of the original and subsequently modified work. Hence, unauthorised adaptation, alteration and combination of pre-existing works with new ones, raises further questions in relation to the validity of authors' moral rights, particularly in respect of their rights of paternity and integrity. As such, creators' and producers' status of authorship and ownership can be under-recognised and disrespected, in addition to the potential harm to their economic rights and interests[3].

While such use of digital technology potentially facilitates the de-centralisation of multimedia protagonists and the creation of new works[4], this should not be to the detriment of original creators' and producers' interests and rights of ownership. Creators and producers of valuable proprietary works must be appropriately rewarded, respected and protected for their creativity and investment expended, as well as for enabling others to become later creators, and possibly would-be competitors. Otherwise, any value and/or creativity invested could be undermined and future production could potentially be jeopardised.[5]

This can be fully understood in respect of multimedia if we realise which attributes or parts of multimedia are so valuable in a legal sense, that they should be appropriately protected against unauthorised acts of copying and alteration, especially

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[3] Including, but not limited to, loss of expected revenues, investment costs and know-how. In relation to these, see Beutler, S, 'Multimedia law - the protection of multimedia products under international copyright law' [1997] 4 *CLSR* at p. 255 and Anonymous, 'Visual artists' rights in a digital age' (1993-94) 107 *Harvard Law Review* at p. 1977.

[4] As long as they have the necessary technological means and financial resources, as was mentioned in Chapter 1, in relation to the de-centralisation of multimedia protagonists impact of digital technology. For a discussion on these threats and dangers posed by the use of digital technology see for instance, Dreier, T, 'Copyright digitised: philosophical impacts and practical implications for information exchange in digital network' (1993) 24 *IIC at* http://www.ira.uka.de/~recht/deu/iir/dreier/publications/dreier_Copyright_Digitized.pdf, at 3.

[5] For a socio-economic analysis of this impact in a legal context see for instance, Ginsburg, J, 'Creation and commercial value: copyright protection of works of information' (1990) 90 *Col LR* 1865; Ginsburg, J, 'Putting cars on the "information superhighway": authors, exploiters and copyright in cyberspace' (1995) 95 *Col LR* 1466, and Landes, W, and Posner, R, 'An economic analysis of copyright law' (1989) 18 *Journal of Legal Studies* 325.

in the on-line environment.[6] As for the degree and kind of (on-line) digital piracy allegedly threatening multimedia as well as any other popular information technology based and entertainment work, we should examine the nature and extent of this before attempting to answer the questions above. In particular it should be first clarified whether the argued threat of digital piracy is a problem of degree or kind, before concluding how safe or insecure creators and producers of multimedia may be in the Information Society.

### 2.1. Threats and Risks of On-line Piracy

The general conception is that the more technology advances in respect of data compression and on-line distribution applications, the more innovative types of unauthorised copying and alteration will emerge. As a result, the well-being and future development of popular media and entertainment works is potentially undermined when they become available on-line. Allegedly the dramatic rise of on-line piracy[7] constitutes a greater threat than even before, especially since the MP3 technology became widely used for the distribution of pirated music files[8], followed by the establishment of 'Peer to Peer' (P2P) files exchange practices by 'Napster'[9].

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[6] As well as possible market failures caused by underproduction in this market sector.

[7] Arguably there has been a dramatic rise of a black market in pirated material worldwide that can no longer be tolerated as recently argued by the Business Software Alliance (BSA). In particular, the BSA has estimated that by the end of 2002, the European software industry loses three billion Euros annually due to unauthorized duplication of its products. As reported by Warner, B, 'Deadline passes for European digital copyright law', December 23, 2002, at Reuters web-site, http://www.reuters.com/newsArticle.jhtml?type=internetNews&storyID=1951346.

[8] Initially the MP3 file format was developed to enable a compressed digital file that could be rapidly sent by electronic means. However, it turned out to be a very good method of transmitting and storing high-quantity data files, and particularly for music works, at higher speed rate.

[9] Napster's P2P application required users to log on to the central Napster server. Then users were able to access the search engine located there, so as to search for the song of their choice, which was stored on the hard drives of all other Napster users connected to Napster's services. Although the Napster server did not contain copies of the pirated music works, considering the millions of songs being exchanged each month between even 58 million Napster registered users, the music industry was naturally alarmed about this new situation. As such, in 1999 record companies and music publishers,

Arguably right-holders, and particularly producers[10] of popular media and entertainment works feel too vulnerable and insecure to make their works available on the Internet or any other communications network. They fear that their status of ownership, and proprietary rights are potentially undermined as a result of the dramatic rise of on-line copying and modification induced by consumers.[11] Unless further legal action is taken to protect their interests and rights in the on-line environment, future development in these sectors, and subsequently in the multimedia market will be jeopardised.[12] In attempting to understand and measure this fear and insecurity the following (ten) points should be emphasised:

(i) Generally, producers of popular entertainment works are usually involved in the production of multimedia works made up of pre-existing material and works often owned by them. In this sense it becomes obvious why they are particularly interested in the future of multimedia. However, their arguments regarding the dramatic rise of piracy especially in the on-line environment, and the subsequent need for strong legal protection may not be the echo of the real creators' opinion.

(ii) Secondly, their fears of on-line piracy being facilitated by the advent of digital technology and subsequently by new distribution practices such as the P2P files exchange applications may be justified only up to a certain limit. If no appropriate legal and/or technical means of protection are readily available, right-

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assisted by the RIAA issued suit against Napster for contributory and vicarious copyright infringement, and unfair competition. (See complaint, *A&M Records v Napster Inc* [1999] 5183 (ND Cal), 5 ILR (P & F) 2088.) In relation to the development of this case (*A&M Records Inc v Napster Inc* [2001] 239 F 3d 1004 (9th Cir (US))) see note 16 below.

[10] Normally, it is them who most often take legal action against users and intermediaries for copyright infringement in order to recoup their subsequent lost revenues and investment in the production and development of these works.

[11] In general they are frightened by the capacity for unlicensed copying, at both the commercial and the private ends of the scale, which could pose a threat far greater in degree than with the photocopying, faxing, and video recording of the last 20 years as explained also by Cornish, W, *Intellectual property: patents, copyright, trade marks and allied rights,* 4th edn, Sweet & Maxwell, London, 1999, at p. 532.

[12] This is so since multimedia is largely made up of such pre-existing works, meaning music, films, computer programs and it will be often these media companies that will undertake the risk and cost of investing in the production of these multimedia works.

owners may not be able to enforce their rights of ownership, recoup their investment, receive the appropriate reward, and overall protect satisfactorily their works. However, most popular and highly pirated works, mainly audio-visual works as well as software, and to a less degree databases, have already been recognised and protected by copyright law.

(iii) Thirdly, a variety of technical protection measures are available to satisfy even the most demanding right-owner.[13] Furthermore, the joint lobbying efforts already exercised on policy and law makers for extra legal protection have been fruitful not only in the US, but also within the EU since the Copyright Directive was ultimately introduced in the year 2001.[14] Following these regulatory developments taking place at European and international level[15], it seems that right-owners' demands for a coherent legal response worldwide have been largely satisfied.

(iv) Fourthly, the defeat of Napster by the US recording industry RIAA coupled with the repeated court decisions declaring that their P2P practice was illegal and harmful, indicates that these industries have succeeded in their fight against on-line piracy, especially against new types of copyright infringement.[16] Still, these industries persist in complaining that the threat of on-line piracy is still pending, since more innovative and difficult to be prevented types of P2P applications for exchanging various and multiple types of media files (audio, video, image, document,

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[3] As will be discussed in Chapter 5.

[4] Nonetheless, the EC Copyright Directive (2001/29/EC), has been implemented only by four Member States so far; Greece and Denmark met the December 2002 implementation deadline. Italy and Austria implemented the Directive in April and June 2003 respectively. The effectiveness and benefits of this Directive for multimedia will be considered in Chapter 4.

[5] Prior to the Copyright Directive, see the WCT and WPPT (1996), and in the US the Digital Millennium Copyright Act (DMCA) 1998. Similar legislative developments followed in Australia and Japan in the year 2000 and 1999, respectively; see notes 104 and 105 Chapter 4.

[6] After a forceful and long lasting legal battle, the 9th Circuit has twice upheld ordering a defendant to disable its file transferring service and shut down the service, rejecting the fair use doctrine defence. See *A&M Records Inc v Napster Inc* [2001] 284 F3d 1091; *A&M records Inc v Napster Inc* [2001] 239 F3d 1004, 1028. It was held that even though no direct copying was undertaken by Napster, they were liable for contributory breaches of copyright as they "knew or had reason to know" that their members were using the service for "repeated and exploitative copying", since almost 87% of the music works exchanged were copyright protected.

and software files), have emerged; such as those established by the use of the 'Gnutella' technology through 'Kazaa', 'Morpheus' and 'Grokster' networks, being hazardously de-centralised, (unlike Napster).[17]

(v) In practice, however, while they have been arguing to these ends, it is submitted that these industries are simply exaggerating their claims for the following reasons.

First of all, while the technology, film and record companies may find it more difficult to close down these de-centralised networks (Kazaa, Grokster, and StreamCast Networks) on the grounds of copyright infringement, being small companies they run the risk of bankruptcy, and thus, of being closed down as a result of the high legal costs.[18] Secondly, it is common knowledge that we all prefer to have a physical copy of an album, for instance, that is really good, and we will prefer to

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[17] The fact that 'Gnutella' and 'Morpheus' allows users to exchange a full game of media files without the need of a central server (unlike Napster's way of exchanging only music files). Use of this 'super peer' concept as commonly referred to, along the lines of the Clip2 Reflector, and the BearShare Defender prototype, has facilitated the 'Morpheus-Grokster-Kazaa network to rapidly scale in supporting hundreds of thousands of simultaneous users without utilising a centralised file directory. Today, users of a 'super P2P' network such as the 'FastTrack', currently accessible through Kazaa can exchange multi-media content in a more efficient way compared to Napster. All this has seriously alarmed media right-owners, especially since (a) the Dutch appeals court ruling the case of *Kazaa v BUMA-STEMRA* [2002] (Unreported, March 28, 2002) (Hof Amsterdam (NLC)), held that 'Kazaa BV' was not responsible for copyright infringement by people using its technology, and (b) the latest US court's decision in *Metro-Goldwin-Mayer Studios Inc, et al v Grokster Ltd, et al* [2003] CV 01-8541 (Distr. C. Cal.), held that "the doctrine of vicarious infringement does not contemplate liability based upon the fact that a product could be made such that it is less susceptible to unlawful use, where no control over the user of the product exists"; this was justified by judge Wilson S, while empahsising that Gnutella is an "open-source nature", "which apparently places it outside the control of any single entity. While the parties dispute what Defendants feasibly could do to alter their software, here, unlike in Napster, there is no admissible evidence before the Court indicating that Defendants have the ability to supervise and control the infringing conduct (all of which occurs after the product has passed to end-users)."; *Metro-Goldwin-Mayer Studios Inc, et al v Grokster Ltd, et al* [2003] CV 01-8541 (Distr. C. Cal.), at pp. 31 to 33.

[18] Ibid. See aslo http://news.com.com/2100-1023-920557.html?tag=bplst. See also Hanbidge, N, 'Protecting rights holders' interests in the information society: anti-circumvention; threats post Napster; and DRM' [2001] 8 *Ent LR* 223, at p. 225 and note 9.

buy instead of 'stealing' it. It is also a general conception that it is mostly young children brought up on P2P and the Internet that support these P2P activities, simply because they do not feel they are 'criminals', being members of an on-line closed group community, and exchanging music and computer games with each other. The media companies know all this. Nonetheless, they keep prices so high in order to recoup lost revenues allegedly caused by on-line piracy, though they concede that the general economic crisis in the telecommunications and dot.com business area, has been a contributing factor for the their revenues' loss. Even worse, right-owners appear to be greedy in their claims for stronger protection, especially since the Copyright Directive was passed, providing them with a powerful mechanism of protection; under which they can potentially impose on users over-restrictive contractual provisions, and technical protection measures. Overall, their argument that on-line piracy will be increased as a result of new types of P2P dissemination applications implies that on-line piracy is not a matter of degree, but of kind. Right-owners, and particularly producers (rather than actual creators) are not actually alarmed by the allegedly high degree of on-line piracy per se.[19] It is rather the new types of distributing information over networks, and the challenging effect they may

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[19] Arguably the evidence the BSA and the RIAA usually presents in respect of the amount of pirated software and music files does not suffice to justify all the noise they have made. Ibid. Such evidence is reported by Boag-Thomson, J, 'New Napster – too little, too late?' [2002] 5 *E-Law Review* 8, at pp. 8 and 9. This is also why they have issued the latest policy principles, inter alia, for "stimulating public awareness about the right and wrings of Internet use and digital copying (principle 1); see the *Technology and record company policy principles*, document jointly ratified by the BSA, CSPP, and the RIAA in 2002, at http://www.bsa.org.usa. See also note 24 below and Chapter 4 in relation to the Copyright Directive. Additionally, considering the much longer list of producers-plaintiffs in *Metro-Goldwin-Mayer v Grokster,* (ibid.) at note 1, p.2, compared to the shortest reference to the "Music Publisher Plaintiffs," as "a class of professional songwriters and music publishers"/plaintiffs in the therein referred case of *Lieber v Consumer Empowerment BV case*, CV 01-9923, it is not hard for one to understand that producers are afraid because they will no longer be able to trade intellectual property rights as they used to, since licensing has become their primary source of income, and they no longer produce (in a broad sense, create). As supported also by Hugenholtz B, 'The role of authors and media in a multimedia environment' – 'Who owns electronic rights?', (2000) 10 *IRIS Legal Observations of the European Audiovisual Observatory* 15, at 18.

cause in respect of their traditionally established distribution practice, that fuels their concern.[20]

(vi) The more new high-speed pathways of dissemination are established on-line, the more the scope of fair use practices, as well as the notion of public communication will be subsequently affected.[21] In this prospect fear that the scope of fair dealing defences of users will be accordingly affected, and allegedly, expanded to the detriment of the scope of their proprietary rights and monopolies.[22] While anticipating fast broadband connections, and the convergence of all communications sectors to support the development of multimedia, it would be disastrous to imagine this scenario; that the more and more innovative dissemination channels become available, the more restricted users and consumer might be.[23]

(vii) The fact that the media industries have preferred to attack intermediaries such as Napster, Kazaa, and Grokster, rather than actual on-line pirates, does not exclude the possibility that a number of individuals responsible for direct copyright infringement will not face such legal action, especially today.[24] Even worse,

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[20] As already discussed in Chapter 1, new types of distribution are expected to emerge following the convergence of communications, and the provision of broadband services to the public at large. Unlike traditional medium of delivering music works, CDs and tapes will be replaced by the provision of on-line and on-demand music services. The same applies in respect of video on-demand services. Cornish also suggests that these industries "look with nervous excitement to potentialities which may upset the whole structure of their present operations", Cornish, at p. 531 and 532, supra note 11.

[21] Following the pressures of these lobby-groups on the EU policy and law makers, the EU legislators of the Copyright Directive introduced a series of provisions that reflect what exactly media producers would like us and courts to interpret as 'public communication' and lawful distribution of their works as part of an on-demand service. As such see Articles 3 and 4 of the Copyright Directive.

[22] Unfortunately the EU legislators of the Copyright Directive are of that view. In fact they have gone one step further in foretelling that the scope of certain exceptions or limitations may have to be even more limited in the light of new uses of copyright works and other subject matter; see Recital (44) of the Copyright Directive.

[23] Particularly users' fair use practices as will be discussed in relation to 'extra-contractual' and technological restrictions imposed on users by right-owners. See sections 2 and 3 at Chapter 4.

[24] Considering; (a) the latest defeat of right-holders in *Metro-Goldwin-Mayer Studios Inc, et al., v Grokster Ltd, et al* [2003] (supra note 17); and (b) the successful action taken by the RIAA against Verizon in 2002 to secure the enforcement of a subpoena under Article 17 USC par. 512 on Verizon to

technology and record companies -right-owners such as the BSA and the RIAA will most likely continue attacking communications services providers (such as ISPs), since they are (technically speaking) in the position of controlling users' access to their works and revealing their identity.[25] The risk for users, the public domain and the developing multimedia market in taking legal actions against intermediaries (and consumers) is that, (a) established industries in the IP and IT market may over-restrict the scope of users' fair use practices, and (b) ensure at the same time that no other innovative and potentially competitive communication paths, distribution and marketing practices will emerge threatening their mega-information monopolies.[26]

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disclose the identity of an anonymous user of Verizon' services, (who allegedly infringed copyrights with respect to more than 600 songs downloaded from the Internet); it is not hard to imagine the RIAA, IFPI, and BSA taking action against individuals for direct copyright infringement. It also appears that the copyright owners on behalf of which, the RIAA follows this approach are not alarmed by the potentially adverse impact such actions could have on their image and popularity amongst consumers, who should be satisfied by all means, if they want to keep themselves in business. At the same time, right-owners may also be entitled to recover their damages against ISPs for contributory infringement pursuant to Article 8 (2) of the Copyright Directive, as will be discussed below. See the memorandum opinion in relation to *RIAA v Verizon Internet Services* [2002] MS-0323 (JDB) of the US District Court of Columbia, at p. 34 and 35. See also *Technology and record company policy principles*, document jointly ratified by the BSA, CSPP, and the RIAA in 2002, at http://www.bsa.org.usa, supra note 19.

[25] Ibid. ISPs bind their users with such terms and conditions of use warning them that their services should not be used for illegal purposes. In this way an ISP for example would have waived any contributory liability one could argue that it has, if legal action was to be brought against that ISP under section 24 of the CDPA 1988. If so, courts would most probably hold that the ISP was knowingly or having reason to believe that his network and services are to be used to make infringing copies. On the other hand, that ISP could argue that their services are not specifically provided or designed to enable users make infringing copies. It is doubted however, whether courts would accept this argument given the heavy lobbying that right-owners are able to exercise, and their preference to raise such legal action against a couple of ISPs rather than a far greater number of Internet users, considering the higher amount of legal costs incurred in the second case. Even if ISPs could prove that they have no reason to know that their users (subscribers) make use of their network, and services for illegal purposes (in respect of users' data privacy right), or even for permitted fair use practices, they would still have to face damages for contributory breach of copyright pursuant to Article 8 (2) of the Copyright Directive.

[26] Nonetheless, it remains to be seen how the courts will react should a case of conflict of interests arise between intermediaries and right-holders, and particularly if an intermediary (ISP) succeeds in proving that it is only an 'innocent host', (pursuant to Article 14 of the Electronic Commerce Directive), and

(viii) It appears that entertainment and media industries have been anxious most of all about the potential arrival of new players, would-be competitors such as Napster and Kazaa[27], who could disrupt their traditionally established business models justifying even today the high cost of their products.[28] In fact, Napster introduced a new business model with a new marketing approach; namely the provision of music-on-demand services. In a sense, Napster helped the traditional media industries to overcome their own market failure[29] caused by their inability to take the lead[30] in the

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thus, it should not be held liable for contributory copyright infringement. See this matter discussed in Chapter 4.

[27] Of course, this did not become true since Napster became bankrupt mainly as a result of the high legal costs they had to face throughout all these legal battles; Napster was ordered to pay $26 million in damages, and remove from its service all elements which enabled users to find copyright protected material. Supra note 16. See also the opinion of February 12, 2001, *A&M Records Inc v Napster Inc* [2001] 7 ILR (P & F) 3004, heard on October 2, 2000 by the Court of Appeals for the 9th Circuit; *A&M Records Inc v Napster Inc* [2000] 114 FSupp 2d 896 (ND Cal 2000); see alo Napster's petition for 'Rehearing and rehearing en banc', Appeal Ns 00-16401 and 00-16403, at http:// www.napster.com.

[28] It is argued that music publishers should offer a substantially improved package compared to that freely available on the Internet, if they wish to attract more consumers to their own music on demand subscription services, instead of other providers' free of charge services following the paradigm of Napster. DLA 'The empire strikes back', [2002] 5 *Business Law Review* 128-129.

[29] Imagine for instance, a situation where second-comers copy the originator's data and enter the market either with a new competing product, or with a different and potentially more competitive marketing approach. In the first case such a product may override the original creator(s)' investment at his expense, and in the second case the privilege of lead will no longer favour the original investor(s) alone.

[30] It is submitted here that he potential of Napster taking the lead in a market sector traditionally, and universally ruled by a few selective media giant companies threatened these corporations, in a sense, that they would otherwise have missed being the first-comers in that market sector. In view of this potential, second-comers and would-be competitors could enter the market first and gain the lead with less cost, than what was initially invested by established technology, record and film companies. It appears that the real pressure felt by these industries was to recoup lost time in this new business sector; this forced them to join together and face against their first common enemy, namely Napster, and organise the perfect crime, that of killing by all legalised means Napster, as well as any of its offspring, Kazaa, Grokster and others. See also the *Technology and record company policy principles*, document jointly ratified by the BSA, CSPP, and the RIAA in 2002, at http://www.bsa.org.usa; supra notes 17 and 19.

new market business of on-demand-services; or by their hesitancy to change the way of doing business in the on-line environment[31]. The fact that the music and film industries launched their own on-line music and video on-demand services by the end of 2001 illustrates what they have learned from Napster.[32] Paradoxically, this happened as soon as Napster was closed, and the European Copyright Directive was introduced.[33] Furthermore, the recent mergers taking place in the music, films and publishing industries indicate how much stronger, and more effective their lobbying power will be in legal practice, should another case of P2P distribution application threaten their long established intellectual property-monopolies.[34]

(ix) A new market has emerged; that of hiring out on-line and on-demand popular multi-media works, (including films, music and computer games), which currently benefits the producers of these works, rather than their actual creators.[35]

All these points should be carefully considered while attempting to determine which particular framework can appropriately protect multimedia, especially if this

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[31] Meaning to move away from the traditional material medium delivering music, the CDs and tapes to the sphere of on-line and on-demand services.

[32] Amongst others, the MGM Home Entertainment Group has also launched this new business. It has been reported that about 3 million cable customers have access to movies on demand and digital cable customers are expected to reach 35.4 million in the United States by the end of 2003. As reported at, http://www.broadbandweek.com/news/020819/020820_content_in.htm.

[33] In December 2001, the major music publishers launched their own on-line music services, which had the benefit of being legal, and were based on a subscription fee, unlike Napster who tried to recoup their running costs from the income they could make in the course of providing advertising services.

[34] Supra notes 24 above and 58 in Chapter 1.

[35] In this way the media and entertainment industries can reach a wider public than before, and as such obtain a new source of revenue, provided of course, they have the right technical and legal means to authorise the collection of the respective royalties and subscription fees. However, further problems may arise to the extent it is not possible for them to guarantee a remuneration, which reflects the number of occasions on which their works will be actually used or hired out on-demand, securing for them a satisfactory share of the hiring out on-demand or on a subscription basis. It is submitted however, that this risk has been overcome by the Copyright Directive, and particularly under those provisions ensuring that right-holders should in all cases of use and reproduction of their works be able to receive a 'fair compensation'; as such, see Articles 5 and 6 of the Copyright Directive. See also Hugenholtz, B, 'The role of authors and media in a multimedia environment' – 'Who owns electronic rights?', supra note 24.

new form of work is going to be treated and protected as any other traditional media work. As such it has become apparent that the risk of piracy per se is neither a problem of degree, nor a problem of a novel type of infringement to be exceptionally dealt with by novel legal action.

(x) In sum, it is rather the new types of on-line distribution, which have disturbed media players, who have relied on traditional business operation and remuneration mechanisms. As such, multimedia can be exposed to this particular type of unauthorised (digital) copying and alteration similarly as any other popular digital work.

Nonetheless, multimedia runs the risk of a problem greater in degree of digital piracy, and alteration because, (a) multimedia is potentially more valuable than any other traditional media work, as will be explained below, and (b) in the absence of a readily available, and overall effective protection mechanism, multimedia runs the risk of under-protection and under-development.

Since multimedia is not expressly recognised or protected by any single category of law so far, it is submitted that the second reason above is fulfilled, and thus, it justifies the need for certain legal action to be taken especially for multimedia, to the extent that the first above reason applies, too.[36] As such we should further examine how valuable multimedia is, and particularly which attributes or parts of it can be so valuable that they should not be copied and/or modified without authorisation and/or free of charge. In other words, we should identify which

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[36] At this point one might argue that the absence of an expressly provided legal form of protection especially introduced for multimedia indicates that there is no real need to treat multimedia differently than other popular media works. However, if this was so, no one should have become so interested in multimedia per se, or exceptionally attracted by this new object of work the full potential of which has not yet been realised. Furthermore, as already discussed, considering multimedia as another type of a multi-media or multi-works information based object, such as a sophisticated film or database as the case may be would adversely affect the Single Market; it could lead to market distortions caused by an overlapping situation of protection. Hence, technical protection measures cannot be effective erga omnes so far as multimedia should first be protected by a copyright or related form of such protection and then be subjected to the scope of the Copyright Directive as Article 1 has been interpreted in this thesis. All this however, will be illustrated below in Chapters 3 and 4.

particular form of 'work' seeks legal protection before determining which particular regime could appropriately protect this subject matter.

## 3. In Search of a Legal Scheme of Protection for Multimedia Works

A multimedia work is not protected expressly by any known legal regime. One may consider this situation, as a typical case of legal lacunae created, not surprisingly, by technological developments and justified by the general rule that the law has always been anticipated by technology. This may well be the case, if we consider multimedia as an entirely new subject matter, which could not have been foreseen by legislators. Nonetheless, considering multimedia as a new technological product, we could run the risk of relying on existing regimes of classifying, and protecting pre-existing proprietary objects of works or inventions. Such a limited knowledge of multimedia should be avoided since it would lead us to suggest incomplete and inadequate legal solutions for multimedia.[37] On the other hand we cannot avoid referring to existing regimes when considering whether multimedia constitutes a 'work' or not for purposes of legal protection.

### 3.1. The Subject Matter of Legal Protection

The object of work that is presently under consideration for legal protection purposes is multimedia as defined in the first chapter. All key elements, functions and attributes of multimedia deserve to be protected directly and indirectly. This means that when attention is focused on the constituents of multimedia for purposes of legal protection, such focus will be directed on each single element or category of work incorporated within multimedia, which may qualify for a particular type of protection. As such, attention shall be focused on:

its content, or else the 'look' part of its 'look, use and feel' (such as text, film, or database), which we usually see when using a multimedia work; and

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[37] Such an argument though will be carried out at a later stage, in so far as it is proved hereafter that existing legal paradigms and regimes cannot respond adequately and appropriately to our best knowledge of multimedia today and in the future. See Chapters 4 and 5.

its performance and the outer form of its constituents' presentation, or else the 'look' and 'feel' parts of the entire 'look, use and feel', what we see, and feel by means of interacting with what we see; and

the technical base of multimedia, meaning its underlying computer program, or else 'the use' part of its entire 'look, use and feel', necessary for the purpose of looking at its contents, interacting with these and ultimately for the purpose of using multimedia.

Each one of these elements can attract protection, either directly on its own, irrespective of the entire 'look, use and feel' of multimedia, or indirectly. In the first case, single constituents attract protection on their own merits in a separate and distinguishable manner as long as they are independent; irrespective of the particular form of protection awarded to the end result work (the multimedia) into which they happen to be incorporated. In the latter case, multimedia constituents can attract the same or different form(s) of protection, as a result of their inclusion in the storage and distribution medium, such a CD or a DVD, or as a result of their incorporation, and often integration in the end product; the final and whole work, meaning multimedia.[38] At first glance, this situation may appear too complicated when attempting to establish the identity of the real object under consideration, and defining the problem of its protection.[39] As such, the following points should be clarified.

When we refer to multimedia as an object of work seeking legal protection, we primarily refer to 'the look, use and feel' of it in its entirety as a work, irrespective of its single-dimensional constituents.[40] It is this particular object of work, which deserves to be protected by reason of its own individuality, independence and

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[38] In any case they may qualify for copyright, patents trademarks or any other kind of intellectual property right protection, in addition to any kind of protection awarded under contract, tort, and confidentiality law etc.

[39] Focusing on multimedia does not entail focus only on one or another constituent or dimension on its own. As was mentioned in the previous chapter in relation to the 'multi-works' or 'multi-media' misnomer problem.

[40] Meaning irrespective of the type of information elements incorporated, such as text, music, pictures and irrespective of the embedded work categories such as a composition, a database, or even its software operating program, as already mentioned in Chapter 1.

distinctive value resulted from its own particularities, mainly that of being a multi-dimensional and multi-disciplinary work.[41]

Multimedia as such should, therefore, be distinguished from the collection of its constituents or of some individual elements used underlying the end result work, such as its computer controlled system.[42] Such a collection can be distinguished clearly as we can determine that it has resulted after its constituents; such a subsidiary work inevitably constitutes part of the primary work. It is the creation and production of the final multimedia work, which has been the one and only target of the multimedia creator(s). It is the original idea aiming at the creation of a particular end product, the final multimedia work, which is sought to be expressed in a particular 'look, use and feel'[43] manner.

This particular 'look, use and feel' of multimedia has been the subject matter and primary aim of such creation and production. The end result of all this is the new form of work (multimedia) that seeks a particular legal form of protection. Anything else follows only as a secondary production, and may attract protection either fully or partly, if it cannot attract protection fully on its own as a creative multimedia work.[44] Although the value of multimedia is originally put into layers by different project participants in the course of its creation and production[45], this does not mean that it can result simply from summing up three independent 'look', 'use' and 'feel' parts together. It is rather found in the entire 'look, use and feel'; the multimedia work originally planned to be created as such, rather than the subsequent result of various

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[41] In an abstract way of thinking, multimedia is perceived as a multi-dimensional work (at least three-dimensional) because of its interchangeably rich content and presentation as reflected in its 'look, use and feel' as was discussed in Chapter 1, section 3.

[42] See this also in relation to the following discussion; whether multimedia should be protected under patent law or copyright? Even further, should it be protected as a literary or audiovisual work?

[43] As defined in Chapter 1, section 2.3.

[44] The first could happen in the event of not being original (creative) enough to qualify for copyright protection, rather being valuable in another sense and albeit being non-creative it could be protected under a sui generis type of right, for instance, as will be discussed in Chapter 4, section 5. Hence, the second could happen when we become subsequently interested in their independent form of protection for reasons of licensing and rights management.

[45] Supra notes 132 to 136 in Chapter 1.

types of works and media.[46] In particular, in focusing on these layers, we may say that the value of multimedia can be found in:

(a) the 'look' itself, or else in the entire multimedia content, which has been contributed by producers, makers, developers, authors, co-authors, and artists, when authorising, directing, or commissioned with producing their project-share, or collecting and paying appropriate licence fees for (digital) use of pre-existent material, while incorporating them within the end result work;

(b) the 'use' itself, put by makers and perhaps developers, when planning, designing and implementing the software program necessary for the interactive functioning and presentation of constituents as well as for the operation of the end result work, and

(c) the 'look, (use) and feel' parts added by producers, authors, artists, makers, and developers, who materialise their original idea and plan, perceived either by authors, producers and or artists, inspired with the idea of a particular outlook, dynamic and sophisticated interactive presentation, and operation of the constituents.

This exceptional case of a creative, added-value, and multi-dimensional work deserves to be protected as such by law, unlike pre-existing works being expressed mostly in a two-dimensional way.[47] It can be distinguished from any other work to the extent that it is a highly creative, valuable, dynamic and multi-purposive work. This has been the result of its literary, and potentially artistic value embedded in its content and presentation, as well as its informative, functional and utilitarian nature, all together by reason of its 'look, use and feel' attributes. Not surprisingly, multimedia is thought to be an exceptionally powerful and valuable work both in terms of quantity and quality as a result of both pre-existing, as well as newly created works and elements. All these factors raise the levels of its ex ante and ex post added-value.[48]

If one attempts to value a multimedia work, two criteria can be used. In most cases it will be calculated on a monetary basis by reason of the amount of effort, time

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[46] As was clarified in the previous chapter, when we refer to multimedia per se we do not focus solely, and primarily, on any kind of compilation or other secondary work resulting subsequently.

[47] As was explained and concluded though Chapter 1.

[48] Facilitating thus, the phenomenon of commoditisation of such works both at a services and products level, as already discussed in Chapter 1, sections 4.5, and 5.

and money invested in the course of its production and creation. Occasionally, it may also be measured by means of applying literary and artistic criteria, by reason of its appealing creative, and perhaps artistic elements found in the overall dynamic and sophisticated presentation of multimedia including its constituents. From this aspect the value of a particular multimedia work will always be estimated on the basis of pure economic criteria, and occasionally on literary and artistic merits.[49]

In this light, it could be argued that multimedia seems to be an example of a hybrid form of intellectual and industrial proprietary asset, which by reason of its hybrid nature, deserves to be adequately protected.[50] In our attempt to answer the main question of this chapter, that of which regime is the most appropriate one for protecting multimedia works, we shall focus upon the framework of intellectual property law.[51] In this context it is important to distinguish between patent and copyright law[52], in order to determine which one of the two regimes provides the most appealing option for protecting multimedia.[53]

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[49] Justifying further the why this thesis refers to multimedia 'works', rather than 'product' as explained in the introduction of the first chapter. Nonetheless, sometimes the value of multimedia may be judged more on market, and pure economic terms, as supported also by Stamatoudi, I, *Copyright and multimedia works, a comparative analysis* Cambridge University Press 2001 at p.28.

[50] Meaning that it should be treated, and protected as both an intellectual creation and industrial property, thus, as property, since both authors and the industry seek to be protected either as one and the same entity or different. It should therefore be protected by the most appropriate legal category under the system of intellectual property law, which is an integral part of property. See also the Recital at (9) the Copyright Directive, where it is suggested that the protection of copyright and related rights "helps to ensure the maintenance and development of creativity in the interests of authors, performers, producers, consumers, culture, industry and the public at large. Intellectual property has therefore been recognised as an integral part of property". In support of this see also Stamatoudi at p. 54, ibid, referring to computer programs as coming closer to industrial products.

[51] Since patent and copyright law have been recognised as the most appropriate regimes for protecting works, which are distinguished for their innovative, technical and proprietary value, at a national, regional and international level; inventions and 'literary and artistic' works.

[52] The category of literary and artistic works is regulated mainly by the Berne Convention for the Protection for Literary and Artistic Works, 1886 (Paris Act 1971), the TRIPs Agreement 1994, the WIPO Copyright Treaty (hereafter WCT) 1996, all of which play a vital role in relation to both categories putting an emphasis on the latest technological developments and the particular form of protection of these works. Hence the Paris Convention for the Protection of Industrial Property 1833,

### 3.2. Patent Law

The question put forward at this point is whether the regime of patent rather than of copyright law constitutes the most appropriate means of protection for multimedia works. According to Article 27 (1) of the TRIPs Agreement (1994), an 'invention' is patentable when it is new, it involves an inventive step, and is capable of industrial application. In considering this definition[54] and attempting to apply it on multimedia works, it is hard to find any common features between an 'invention' and multimedia mainly for the following reasons:

(a) In considering multimedia in its entirety, our attention is necessarily drawn to its particular form of expression, which should be distinguished from the idea underlying the whole creation and production project. [55] The particular form of expression of a multimedia work is found far beyond its underlying conceptual idea, no matter how ingenious or innovative that idea might have been. Nonetheless, patent law does not protect the form of expression of a product, rather the idea itself, awarding a much stricter form of protection compared to that provided under copyright law. If patent protection could be afforded to multimedia by reason of the

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the TRIPs Agreement 1994, and the European Patent Convention (EPC) 1973 regulate the category of patentable works worldwide and at Community level respectively.

[53] If existing intellectual property regimes, and particularly copyright law prove to be inappropriate for protecting multimedia, we shall further examine any other adequate means of protection outside the scope of intellectual property law before contemplating the introduction of a new category, as will be suggested in Chapter 4.

[54] As well as that provided under Article 52 (1) of the EPC that: "European patents shall be granted for any new inventions which are susceptible of industrial application, which are new and which involve and inventive step. Similar to these requirements are provided under section 1 (1) of the UK Patents Act 1977. As such it is provided that an invention is patentable when it is new, it involves an inventive step and is capable of industrial application.

[55] Rather than on the technical device, with which the work should be assimilated alone, in order to determine whether a work is an invention.

novelty of the idea underlying its creation, this could only happen where the form of expression was substantially inferior to the novelty of the underlying idea.[56]

(b) In attempting to apply the above definition on multimedia, it becomes apparent that multimedia per se cannot be judged as novel, rather as original (creative), and it cannot be industrially applicable, although it can be marketed. Multimedia per se (in its entirety) is a straightforward case of a creative work of the mind, resembling a compilation, a database, or an audiovisual work to some extent[57], all of which have nothing in common with inventions and patented applications. Its value is determined by its entire 'look, use and feel', taking into consideration its content, as well as its presentation, rather than solely by its performance and function. The fact that in a technical sense, its overall performance, and function can be the result of its underlying software basis is not enough to suggest that multimedia can be identified with an invention or a patented application. Otherwise, the remaining creative dimensions of multimedia reflected in its entire 'look, use and feel', its prior and added-value invested in its content and presentation, would have been disregarded. By extension, its multi-purposive character in being a creative (original) information, communication and entertainment work, albeit functional and utilitarian, would have otherwise been degraded.

(c) It is difficult to imagine a particular multimedia work looking more like a sophisticated software program or a software related application whose overall value should be determined by its innovative interactive functioning and presentation alone, irrespective of any other valuable attributes. Such a potentially patented interactive product would have to be the result of an innovative computer based application, and/or of the ingenious specification of this, rather than the outcome of a particular selection, arrangement and form of presentation and expression of all its constituents.[58]

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[56] As the case could be with a computer based product and inventive multimedia product as will be referred to later in this section.

[57] See Chapter 3.

[58] Meaning the result of its 'look, use and feel' as will be shown in Chapter 3 when comparing multimedia with compilations, computer programs, databases, and audio-visual works.

(d) Even if a particular multimedia work could be assimilated to a computer program per se, it would not be protected under patent law since computer programs as such constitute an abstract or creative creation, and thus, are appropriately protected under copyright law "as such".[59] Additionally, if the underlying computer program prevails more than the remaining features, it would indicate that we are not dealing with a multimedia work as such but with an advanced computer program related invention. This object could potentially be protected under patent law either as an invention or an inventive work, meaning a hybrid between a work and invention.[60]

(e) If such an inventive multimedia product was to be developed in the future, and protected under patent law, it would imply that its creation and production would be a privilege bestowed only to a few because of the strong form of protection

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[59] The EPC, through Article 52 (2) (c) and (3), excludes computer programs from the scope of patent protection in so far as the patent relates to a computer program "as such" following Article 10 (1) of the TRIPs, providing that computer programs, whether in source or object form, shall be protected as literary works under the Berne Convention. (See also Article 5 of the WCT.). The exclusion of computer programs is construed as excluding programs, which were mere abstract creations, which lacked technical character, as supported by Hughes, J, 'EPO: patents – patentability of software' [1999] 9 EIPR, note 161-162. As such, when a computer program is run in a computer to produce some technical result, and it is found to be contributing to the state of the art then it is suggested that such software may be patentable. See Bainbridge, *Intellectual Property* 5th edn, Longman, 2002, at p. 364 et seq. Despite the initially proposed revision of the EPC on deletion of "computer programs as such" from Article 52 (2) (c), delegates at the Diplomatic Conference held in Munich in 2000 voted against the deletion of this phrase. There in no doubt that computer programs "as such" will be only copyright protected, not patented. In broad terms, nothing will be made patentable which is not already patentable, as clarified by the Commission. http://europa.eu.int/comm/internal_market/en/indprop/comp/02-32.htm. Nonetheless, these developments will not affect multimedia works, because multimedia is in all aspects something more than a computer program per se, as will be illustrated in Chapter 3. In relation to the 1980s and 1990s patent and copyright debate in respect of computer programs, see for instance, Reichman, J, 'Charting the collapse of the patent - copyright dichotomy: premises for a restructured international intellectual property system' (1995) 13 *Cardozo Arts & Entertainment Law Journal* 475-496; Hart, M, 'Software patentability', [1995] 11 *CLSR* 11 259.

[60] See also Stamatoudi, at p. 12 and note 11, supra note 49.

awarded under patent law.[61] Although the promise of such a privilege may be attractive to some right-owners in respect of computer programs[62], a development similar to this in respect of multimedia works could only impede future creativity in the developing multimedia market. By extension, it is submitted that the public demand for more sophisticated multimedia works cannot be satisfied within the patent law regime.[63] Additionally, an inventive multimedia product does not constitute a multimedia work as defined in this thesis.[64]

Multimedia is a new form of creative 'work'[65], and as such it cannot be protected under patent law. Therefore, the regime of copyright law appears to be the next preferable option available for protecting multimedia, without necessarily

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[61] Arguably the potential of widespread use of the patent system to protect software and software-related applications will not encourage innovation, in so far as "the patent system is open to abuse by large corporations seeking to exercise monopoly rights over certain software developments. This abuse inevitably has a negative effect on small entrepreneurial developers seeking to develop new products". Furthermore, "use of 'blocking' patent applications will not encourage open systems, but will rather encourage monopolies". As successfully argued in the case of Compton's 'multimedia patent', such a potential will not lead to technological improvement, but to technological stagnation. See Rebeiro, M, 'Compton's multimedia patent: should the patent system be used to protect software' [1995] 3 *CTLR* 81, at pp. 85-87.

[62] This had been the case in 1993, with the US based company Compton's NewMedia, the owners of Encyclopaedia Britannica, announced that the Patent and Trade Mark Office (PTO) had granted a US patent to Encyclopaedia Britannica Inc. The patent related to a computer based 'multimedia searching system'. However, in 1994, the PTO rejected all original claims of that patent, and although Compton's NewMedia filed another response amending the original claims, and distinguishing all of them from the prior art cited to the PTO, the PTO eventually rejected all claims. See Rebeiro, ibid.

[63] Reichman, at pp. 485 to 499, supra note 59.

[64] As was explained in Chapter 1, we refer to multimedia being a work and not a product particularly because of it is a creative work. Nevertheless, distinguishing between these two regimes and their subject matters may not be always so easy. Arguably, the traditional "vision that subdivided world intellectual property law into discrete and mutually exclusive compartments for industrial and artistic property has irretrievably broken down". As supported by Reichman, J, 'Legal hybrids between the patent and copyright paradigms' (1994) 94 *Col LR* 2432, at pp. 2453 to 2504.

[65] Within the meaning of Article 2 (1) of the Berne Convention as will be clarified in the following section.

implying at this point that it is also the most appropriate one for protecting all multimedia works.[66]

## 4. Copyright Law for Multimedia Works

Evaluation of multimedia being protected under copyright law is unavoidable by reason of its individuality as a 'work', its nature, its effects and particular needs. While multimedia differs from other works in being a multi-dimensional and highly interactive work, it is not clear whether it could be protected as an old[67] or a new type of copyright protected work. It is important to clarify whether multimedia should be distinguished from any other subject matter already protected under copyright law by reason of its own individuality, and if so whether a new category should be introduced especially for that subject matter. In this context we should then examine the pros and cons in support of the choice of application of copyright law, and decide whether this choice may be the most natural by reason of copyright's legal nature, and/or the result of certain policy considerations.

### 4.1 The Notion of 'Work'

Being a 'work'[68], multimedia by default suggests that copyright law is the most appropriate regime for protecting this subject matter. The Berne Convention provides in general that literary and artistic works, which satisfy the necessary requirements of constituting a 'work', which are to some level 'original', should be

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[66] In so far as its hybrid nature and such needs for protection prevail, the option of a sui generis form of protection will also be considered. See section 5 at Chapter 4.

[67] Meaning an already established subject matter protected by copyright law, such as compilations, databases, computer programs and films.

[68] A 'work' is defined as the result of a form of expression that stands out as an independent unit. Provided that a particular product, the 'look, feel and use' of which resembles that of multimedia as defined and illustrated so far, the individuality of which is not doubted, and it constitutes a new creation, then this product may qualify to be called and treated as a 'multimedia work' for copyright law purposes.

protected under copyright law.[69] Although some examples of such works are expressly included, reference to these is by no means exclusive. The requirements set by the Berne Convention are so broadly drafted that new technology based works, such as multimedia, may also be included in the broad scope of 'literary and artistic works'; especially if justified not only by purely legal, but also by policy reasons.[70] As such, it has become accepted worldwide, and is mandatory for all signatories of the Berne Convention that electronic databases and computer programs, should be considered as 'literary' works, and protected as such, notwithstanding any differences found in the Member States' legislation.[71]

As such it could be argued that multimedia may be protected as 'literary' works within the meaning of 'literary and artistic' works pursuant to Article 2(1) of the Berne Convention, in so far as permitted under national copyright frameworks, including the UK Copyright Designs and Patent Act (CDPA) 1988.[72] If so, we may

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[69] See Article 2 of the Berne Convention.

[70] As will be discussed below.

[71] See Article 2 (2) of the Berne Conventions according to which "It shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or any specified categories of works shall not be protected unless they have been fixed in some material form."

[72] According to Article 2 (1) of the Berne Convention,"the expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatic-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science." This option however, cannot be implemented by all Member States' legislation, including the UK's, where creative objects are protected by copyright, only if they fall within one of the nine expressly enumerated categories of works, and they satisfy the particular requirements imposed. According to Section 1 of the CDPA 1988, copyright subsists in nine categories of original work: subsists in nine categories of original works: (1) literary, (2) dramatic, (3) musical, (4) artistic works, (5) sound recordings, (6) films, (7) broadcasts, (8) cable programmes and (9) published editions of typographical works. Furthermore, although the European Union and European Economic Area

assert that multimedia works may well fall within the category of 'literary and artistic' works as defined under Article 2(1), by the Berne Convention, provided also the international and national statutory criteria are satisfied; especially in cases, where national copyright law in some Member States is more detailed, such as in the UK, and perhaps tighter compared to others, notwithstanding Article 2 (2) of the Berne Convention.

This is particularly so since Member States' copyright law systems present some differences, which may make it difficult to examine the appropriateness of copyright law on multimedia as a whole from a European law perspective. The statutory and originality criteria requirements to be satisfied for a work to be qualified as a specific copyright protected work may vary to some extent among national copyright legislation. Determining thus, whether a particular multimedia work constitutes a compilation, or a database, or even a film, for example, or a new subject matter, and as such, whether it can fit well with the category of literary or audio-visual works, may not be simple at Community level.[73]

In some cases, multimedia may satisfy the copyright law requirements provided in one Member State in respect of compilations, for example, but not in another's. In this event, the same object of multimedia work could possibly qualify for copyright protection as a literary ('collection') work in Greece, for instance, and not in the UK as a result of the statutory differences in national copyright laws, especially in relation to the level of 'originality'.[74]

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Member States undertook to adhere to the Paris Act before 1 January 1995, Ireland has not done so, and therefore the Commission referred it to the European Court of Justice.

[73] Because of certain copyright law disparities found amongst these systems, as will be illustrated in Chapter 3 below.

[74] The concept of 'originality' should be distinguished form the concept of 'novelty' that applies to patentability of works. Originality is a wider concept and far more subjective than novelty. This subjectivity is reflected in the differentiating threshold of originality required by each Member State to be fulfilled as a criteria for deciding whether a particular work constitutes 'work' for copyright purposes or not. Most Member States have supported the view that an original work should reflect the 'imprint of an author's personality'; the law in the UK emphasises the economic efforts due to which the result is the new creation, rather than the human intellectual input. As such civil law Member States have established a higher level of originality compared to that adopted originally under the common

Furthermore, the copyright laws of one Member State may require a certain form of expression and fixation as a precondition prior to associating the particular object of work with a particular category or subcategory of copyrightable works, such as literary or audiovisual works, databases or films.[75] Conversely, the copyright laws of another Member State may not require any particular form of fixation to be fulfilled following the more relaxed paradigm set forth by the Berne Convention.[76] Where such criteria are applied, potential problems may arise, especially for multimedia works being highly interactive, and dematerialised.[77] In this event, multimedia may either not fit into any existing category of copyright protected work, and/or run the risk of being unprotected in these Member States, where it cannot fulfil the regulatory requirements of fixation.[78]

By contrast, the work of another multimedia producer, who has possibly not aimed at the creation of a dynamic dematerialised and inter-operable, highly interactive multimedia work, may easily fit within an existing category of copyright works provided the necessary fixation and originality requirements are satisfied. This work then may be protected (in this Member State), although the level of its value invested by its producer may be significantly inferior to that invested in the work referred to in the previous example in terms of quality and quantity; yet, it may not

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law in the UK, although the degree of this disparity at least on a regulatory basis has to some extent been lessened with the introduction of the EC Database Directive to be discussed in Chapter 3.

[75] As was discussed above, a work is the result a particular form of expression that stands as an independent unit. According to some Member States' copyright laws, copyrightable works in general are categorised differently. In the UK for instance copyright works are categorised either as literary, artistic, musical, or films (audio-visual) depending on their single form of expression.

[76] The Berne Convention does not set any special criteria in relation to fixation, it rather provides that "it shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or any specified categories of works shall not be protected unless they have been fixed in some material form", (Article 2 (2)).

[77] As was explained in Chapter 1, fixation within the traditional meaning can no longer be a key feature of multimedia, unlike dematerialisation, and inter-operability expected to be the next vital attributes of multimedia.

[78] As Cornish characteristically supports "the range of material which may be combined together in digitally recording (as in a multi-media product) is such that the end result may not easily fit into any of these limited categories". See Cornish, at pp.532, supra note 11.

qualify for the same protection in another Member State, where more strict criteria of originality are required to be satisfied.

Furthermore, certain concepts and principles of copyright may appear outmoded today.[79] This may be explained by the fact that these concepts and principles were designed a long time ago before the emergence of digital technology. In fact, we may say that their shape was determined by the limited capabilities of contemporary technology in contrast to the more complex and innovative means currently available today.[80]

In particular, the precondition of 'originality' is satisfied, in so far as it refers to the form of expression, and especially to the structure and arrangement, of the work, entailing some measure of fixation, rather than referring to the work itself.[81] Multimedia, however, cannot always meet this criterion, especially in cases where it entails a great amount of interactivity and a substantial level of dynamic and sophisticated presentation of its constituents.[82] In these cases, presentation and arrangement of constituents is dynamic, not static, thus interchangeable and perhaps evolving depending on users.[83]

In considering the latest trends and demands for more sophisticated multimedia works to be developed at least by the year 2005[84], the question raised at this point is whether copyright law in its current form can respond appropriately to this demand; meaning whether it can satisfactorily protect all multimedia works. An answer to this question may only be given on comparing multimedia with a particular category of copyrightable works in the course of attempting to fit it within such a framework.[85]

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[79] Such as the traditional concept of authorship and originality particularly in civil law jurisdictions. See note 88 below.

[80] Ibid. See also the discussion related to the phenomenon of decentralisation of multimedia protagonists, in Chapter 1.

[81] Copyright protects the form of expression, and not the idea underlying the work as patent law.

[82] As suggested in the previous chapter, a genuine creative multimedia work should be highly interactive.

[83] Meaning the extent to which users shall interact with the constituents.

[84] Supra note 31 in Chapter 1.

[85] This task will be undertaken in the following chapter.

It should be further emphasised that any difficulties encountered when attempting to classify multimedia as a particular copyright work across the Community will inevitably be exacerbated by the important differences found in Member States' copyright laws. Such problems may in particular be the outcome of a divergence between civil and common copyright laws directly or indirectly affecting the future protection of multimedia across the EU.[86]

The potential of a differentiating response of copyright law towards multimedia protection at a Community level entails the risk of economic distortions and imbalances across the EU. Undoubtedly this situation would be to the detriment of the European Union Single Market, and the growth of the Information Society.[87] A fair balance between the two extreme approaches should be achieved so as to overcome this risk. It remains to be seen where the line shall be drawn, considering also the latest attempts of EU legislators to establish a harmonised regime of protection for copyright (and related rights) protected works in the Information Society within the framework of the 2001 Copyright Directive.[88]

In this context some may doubt the adequacy of current copyright law to accommodate present and future requisites for further development and protection of all multimedia works. If so, it appears that we are left with the following two options:

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[86] The gap between the two legal systems is greater in theory than in practice, as will be explained later in Chapter 3.

[87] See Recital (1) of the Copyright Directive according to which "The Treaty provides for the establishment of an internal market and the institution of a system ensuring that competition in the internal market is not distorted. Harmonisation of the laws of the Member States on copyright and related rights contributes to the achievement of these objectives." See also Recital (6) of this Directive, where it is suggested that without harmonisation at Community level, "legislative activities at national level"..."might result in significant differences in protection and thereby in restrictions on the free movement of services and products incorporating, or based on, intellectual property, leading to a re-fragmentation of the internal market and legislative inconsistency. The impact of such legislative differences and uncertainties will become more significant with the further development of the information society, which has already greatly increased trans-border exploitation of intellectual property. This development will and should further increase. Significant legal differences and uncertainties in protection may hinder economies of scale for new products and services containing copyright and related rights".

[88] Ibid. See the discussion in Chapter 4.

and its functioning resulting from this hybrid nature.[91] As such the incorporeal, yet, proprietary nature of copyright gives a dominium over creator's work, a right in the work overall, and an exclusive right of preventing others from misappropriating an author's work.[92] Exercise of such exclusive control has constituted a fundamental feature of copyright, justification for which has been found in the principles of 'natural justice' and 'public interest' considerations[93] for the purpose of overcoming

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[91] This is one of the most fundamental characteristics of copyright, which derives from the general role of intellectual property law to confer (proprietary) rights on the products of human thought and invention, 'on the works of one's mind'. Copyright is primarily a property right by means of its own nature, where 'property' in the work is justified as soon as this work is created or made by the right owner. Accordingly, copyright as a form of property is characterised as intellectual since it originates from the mind of a person before it is reduced to material form and as such its subject is characterised as incorporeal and intangible in contrast to other forms of 'property rights'. If one compares copyright as a form of intellectual property right with other more traditional forms of property rights, one will notice interesting differences and similarities. As such one may notice that copyright, as any intellectual property right does not share the same boundaries of scope with tangible rights by reason of their differentiating nature, especially with respect to the concepts of 'trespass' and 'infringement'. In contrast to physical property, which lasts as long as the object in which it is vested, copyright constitutes a specialised and limited form of protection. Its scope and duration of protection is defined within the relevant statutory provisions and as soon as it expires, then the so far protected work falls into the public domain and becomes public property, meaning that it can be used by anyone. On the other hand, copyright as property rights cannot arise without the existence of a public domain from where one can draw new works. There are cases then that both intangible and tangible rights may function alike especially when concerned with determining what constitutes 'property'. See Reichman, 'Charting the collapse of the patent - copyright dichotomy: premises for a restructured international intellectual property system', at p. 486, supra note 59.

[92] Reichman at pp. 486 and 487, ibid.

[93] Following the principle of 'natural justice', copyright, as any right to intellectual property could be recognised as an inalienable human right if one relies on the grounds of Article 27 (2) of the Universal Declaration of Human Rights providing that "everyone has the rights to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author". See also, Emmert, F, 'Intellectual property in the Uruguay round. Negotiating strategies of the western industrialized countries' (1990) 4 *Michigan Journal of International Law* 1317; See also , Drahos, P, *A philosophy of intellectual property,* Dartmouth Aldershot Brookfield USA Singapore Sydney 1996 at p.2.

certain socio-economic problems, such as that of scarce resources[94] and market inefficiencies.[95]

In line with these arguments some measure of exclusive control over a scarce resource may be secured only by building up the appropriate means or fences.[96] If a copyright fence is absent, second-comers may copy an author's work, and thus, appropriate his future profits without having shared in the costs, and the risks of one's creative endeavour.[97] From this perspective, it appears that the fences raised by copyright may protect an author's work and as such might provide some relief to this

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[94] As already mentioned in the previous chapter, scarcity arises where, for resources that hitherto could be used without restriction and were in that sense abundant, new uses are invented and one must decide which use should prevail. Such competing uses may give rise to conflict. The conflict then signals scarcity of the resource in question. It may be solved, or altogether avoided, by defining property rights over the resources. In this context property rights attribute the decision about the use of a resource to a particular person or groups of persons. In particular copyright being a property right provides the incentives to "husband scarce resources wisely enough" in order to develop "new and better uses for them". See Mackaay, E, 'The economics of emergent property rights on the internet', in Hugenholtz B (ed) *The future of copyright in a digital environment,* proceedings of the Royal Academy Colloquium, Information Law Series 4, Kluwer Law International, 1996 at p. 15.

[95] See also Reichman, at p. 487 supra note 59, explaining that "exclusive property rights facilitate a reasonably efficient allocation of resources to the tasks of transferring major scientific breakthroughs to industry or of organising the costly public distribution of artistic works whose commercial value cannot be determined in advance."

[96] Copyright law distinguishes between literary, dramatic, musical and artistic works so as to correspond to some extent to differences characterising the particular fencing method used respectively. In other words "by controlling the most obvious ways in which each kind of fence can be jumped, the creator effectively obtains a property right" as supported by Mackaay, at pp. 16-18, supra note 94. Nonetheless, copyright being a fence can keep the public out of the market place of ideas. Boyle, J, *Shamans software & spleens: law and the construction of the information society,* Harvard University Press 1996 at pp.18 et seq.

[97] This may happen in cases where "neither originators nor the entrepreneurs who exploit their output can erect fences" around their creations "that are both intangible and inexhaustible". Then "second comers who obtain material embodiments of these creations from the stream of commerce" may appropriate future profits in such a manner. See Reichman, at p. 486 note 47, supra note 59.

author, particularly from the 'public good' problems posed especially by on-line pirates.[98]

Furthermore, the copyright-fence may behave like another "kind of economic goods".[99] As a consequence the natural goal of the copyright system is to award justice in protecting the work of one's mind by means of conferring a bundle of exclusive proprietary rights[100] on the work of one's thought and labour with effect erga omnes. Although these rights do not give an absolute monopoly to copyright owners, the more extensive the bundle of exclusive rights, the greater the need becomes for exceptions or limitations to apply. Establishing a system of more and more extensive exclusive rights could also reflect a tendency of copyright towards expansion of its scope, in which copyright owners, and not necessarily authors' interests, tend to take precedence.[101]

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[98] The so called 'public good' problem arising from the intangible and inexhaustible nature of intellectual creations allows them to be copied by second comers, who have avoided sharing the costs and the risks of the original creators. In this case copyright is viewed as the legal weapon against large-scale infringers, those who as "a child-stealer" or "pirate rob others of the offspring" of their intellects and grow "wealth on the proceeds", as explained by MacQueen, H, *Copyright, competition and industrial design,* 2nd edn, Edinburgh University Press, 1995 at p. 12 to 14.

[99] Mackaay, supra note 66, p. 15.

[100] Notably the term 'bundle of rights' is used in a rather disharmonious way, giving rise to some theoretical debate. In general it is commonly accepted that the 'bundle of rights' suggests a complex series of legal relationships. The term 'bundle of rights' is used as encompassing the modes of exploitation covered, and the concept of copyright is regarded either as a mere bundle of rights or as a prerogative, which covers any mode of exploitation. In the UK for example, although a bundle of rights is regarded as quite extensive, not all types of exploitation are covered by section 16 (1) of the CDPA 1988, which provides for a list of exclusive rights such as the right "to copy the work, to issue copies of the work to the public, ..., and to make an adaptation of the work". See sections 17 (2) and 16 (3) of the CDPA in relation to what copying encompasses, and section 21 (3) CDPA 1988 in relation to the meaning of adaptation. See Spoor, J, 'General aspects of exceptions and limitations to copyright' paper delivered at the ALAI Study Days conference *The boundaries of copyright: its proper limitations and exceptions*, Cambridge, September 14 -17, 1998, (hereafter 'ALAI Study Days 1988'), at p. 7. See also Lipton, J, 'A revised "property" concept for the new millennium?' [1999] 2 *International Journal of Information Technology* at p.177-179.

[101] Reichman at pp. 492 to 495, supra note 59.

Nonetheless, the ultimate goal of this kind of protection is to deliver a relatively efficient market for intellectual goods[102], or else to respond to market failures by means of rewarding efforts in creating works that are worth protecting, as well as stimulating further intellectual creation and productivity.[103]

In this context, it is questionable whether traditional copyright fences could appropriately apply on multimedia works with respect to public interest considerations, so as to guarantee a reward commensurate with the public benefit, and respond to the incentive of creation of more creative multimedia works. If not, it is further questionable to what extent the establishment of new copyright fences can be justified in respect of multimedia and the public domain, by means of extending its scope of protection on multimedia per se.[104]

In our attempt to fit multimedia within this context, at first glance it appears that multimedia works, which are primarily the result of producers' and authors' own creativity[105], may fit with the nature and purpose of the copyright system. Multimedia

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[102] It remains controversial, however, under what conditions such a goal can be materialised within the copyright regime. As reported by Reichman, there is no consensus in relation to the effect of copyright systems on the social welfare of intellectual property systems, at p.487 and note 51, ibid. See also Lynney, G, 'Re-examining copyright's incentives – access paradigm' (1996) 3 *Vanderbilt Law Review* at p. 493.

[103] Supra note 98. Overall, copyright established on two main principles. The first principle is that of intentional allocation of exclusive rights, in order to encourage creators to invest in producing such works, and by the same token to protect them from unauthorised forms of appropriation of their works by second-comers who would like to copy their creations by avoiding the original investment's costs and risks. The second principle amounts to the existence of public domain to ensure access to and distribution of 'the works of the mind'. Interestingly enough, the former principle is balanced and limited, by the second principle of public domain. This balance is further facilitated by a system of exceptions and restrictions forming in general the limitations over copyright and found within and outside the scope of the copyright regime. Drawing a fair balance between these contradictory principles and deciding what is worth protecting under copyright is not always an easy task, especially today considering the wider implications brought by the advent of digital technology in the Information Society.

[104] Especially if this entails the establishment of a new category of subject matter and a new sui generis right within its scope of protection, as will be discussed in section 5 at Chapter 4.

[105] This is said without necessarily downgrading any significant amount of time, money and effort invested in the production and implementation course of such work.

works, which are largely the expression or extension of their authors' and producers' own personality, as shown from the moment the idea and plan of such production was envisaged, to the final stage of marketing the product, may qualify as such for copyright protection.[106]

In line with the principle of natural justice inherent in copyright, multimedia authors and producers are entitled to decide upon the exploitation of their works, and should be best placed to prevent any kind of misappropriation of their intellectual offspring. As such, multimedia authors and producers should be entitled to claim for copyright protection, as any other worker should be entitled under copyright law to the fruits of their mind and labour. Following this norm, the royalties to be paid to them should be commensurate with their intellectual work, as well as their efforts, time and money invested.[107] In this way multimedia producers and authors may find some relief to their fears of on-line piracy, and benefit from such a regime, which has historically proved to be cost-effective, and market protective.[108]

Hence, introducing new fences, and in particular the copyright fence in the developing multimedia market, may not be a simple task.[109] Similarly traditional fences may become so technologically outdated and obsolete as to be necessarily

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[106] When attention is focused on the author being the creator or maker of a copyrightable work, it is natural to perceive his creation as the expression or extension of his personality. In this sense the legal mechanism of copyright law has been chosen to be the proper response to those logical demands of an author and thus justified by the principle of natural justice.

[107] The 'fruits of mind' are assimilated to the intellectual work, or else the creativity put in any stage of the multimedia production, development, marketing, delivery, and the 'fruits of labour' are assimilated to the efforts, money and time invested as such by multimedia producers, developers, authors and perhaps makers.

[108] Provided of course that such a copyright fence will not be technologically out-dated in respect of multimedia, meaning that the fencing technique on which copyright has been relying so far may no longer be as good as it once used to be. This may happen in so far as use of digital technology can amplify "the corrosion of older fences raised by the print" or the analogue technology and create "an open field in which most probably all may take whatever they can click their mouse on." See Reichman, at p.487 and note 51, supra note 59. See also Bettig, R, and Schiller, H, (ed), *Copyrighting culture: the political economy of intellectual property,* Westview Press 1996 at p. 94.

[109] This may be so because of the negative features resulting from the impact of new technologies upon older and present fencing techniques.

replaced by new ones.[110] Therefore the next question to be considered by legislators prior to introducing any new fences in respect of multimedia should be; how far the scope of copyright law can potentially be expanded in order to accommodate all multimedia works, while considering the impact of the Copyright Directive on current copyright law in the Information Society?[111] An attempt to answer the questions raised in this section shall take place in the following chapters after taking into consideration also the following reasons that can be invoked for the purpose of favouring the choice of copyright protection on multimedia.

### 4.3. From Print to Multimedia

Multimedia has become popular because of its rich and valuable information content as well as its form of presentation in terms of both information quantity and quality.[112] Copyright law can successfully attract various different popular technological and information proprietary works under its protectionist umbrella. This has been demonstrated since the days of the early print technology[113], and with the passage from analogue to digital technology. Although copyright law was originally developed for the purpose of protecting pure literary works[114], copyright has followed technological developments which provided new technical means for creating and reproducing new and pre-existing works.[115] Accordingly its scope of protection has

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[110] Reichman, supra note 108.

[111] As will be discussed later in Chapter 4.

[112] As already explained in Chapter 1.

[113] It was not until the invention of printing in the 15th century that a form of copyright protection was introduced. This was the Statute of Anne 1709 (passed into law on 10 April 1710), which sought to deal with the issue of protection of literary works (books and other writings) for first time. In relation to the Statute of Anne and the development of copyright following this see Kaplan, B, *An unhurried view of copyright* James Carpentier Lectures, Columbia University Press 1967; Eisenstein, E, *The printing revolution in early modern Europe* Cambridge University Press 1983, Canto edition, 1998; Steinberg, S, *Five Hundred Years of Printing* (rev ed) Bristol, 1961; and Avis, F, *The First English Copyright Act 1709* Glenview Press London 1965.

[114] This was so as a result of the threats and dangers posed by the technological development of that epoch, namely print technology. See Kaplan at p. 5 et seq., and Eisenstein at p. 78 et seq.

[115] Such as printing press, photocopying machines, and scanners.

been expanded so as to accommodate different kinds of literary (and other) works, from textbooks to computer programs and electronic databases[116], albeit being more utilitarian, rather than pure informational.

Notwithstanding the fact that copyright has been the outcome of knowledge, and experience accumulated over years of print and analogue technology, today it is requested to face new challenges posed by the use of digital technology.[117] As such, the history of copyright (and of related rights) reveals to us that it consists of a series of successful re-actions through which copyright law has adapted to technological developments, sometimes in great bounds.[118] We may say then that it has been historically proven that the scope of copyright may become flexible to the extent desired so as to respond to technological advances, and emerging social and economic issues. Following this reasoning it appears that multimedia works, being creative and hybrid in nature, information, utilitarian, entertaining and/or artistic, may potentially fit within the scope of copyright; especially if justified also by certain policy considerations.[119]

## 4.4. Policy Considerations

The regime of copyright law has become the most favored response of policy makers to protect information products that are worth copying, and thus protecting, both at an international and Community level, mainly for political and economical reasons.[120] This response to technological challenges in the area of copyright has been

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[116] As such, in the UK common law was abolished with the passage of the Copyright Act 1911, and the scope of copyright law was extended under the Copyright Act 1956 and the CDPA 1988.

[117] Particularly the risk of on-line piracy and alteration of protected works in an on-line environment

[118] Commission of the European Communities, Green Paper on copyright and related rights in the information society, Brussels, COM (95) 382 final, July 19, 1995 at p.24 et. seq.

[119] Provided also that the statutory preconditions applied in respect of compilations, databases, computer programs and audio-visual works can be satisfactorily applied on multimedia works. This analysis will follow in Chapter 3.

[120] See also the personal opinion of the then head of the DG XV E4 Unit of the European Commission, Vandoren, P, 'Copyright and related rights in the information society' in *WIPO Worldwide Symposium on Copyright in the Global Information infrastructure*, Mexico City, 22-24 May, 1995, at p 83 et seq.

in line with the Berne Convention (1886), the TRIPS Agreement (1994) and the WCT and WPPT (1996). In this context, these conventions have proved particularly beneficial since they can ensure effective worldwide protection for right-holders of all types of technological developments falling in the scope of the international regulatory framework. Inevitably, any future legislative developments initiated by the European Commission, and the Council for the protection of multimedia must depend upon the trends of international (intellectual property) law in this area, in so far as their objective is a harmonious and worldwide effective regime of protection for right-holders of multimedia works, driven by economic and political reasons.[121]

In particular, the regulatory framework for the establishment of the Single Market and the Information Society across the EU may include the establishment of a single market for copyright protected products and services, especially when present and future development and creation of these type of works depends very much upon the wealth of the European cultural heritage.[122] In this context, the EU aims at the stimulation of future development, as well as increasing use, of new information and communication technologies and works, such as multimedia, by stipulating a synergy between the IT, communications and traditional media sectors in order to develop further works, services and innovative material.[123] As such, the objective of enhancing the value of the European audiovisual heritage in all possible communications channels and by-products unlocked by the digital technologies, including multimedia, has been of outmost importance for the EU policy makers.[124]

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[121] See also the Recitals (10) and (13) of the Copyright Directive.

[122] Pointed out also in the Recital (12) of the Copyright Directive.

[123] As such see the Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, 'eEurope 2005: An information society for all - An Action Plan to be presented in view of the Sevilla European Council', COM 2002, 263 final, June 21/22, 2002, and the Communication from the Commission, 'Principles and guidelines for the Community's audiovisual policy in the digital age', COM 1999, 657 final.

[124] As reported in the 1997 annual statistics report of the European Audiovisual Research Institute, 'Digitalisation, the new-found Eldorado of the audiovisual industry' in the *Audiovisual policy of the European Union – The new era of the picture industry television without frontiers – Greater Europe in the year 2000*, p.31.

In this context, the competitiveness of the European industry of copyrightable works and its creators has become a policy consideration of high priority. The European Union aims to safeguard this heritage at a Community level so as to ensure a good market share in the worldwide market, also taking advantage of the impact of e-commerce. All of this has been emphasised also in the Recitals of the recently adopted Copyright Directive.[125] Accordingly any attempt to respond to the problem of legal protection of right-holders of multimedia works will similarly be driven by these policy and economic reasons, since most multimedia works developed at a Community level have been based upon pre-existing material derived from the European cultural heritage.[126]

Following this reasoning, it seems that the choice of copyright law for protecting multimedia works will most likely be welcomed by policy makers and most practitioners across the EU.[127] Although this preference has not been demonstrated expressly as a de facto case, nonetheless, it has been formed

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[125] Above all, see Recitals (1), (6), (9), (10) and (13) of the Copyright Directive.

[126] Most EC funded 'multimedia projects' have been based on pre-existing European national cultural material as it appears from their descriptions published at http://www2.echo.lu/impact/projects/imm/en/mmulti.html.

[127] Nonetheless, there may be some who may oppose to this development arguing that the European Commission; (a) should not rely solely on the instrument of copyright in its attempt to solve regulatory problems raised in the Information Society; and (b) should not concentrate solely on reinforcing copyright protection; rather it should broaden its perspective, and review the boundaries of copyright law in a more extensive manner, as the members of the Legal Advisory Board (LAB) had following the Green Paper 1995. Legal Advisory Board, 'The EC Legal Advisory Board's reply to the Green Paper on copyright and related rights in the information society', [1996], 12 *Computer Law and Security Report* 143. In support of this position one could also claim that copyright law should protect only works of pure authorship, not any potentially valuable work such as the sui generis databases or certain multimedia works that are largely the outcome of the investment put in the course of their production and development. However, this last argument is outdated today since all Member States have consistently implemented the sui generis right of databases, and producers have already taken seriously its potential benefits as demonstrated by the recent case law, albeit being criticised in a negative manner. It would be unfair to deny such protection to producers of expensive to produce multimedia works as will be suggested later in section 5 of Chapter 4.

anonymously and unofficially;[128] in fact, it has been incidentally and indirectly considered as part of a wider-scale topic, copyright and the Information Society.[129] This prospect however, does not necessarily imply that any implications raised when attempting to apply copyright law on multimedia will be automatically overcome.

Although the arrival of new information technology works such as multimedia should not be considered problematic by default within the framework of copyright law[130], copyright law may have to face certain challenges, the degree of which may have been underestimated by policy makers and legislators.[131] The scope of certain rights vested in right-holders, particularly the right of reproduction[132] may be over-expanded as a result of technological developments without ensuring a proportionate increase of other safety valve provisions.[133]

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[128] Neither the European Commission, nor the Council of Europe have ever expressed officially their position on how multimedia works should be protected since this issue was never explicitly made part of their agenda of discussion.

[129] Prior to the Copyright Directive, references to the arrival of new information products, such as multimedia, and the development of copyright law were included in the Green Paper 1995, supra note 118.

[130] The general conception is that the law should be indifferent to the technology used, and the arrival of new technologies should not affect the basic nature of any notions and principles of copyright law. S suggested at the Green Paper 1995, ibid., at p. 24 et. seq.

[131] Arguably this situation has been reflected in the Copyright Directive as will be discussed in Chapter 4.

[132] As was previously concluded, the risk of not authorised copying and alteration of multimedia works justifies the need for their legal protection. However, it is not clear how extensive the particular form of protection should be with respect to the interests of multimedia producers, creators and users. This issue shall be raised in Chapter 4 while contemplating the efficacy of non-copyright protection measures.

[133] Traditional concepts and principles may be applied, and even shaped in different ways in respect of emerging information works as a result of technological developments without necessarily implying any radical change of these concepts in nature, as argued by Ginsburg, 'Putting cars on the "Information Superhighway": authors, exploiters and copyright in cyberspace', supra note 5.

Although the digitisation of analogue copyright works and the creation of new digital works should not undermine the basis of copyright law,[134] recent regulatory developments can show us how difficult it has been for legislators to apply this principle especially in respect of popular IP works in the Information Society.[135]

Additionally, it is not clear whether multimedia works can be adequately protected as any other copyright work whose nature and purpose of use is akin to that of multimedia as the case may be in order to overcome the potential risk of a legal gap.[136] The fact that copyright law has proven flexible enough as may be necessary to respond to certain problems[137] related to the legal protection of new information technology work, should not by default imply that multimedia works can be sufficiently protected under copyright law. Arguably a rather de facto application of copyright may lead to greater problems, such as that of transforming exclusive rights into effective monopolies, by means of enforcing copyright protection in respect of any kind of new and added-value information technology work, such as multimedia.[138]

These issues should be carefully considered while it is equally important to refrain from:

(a) any unnecessary legal actions, which would entail the risk of over-protecting a particular market segment; and

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[134] See Ginsburg ibid. and Hugenholtz, B, (ed.), 'Adapting copyright to the information superhighway' in Hugenholtz B, *The future of copyright in a digital environment,* Kluwer Law International, The Hague, London, Boston, 1996, 81 et seq.

[135] As a result of the strong lobbying exercised by right-owners who were arguing that on-line piracy has dramatically risen as a result of the use of digital technology, the legislators of the Copyright Directive have made a clear distinction between the exceptions that should apply in respect of analogue and digital (and digitised) works.

[136] As well as that of raising a new fence especially for multimedia in order to fill in the legal gap found within the scope of copyright law; that of a new sui generis right combining elements of unfair competition and copyright law principles. See section 5 at Chapter 4.

[137] This is so particularly in respect of the problems of protection of right-owners rather than of the problems of users and the public domain as will be discussed in sections 2 and 3 in Chapter 4.

[138] Particularly by means of extending the reproduction right without ensuring the proportionate extension of the scope of users' fair use practices and other copyright exceptions or limitations, as will be discussed in relation to the Copyright Directive in Chapter 4.

(b) any unnecessary pro-active legislative measures in the as yet satisfactorily defined multimedia market.[139]

In considering all these complexities, it is therefore necessary for future European copyright policies to:

(a) take into account the legitimate interests of all parties playing a role in the information society's chain from the original creator to the end user; and

(b) ensure that the rules of competition, and the interests of all interested parties will be respected in the sphere of copyright law and the multimedia market.[140]

## 5. Conclusions

Multimedia is a valuable work in its entire 'look, use and feel' as a result of creators', producers' and users' input, and so should be protected to preserve the incentive to creation and protect their interests against acts of unauthorised copying and alteration, which could adversely affect multimedia per se, as well as their rights. While it is true that multimedia, being a digital work, is as susceptible to (digital) piracy as any other popular information technology and media work, it was concluded that we should not exaggerate the degree of this, provided appropriate means of protection can be readily available. Piracy is not a new threat. It has only been transformed since it can now take place in a three-dimensional way using and exchanging information, and thus communicating in the on-line environment.

It should be clear to policy makers, right-owners of pre-existing works, and would-be creators and producers of multimedia that convergence of communications allows anyone to be anywhere in the public on-line environment (or the private on-line sphere of others), without having to go through traditional intermediaries' paths.

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[139] The importance of which relates to the ineffectiveness of competition law in respect of multimedia as will be explained in Chapter 4, section 4.

[140] As will be discussed later in relation to users' rights affected by 'extra-contractual' and technological restrictions, as well as in relation to the insufficiency of contract law, technological protection measures and regimes, and competition law to establish a fair balance between the rights of right-holders and users. These topics will be the considered in Chapter 4.

In this sense, the line of demarcation between unlawful on-line trespass of traditional (copyright law) fences and private on-line communication becomes increasingly blurred. Undoubtedly multimedia creators and producers are entitled to be protected against the risk of being under-recognised and under-protected. Additionally they should also be rewarded for their creativity, time and effort invested in the development of such an expensive and laborious work.

It is desirable that the development and innovation in multimedia be stimulated, and this can be achieved only if all interested parties are allowed to contribute to this process, and the appropriate legal protection means overall are in place. It may be difficult for right-owners and legislators, whose experience comes only from pre-existing works found in a two-dimensional environment, to re-establish the boundaries between what should be illegal and what should be legal in the new three-dimensional environment.

In view of these challenges, the issue of multimedia works' protection becomes more complex, since multimedia per se is not so far expressly recognised or protected by any single regime. In this context creators and producers run the risk of being under-recognised and under-paid should their work fall in the hands of on-line pirates in the absence of an appropriate regime protecting multimedia in its entirety. Even more, the Information Society would then have to face a general shortage of multimedia works. In order to avoid these potential threats it is submitted that multimedia needs to be protected by law for what it represents and its value. Thus, it becomes necessary to investigate which particular legal regime can appropriately protect this object of 'work' defined to be such within the meaning provided in this thesis.

Attempting to answer this question is a difficult task as a result of the hybrid and complex nature of multimedia. Since our perception of new objects cannot be free from our experience and knowledge of past works, inevitably any attempt to answer this question cannot escape from these bounds. In this sense it is important to investigate first the suitability of two long existing legal regimes of intellectual property law, patent and copyright law, that could possibly satisfy the need of multimedia works; protection with respect to its hybrid and complex nature.

In the course of examining the appropriateness of the patent regime, it became apparent that new hybrid forms of multimedia could emerge tomorrow, including inventive multimedia products. This could happen in so far as the underlying idea and concept of multimedia is clearly distinguishable, and prevails to be more valuable than the particular form of expression of what we 'look, use and feel' when using that work. This however, will be a rare case. Multimedia is not a new invention, neither an inventive product, which could then be protected under patent law.

In fact, multimedia may be protected under copyright law, in so far as its creative nature in its particular form of expression, in what we 'look, use and feel' prevails mostly. On this basis it appears that certain multimedia works may have to be treated and protected differently, depending on whether their added-value is measured by monetary and/or quality criteria.

The fact that the origins of copyright law can be found in two different schools of law, common and civil law, may not be as great a problem as initially appears. At least in theory, multimedia could benefit from its hybrid financial and romantic orientation, being a hybrid work itself. In this light, it is expected that copyright law can potentially ensure an appropriate reward for the creativity and investment input in the multimedia work to those parties who deserve it.

Additionally the fact that copyright was primarily designed to reflect the notions of analogue technology should not be considered a greater problem as discussed in relation to the issue of digital piracy. Its scope of protection has recently been expanded to accommodate new technological works, such as electronic databases, whose nature is hybrid creative, utilitarian, and informational. Multimedia also is a hybrid utilitarian and informational compound work to some extent. As such, there seems to be little evidence to argue that the scope of copyright law cannot expand further to protect one more valuable, and creative object of work; multimedia.

On the other hand, it should not be underestimated that not all copyright law systems may afford the necessary flexibility in their scope of protection to protect multimedia in general as 'literary and artistic works' within the meaning of the Berne Convention (Article 2(1)). In so far as multimedia is expected to affect the EU economy and the Information Society favourably, the suitability of copyright law should be determined in respect of those Member States' differences that could

potentially lead to distortions of the Single Market. Undoubtedly a harmonised legal framework is necessary for protecting multimedia sufficiently and adequately across the EU, and the international market. This is particularly important for the European Union considering the upcoming investment plans, and technological developments in the field of on-line and wireless communications. From this perspective we may say that the issue of multimedia works' protection becomes also a matter of EU policy.

Subsequently while contemplating the appropriateness of copyright law in respect of multimedia, we cannot disregard the role that copyright law has been chosen to play in the international market place. In fact, it has become clear from the latest regulatory developments in the area of international copyright (and neighbouring rights) law that creative information technology based added-value works should preferably be protected under copyright law. In the light of the TRIPs Agreement (1994), the latest WIPO Copyright and Phonograms Treaties (1996), and the EC Copyright Directive (2001), we could say that this approach has become to some extent an international trend.

At this point there seems to be no reason that could possibly justify the exclusion of multimedia from the system of copyright law. All of this indicates that we should continue our investigation in the next chapter and within the scope of copyright law, and examine under which particular category of copyright works multimedia could be satisfactorily protected.

# CHAPTER 3
# MULTIMEDIA AND COPYRIGHT

## 1. Introduction

Being an original and creative work of the mind, multimedia may qualify for copyright law protection, either under an existing category of copyright works, or under a newly created category as a new subject matter.[1] In order to determine which option is most appropriate, we should first examine whether any of the existing categories of copyright works are adequate to accommodate this new form of creative work appropriately. A comparison between multimedia and those literary and audio-visual works bearing the closest relation to the 'look, use and feel'[2] of multimedia will be undertaken in this chapter; meaning (a) 'collections' or else 'compilations', (b) 'computer programs', (c) 'databases', and (d) audio-visual works, and in particular films.

In this context we could say that the categorisation approach taken has been dictated by the particular way these works have been perceived, in line with the particular form of expression used to capture our attention and senses of perception. In general, literary works are meant to be read, albeit in a broad sense they have to be looked at and read, or listened to. Amongst these, a compilation, for example, can be perceived as such only if looked at and read so as to become comprehensible by reason of its primary constituents textual data and pictures. A database has also to be looked at, and possibly listened to, and on the whole used, since it is made up of any

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[1] As was already discussed in Chapter 2, the option of protecting multimedia in general under the broadly defined category of 'literary and artistic' works pursuant to Article 2 (1) of the Berne Convention should be rejected, in so far as it would lead to an inconsistent, and overlapping protection of multimedia across the Community, and thus, distort the European market. In particular, this option cannot be implemented in the UK, where creative objects are protected by copyright only if they fall within one of the nine expressly enumerated categories of copyright works. Additionally such an approach would ultimately disregard the latest EU legislative measures aiming at a harmonised regime of IP works in the Information Society, and particularly the Copyright Directive. Hence, it is necessary to establish whether multimedia fits within an existing category of copyright protected works, since a 'work' must first be identified with an already protected subject matter, prior to determining whether it can be protected as such by analogy; as explained in section 2.3.

[2] As defined in Chapter 1, section 3.5 above.

type of multi-works and multi-media elements (text, pictures, sounds as well as computer programs necessary for its operation and making). A computer program also has to be looked at and read as a form of language, and overall, used.

A film is necessarily projected on to a screen, since it is made of images and sound elements. The series of moving images attracts our attention stimulating first our visual and then our audio senses. The prevailing feature, however, is the images and as such the aim of this work is first to be looked at and then to be listened to. As such, a film is perceived as an audio and visual work only if looked at and listened to simultaneously. In this sense, audio-visual works are two-dimensional. However, in a strict sense, a film is meant to be watched, and as such we could say that it is single-dimensional.

Throughout this analysis it will become apparent how difficult it is for multimedia, being a composite of all different types of pre-existing multi-media and/or multi-works, to be sufficiently and consistently identified only with one single subject matter. In fact, it is possible for multimedia to be assimilated with more than one subject matter bearing the closest relevance to a given form of expression, depending on the degree and kind of interactivity involved. In view of these complexities, and the potential risk of protecting multimedia inconsistently across the Community, it is important to identify the most appropriate criteria for determining which particular category of copyright protected works can appropriately protect multimedia; in other words, with which particular subject matter of literary and audio-visual works it can be sufficiently identified.

Should it become clear that no single category of copyright work can satisfactorily and consistently protect multimedia across the Community, the possibility of a cumulative and/or a partial application of various copyright rules may have to be considered. Consequently, special attention should be focused on the implications that might arise in either case. It should further be determined whether such a form of protection could be possible, and if so, whether it would be appropriate for multimedia.[3]

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[3] It is possible for a work to fall within two categories simultaneously, since the categories of copyright works are defined arbitrarily and broadly to some extent. The fact that the borderline between one category of copyright and another may be difficult to define, does not imply that an author should be

If existing copyright categories prove to be insufficient or inappropriate for protecting multimedia, it should then be examined whether other alternative options exist. A step towards the desired solution to the problem of multimedia works' protection may involve the rejection of all existing categories of copyright works in favour of creating a new category.[4] Whatever the outcome of this analysis may be at this stage, it is important first to identify the criteria[5] for justifying the adequacy or inadequacy of either of the following considered options of protection of multimedia, before considering any non-copyright alternative means of protection.

## 2. Literary Works and Multimedia

Copyright law was originally devised for the purpose of protecting literary works, or the works of the mind, which were expressed by means of language, and could only be listened to or read, subject to the capacities of the contemporary

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given protection in both categories. The proper category will be the one most nearly suiting the characteristics of the work in issue because "the author must be confined to one or the other of the possible categories", as was suggested by Laddie J, in *Electronic Techniques (Anglia) Ltd v Critchley Components Ltd* [1997] FSR 401. However, in *Anacon Corporation Ltd v Environmental Research Technology Ltd* [1994] FSR 659, it has been held that a circuit diagram is both a literary and artistic work. Hence, on appeal it was held that the film itself was a dramatic work in *Norowzian v Arks (No. 2)* [2000] EMLR 67 (CA).

[4] Compilations and computer programs are considered as single-dimensional works by reason of the single form of expression of their constituents, meaning the most prevalent textual information element, which implies that they are basically works of language, initially meant to be read. By contrast, databases and films contain a combination of at least two different types of works and data elements, expressed in more than one medium, such as audio and visual for sounds and images and/or textual data. Thus, databases and film works can be considered as two-dimensional works. Supra also note 54 in Chapter 1 above.

[5] It will be illustrated and concluded below that there are two main criteria for considering the adequacy and appropriateness of either possible category of subject matter approximating multimedia; (a) the nature and (b) the role, purpose of use of multimedia; rather than the form of expression of its constituent elements, which only highlights the value of one part of multimedia, either its content, and/or its computer program basis (facilitating its overall function, or its form of presentation). See section 5.2 below.

information technology infrastructure.[6] Print technology was the only existing means of reproduction at that time, in practice constituting a new technological threat, since it made possible for first time the automatic duplication of literary works, as well as their unauthorised copying, inevitably raising questions over their "preservation"[7].

Since then the scope of copyright law has been extended to accommodate further categories of works, such as artistic, dramatic, cinematographic, musical works, broadcasts, and new digital works; following market trends and international copyright law mandates.[8] The advent of information technology also dictated the need to protect new hybrid forms of creative objects as literary works, although they did not look like traditional literary works. In particular, this was the case with electronic databases and computer programs, which were eventually included in the scope of literary works by means of creating a new and separate category of subject matter.[9] Since they were considered to be valuable enough and creative, it was submitted that they should be protected by the regime of copyright law which had historically proved strong and effective.[10]

Despite the fact that these legislative developments resulted in the enhancement of the scope of literary works, and as such of copyright law, in both civil and common law jurisdictions, literary works are defined and treated differently across the European Community in some respects.[11] While justified by cultural and

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[6] The Statute of Anne 1709 sought to deal with the issue of protection of literary works (books and other writings) for first time. At that time, two new concepts were introduced by statutory means; (a) an author being the owner of copyright and (b) the principle of a fixed term of protection for published works. Prior to this, disputes over the rights to the publishing of books could have been enforced only by common law.

[7] Eisenstein, E, *The printing revolution in early modern Europe* Cambridge University Press 1983, Canto edition, 1998, p. 78 et seq. Supra also note 113 in Chapter 2.

[8] See the Berne Convention (1886) the TRIPs Agreement (1994) and the WIPO Copyright and Performances Treaties (1996).

[9] See sections 3.2 and 3.3 respectively and note 19 below.

[10] As was referred to in Chapter 2, section 4.3.

[11] Different principles and criteria apply in civil and common law jurisdictions, particularly with respect to the precondition of fixation, the level of originality, the notion of authorship, and the award of moral rights. See note 22 below.

historic reasons reflected in classic cases of common and civil law, these national disparities may jeopardise the future of multimedia works, at least in Europe, unless a harmonised and consistent response is achieved. Before looking at each particular subject matter of literary works, it is necessary to make some preliminary points in relation to literary works, and the most challenging differences between civil and common copyright laws in respect of multimedia.

## 2.1. The Scope of Literary Works

By 'literary works' we usually understand novels, poems, articles, lectures and other such works, which are "written, spoken, or sung" as generally referred to in the UK CDPA 1988.[12] With respect to this generally accepted perception, it is important to note the following points.

Literary works are not necessarily works of literature; they can also be scientific or of any other nature.[13] In contrast to this broad perception of literary works encompassed under the Berne Convention, the UK copyright regime expressly excludes musical and dramatic works from its definition of literary works.[14] Furthermore, oral works can only be protected as literary works under the UK copyright law if they are recorded or fixed in some material form, primarily for evidential purposes.[15] Such things as symbols and numerals can also be regarded as

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[12] Section 3 (1) of the CDPA 1988 defines literary works as; "any work, other than a dramatic or musical work, which is written, spoken or sung, and accordingly includes (a) a table or compilation (other than a database), (b) a computer program, (c) preparatory design material for a computer program, and (d) a database".

[13] Article 2 (1) of the Berne Convention provides that "the expression 'literary and artistic works' shall include every production in the literary, scientific and artistic domain, relative to …, or science."

[14] In contrast to Article 2 (1) of the Berne Convention, which expressly includes such subject matters in the scope of the 'literary and artistic' works, where it provides that it shall include works "such as … dramatic or dramatico-musical works;…musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography;…", 'films' in the UK (audio-visual works) are protected separately; see section 4 below.

[15] In the UK, fixation has played the role of creating certainty in the subject matter protected by copyright proving its existence, and making it possible to be communicated to third parties. See section 49 (9) of the UK Copyright Act 1956 and section 3 (2) of the CDPA 1988, according to which

literary works though not necessarily works stricto sensu, as long as they are expressed in print or writing.[16]

In a broad sense, literary works are works that were conceived in language at some stage, and expressed in such a form so as to be read, listened to, or looked at.[17] Hence, in a strict sense, literary works are essentially text, recorded or fixed in any material form, in natural or artificial language, primarily for the purpose of being read.[18] In practice the latter approach has proved static and troublesome, in contrast to the more dynamic and flexible approach taken when defining subject matters broadly. This has been shown in cases where the production and commercialisation of new creative objects has illustrated that a minimum amount of flexibility was necessary in order to be protected as literary works in those jurisdictions where it was lacking. This situation was demonstrated in the UK, where the definition of literary works had to be

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copyright does not subsist in literary, dramatic, and musical works, "unless and until" the works are "recorded in writing or otherwise". According to section 178 of the CDPA 1988, "writing" is defined to include any form of notation or code "regardless of the method by which, or medium, in or on which, it is recorded".

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

[17] The form of language may be natural or artificial, as long as the form of language communicated to the public can be understood. Following this reasoning, the notion of language was eventually extended, and computer programs were included in the scope of literary works. It has been accepted then that high-level computer languages such as Cobol and Pascal, in contrast to binary code, are some examples of artificial language, which can be comprehended by ordinary people. As such, traditional literary works are mainly works of language. See also Stamatoudi, I, *Copyright and Multimedia Works, A Comparative Analysis,* Cambridge University Press 2001, at p. 42. Musical and dramatic works, which have been created so as to be performed by participants in the course of their communication to the public, and as such watched by the public, also entail the inclusion of such forms of expression, so that they can be looked at, read and listened to. These works are included in the scope of literary works following the paradigm of the Berne Convention in contrast to the UK approach; see Article 2 (1) of the Berne Convention.

[18] Supra note 15. As such, literary works should be expressed in text by means of some living language. The fact that both natural and artificial languages qualify, has been demonstrated with the inclusion of computer programs in the category of literary works signifying the extension of the scope of literary works as will be noted later.

amended so as to allow the recognition of databases as a separate type of literary work.[19]

Therefore, should a technology-neutral approach be taken to defining the particular subject matter, and assimilating it to a particular object, there are fewer difficulties for new products. The opposite result will have to be faced and overcome, however, where the static approach has previously been adopted, because a regime designed so strictly cannot respond appropriately to present demands for more sophisticated products being application-neutral, such as multimedia.[20]

Nevertheless, the scope of literary works was enhanced in the UK with little difficulty, since works have been traditionally protected by UK copyright law, irrespective of their quality, or the standard of originality.[21] From this approach it seems that by comparison with civil law jurisdictions, the scope of literary works in the UK has been designed in a broad sense. The requirement for fixation of a work in a material form, as well as the satisfaction of the originality criterion for a work to qualify for copyright protection as a traditional literary work differ in civil and common law jurisdictions to some extent. At this stage it is important to consider these differences in respect of multimedia works potentially being protected as literary works.[22]

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[19] Section 3 (1)(d) of the CDPA 1988. Nonetheless, the reason why databases were placed in a separate category was most probably to enable the 1988 Act to impose a different requirement of originality on databases from that applied to tables and compilations, as suggested by Bently, L, and Sherman, B, *Intellectual property Law,* Oxford University Press Oxford 2001, at p.53.

[20] As was previously explained, the prerequisite of fixation within its traditional meaning can no longer be valid for multimedia. Supra notes 96 and 190 at Chapter 1 above.

[21] Bently and Sherman, supra note 19.

[22] Originality plays an important role in ascertaining whether a substantial part of a work has been taken, and whether new classes of works, such as multimedia, must be protected by copyright law. In essence, however, these differences are largely philosophical, cultural and historic, rooted in the beginnings the French revolution. However, the resultant gap, should not be treated as "well-nigh unbridgeable", as suggested by Davies, G, 'The convergence of copyright and authors' rights – reality or chimera' (1995) 26 *IIC Studies*, at p. 96; see also of the same, 'Copyright and the public interest' (1994) 14 *IIC* Studies 1. In support of this view, Ginsburg has also suggested that the civil law 'authors' rights' were not only "far from being personalist in nature", as originally emerged after the French revolution, but also "inspired all by legal and economic consideration"; see Ginsburg, J, 'A tale

## 2.2. The Prerequisite of Fixation and Materialisation

The fixation or recording of creative works has traditionally constituted a criterion for copyright protection as a literary work in common law jurisdictions such as the UK, particularly for evidential benefits.[23] At this point the question raised is whether the requirement that literary works must be recorded constitutes a serious impediment to accommodating new creative, and technology (application) neutral works.

The notion of fixation and materialisation is becoming outdated by the advent of technology, and the public demand for inter-operability and standardisation.[24] Instead, dematerialisation is taking over those markets that were traditionally dependent upon the availability of products disseminated off-line in a permanently fixed (material) carrier form, such as the music industry. On-line transmission of digitised works taking place on a real-time basis at the request of consumers has allowed for on-demand services to override the previously valid condition that works expressed in material object form are necessarily marketed as products.[25]

In this light, in common law jurisdictions where fixation constitutes a precondition for a work to qualify for copyright protection as a literary work, it may

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of two copyrights: literary property in revolutionary France and America' (1991) 147 *RIDA* 131. In this sense both systems shared a common approach, if not being "perfectly in line", as supported by Kerever, A, 'The French revolution and authors' rights' (1989) 141 *RIDA* 9 et seq. See also Strowel, A, *Droit d'auteur et copyright. Divergences et convergences. Etude de droit compare*, Brussels, Paris, 1993, at p. 655.

[23] Copyright does not subsist in literary, dramatic, and musical works "unless and until" the works are recorded "in writing or otherwise" (section 3 of the CDPA 1988), where, "writing" is defined to include any form of notation or code "regardless of the method by which, or medium in which or on which, it is recorded" (section 178 of the CDPA 1988). Although evidence that has not been recorded "in some way can be admissible", ("in writing or otherwise"), "the law has always preferred evidence that is fixed to oral evidence", as suggested by Bently and Sherman, at p. 79, supra note 19.

[24] Today, the Internet has allowed for new marketing and commercial practices to be established, such as the P2P exchange of music files, and the transformation of the concept of public communication, as was mentioned in Chapters 1 and 2 above.

[25] It seems very likely that copyright works, which have been traditionally expressed in a fixed permanent form and disseminated as products may, today, be disseminated as services on-demand. Supra note 96 at Chapter 1.

be difficult for multimedia to fit in this category easily unless it is recorded.[26] Any requirement imposing the static presentation, and permanent arrangement of multimedia elements would be incompatible with its dynamic nature and concept. As previously submitted, multimedia is essentially dematerialised, so fixation could potentially undermine its overall value.[27] Of course, there may be cases, where a particular multimedia work may be produced, and disseminated in a fixed form, provided it remains interactive at the necessary minimum level in order to be defined as multimedia.[28]

Thus, fixation should be an exceptional case to the general rule of dematerialisation of multimedia, and certainly a matter of marketing choice, rather than a side-effect of a low-quality, and thus non-creative, multimedia work.[29] Although it is currently difficult to imagine how such a multimedia work[30] can possibly be created, we cannot exclude this from happening in the near future. Therefore, should the notion of fixation or materialisation constitute a prerequisite for multimedia works' qualification for copyright protection as literary work, it would possibly result in the rejection of the category of literary works for multimedia, as inappropriate for accommodating dynamic[31] multimedia works.

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[26] It has been suggested that works, which continually change form, such as databases or works of kinetic art, will be protected as long as they are recorded even though they may subsequently change form, as suggested by Bently and Sherman, at p. 80, supra note 19 above.

[27] Supra notes 95 and 96 at Chapter 1.

[28] Supra note 96 at Chapter 1.

[29] Otherwise, it should not qualify to be defined, and protected by copyright as an original (creative) multimedia work. See also the discussion in Chapter 4, section 5.

[30] Meaning a fixed, but highly interactive multimedia work the overall creativity and quality of which will be so high that it will not be possible to be neither surpassed, nor undermined, by reason of its fixation alone.

[31] As was already clarified, a 'dynamic' multimedia work does not entail a 'dynamic database' in being continually modified, and protected as was also referred to by Laddie J, in *British Horseracing Board Ltd v William Hill Organisation Ltd* [2001] RPC 612 at para. 33; supra note 122 at Chapter 1.

## 2.3. The Prerequisite of Originality

In order for a literary work to be protected by copyright it must be 'original'.[32] As previously mentioned, originality has been perceived differently in civil and common law jurisdictions.[33] In general, the originality requirement has been considered as a threshold that limits the subject matter protected by copyright law.[34] However, the Berne Convention has avoided specifying the level of originality set as a prerequisite for copyright protection.[35]

In particular, most scholars favouring the civil copyright law paradigm have asserted that a work has to be the expression of a person's 'intellectual creation' in order to be original.[36] Nevertheless, not all civil and common law jurisdictions apply the same criteria with respect to the level of originality required.[37] Unlike most civil

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[32] See section 1 (1)(a) of the CDPA 1988.

[33] Justifying also why the moral rights recognised in the UK are more limited than the rights granted in most civil law jurisdictions, where for example, authors are vested with the right to publish or divulge a work, and to object to excessive criticism of their work. See for instance, Dietz, A, 'The artist's right of integrity under copyright law: a comparative approach' (1994) 25 *IIC* 177.

[34] As suggested by Bently and Sherman, at p. 81, supra note 19. It has also been suggested that originality excludes many works from copyright protection, because they are largely the product of valuable investment of time and effort rather than of author's creativity. Those supporting this view most likely fear that originality is used as a way of restricting the scope of subject matter protected by copyright law, possibly, because of the growing judicial suspicion about the over-extension of copyright. Ginsburg, for instance, has argued that in the US, the labour approach has been increasingly surpassed by the continental 'personality theory' of originality. See Ginsburg, J, 'Creation and commercial value: copyright protection of works of information' (1990) 90 *Col LR* 1865.

[35] Actually, the Berne Convention does not refer at all to 'original' works; it is thought to be inherent in the notion of a literary work.

[36] Accordingly it has been suggested by Dreier that what is protected in the work is the personality of the author. This is the essential characteristic of 'droit d'auteur'. See Dreier, T, 'Authorship and new technologies from the viewpoint of civil law traditions' *WIPO Worldwide Symposium on the Future of Copyright and Neighbouring Rights*, Louvre, Paris, 1-3 June 1994, 51 and (1995) 26 *IIC* 989.

[37] French copyright law, for instance, while favouring the 'author's intellectual creation' approach, it does not make any explicit reference to the type or level of originality required. Meaning that the work has to be the expression of the individual's personal intellectual effort. See the French Copyright Act, Article L113-7. Whereas the German and Greek copyright laws are clearer on this, providing that "personal intellectual creations alone shall constitute works", and the term 'work' should refer to any

law jurisdictions, UK copyright law provides generally that a work has to be original in order to be protected by copyright without any further clarification. In this sense, the requirement of originality has been construed as only requiring that the work is that of the author, and that it has not been copied from any other source.[38] This has caused uncertainty and difficulty in interpreting what copyright law means when it demands that works be original. In legal practice, it has been suggested that the author must have exercised the necessary "skill, labour and judgement"[39] in producing this work. Almost similar to the UK approach, the US courts also have tested the amount of time and labour expended, rather than of genuine creative effort by means of applying the 'sweat of the brow' test.[40] The question to be answered though, is what kind of skill and/or labour, and how much of it will suffice for that purpose?

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"original intellectual literary, artistic or scientific creation" Meaning that the work has to be the expression of the individual's personal intellectual effort. See the French Copyright Act, Article L113-7. Article 2 (2) of the German Copyright Act 1965; Article 2 (1) of the Greek Copyright Act 2121/1993. See also Kallinikou, D, *Principal issues of Law 2121/1993 on intellectual property and related rights,* P. Sakkoula, Athens, 1994, at p.22.

[38] As was held by Peterson J in *University of London Press Ltd v University Tutorial Press Ltd*, at 608-609; supra note 16. "The word 'work' does not mean that the work must be an expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought, and in the case of 'literary work', with the expression of thought in print or writing. The originality which is required, relates to the expression of the thought. But the Act does not require that the expression much be in an original or novel form but that the work must not be copied from another work – that it should originate from the author"; and "what is worth copying is prima facie worth protecting".

[39] As was held by Lord Reid in *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273; [1964] 1 All ER 465, 469, that originality was dependent upon the degree of "skill, labour and judgement". Arguably the UK originality standard has been considered to be much lower than the civil law standard of originality required; such as Davies, 'The convergence of copyright and authors' rights – reality or chimera', at pp. 969 and 970, supra note 22.

[40] It is suggested that following the decision of the US Supreme Court in the case of *Feist v Rural*, the US courts have taken a more critical view of the requirement of originality than is the case in the UK, as commented by Lloyd, I, *Information Technology Law* (3rd edn, Butterworths, London, 2000) at p. 426. Notably, the decision in this case caused a considerable amount of debate among scholars and courts, at a time when the 'sweat of the brow' test was applicable by courts without any further questioning, since skill and labour sufficed for a work to qualify for copyright protection as a literary

Not all types of skill, labour, and effort will give rise to an original work.[41] The nature of the particular subject matter will have to be considered prior to determining whether it is original. In particular, the work must be examined as a whole[42], and in each case there should be a question of the degree of originality, which ought to be protected in relation to contents and/or form of presentation.[43] For that reason, the way originality is evaluated is different for compilations, databases, and computer programs, as will be discussed below.

Originality in multimedia thus cannot be assessed only in relation to its content, or its form of presentation alone; rather it should be measured in relation to its nature as a whole, before establishing its sufficiency and therefore the qualification of multimedia for copyright protection. Hence, the question to be answered in this chapter should be, whether the nature of multimedia can be identified with that of a subject matter already protected by copyright when attempting to apply the respective originality criterion by analogy to multimedia. As such, we shall be able to determine whether multimedia can fit comfortably in one or the other category.[44]

At this point it is noteworthy that, despite any difficulties in interpreting the concept of originality in the UK copyright law, the British economy has benefited from this breadth in some sense.[45] In particular, certain forms of expression resulting

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work. See *Feist Publications Inc v Rural Telephone Service Co Inc* [1991] 111 S Ct 1282. The issue of originality in compilations, though, will be discussed later.

[41] In creating a work, the author will exercise labour, skill, and effort in a number of different ways. This problem was faced in the case of *Feist v Rural*, where the 'sweat of the brow' test did not suffice. Ibid.

[42] As was made clear in the case of *Ladbroke v William Hill*, where the particular question raised was whether football pools coupons were original compilations. According to Lord Reid, it was incorrect to artificially divide the respective inquiry, the selection of wagers and their presentation was so interconnected as to be inseparable; see *Ladbroke v William Hill* [1964] 1 All ER 465, 469 (Lord Reid).

[43] See the case of *Macmillan & Co Ltd v K & J Cooper* [1923] 93 LJ PC 113 (Lord Atkinson). Because it is difficult to explain originality in precise terms, we should consider originality further on in relation to the particular type of work protected as a literary copyright protected work.

[44] Such as that of compilations, databases, computer programs or any other similar to multimedia as will be discussed later in this chapter.

[45] Unlike other Member States, such as Germany, who did not manage to profit much from software development, prior to the enforcement of the Computer Programs Directive (91/250/EEC), because of

from the investment in labour and capital, which could not have been protected otherwise, were found to be 'original' and thus, were protected by copyright.[46] In this sense, the scope of literary works in the UK can be expanded on a case-by-case basis, to the extent permissible by the broadly defined concept of originality. The EC drafters of the Computer Programs and the Databases Directives appreciated that this particular effect resulted from the broadly designed originality provisions, and attempted to benefit from this in a similar way, for the purpose of harmonising the protection of computer programs and databases across the Community.[47]

In particular, the low level of originality applied in the UK was used as the starting point for narrowing the gap between civil and common law levels of originality, drawing the necessary balance somewhere in between the two opposing approaches,[48] in the Computer Programs and the Database Directive.[49] In particular, the preamble of the Computer Programs Directive provides that no tests as to the qualitative or aesthetic merits of the program should be applied.[50] It is further provided that "a computer program shall be protected if it is the author's own

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the strict originality prerequisites that had to be satisfied for protecting computer programs by copyright. EC Directive 91/250, OJ L 122/42, (hereafter, 'Computer Programs Directive'), effect to which has been given in the UK by the Copyright (Computer Programs) Regulations 1992, SI 1992/3233. See further below notes 52 and 53 below.

[46] For instance, such works were those that should have been protected either under the doctrine of unfair competition or contract law, as the case was submitted to be in the *Societe Tigest Sarl v Societe Reed Expositions France*, [2002], ECC C d'A (Paris) 29, at 12, 13 and 16, (to be discussed later, see note 221 Chapter 4). In the case of *Magill TV Guide/ITP, BBC and RTE* [1989] OJ L 78/43, (discussed in section 4 at Chapter 4), given the breadth of originality due at that time, these works did not remain unprotected, as would otherwise have been the case, since there was no appropriate competition law regime available in the UK at that time. See this matter discussed also in relation to the databases' sui generis right below.

[47] See Article 1 (3) of the Computer Programs Database, and Article 3 (1) of the Database Directive in relation to 'originality'. See the EC Directive 96/9, OJ L 77/20 (Legal Protection of Databases), implemented by the Copyright and Rights in Databases Regulations 1997, SI 1997/3032.

[48] Namely that of the UK and the German copyright laws in relation to the level of originality required.

[49] Article 1(3) of the Computer Programs Directive (91/250/EEC), and Article 3 (1)(2) of the Database Directive (96/9/EC).

[50] EC Directive 91/250, OJ L 122/42.

intellectual creation. No other criteria shall be applied to determine its eligibility for protection."[51] Although reference to "intellectual creation" reflects the civil law approach, the fact that "no other criteria shall be applied", suggests that the EC drafters tried to narrow the pre-existing gap, in order to encourage productivity, and investment equally across the European software market. The most tactful way to achieve that result was the establishment of a minimum accepted level of originality, albeit allowing the necessary measure of discretion to Member States.[52]

The effect of such a harmonised protection was beneficial for those continental Member States whose copyright laws were not flexible enough to respond to and profit from new technology works prior to implementing the Computer Programs Directive.[53] This was the situation mainly in civil law jurisdictions, since software and electronic databases did not constitute strictly author's intellectual works.[54] It was the need to encourage all Member States to invest and contribute in

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[51] Supra note 49.

[52] This matter had to be solved in a tactful sense, since they had to respect certain national cultural differences and the market practices already established prior to the Computer Programs Directive, without causing serious political and economic repercussions in those Member States most affected by the new standards, such as the Germany and the UK. As such, the EC drafters tried to push some Member States, such as Germany, into becoming more competitive by means of relaxing their previous standards of originality to the minimum possible standard qualifying for copyright protection. By contrast, the UK had to conform to other states' higher standards since almost everything could be protected by copyright in the UK, in contrast to the rest of the EU, resulting in the danger of creating a distorted Single Market. In this sense the Database Directive has been considered as the best compromise possible that could be reached given "the sometimes open, not too detailed and at times unclear formulation of some provisions which leave a wide range for interpretation". As supported by Beutler, supra note 105.

[53] This was the case particularly in Germany, prior to the implementation of the Computer Programs Directive, where the strict German approach adopted had resulted in an estimated 95% of computer programs being denied copyright protection on the grounds that they were not 'original'. As reported by Lloyd, at p. 383, supra note 40. As a result of this situation, Germany introduced section 69 (a) into its copyright law explicitly repeating the wording of the Directive to benefit mostly from the new standard of originality. See also Schricker, G, 'Farewell to the "level of creativity" in German copyright law' (1995) 26 *IIC* 41.

[54] Software, databases, and multimedia, do not look like traditional literary works, in so far as their functional nature prevails, restricting the scope of human creativity input to some extent. Furthermore,

the furtherance of the European information technology market that necessitated the inclusion of software and electronic databases in the scope of literary works.[55] The flexibility needed in law to extend the scope of literary works resulted in a harmonised regime of protection especially in respect of originality[56] and authorship[57] provisions. Hence, establishment of a de minimis amount of flexibility and harmonisation across the Community, at least in theory, does not necessarily imply that multimedia can be appropriately and sufficiently defined and protected as a literary work.

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these products are not created only by natural persons in a strict sense, following the classic natural justice principle of civil copyright law, rather they are created by legal entities. On this basis, the author is entitled to the fruits of his efforts, as is any other worker, and the royalties he is paid are the equivalent to the wages for his intellectual work. In relation to the social and economic rationale of copyright see Davies, 'Copyright and the public interest' at p. 3 et seq, supra note 22.

[55] Recitals (2) to (4), (11) and (12) of the Database Directive.

[56] Notably, the Computer Programs Directive and the Database Directive have not been consistently implemented in the UK. In particular, the Databases Regulations explicitly amended the originality requirement of the 1988 Copyright Act in relation to databases, so as to include the new standard of "author's own intellectual creation" of the Database Directive. As such, section 3 A (2) of the CDPA 1988 provides that "a literary work...is original if, and only if, by reason of the selection or arrangement of the contents of the database the database constitutes the author's own intellectual creation." (See the Databases Regulations 1997, SI 1997/3032, r. 6). In contrast to the above approach, the British Government did not amend the Copyright Act in relation to computer programs, protecting the subject matter by copyright as before, meaning only if they are "original" (not intellectual creation).

[57] Ibid. See also Article 2 (3) of the Computer Programs Directive; it is provided that, should a computer program be created by an employee "in the execution of his duties or following the instructions given by his employer", the employer exclusively shall be entitled to exercise rights in the program so created unless otherwise provided by contract". This approach has also been adopted in the Databases Directive (Recital 29). Subsequently, the civil and common copyright law differences related to moral rights have also been relaxed to some extent, since the civil law notion of moral rights was introduced into British law, in the course of awarding the principal film director with first authorship, and recognising the film producer as a co-author. As a result, films are now considered as a hybrid form of authorial and entrepreneurial works; such as Bently and Sherman, at p. 109, supra note 19. Films and multimedia will be discussed later in this chapter.

## 3. Multimedia as a Literary Work

The question to be answered in this section is whether the nature of multimedia as a whole can be identified with a particular literary work analogous to it, namely compilations, databases, or computer programs, and if so, whether it can be adequately protected as such.[58]

### 3.1. Compilations and Multimedia

'Compilations' or 'collections'[59] and multimedia works look similar to some extent because of their composite nature.[60] In general, a compilation is a collection of various types of material, works (most often literary) and data. Similarly, the Berne Convention refers to compilations as "collections" made up of "literary or artistic works", which by reason of their content selection and arrangement constitute "intellectual creations".[61] Most Member States' copyright laws have defined compilations following the paradigm of the Berne Convention, or more broadly, meaning that 'collections' may consist of any type of work or data, not only "of

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[58] See section 3 (1) of the CDPA 1988.

[59] It should be clarified that the term 'collection' is synonymous to 'compilations', and most Member States prefer use of the term 'collection', rather than the 'compilation' used in the UK. In this chapter, reference to 'collection' instead of 'compilation' shall be made only when necessary to emphasise the related differences between civil and common jurisdiction in respect of this subject matter.

[60] Although the nature of multimedia is to a great extent that of a composite, it should not be forgotten that multimedia is multi-dimensional, and multi-purposive as a result of its 'look, use and feel', and its hybrid informational, utilitarian, entertaining and communication nature and purpose of use, as submitted in Chapter 1.

[61] See Article 2 (5) of the Berne Convention, according to which "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." In relation to the selection "and arrangement", it has been supported that the word "and" should be construed merely as emphatic; meaning that the "selection" and "arrangement" should not to be necessarily read conjunctively as indicating that both elements are required. As supported by Ricketson, S, *The Berne Convention for the protection of literary and artistic works: 1886-1986,* Kluwer, Deventer, 1988, at p.301.

literary or artistic works".[62] Outside the European Community, 'compilations' have been defined in the US and Canada as a work including almost any kind of pre-existing material and/or data.[63]

### 3.1.1. Defining Multimedia as a 'Compilation'[64]

Initially it could be said that a multimedia work, which is comprised of any type of work and data, could be identified with a compilation. In particular, a multimedia work could qualify for copyright protection as a 'compilation', in so far as it is creative by means of the multimedia elements' selection and arrangement. Should the definition of a 'collection' be interpreted literally and applied to multimedia, it would most probably result in the recognition of any creative multimedia work as a

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[62] The Berne Convention sets only the minimum level and standards of protection, such as in Article 2 (2). As such, the fact that reference is made only to "collections of literary or artistic works", and not to collections of any kind of works, material, or data, should be construed as indicative rather than exclusive of any other type of work or material included in such compilations. In Greece, for instance, collections are defined in a broader manner; they consist not only of literary or artistic works, but also of any work, or simple facts and data, such as encyclopaedias, anthologies, and databases; see Article 2 (1) to (3) of the Greek Copyright Act 2121/1993. In Germany too, reference is made to "collections of works or other contributions...shall enjoy protection as independent works", (Article 4 of the German Copyright Act 1965). Given the fact that the Berne Convention sets a de minimis only level of protection, it is assumed that any broader definition resulting in protecting collections consisted of various works and data, would not conflict the Berne Convention.

[63] In this context, the US approach is similar to that followed in civil law jurisdictions; compilations may include almost any kind of pre-existing materials (works) and/or data; see 101(5) and 103 of the US Copyright Act. In Canada, compilations are defined so as to mean "(a) a work resulting from the selection or arrangement of literary, dramatic, musical or artistic works or parts thereof, or (b) a work resulting from the selection or arrangement of data." Unlike the situation in the United States, where "industrious collection" or "sweat of the brow" alone are insufficient to render a compilation original for copyright purposes, sweat of the brow alone has been a sufficient criterion for the protection of compilations in Canada. See Sookman, B, 'Developments in information technology' [1997] 5 *CTLR* 233, at p. 238.

[64] In this section we shall also consider whether multimedia can be defined and protected as a 'collection' in respect of civil law Member States referring to compilations as 'collections' as previously explained.

compilation for the purpose of protecting it under copyright.[65] This could be the situation in any jurisdiction following the breadth of the Berne Convention, such as in Greece, Germany, and the US.[66] This type of protection would not be taken up though, in France or the UK, since collections are defined slightly differently, and in some senses more restrictively in these jurisdictions.

In France, a 'collection' is protected as such only if it is comprised of 'works', meaning strictly authorial works of the mind, capable of being protected on their own by copyright.[67] A 'collection' therefore, should consist of 'intellectual' works alone, excluding collections consisting of mere data or facts. Following this reasoning, it is doubted whether a collection made largely of 'works', and as well as of simple data to a less extent, could be defined as a 'collection' for purposes of copyright protection. Should a strict literal interpretation of this definition be applied, it would probably lead us to the conclusion that such a collection should fall outside the scope of 'collections'[68], no matter how insubstantial the 'non work' part of the whole could be.

Considering the potential offered by broader definitions applicable elsewhere, an inconsistent situation may develop across the European Community.[69] Thus, such a

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[65] It is doubted though, whether this kind of interpretation alone suffices for establishing an appropriate regime of protection for multimedia, as will be discussed later. Nevertheless, it is noteworthy at this point that in Canada, it has been suggested that multimedia works can be considered to be compilations for copyright protection purposes. In this regard, the sub-committee on Copyright to the Information Highway Advisory Council expressed the opinion (in the Copyright and the Information Highway Final Report, March 1995) that neither the storage of multimedia works in a single medium, nor the interactive nature of multimedia works was itself sufficient to conclude that such works are not protected under the 'compilations' category. As referred to by Sookman, supra note 63. The same could also be applied in the US by analogy, given the broadly defined scope of compilations. Ginsburg, has also supported that multimedia could be protected as compilations in the US. See Ginsburg, J, 'Domestic and international copyright issues implicated in the compilation of a multimedia product' (1995) 25 *Seton Hall Law Review* 1397, at p. 1399.

[66] Supra note 63.

[67] See Article L 112-3 of the French Copyright Act.

[68] By reason of the 'non-work' material included, no matter how insubstantial that part could be, compared to the 'work' part of the whole multimedia work.

[69] In practice, it would mean that the said multimedia work made up of any type of work and data could be defined as a 'collection' in Greece and Germany, for instance, but not in France.

multimedia work, once found to be creative by means of its contents' selection and arrangement, would be protected by copyright as a 'collection' in Greece and Germany, but not in France.[70] Such an inconsistent and fragmented legal response towards multimedia works' protection and future development should not be accepted rather it should be prevented so far as it would entail the risk of a distorted European Single Market.[71]

In the UK, the CDPA 1988 does not define the concept of a 'compilation' it only provides that it is a subcategory of literary works "other than a database".[72] Given the breadth of this definition the following eight points should be clarified in view of multimedia:

(a) Since the previous definition of literary works was abandoned following the recognition of databases as a separate subject matter of literary work[73], it is

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[70] Subject to the respective definitions in these countries. Supra note 68 and ibid.

[71] As will be explained also in section 5 below.

[72] At present in the UK, 'compilations' are generally considered as "a compilation other than databases"; see section 3 (1)(a) of the CDPA Act 1988 following, Part II section 5 (a), and section 6 of the UK Copyright and Rights in Databases Regulations 1997.

[73] Prior to the implementation of the Database Directive, compilations were defined as any work, other than a dramatic or musical work, which is written, spoken or sung, albeit in breach of the Berne Convention, ("collection of literary or artistic works") and despite the fact that it had been accepted in the past that a compilation can comprise both literary and artistic materials). This change in the terminology in the CDPA 1988 (prior to the inclusion of databases) compared to the previous legislation suggested that there is no copyright protection in a compilation composed of artistic works only because a literary work must be recorded in writing (written, spoken or sung), and it could be argued that artistic works are not written. However, it is argued that "the subsequent changes" in the CDPA 1988 following the databases' express inclusion in the scope of protection for literary works, "have resolved these doubts." As supported by Bainbridge, D, *Intellectual Property,* 5th edn, Longman, 2002, at p. 46 and notes 87 and 88. As such, under the previous regime, a wide range of works could have been protected in the UK as compilations, such as football pools coupons, TV schedules, a compilation of computer programs and street directories. See *Ladbroke v William Hill* [1964] 1 All ER 465, 471, *Independent Television Publications Ltd v Time Out Ltd and Elliott* [1984] FSR 64, *Ibcos Computers v Barclays Mercantile Highland Finance* [1994] FSR 275, *Kelly v Morris* (1866) LR 1 Eq 697, respectively. Following the recognition of databases as literary work, and the implementation of the Database Directive, the UK CDPA 1988 recognised databases as a separate subject matter of literary works, other than compilations. Such a structure was most probably dictated by the need of

understood here that a 'compilation' is a collection of any kind of works and data[74], recorded, 'in writing or otherwise'. In this context, given the definition of 'writing' set out in section 3(1) and (2) and section 178 of the CDPA 1988, the precondition for 'writing' practically should amount to that of fixation.

(b) Furthermore, considering the broad definition of compilations above in comparison to the more detailed of databases[75], and following a teleological interpretation it is suggested by the author of this thesis that the elements of a compilation should not necessarily be independent of one another, nor individually

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legislators to overcome the implications, which would otherwise be raised in relation to the level of originality that should be satisfied for compilations and databases. In particular, the Database Directive defines originality in databases in a stricter form, compared to that traditionally applicable for literary works in the UK prior to the Databases Directive's implementation. British legislators had obviously to choose between categorising databases as compilations and thus, raising the standard of originality with respect to all literary works or recognising databases as a different subject matter that should pass a higher originality test than traditional compilations. Obviously preference was shown to the second option as currently provided. See also Bently and Sherman supporting this; "the reason why databases were placed in a separate category was to enable the 1988 Act to impose a different requirement of originality on databases from that applied to tables and compilations", Bently and Sherman, at p. 56, supra note 19.

[74] There is no indication in the present text of the CDPA 1988 suggesting that compilations can be composed only of 'works', excluding mere data and simple facts. There is also no practical reason or need to justify that approach. It would be irrational and impracticable to assume that a 'compilation' should be construed as a collection of certain types of elements, such as only works, or only literary works, just because this was the situation under the previous regime. If 'databases' can be made up of any type of pre-existing or new elements, then so should compilations. The difference between these two subject matters is found in the way their elements are accessed, and subsequently in the particular form of arrangement and presentation. In other words, the value of databases supersedes the value of compilations by reason of the functionality of databases compared to that of compilations, as will be discussed below.

[75] According to the author's personal view, while interpreting the broad definition of compilations, (according to which, a compilation is other than a 'database'), and the more detailed definition of a 'database' (which is "a collection of independent works, data or other materials, which (a) are arranged in a systematic or methodical way and (b) are individually accessible by electronic or other means"), it is understood here that the elements of a compilation should not be necessarily (a) independent of one another, nor (b) individually accessible. See section 3 A(1)(a) of the CDPA 1988 and Part II 5(a) and 6 of the UK Copyright and Rights in Databases Regulations 1997.

accessible. This approach should be followed so that a database, especially a sui generis protected database, can be clearly distinguished from a compilation.[76] Otherwise we run the risk of an overlapping protection between these two subject matters, and of subsequent market distortions across the Community.[77]

(c) Since a 'compilation' comes under the heading of 'literary' works, it is also construed that the broad definition of literary works above applies to the compilations as such, as well as for its contents, in so far as they constitute literary works on their own, too.[78] As such, a 'compilation' will only qualify for copyright protection if it is original; in other words, only if it originates from its author, and is not copied.[79]

In this context UK copyright law treats originality of compilations as with any literary work[80], in contrast to the Berne Convention, and civil law jurisdictions, which explicitly protect compilations by reason of their contents' "selection and

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[76] In theory, one could argue that multimedia could be defined as a 'compilation' in the UK, if no particular type of content, arrangement, selection, presentation, fixation or recording precondition was to be applicable. This would entail however, that: (1) the fixation (recording) precondition would have to be overall abandoned from the literary works' statutory definition, and that, either (2), (a) the level of originality (creativity) required would also have to be higher than that applied in the past, and thus, coming closer to the approach taken with databases, or that (2)(b) originality would still be low coming closer then to a sui generis database. In this way; (1) the UK compilations would come closer to the works defined as 'collection' in civil copyright law, and the Berne Convention; and (2) the risk of an overlapping protection would emerge between, either (a) compilations and original databases, or (b) compilations and sui generis databases. Even if this hurdle could be overcome, since databases were recognised as a subcategory of literary works different than compilations, so will multimedia be, since multimedia is something more than a compilation, so as a database is. See also notes 87, 90, and 132 below.

[77] The problem of an overlapping protection and its consequences in the Single Market cannot be underestimated today since development of multimedia and harmonisation of IP regimes are part of the main European policy considerations (Chapter 2, section 4.4); see section 5 below.

[78] According to which writing is defined as "any form of notation or code, whether by hand or otherwise and regardless of the method by which or the medium in or on which it is recorded, and "written" shall be construed accordingly".

[79] See *University of London Press v University Tutorial Press* at 608-609, supra note 38.

[80] Sine copyright does not protect ideas, merely the expression of ideas. Ibid.

arrangement".[81] Hence, determining whether a particular compilation is original has proved difficult in the UK, since courts have interpreted originality in an inconsistent fashion. In particular, the courts have often measured the quality of the labour (appropriate skill, labour and effort) used in the course of selection or arrangement, and in some rare cases, the quantity or else the amount of 'routine labour' exercised, particularly in the course of the constituents' selection.[82]

(d) In the light of the above, although not expressly provided in the CDPA 1988, it would seem preferable to treat compilations as original (creative) by reason of the selection and arrangement of their content, in accordance with the current civil law approach, already applicable in the UK to databases, following the implementation of the Database Directive, and the subsequent rise of the previously applicable originality criteria. It would also be consistent with the general situation established even outside the EU. In the US a compilation must have at least a minimal degree of creativity to be protected by copyright.[83] Otherwise a rather cumbersome situation will be established, if creators and producers are not sure as to how creative a compilation must be to be protected as such by copyright. Thus, it would be prudent to follow this approach for reasons of legal and market consistency across the Community.

(e) Therefore, a multimedia work could possibly be regarded as a 'compilation' in the UK, in so far as, (a) the entire work is "recorded in writing or otherwise", and (b) its contents cannot be accessed independently, and thus, they should be integrated and fixed to some extent. In theory, this could be possible in rare cases, and only in so far as the interactive nature of multimedia would not be

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[81] Article 2 (5) of the Berne Convention. Although the wording indicates that originality should be satisfied cumulatively in relation to selection and arrangement, it is supported that this is not the case in real practice. Ricketson, supra note 61.

[82] In *Ladbroke v William Hill,* at 478, it was accepted that the mere exercise of a substantial amount of routine labour could give rise to an original work. In *Macmillan v Cooper*, it was also held that provided a reasonable amount of work involving judgement and selection has been used in making a compilation, albeit made up of pre-existing materials, which may not be original per se, the sum total of such a compilation may be original for the purposes of copyright; supra note 43. Bently and Sherman, at pp. 93 and 94, supra note 19.

[83] Particularly following the decision in *Feist Publications v Rural Telephone Service*. Supra note 40.

undermined or jeopardised.[84] Interactivity can potentially undermine any requirement for fixation, and for a particular form of presentation or access to the multimedia contents. If the multimedia elements cannot be accessed independently, the freedom of users' interactivity would be decreased. Accordingly, the scope of multimedia producers' and authors' creativity would necessarily have to be reduced.[85] Such low creative, and thus, low quality cases of multimedia works cannot possibly be the rule of original multimedia, considering how far more creative genuine multimedia works can be.[86]

(f) Even if one argues that the second precondition is not valid, meaning that the contents of a compilation may be independently arranged and retrieved, thus, allowing for some level of interactivity to be present, the remaining precondition of fixation ("recorded in writing or otherwise") would not include sophisticated multimedia works.[87] Hence, the fixation requirement would make multimedia dependant upon a certain type of technology (fixation and recording). However, the notion of multimedia needs to be defined in a technology neutral way especially in the light of forthcoming developments.[88]

(g) In both cases it seems that the way compilations are recognised in UK copyright law is too restrictive to accommodate contemporary forms of (interactive) multimedia works.[89] Their technologically narrowly oriented scope can only allow for

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[84] As already submitted.

[85] The less interactive a particular multimedia work is, the less creative the overall work will be. This will be particularly felt in the way its constituent elements are presented, and used, as well as in the user interface, including the interaction mode. In other words the overall 'look, use and feel' of multimedia will not be highly creative, and thus it will not be a high quality and original work to qualify for copyright protection as will be proposed in Chapter 5.

[86] As the scope of multimedia was defined in Chapter 1.

[87] Unless permissible by technological developments, as explained in Chapter 1. However, if one supports that the contents of a compilation can be independently arranged and retrieved as the case is with databases, one should also have to prove that such a compilation cannot be mistaken for a copyright protected database, or even more for a sui generis database, and thus, we would not be confronted with the risk of an overlapping protection; supra note 76, and see note 132 below.

[88] As explained in Chapter 1, section 2.3.

[89] Particularly the precondition for some form of fixation required does not allow us to assert that contemporary and future types of multimedia can be regarded as compilations.

a few exceptional cases of fixed and, either non-interactive or mostly medium level interactive multimedia works to fit comfortably within this category. Consequently, the overall creativity, quantity and quality of multimedia would be so constrained that its market value would be adversely affected. In fact, such reduced multimedia works would not deserve to be considered as genuine multimedia. In the best case they could be seen only as an amalgam of literary and artistic works.[90]

(h) Multimedia is different, since its nature is that of a hybrid and multi-disciplinary work as a result of its 'look, use and feel'. A genuine multimedia work can be potentially informational, functional, entertaining and communicative at the same time, in so far as it is highly interactive, and dematerialised.[91] All this indicates that multimedia is something more than a compilation.

### 3.1.2. Protecting Multimedia as a Compilation

Even if multimedia could be defined and protected as a compilation (including a 'collection') across the European Community, this would not suffice to conclude the appropriateness of such a regime of protection for multimedia. We should also consider, whether the nature of compilations, and subsequently the role they serve in society, is at least similar, if not identical, to that of multimedia. If so, it would also require that the individuality of multimedia is sufficiently covered by that of compilations, excluding any other subject matter of literary works, especially 'databases'. This should be so for the purpose of overcoming the risk of an overlapping situation of copyright protection between compilations and databases.[92]

Compilations are totally derivative, whereas literary works are not necessarily so.[93] Although multimedia can be viewed as a composite, and thus, can be considered

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[90] See note 132.

[91] As already explained in Chapter 1. Hence, multimedia is more than the sum of its constituent elements, as will be discussed below.

[92] Supra note 90.

[93] Literary works may be genuinely creative (original) in expressing an author's inspiration to create the entire work. This approach of course is followed by civil copyright law jurisdictions. In this context it is submitted that compilations are derivative since they consist of pre-existing material, in contrast to classic 'literary' works, which may be completely new. However, it should be clarified here that by

similar to a compilation, multimedia is not necessarily a derivative work like compilations. Unlike compilations which are creative (original) only in relation to the selection, arrangement and overall structure of their constituents, multimedia can be entirely creative in its 'look, use and feel' as classic literary works.[94] In this light, multimedia appears to be more akin to literary works than to compilations.

By extension, compilations can be primarily informational by reason of the quantity of information they combine, and to a limited extent functional.[95] However, literary works can be purely informational in nature, since the purpose of their creation is to inform the public, explaining why they are expressed so as to be primarily read or looked at. Similarly multimedia can be informational by reason of the vast amount of information integrated, but it is also multi-functional by reason of the form of presentation of its constituents, and its overall usability.

Furthermore it is submitted that compilations are only partially functional, and that only to a limited level. In other words, they are neither entirely, nor genuinely functional, but only so up to the point of not becoming a database; meaning so far as their contents are not arranged in such a methodical or systematic way that would otherwise allow them to be accessed independently. Otherwise, in the absence of these limits, there would not be any difference between a compilation and a database.[96] Such constraints, however, should not apply when creating a sophisticated

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'derivative' through this analysis we do not imply to refer to 'derivative works' defined as such within the meaning of Article 2 (3) of the Berne Convention.

[94] Unlike literary works, compilations are derivative since their authors will have to exercise their creativity mainly in the selection, arrangement and overall structure of the constituent elements, rather than in the content itself. This is why originality of compilations should be determined only in relation to the creativity expressed in these parts, and not in relation to the content alone. As such, copyright protection is awarded by means of vesting in the author of a compilation certain exclusive rights in respect of this creative (original) part, rather than in respect of the constituents per se. From this perspective, compilations appear to be only partially creative (original), whereas literary works may be entirely creative by nature.

[95] It is submitted here that it should be only to a limited extent functional when compared to a database, (being largely utilitarian), from which it should be distinguished. If we cannot distinguish between these two subject matters, an overlapping situation of protection could emerge.

[96] This is the author's interpretation considering also the remarks and findings of the analysis in the previous section (3.1.1); see also note 132.

multimedia work, since the underlying synthesis, selection and arrangement of its constituents are dictated by the desired kind and level of interactive mode, and overall presentation. In other words, the higher the level of interactivity of a multimedia, the more functional, utilitarian and creative the whole multimedia work can be.[97] In so far as the creative input in the interactive functioning of a multimedia can be unlimited, the selection and arrangement of the multimedia elements should not be subject to any limited form of presentation.

Furthermore, compilations are essentially hybrid works, since they can be created by more than one person, though included in the scope of literary works. In contrast, the romantic continental perception is that a genuine literary work should be the result of its author's creativity alone. In practice, this means that a genuine literary work should be authored by natural persons, and if not by a single person by as few as possible, so that the strictly defined personal bond between the work, and the author would not become threatened. Multimedia also is hybrid in nature as well as multi-purposive.[98] However, even this similarity alone is not enough to assert that multimedia can be identified with compilations.

### 3.1.3. Moving from Compilations to Multimedia

To summarise, although it appears that the nature of multimedia is similar to that of compilations, so far as both works constitute a hybrid form of a composite and derivative work used for informational, and to some extent functional purposes. The common factor underlying these qualities is the combination of materials.

Multimedia is different from a compilation, however, because multimedia is a multi-dimensional and multi-purposive work by reason of its entire 'look, use and feel' attributes. Overall, it is expressed in a dynamically more complex manner as witnessed by the breadth of its scope too. Its value lies in more than the sum of its

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[97] Subject to the kind and degree of its interactive mode, users of a multimedia work can use it so as to be informed, amused, and even communicate with other participants in their interaction mode, as well as to create an artificially new object as was explained in Chapter 1, sections 3.4.6, 4.2, and 6.

[98] As was concluded in Chapter 1.

elements; multimedia represents something more than the 'multi-media' and 'multi-works' cumulatively.[99]

The role of multimedia in society is not restricted to providing access to a rich collection of information. Even more, multimedia is not restrictively informational and functional. At a higher level it is utilitarian, creative and entertaining, since users can interact with the multimedia elements in different ways. All this indicates that multimedia is an advanced creative form of expression compared to compilations, and its value is far greater than that of compilations.

On the whole, it seems that multimedia cannot be sufficiently identified with this subject matter; multimedia is more than a compilation. The individuality of multimedia cannot be entirely exhausted by compilations, and thus, some elements of its hybrid nature would remain unprotected, should multimedia be protected as compilations. Before further contemplating the adequacy of the category of literary works per se for multimedia, we shall further consider the next two subject matters akin to multimedia; a database and computer programs.

### 3.2. Databases and Multimedia

The departure from traditional compilations to advanced versions of collections accessible not only manually, but also by electronic means, was signalled at the time databases were recognised as a separate subject matter of literary works. Originally, compilations covered the collection only of (literary) works, and rarely of data and other works, which had to be recorded in writing, since they were only manually accessible.

The emergence of digital technology facilitated compiling any kind of material and work in such a way as to be accessed electronically and independently, making their retrieval more functional, and overall, a much more comprehensive compilation. The traditional 'compilation' concept and regime of protection was found insufficient, and inappropriate to protect such advanced utilitarian collections for almost the same

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[99] As referred to in Chapter 1, section 2.3.

reasons justifying its inadequacy on multimedia.[100] In this sense, databases appeared to be a natural extension of compilations, realised by the developments in the field of information technology and telecommunications.

Consequently, the market for electronic databases became the new and promising market segment of the 1980s[101], which required to be protected at Community level to allow all Member States to invest in, and to benefit from a stable, and uniform regime of legal protection.[102] Although some Member States' copyright laws protected databases in their own right prior to implementing the Database Directive, it was thought that they were not sufficiently protected in all Member

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[100] The definition of compilations was too strict to accommodate for databases. Most importantly, a database is a different product, which ought to be recognised as such and be protected on its own, as a completely different subject matter from compilations. The emergence of electronic databases was intended to be s step forward, signalling the emergence of a new multi-media era, leaving aside compilations reflecting the constraints of the print and analogue technologies.

[101] Market research shows that the European on-line services market generated revenues of $3.24 billion in 1992. Notably, this figure had excluded earnings of the US based database-services, such as LexisNexis, offered across Europe. Between 1993 and 1994, a dramatic rise followed in both the availability and sales of CD-ROM titles, ultimately, attracting more users to on-line services. Notably, the CD-ROM has been considered as the most likely application to generate a mass consumer market for multimedia services in the short term. "According to research consultants Infotech, nearly 92 million CD-ROM titles were sold during 1994, an increase of 161 per cent on 1993 (Infotech in EP Journal February 1995). Consumer titles accounted for much of this growth: Simba Research estimates that of the US$ 394 m (ECU 331.2 m) generated by multimedia title sales in 1994, consumer titles accounted for some US$ 319 m (ECU 268.1 m)." See the Information Market Observatory (IMO) Working Paper 95/6, 'The Emergence of a Mass Multimedia Market', Luxembourg, 1995, at p. 6, http://www.midas.gr/info2000/market/workpapers.htm.

[102] See Recitals (2) to (12) of the Database Directive. For the purpose of establishing the Single Market the Community needed to ensure that the market of protected goods and services would operate effectively for the right-holders, since new technologies had entailed the de facto abolition of national frontiers, and were increasingly making the territorial application of national laws obsolete. As such, a significant part of legislation on electronic databases was envisaged by European legislators in the Green Paper 1988, which served the basis for consultation, and hearings on that matter; Commission of the European Communities, Green Paper on copyright and the challenge of technology – problems in copyright calling for immediate action, COM (88) 72 final, June 17, 1988.

States.[103] As such the Database Directive was issued in 1996, introducing a new 'two-tier' system of rights in respect of databases, and above all a harmonised regime of protection.[104]

### 3.2.1. Defining Multimedia as a 'Database'

Some may think of multimedia and electronic databases as being the same product because both works are collections of various materials that enable users to interact with their contents, and are computer-based and usually found on a CD-ROM or DVD. In this context the first question to be answered is whether multimedia can be considered (defined) as a database for the purpose of copyright protection.[105]

In fact, a 'database' is prima facie defined broadly enough as a collection of works, data or other materials, giving the impression that almost any kind of a composite work can be included in its scope of protection.[106] The drafters of this

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[103] Recital (1) of the Database Directive.

[104] Namely, copyright (Chapter II of the Databases Directive) and the sui generis right (Chapter III of the Databases Directive). A right similar to the sui generis right was already provided under the so called 'Nordic Catalogue Rule' in the 1960's, recognising the producer as the right holder, and protecting such collections even if they did not display any creativity and no proof of the creator's individuality. See Hugenholtz, B, 'Protection of compilation of facts in Germany and the Netherlands' in Dommering E. and Hugenholtz B, (eds.), *Protecting works of fact,* Kluwer Law and Taxation Publishers, Deventer, Boston, 1991, at p. 67.

[105] See for instance, Beutler, S, 'The protection of multimedia products through the European Community's Directive on the legal protection of databases' [1996] 8 *Ent LR* at pp. 317-328; Loewenheim, U, 'Multimedia and the European copyright law' (1996) 27 *IIC* 41 at p. 51 et seq.; Sookman, supra note 63; and Stamatoudi, at p. 88 et seq., supra note 17; in consideration of this option.

[106] Article 1(1) of the Databases Directive is concerned with the legal protection of databases "in any form", including in its scope of protection, both manual and electronic databases. (Notably, use of the term 'database' in the present analysis is made so as to suggest primarily electronic databases, in so far as we are presently concerned with the question, whether multimedia can be identified with (electronic) databases.) The inclusion of both manual and electronic databases within the same scope of protection is also consistent with the TRIPs agreement, ensuring a harmonious protection of both types at a Community level, and overcoming the problem of interpreting Article 2 (5) of the Berne Convention; although manual compilations were clearly protected by the Berne Convention, still, there was no

Directive apparently foresaw the possible confusion and overlapping protection that would otherwise have resulted from such a broadly defined scope.[107] Accordingly a set of express and implied limitations on the type and arrangement of the content to be included in a database are provided in various sections of the Directive.[108] In this way, the subject matter is defined broadly enough to accommodate various objects such as "multimedia products"[109], and narrowly enough to exclude those products which do not serve the same role as databases, and are essentially different.[110] As such the contents of a particular multimedia work should pass the test of being defined as a 'database', and the test of originality so as to be protected by copyright.[111]

According to the three express limitations provided in Article 1(2) of the Database Directive, the contents of a 'database' have to be "independent", "arranged in a systematic or methodical way", and "individually accessible" by "electronic or other means".[112] It is also clarified that these contents may be any type of work or

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express provision that the works included in these compilations could be something else, but literary and artistic works, for instance, data, images.

[107] If databases were defined without restriction to the type of material, as a collection of works, data or other materials, a compilation of sound recordings could then be protected as literary works, and as such it would achieve much longer protection under copyright as a database than a single sound recording would; as supported by Bently and Sherman, at p. 59, supra note 19.

[108] See Article 1 (2) and Recitals (17), (19) and (22) of the Database Directive, as well as the Explanatory Memorandum at 41, COM (93) 464 final-SYN 393.

[109] As was previously mentioned, the drafters of the Database Directive had thought of multimedia prior to issuing the final draft of the Database Directive. Characteristically, it was suggested that the legal protection offered by the 'Database Directive' would be "sufficient to protect most multimedia products", as referred to in the Green Paper on copyright and related rights in the information society, Brussels, COM (95) 382 final, July 19, 1995, (hereafter, 'Green Paper 1995'), at p. 24.

[110] Such as compilations, computer programs, and films as will be discussed later; see notes 117, 119 below, and section 4.

[111] Article 3(1) of the Database Directive provides that databases "which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright." This provision can only apply to those databases, which fall within the scope of Article 1.

[112] Article 1 (2) of the Database Directive. See also Article 10 (2) of the TRIPs Agreement and Article 5 of the WCT 1996, defining databases as "compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are

material, such as "literary, artistic, musical or other images, numbers, facts and data"[113], other than, (i) "a recording of an audiovisual, cinematographic, literary or musical work", (ii) "the compilation of several recordings of musical performances on a CD"[114], (iii) three-dimensional objects and the mere storage quantities of works or materials in electronic form[115]. As such, neither a film[116] nor a music CD shall be identified as a 'database'[117], whilst electronic databases stored on devices such as CD-ROMs and CD-I shall be protected as such.[118] It is also made clear that although a database is computer-based, the integrated computer program necessary for its making or operation will not be included in the scope of its protection.[119]

The Database Directive was implemented by all Member States for the purpose of satisfying, at least at a statutory level, the prime goal of a harmonised regime of protection of databases across the European Community; thus preventing the distortion of the Internal Market.[120] In this context, it became important for all Member States to ensure their copyright laws be flexible enough to accommodate databases, both electronic and manual, in the scope of their literary works. Most importantly, they should ensure they could all benefit from the then new sui generis

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protected as such." See also Recital (13), according to which the condition of "electronic or other means" stipulated under Article 1 (2) has to be interpreted widely, encompassing "electronic, electromagnetic, or electro-optical processes or analogous processes". In this light, multimedia may fall within the scope of databases, irrespective of the physical carrier form, CD-ROM, or DVD, and no matter whether it is accessed on-line or off-line.

[113] Recital (17) of the Database Directive.

[114] Recitals (17) and (19) of the Databases Directive.

[115] See the Explanatory Memorandum at 41, supra note 108.

[116] See the Explanatory Memorandum, ibid.

[117] An ordinary compilation of sound recordings is in fact a compilation of music works, which can be accessed individually by electronic means, still, it cannot even satisfy the prerequisite for a "substantial enough investment", so as to qualify for the sui generis databases' right, to be further discussed.

[118] See Recital (22) of the Database Directive. Notably, the databases found on a CD-ROM or CD-I are usually referred to as 'off-line'. By contrast, the databases stored on a central computer, which can be accessed remotely, are referred to as 'on-line' databases.

[119] See Article 3 (2) and Recital (23) of the Database Directive. Such computer programs shall be protected by the Computer Programs Directive.

[120] See also Recitals (2), (3), (6), (9), (10), (11) and (12) of the Database Directive.

right.[121] For this reason, all Member States consistently defined the subject matter of databases broadly enough, following the Directive's wording.[122] Additionally, all Member States have complied with the level of originality stipulated under the Database Directive.[123]

### 3.2.2. Protecting Multimedia as Databases

In so far as the same statutory restrictions (and originality criteria) apply equally across the Community, multimedia may be firmly protected as a 'database' by all Member States, provided that its concept, nature and role are identified with that of a database, overcoming potential problems of an overlapping protection between two different subject matters.[124]

Prima facie it appears that almost nothing prevents a multimedia work from being identified with a database, provided that its contents are independent and arranged in such a systematic or methodical way so as to be individually accessible, and its protection as such is not expressly excluded from the scope of database protection.[125] In fact, this potential was considered in the course of preparing the Database Directive, and some concerns were raised as to whether it would be

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[121] The Paris Court of Appeal has recently held that a database commercialised in print form and produced by electronic means will be awarded the sui generis right, in so far as it is proved that the maker has expended the necessary amount of investment in the overall production of his database. Characteristically, it held that it does not matter whether a database "is made available to the public in the form of a paper catalogue because the existence of a database does not depend on the nature of its medium, which is immaterial". See the *Societe Tigest Sarl v Societe Reed Expositions France*, [2002] ECC 29 C d'A (Paris) at 7 and 20.

[122] For example, the EC definition of databases is repeated in Article L.112-3 of the French Intellectual Property Code, and in the UK Databases Regulations 1997 at r. 12.

[123] Even the UK adopted the originality criterion provided under the Databases Directive, whilst higher compared to the previously applicable. See Article 3A(2) of the CDPA 1988 following the Databases Regulations 1997 r. 6, in contrast to that applied in relation to computer programs; supra note 56.

[124] As previously mentioned in relation to compilations, databases and multimedia.

[125] These conditions shall be read cumulatively in respect of multimedia for the reasons explained later; see note 135 below.

"sufficient to protect most multimedia products."[126] The present question of multimedia works' protection, however, refers to all forms of such works, and not merely to some.

For this reason, we shall first consider whether the statutory requirements for databases apply in all cases of multimedia, and determine: (a) whether multimedia in general can be identified as a database, and thus, (b) whether their nature and role are similar to each other, if not identical.[127] Attention shall now be focused on these prerequisites before determining, whether multimedia can be defined as a database.

### 3.2.2.1. Multimedia Elements Being Independent

The first question to be answered at this point is, whether the elements of multimedia products are "independent" of each other. The answer should be affirmative, where a multimedia work consists of photographs, biographical data and poems of a famous artist, for instance, each of which stands on its own, "independent" of the other. The answer may be different, though, where contemporary versions of more complex interactive multimedia works consist of elements interrelated to each other or to a part of only of the integrated works and data (such as video-clips, photographs, music, text and graphics).

This matter becomes more complex when either some or all of these elements may be integrated to some extent, either as a result of the author's own decision, and/or as a result of the user's own interaction with these elements. In this situation, it is not so clear, whether each of these multimedia elements can still be regarded as "independent". The impact of interactivity is also questionable, and in particular whether it undermines the independence of each multimedia element, according to the

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[126] Characteristically, it was thought that the legal protection offered by the Database Directive would be "sufficient to protect most multimedia products", as was suggested in the Green Paper 1995, at p.24, supra note 109.

[127] This task is particularly important since the said statutory limitations were intended to safeguard the purposes of use, and creation of a database, the role it serves in society, and thus, what is really worth protecting in a database, and for which its author should be eventually awarded with certain exclusive rights as will be discussed later in this section.

way each one of these depends upon the underlying software.[128] In such cases, we cannot say for sure that works, data and the underlying computer program, used interactively, will still be "independent" of each other. Alternatively, this might not matter since the operating computer program is excluded from the scope of databases.[129] In order to answer these questions, we should clarify (a) what is really meant by "independent" and (b) what the reasoning is behind these three requirements.

First of all, the fact that a single element can be valuable on its own does not mean that it can be only commercialised on its own.[130] Even more, the value of an 'independent' information element can be amplified when it is interrelated to certain other elements, which have been pre-selected for the same purpose, and are combined and arranged in a particular way to achieve the same end result.[131]

On the whole, the value of a database is not just the sum of the value of each element compounded with each other, and thus, the collection of these elements. Otherwise there is no difference, and no purpose in creating a database instead of a comprehensive compilation.[132] The value of a database is rather determined by the

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[128] Recital (21) clarifies in relation to Article 1(2) that the database elements do not have to be physically stored in an organised manner. In this light, most if not all multimedia works may satisfy the "arranged systematically or methodically" requirement, in so far as the arrangement of their elements will be dictated by the software necessary for the making and/or operation of the whole work.

[129] Recital (23) and Article 1(3). Ibid.

[130] Initially by "independent", it is understood that such an information element is meaningful, and complete as pure information, and valuable per se in its own right, to the extent it can be commercialised on its own.

[131] In general we could say that the purpose of creating a database is that of creating a valuable and thus, dynamic functional information retrieval tool. As was already explained in Chapter 1, today information is power, since digital technology facilitated the combination of various information elements in one single carrier, and ultimately amplified its usage and functionality, especially through (electronic) databases.

[132] A database is not merely a collection of information elements, but something more, otherwise there would not be any difference between a comprehensive compilation being only a 'compilation' and a more functional compilation being a 'database'. A collection of single independent information items, no matter how comprehensive it may be, will not constitute a true database. It will be just an amalgam of unified information, provided its information elements relate to the same topic. For this purpose, it

usage of the whole product, meaning the usage of each one of its information elements in relation to the other, and on its own.

Once information is embedded in a database for the purpose of being used in some way, it should be first ensured that it can actually be accessed, and retrieved in a particular way, so as to able to show (a) at least its individual value without losing its independence; and (b) its dynamics in relation to another information element to which it is possibly interrelated. In other words, information should be at least individually accessible.

Furthermore, it is the particular type of arrangement of the "independent" contents that is capable of transforming a comprehensive compilation into a truly functional compilation, and thus into a 'database'. For that purpose, the arrangement should be permanently fixed and systematic or methodical in some way, in order to ensure the minimum acceptable level of the whole work's functionality. How systematic or methodical that should be will most probably depend on how 'user-friendly'[133] the entire work will be, and the overall creative effort expended in the

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will not merit copyright protection by reason of insufficient amounts of creativity input in the selection and arrangement course of its production. This work may though, qualify for a sui generis protection in relation to its contents. In this sense, it becomes comprehensible why a database is principally utilitarian and functional in nature, in contrast to traditional literary works. In saying this, however, the author does not imply that the purpose of creating a database and a multimedia work is the same.

[133] Notwithstanding the fact that a database aims to allow users to retrieve particular information out of a comprehensive and large amount of information compilation, a part of its market value will be determined by its user-friendliness in the course of being used as an information retrieval tool, without underestimating of course the fact that it has to be reliable, too. Several factors can contribute to this effect, which may inevitably determine the market value of the end product. To be more specific, these factors relate to how easily, fast, and accurately the required item of information can be accessed and retrieved, the amount and kind of search criteria options available to users for retrieving such information, and the overall user-interface with the operating program underlying such a database. Especially home consumers, used to the graphic-based Windows environment, are far less likely to tolerate the traditional text-based user interfaces of on-line services. As competition in the consumer market intensifies, further redesign of Graphical Users Interfaces (GUIs) is most likely, as reported. See the IMO Working Paper 95/6, at p.16, supra note 101. The underlying factor of all these relates to the particular type of the contents' arrangement and presentation. This is the 'systematic and or methodical way' condition, which should be satisfied by the author (producer) so as to enable users to

course of its production. After all, this is why originality, and finally copyright protection, is awarded to the person creating such a database.[134]

### 3.2.2.2. Multimedia Elements Being Individually Accessible

From the above, it has now become apparent why the drafters of the Database Directive required two more restrictions ("individually accessible" and "arranged in a systematic or methodical manner") to be satisfied in addition to the "independent" condition.[135] All three requirements aim to ensure primarily the usage of the database as a whole, as well as of each one of its elements per se. Eventually, the usage of the whole database will be determined by the particular way its elements are arranged and presented. In other words these requirements together aim to safeguard the role served

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access each information element independently of each other, and retrieve it in a user-friendly and reliable way.

[134] The selection or arrangement of the contents of the database has to be the author's intellectual creation; such protection should cover the structure of the database, and no criterion other than originality should be applied to determine the eligibility of the database for copyright protection, and in particular no aesthetic or qualitative criteria should be applied. See Article 3(1), and Recitals (15) and (16).

[135] These three requirements together can be read, and applied as such, to exclude the possibility of other subject matters previously protected as a compilation, being protected as databases. In the absence of either of these requirements, the problem of an overlapping protection would not have been overcome. Imagine, for example, a composite of photos, poems, and biographical data related to a famous artist. This composite work made up of any type of work, and data could be defined as a 'collection' in Greece or Germany, for instance, and protected as such by copyright, provided it was original. The fact that, each piece of information and literary work included in this collection is 'independent' of each other, does not necessarily mean that this work cannot be defined both as a 'collection' and a 'database', if the requirement for the database's contents being individually accessible did not exist. In the prospect of such an overlapping protection, the author of this collection would be afforded with more exclusive rights. Ultimately, this would imply that there is no point in trying to fit works in different categories, and as such differentiating them among other subject matters. As such, the particulars of each work would no longer be respected, and thus, protected in their own right. The unique nature of each work would be disregarded, and the role each work serves in society would not be appreciated, neither appropriately protected. See also Stamatoudi in support of this view, at pp. 91 and 92, supra note 17.

by databases and thus the purpose of their creation. In general, this is to select and organise information materials related to a particular subject so as to enable users to use each one of these materials, either in relation to each other, and/or on their own.

Accordingly, the previous question should be redefined as to whether the multimedia elements are "arranged in a systematic or methodical way", so as to be "individually accessible", and thus, "independent" of each other. In other words; are the multimedia elements integrated in such a way as to be "independent", and thus, "individually accessible"? The answer cannot be the same for all multimedia on the whole by reason of multimedia works' complex nature.

In some cases the multimedia elements are integrated in such a way that they can no longer be individually accessible, thus excluding this multimedia product from the scope of databases. This outcome seems to be sensible, since such a product would not have anything in common with a database. Their purpose of creation, role, and nature are completely different. The aim of the author of that new work has not been the creation of a comprehensive and functional composite of various information selected and arranged, so as to be used in a particular methodical way, irrespective of its interrelation to the rest of the information elements compounded in the database. It has rather been the creation of a new amalgam of information elements specifically chosen and arranged so as to be meaningful as a whole, rather than in segments.[136]

### 3.2.2.3. The Precondition of Selection and Arrangement

In other cases, either all or most of the multimedia elements are: (a) individually accessible, and (b) in conjunction with one another, depending on the

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[136] Once sufficient investment has been expended in terms of money, effort, and time, in the course of its contents' selection and arrangement for the production of this new work, the question remaining to be answered is, how the author of this work will be protected, if his work does not qualify as a database for copyright protection? Will it be possible to protect such a work as a compilation? What if his work cannot satisfy the respective compilation's originality criteria? Will it remain unprotected, although he has expended a substantial amount of investment as above mentioned? What if no unfair competition law and/or contractual provisions can be readily or satisfactorily applicable? A sui generis right similar to that provided in Article 7 of the Database Directive could perhaps be most advantageous in this case, closing such a legal gap, in the form of protecting his work as a semi-quasi copyright, which is essentially a kind of unfair competition law right. This potential will be discussed in Chapter 4, sections 4 and 5.

user's interaction with the multimedia elements. The fact that multimedia is interactive should not necessarily imply that multimedia cannot be defined as a database, simply because interactivity has not expressly been included in the definition of databases.[137] The omission of an implied or express reference to this particular function does not necessarily indicate that the user(s) of a database cannot interact with its constituents.[138]

However, the level to which users can affect the presentation of the contents in the course of their interaction must have been predetermined in the course of production, and will be actually dictated by the underlying computer program used for the operation of that work. As long as interactivity is part of the computer program necessary for its operation and/or making, no further implications should arise since this computer program is excluded from the scope of protection of a database.[139]

Should a multimedia work be produced as such and for that purpose, it will most probably qualify to be defined as a database, and by analogy protected as such, provided it constitutes its "author's own intellectual creation".[140] If the particular selection or arrangement of its constituents does not satisfy the originality criterion, and no other form of protection is available, the 'maker' of this work could perhaps benefit from a sui generis form of protection, subject to the quality, and/or amount, of the 'maker's' investment.[141]

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[137] Provided of course, all other statutory conditions are satisfied.

[138] The mere storage of quantities of works or materials in electronic form will not suffice to transform even the most comprehensive compilation of such "independent" and possibly "individually accessible" materials, into a 'database'. See the Explanatory Memorandum at 41, supra notes 108, 115 and 116.

[139] See Article 3(2) of the Database Directive. Supra note 119.

[140] According to Article 3(1) of the Database Directive, the selection and arrangement of the database's contents has to be the author's own intellectual creation for it to qualify for copyright protection. See also Recitals (15) and (16). Although this standard of originality is lower than the traditional civil law approach, requiring creativity as an expression of author's personality to a higher degree, it is still higher than the common law, according to which skill and labour was sufficient.

[141] Those databases, which cannot satisfy the originality criterion, will be awarded with a sui generis right, provided that "there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilisation of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that

### 3.2.2.4. The Appropriateness of the Database Regime for Multimedia

Although the database regime can perhaps accommodate some multimedia works by analogy, and protect them as such, if not under copyright, at least, under the sui generis umbrella of protection, not all multimedia works could benefit from this regime. Not all multimedia works can be defined as a database by reason of their complexity and interchangeability. It would be inappropriate to protect only some multimedia works under the new sui generis right, or the copyright umbrella, no matter how beneficial it could be for these particular works, and leave the rest either entirely or partially unprotected.[142] Such a fragmented response to multimedia works would be inappropriate.

Furthermore, it should be noted that the appropriateness and effectiveness of the database regime per se, especially of the new sui generis right is extensively debated for being too strong and ambiguous.[143] Some of the most fundamental notions

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database"; Article 7 of the Database Directive. Notably this protection is provided in relation to the contents of a database, irrespective of their protection by copyright, patents, and so on in their own right, in order to protect the maker, who has invested in the production of such a work. If this form of protection was absent, the maker of such a database would be only partially protected by contract and/or the doctrine of unfair competition law. This was recently justified in the French case of *Societe Tigest Sarl v Societe Reed Expositions France*, [2002], ECC 29, at 12, 13 and 16, supra note 46,. In this sense it is submitted that the sui generis protection closes the legal gap created by the absence of a harmonised system of unfair competition law. See also Recital (6) of the Database Directive. In this context, the 'maker' is awarded with the right to prevent second-comers from extracting and/or re-utilising the whole or a substantial part of his work without his authorisation, according to Article 2(a) and (b), subject to satisfying the said precondition provided in Article 7(1). As such, this type of sui generis right is essentially an unfair competition right, which has been transformed into an intellectual property right norm, ultimately becoming a semi-quasi copyright.

[142] The sui generis right is most likely to be beneficial for these particular multimedia works whose contents have not been arranged and selected in a creative way, though the maker of such works has invested substantially in their production, and therefore deserves to be rewarded and protected in some way. From this perspective the sui generis regime appears commercially advantageous and desirable only for those works qualifying to be defined as a database, excluding the rest of multimedia works, which may be different from databases; something far beyond a compilation and database.

[143] The sui generis right has been criticised for being the least balanced and potentially strongest anti-competitive right; as such see, Reichman, J, and Samuelson, P, 'Intellectual Property Rights in Data?' (1997) 50 *Vand L Rev* 51, 52 et seq. It has also been blamed since national courts in Europe have

and provisions of the Database Directive, such as the notion of 'repeated and systematic' extraction, or the requirement of 'substantial' investment, remain open to conflicting interpretation across the European Community. A considerable amount of uncertainty has been raised in national courts concerned with the interpretation of these notions and provisions, referring their questions to the European Court of Justice (ECJ). Following the reference of British Horseracing Board Ltd v William Hill Organisation Ltd[144] to the ECJ for a preliminary ruling, several other cases and

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produced conflicting, and sometimes disturbing answers; see Hugenholtz, B, 'The new database right: early case law from Europe' paper presented at Ninth Annual Conference on International IP Law & Policy, Fordham University School of Law, New York, 19-20 April 2001, and Reinbothe, J, untitled paper presented at WIPO Workshop on the protection of databases, Geneva, 16 September 1999, at http://ecommerce.wipo.int/meetings/1999/papers/reinbothe.html.

[144] Reference was made to the ECJ by an order of the Court of Appeal (England and Wales, Civil Division, 24 May 2002) for a preliminary ruling in the case of *The British Horseracing Board Ltd, The Jockey Club and Weatherbys Group Ltd v William Hill Organisation Ltd*, C-203/02 [2002] OJ 2002 C180/14, on many questions regarding the interpretation of various terms and conditions stipulated in Articles 7 and 10 (3). Notably, *in British Horseracing Board Ltd v William Hill Organisation Ltd* [2001] RPC 612 it was held that William Hill, an on-line bookmaker, who had used racing information compiled by the governing body of horse and dog racing (BHB) for its betting web sites, had copied a substantial part of the BHB database, by extracting core information, such as the times and places of the races, in a repeated and systematic manner. Inter alia, Laddie J, ruled that the BHB database was protected by the 'database right' (sui generis), since BHB was found to have invested substantially in the controlling and up-keeping of its database. Furthermore, the court noted that the so-called 'dynamic' databases requiring constant updating, are also protected by the sui generis right (at para. 33). Arguably, Laddie J,'s findings at this point, (for protection of information indirectly extracted from a protected database), may lead to an over-broad protection of information as such. However, a narrower interpretation would imply that makers are left unprotected against unfair acts of extraction and re-utilisation. The difficulty implicit in the Directive, which does not adequately define the object of protection of the sui generis right, is the conflict between protecting (a) investment, (b) the database per se as an advance type of compilation, and (c) the information contained in or derived from its contents. Unlike these problems raised in *British Horseracing v William Hill*, and further more national courts' related decisions (see note 145 below), the decision in *Mars UK Ltd v Teknowledge Ltd* [2000] FSR 138, 146, was not referred to the ECJ; the claimants failed, inter alia, in their action for breach of confidence, since Jacob J, concluded that Article 6 (2)(d) of the Database Directive should be regarded as an option for Member States to adopt by way of limitation of database right, and not for the judges to act further as legislating. On these grounds he rejected the spare-parts (public policy based) defence,

various different questions from European national courts have been forwarded to the ECJ for an answer.[145]

Notwithstanding the implications that could possibly result from this confused situation, should some multimedia works be protected as databases, it is essentially doubted whether it is appropriate to protect multimedia as databases, in so far as the purpose of their creation, the role they serve, and their nature are different. A database is created mainly for the purpose of producing a comprehensive and functional databank tool, enabling users to access and retrieve the information they wish, simply or in relation to other components. This effect, amongst others, may also be achieved through a multimedia work. But multimedia is something more than merely an information retrieval tool coupled with a data-bank. Although a multimedia work can serve the role of a database, the purpose of its creation will not be restricted only to creating a functional and comprehensive compilation. This is actually demonstrated in the course of users' interaction with the multimedia content.

Interactivity in databases can take place only to a minimum level within the limits of a particular methodical or systematic arrangement of its elements. By contrast, interactivity in multimedia is changeable.[146] While producers and authors of multimedia works are concerned with the design of users' interaction with the constituents, they aim to achieve a dynamic and sophisticated effect on the whole

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and concluded that that no such repair exception or analogous defence is set out under national legislation, neither in the Computer Programs Directive, nor in the Database Directive.

[145] Such as: (a) *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou (OPAP)* C-444/02 ECJ OJ 2003 C31/12; further to determination of the scope of the directive, it has also been questioned whether lists of football fixtures enjoy protection as databases over which there is a sui generis right in favour of the maker and with what consequences; as well as how the database right is infringed and and whether it is protected in regard to rearrangement of the contents of the database, (b) *Fixtures Marketing Limited v AB Svenska Spel* C-338/02 OJ 2002 (C274/23) , where a preliminary ruling has been sought on a number of questions concerning Article 7 (1)(5), such as how should the terms "normal exploitation" and "unreasonably prejudice" in Article 7 (5) be interpreted; and whether a database enjoys protection under the database directive only in respect of activities covered by the objective of the database maker in creating the database, and (c) *Fixtures Marketing Ltd v OY Veikkus Ab*, C-46/02 R [2002] OJ 2002 (C109/27), several questions regarding Article 7 (1) were referred to the ECJ.

[146] See Chapter 1, section 3.4.6.

'look, use and feel' of multimedia. This is particularly felt when users are able to manipulate and sample all or some of the multimedia elements. The rationale underlying this effect is not justified simply by utilitarian purposes, as happens in the case of databases. It goes beyond this point, covering additional purposes of use to the whole multimedia work, such as for information, communication, and entertainment. In this sense, interactivity in multimedia necessitates a flexible and dynamic presentation of its constituents, rather than a necessarily static and fixed arrangement as in the case of databases.

### 3.2.2.5. Multimedia may be a Database, but Databases are not Multimedia

Therefore, multimedia only partly resembles a database, first by reason of its composite nature and, second as a result of its functional character. This is not the full picture of multimedia though, as was portrayed in the first chapter. Multimedia, being dynamically and interchangeably interactive in relation to the 'look, use and feel' of its constituents, supersedes any database work. The multimedia producer and author do not focus merely on the selection and arrangement of the constituents but go beyond the mere integration of constituents coupled with interactivity for a particular purpose. They focus on the whole 'look, use and feel' of the multimedia work. By analogy to databases, only a few selective examples of multimedia works could benefit from such copyright, and sui generis forms of protection. Such an incomplete regime of protection would be inappropriate for the whole range of multimedia works. Inter alia[147], it would eventually disregard the individuality of multimedia, which has to be respected and protected for what it stands for in its own right.

On the other hand, we cannot disregard the fact that the database sui generis right is an attractive form of protection for multimedia, to the extent that it could protect and compensate multimedia producers, and developers for their significant

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[147] It would jeopardise the future development of multimedia, should only a partial form of protection be provided. Future production would be de-motivated. Furthermore, if some multimedia works are protected under the databases regime, and others under the compilations regime, for instance, by means of squeezing them into the one or the other category, there would not be any sense in differentiating between multimedia as such and databases or compilations.

investment, particularly in the absence of copyright or unfair competition law protection. Multimedia and databases equally share this need of protection, so far as their functional and utilitarian nature restricts the scope of their producers and developers' creativity.[148] In this respect we should consider whether multimedia should be protected by a new right similar to the database sui generis right, especially if all existing categories of subject matter prove inappropriate and insufficient.[149] Prior to contemplating overall the adequacy of literary works, the next question to be answered is whether multimedia can be protected as computer programs.

### 3.3. Computer Programs and Multimedia

Multimedia producers and authors owe a lot to computer technology, since computer programs make reality the interactive functioning of multimedia and its overall operation.[150] As a result, the underlying computer program necessary for the making and operation of a multimedia work can attract too much attention, making it difficult to determine how a multimedia work should be protected. In so far as multimedia is viewed mainly as a computer-based application, some would like to argue that multimedia constitutes nothing more than a sophisticated computer application, and should be protected as such.[151] If so, they would also have to prove that multimedia in general can be identified with a computer program, and that the nature and role they serve is similar.

Computer programs as such are not expressly defined in the Computer Programs Directive[152], perhaps because any proposed definition might become

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[148] The need to protect and compensate them for their investment is further justified by the usually large amounts of time, money and effort expended in the course of rights management, especially where a multimedia work is largely consisted of pre-existing works for the acquisition and use of which some kind of fees should previously be paid.

[149] See Chapter 4, section 5.

[150] See Chapter 2, section 3.2.

[151] For instance, see Davies, G, 'The developing law of multimedia', [1994] 1 *Computer Law & Practice*, at p. 6; Thorne, R, 'Copyright and multimedia products - fitting a round peg in a square hole?' [1995] 49 *Copyright World* at p.20.

[152] Supra note 45.

outdated by technological developments. It is made clear though that a computer program is not synonymous with software. On this basis, it is explained that a computer program includes instructions permanently wired into an integrated circuit that is firmware.[153] However, computer programs were previously defined in the Green Paper 1988.[154] Amongst other national copyright laws, the UK CDPA 1988 has also avoided defining computer programs.[155] Although no single definition has been provided, it has been accepted that a computer program as such includes source code, assembly code, and object code.[156]

Therefore, the key-feature of the concept of a computer program is the fact that it consists of a series of coded instructions inserted so as to perform certain functions, and/or to produce a particular effect. In practice, the underlying functions aim to enable the user to access, retrieve, re-arrange, and modify the embedded information elements, and the overall effect to be realised is that of an interactive operation and presentation mode. For this purpose, the author of such a computer program always aims at a particular functional and utilitarian result, which is usually perceived through the expression form of the work, for which the operation or making of the computer program was used.

Although it constitutes the basic medium for the creation of a particular work, such as a database, it should not be assimilated with the end result, just because it is

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[153] Recital (7) of the Computer Programs Directive.

[154] In particular, a computer program was considered to be "a set of instructions the purpose of which is to cause an information processing device, a computer, to perform its functions...The program together with the supporting and preparatory design materials constitute the software", according to the Green Paper 1988 (COM (88) 72 final), at p. 170, supra note 102. Notably, a similarly vague definition has been adopted in the US (17 USC, section 101), according to which, a computer program is a set of statements or instruction to be used directly or indirectly in a computer in order to bring about a certain result.

[155] Following the Copyright (Computer Software) Amendment Act 1985, computer programs were classed as literary works and protected as such under the copyright regime; see section 1 (1). See also section 3 (1)(b) of the UK CDPA 1988.

[156] See for instance the *Ibcos Computers v Barclays Mercantile Highland Finance* [1994] FSR 275, where the court recognised that copyright protection must extend beyond the literal aspects of the programs code to aspects of 'program structure' and 'design features'.

vital for the operation and making of this work.[157] Computer programs are important and valuable only to the extent that they are necessary for the actual making and/or operation of the end-result work, such as of a database. Beyond this, the end result is valuable and qualified to be protected for something more than its mere functionality stemming from the underlying computer program. Thus, computer programs are essentially technical, functional and utilitarian in nature, constituting a (creative) tool, rather than a (creative) work.[158]

By contrast, multimedia is a genuine 'work'.[159] Though multimedia can be largely functional by reason of its interactive mode and its underlying computer program, this side effect is not enough on its own to justify categorising multimedia as a computer program, no matter how valuable its functionality overall is.[160] Multimedia is something more than its interactive functioning, and thus it supersedes the necessity for such operation and effect computer program.

The added-value found in a multimedia work is the result of its creator's and producers' creativity invested in the whole 'look, use and feel', and not only in some parts of it.[161] Their creativity has not been expended merely in conceptualising and designing the interactive function of their work. It has been exercised in relation to all layers of the whole work, in relation to what the users look at, how they use it, and

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[157] As was already mentioned, the computer program necessary for the operation or making of a database is excluded from its scope, it will be dealt appropriately under the Computer Programs Directive. Article 1 (3) of the Database Directive.

[158] As such the old classic debate regarding the patentability of computer programs has been reinforced in Europe as a result of the US and Japanese law protecting already computer programs under patent law. Despite the high number of pending patent applications in the UK, the delegates at the Diplomatic Conference held in Munich in 2000 voted against the deletion of "computer programs as such" from Article 52 (2) of the EPC. No matter how the European Commission and the Parliament will move to this, multimedia per se is something more than a computer program per se, and a computer related invention. Supra note 59 in Chapter 2.

[159] As was explained in Chapter 2, section 4.1 while applying the broad definition of the Berne Convention for 'literary and artistic' works on multimedia as such.

[160] The fact that interactivity is capable of raising the real value of a multimedia work to higher levels by making it more competitive following the market trends, should not imply that this percentage of added-value is achieved thanks to the underlying computer program used for that interactive operation.

[161] As was explained in Chapter 2, section 3.1.

what they can feel, not merely in the technical method used for realising this complex effect. In this sense, attention should primarily be focused on the multimedia elements, rather than its technical basis.[162] It appears then that the computer program is only a part of multimedia, constituting only its technical basis.[163] Neither the nature, nor the role of multimedia can be identified with the subject matter of computer programs. Thus, it would be inappropriate to attempt to fit multimedia in the category of computer programs.[164]

### 3.4. Protecting Multimedia as a Literary Work?

The above analysis has shown that multimedia could only possibly be defined and protected as a literary work in those jurisdictions where creative works do not have to fall in a particular category or subcategory of protected subject matter, such as in the UK, and their scope of protection is defined in a technology (fixation) neutral manner, unlike the UK approach. For reasons of consistency at a market and legislative level, at least within the European Community, a uniform response has to be found.

Furthermore, it has became apparent that neither the category of literary works per se, nor its subcategories can fully satisfy the individuality of multimedia, meeting

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[162] In contrast to this approach, some scholars have argued that attention should be focused on the underlying programs of multimedia, without necessarily underestimating the existence of multi-informational content, such as digital text, sounds, and images. In principle they consider this digital content as merely data for the computer program that is also stored and contained in that work. In this sense the information content is put on the same level with the underlying computer programs, by means of equating them. On these grounds it is argued that multimedia works constitute a computer program. As such see Davies, G, 'The developing law of multimedia', and Thorne, R, 'Copyright and multimedia products - fitting a round peg in a square hole?' supra note 151. However, this approach fails to consider the overall (multi-dimensional and multi-purposive) nature, and value of multimedia. In fact this approaches loses sight of what multimedia is.

[163] See the Green Paper1995, at p. 19, supra note 109, and Lehman, B, and Brown, R, 'Intellectual property and the National Information Infrastructure', *Report of the Working Group on Intellectual Property Rights,* US Patent and Trademark Office, Washington DC, September 1995, at p. 44.

[164] See also Stamatoudi arguing that multimedia cannot be well accommodated by the computer programs regime; whole concepts of reverse engineering, back-up exceptions, adaptations and correction of errors cannot be applied as such on multimedia. Stamatoudi, at pp.157-159, supra note 17.

only some parts of its multi-disciplinary nature. The whole 'look, use and feel' of multimedia cannot be comprehended by means of defining it as a compilation, a database or a computer program. Only to a limited extent, and on a case-by-case basis, may some resemblance be found between some multimedia works and compilations by reason of the multimedia 'look' part[165], suggesting that multimedia and compilations are composite and derivative. Such a partial resemblance can also be found between multimedia works and computer programs, in so far as emphasis is given only to the 'use' part of it, meaning its technical basis, because of its prevailing interactive functioning, excluding its 'look' and 'feel'[166]. On top of these, multimedia comes closer to the nature and purpose of use of databases by reason of the similarities found in both the 'look' and 'use' parts, in so far as multimedia looks like a rich composite in information elements, and is used as an information retrieval tool.

However, none of the existing categories of literary works can fully satisfy the whole 'look, use and feel' nature of multimedia. On the contrary, multimedia supersedes compilations, computer programs and databases together, largely because of its variably complex nature, and its interchangeably high interactive function. As a result multimedia can be used for all purposes served by each of the three works, information, utilitarian, functional and even more for entertainment and communication purposes. These two extra features of multimedia are usually found in the 'feel' part of it, which has to be interrelated to the other two parts, for the whole multimedia to be realised, and meant to be looked at, read, used, played with, creating and communicating.

Therefore, multimedia cannot be sufficiently protected as a literary work. Such a partial response would disrespect its entire nature, disregard its full potential, and inevitably undermine its future development. It would also be unfair to those who have contributed in the whole 'look, use and feel' added-value, ought to be adequately and sufficiently protected and rewarded. Attention therefore should also be focused on the category of audio-visual works since multimedia can be used for entertainment

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[165] Meaning its informational content, which attracts user's attention in order to be looked at and read.

[166] As was clarified in Chapter 1 the 'look' and 'feel' dimensions of multimedia should be distinguished from what is generally referred to as the 'look and feel' of computer programs' interface. Supra notes 85 and 132 in Chapter 1.

purposes, and users can be engaged in some form of communication with the work and its creators.

## 4. Audio-visual Works and Multimedia

Multimedia could be considered as another type of audio-visual work, similar to a film. This impression is based upon the view that multimedia consists of primarily audio and visual elements, integrated into one homogenous work that has to be projected onto a screen in order to be looked at, listened to and enjoyed. In this sense attention is focused primarily on the different types of media necessary to express, and show the informational content. Largely on these grounds, it has been argued that multimedia could be assimilated to an audio-visual work, such as a film, for copyright purposes.[167] Whether multimedia can fit into this category, and whether this form of protection by analogy is appropriate for it, will now be considered.

### 4.1. Defining Multimedia as an 'Audiovisual' work or a 'Film'

Audio-visual works as such are not defined in the Berne Convention, where reference is made only to 'cinematographic' works.[168] According to the Berne Convention's provisions, a particular work can be categorised as such only if it is expressed by a process analogous to cinematography, if not by the traditional cinematographic process.[169] No other criteria and requirements are implied, such as

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[167] In contrast, see; Aplin, T, 'Not in our galaxy: why "Film" won't rescue multimedia' [1999] 12 *EIPR* at p. 637; see also Turner, M, 'Do the old legal categories fit the new multimedia products? A multimedia CD-ROM as a film' [1995] 3 *EIPR* at p. 109; Ginsburg, J, 'Domestic and international copyright issues implicated in the compilation of a multimedia product' at p. 1399 supra note 65; and Williams, A, Calow, D, and Lee, A, *Multimedia: contracts, rights and licensing*, FT Law & Tax, London, 1996, at p.70.

[168] See Article 2 (1) of the Berne Convention, and Article 9 of the TRIPs.

[169] The US Copyright Act also pays attention to the form of expression, although it defines audio-visual works in a more descriptive manner than the Berne Convention. In particular, an audio-visual work is defined at 17 USC §101 as a work which consists "of series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects,

that of the constituents (of a cinematographic work) necessarily being 'audio' and 'visual'[170], and presented only in (a particular) motion.

In a broader and more flexible sense, the Rental Directive[171] refers to a "film", a "cinematographic" work, and an "audio-visual work" as the same subject matter. In this context, it is provided that a film contains either fixed moving images, or non-fixed images, irrespective of whether or not they are accompanied by sound.[172] In contrast to this broad definition the French Copyright Act requires a particular sequence of moving images to be prevalent in an 'audio-visual' work.[173] In the UK also, where no reference is made in the CDPA 1988 either to an 'audio-visual' or to a 'cinematographic' work, but only to a 'film'[174], it is provided that a film is "a recording on any medium from which a moving image may by any means be produced".[175]

Overall, it appears that all three terms are used interchangeably. In this sense, therefore, we shall attempt to determine whether multimedia can be defined as a film

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such as films or tapes, in which the works are embodied." Nonetheless, the term 'audio-visual works' is a generic one, under which the sub-category of 'motion picture' falls. Hence, the US definition is broader than 'cinematographic', since it does not require the images to be shown as a "moving image", but only that the related images are shown in a "series". Therefore, it should be construed that 'cinematographic' works and 'films' should be considered as the same thing.

[170] In a broad sense, it could be argued that 'visual' elements may be text, video, animation, still graphics and photographs. This could be accepted at least in those jurisdictions providing for a broader definition than that in the UK (see section 5B (1) of the UK CDPA 1988).

[171] See the Council Directive 92/100/EEC on rental right and lending right and on certain rights related to copyright in the field of intellectual property, 1992, OJ L346/61 (hereafter, the 'Rental Directive').

[172] As such it is provided that a film "designates a cinematographic or audio-visual work or moving images, whether or not accompanied by sound." See Article 2 (1) of the Rental Directive.

[173] Article L112-6 defines audio-visual works as works consisting of "sequences of images".

[174] The fact that the French copyright law refers to an 'audio-visual' work, and the UK to a 'film' should not create any problem, since audio-visual works are considered to be the same as films in the UK. In fact the CDPA 1988 defines films as if referring to audio-visual productions. See also Cornish, W, *Intellectual property: patents, copyright, trade marks and allied rights* 4th edn, Sweet & Maxwell, London, 1999 at p. 394 et seq. In Greece also, the terms 'cinematographic film' and 'cinematographic work' are used interchangeably. See Article 23 of the Greek Copyright Act 2121/1993.

[175] See section 5B (1) of the CDPA 1988.

or an audiovisual work. In this context, multimedia should satisfy at least the following implied and express preconditions. The first precondition relates to the fixation of the whole work, and the second to (the sequence of) moving images.

### 4.1.1. The 'Fixation' Precondition

Although not expressly mentioned, fixation is generally required for audio-visual works and films to qualify for copyright protection. In the Berne Convention and civil copyright laws, this precondition is implied by references to the "process of cinematography or analogous to it".[176] In common law jurisdictions, the requirement of some kind of fixation, not necessarily a particular one, is expressly mentioned in relation to copyright-protected works.[177] As such, a film may be recorded on any medium, such as a CD-ROM, and by extension on a DVD, thereby creating an additional hurdle for the viability of the requirement of fixation in relation to the application of the concept of public communication.

Today, the notion of the 'public' has been transformed in that it has become more personal largely because of the many options available to viewers, and ultimately to users of audio-visual works recorded on a DVD, who are now more actively involved in the way they watch a film, than when dependent upon VCR technology.[178] In addition, new delivery channels and businesses have been established for distribution of films and computer games on-line and on-demand, preferably over the Internet, targeting single consumers, rather than large groups of people.

As a result of these developments, the concept of public communication was revised, and it now includes "the making available to the public of...works in such a way that members of the public may access these works from a place and at a time

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[176] Article 2 (1) of the Berne Convention.

[177] See section 5B (1) of the CDPA 1988, referring to "recording", in contrast to which see civil law jurisdictions follow a different approach. See note 181 below.

[178] Watching a film through a DVD, inter alia enables users to choose the language they wish, the appearance of subtitles or not, the sequence of images, and sometimes the end of the story.

individually chosen by them."[179] Inevitably, any requirement for recording or fixation of audio-visual works should be regarded as outdated in the light of the latest market trends and developments in the Information Society.[180] Thus, if the fixation requirement fades away, the scope of audio-visual related works will become more flexible, and could potentially accommodate a multimedia work satisfying also the second requirement; that of 'moving images'.

### 4.1.2. The 'Moving Images' Precondition

An audio-visual work or a film should consist of (moving) images, often in sequence.[181] The fact that not all copyright laws require only 'moving' images to be previously linked in such a way as to imply the existence of motion, creates problems. As such, it is not clear whether the motion is achieved by linking a series of 'still', or of necessarily moving, images.[182] Should the images be 'moving' prior to their linkage and recording or not? In practice, a sequence of still images unfolding onto a screen, does not necessarily depict continued motion, at least, it implies movement.[183] This can be understood if we realise that what we perceive today as 'motion' (compared to 'movement'), was not present in the early days of the kinetic theatre and the cinematograph.[184] At that time it was sufficient to prove that some kind of movement could result by the sequence of 'still' and fixed images, although in some rare cases, images had to be 'moving' prior to their recording.[185]

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[179] See Article 8 of the WCT (1996), following which see Article 3 and Recital (23) of the Copyright Directive.

[180] As was explained in Chapter 1, section 5.

[181] Section 5B (1) of the CDPA 1988 requires only a "moving image", whereas Article 95 of the German Copyright Act 1965 refers only to "sequences of images". However, the French Copyright Act goes beyond this point Article L112-6 to "sequences of moving images".

[182] See also Muenchinger, N, 'French law and practice concerning multimedia and telecommunications' [1996] 4 *EIPR*, at p. 190 and Aplin, supra note 167.

[183] As such see also Stamatoudi at p. 113 and note 32. Supra note 17.

[184] At that time, only still pictures were available, and they had to be unfolded in a particular way so as to create the impression of some kind of movement.

[185] This was the case in the UK before the CDPA 1988. The Copyright Act 1956 referred to cinematographic works and required the images to move. See Turner, at p. 108, supra note 167.

If this loose interpretation of the moving images requirement is to be followed today, it would result in the protection of any kind of work consisting of a series of images unfolding in such a way as to give the impression of motion as an audio-visual work. Along these lines a multimedia work consisting of some still images, such as photographs and some moving images, such as animation, would not automatically be excluded from the scope of audio-visual works by reason alone of its still visual elements.[186] Notably in some jurisdictions, the requirement of moving images is justified on another basis. In so far as some measure of unity characterises the interrelated (moving) pictures compounded with any sound elements, and these are intended to be shown by the use of mechanical means related to cinematography, will suffice for protection. As such, a multimedia work satisfying these conditions may be considered as an audio-visual work in the US, for instance.[187]

Apparently a number of different works can be considered as audio-visual given the potential offered to any person by technology to express his/her creativity by new means and media, such as digital photographic cameras and mobile phones with audio and video recording functions. As such, almost everyone can create his own digital film of work using little more than off the shelf hardware and software, and without spending too much money or effort.[188] In part, this development owes

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[186] Courts could perhaps overcome this uncertainty provided their rulings are not inconsistent. It is noteworthy that the Australian Copyright Law Review Committee (CLRC) has supported the view that still images would not deprive a multimedia work of protection and that there were "plenty of examples of films, and TV programs that have consisted of collages of moving and still pictures with accompanying sound". As commented by Aplin, at note 35, supra note 167.

[187] See 17 USC §101 providing that a work consisting "of series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied." As such Ginsburg has supported that multimedia may be regarded as audio-visual works or compilation or both in the USA, since no strict borderlines are drawn between the existent categories of subject matters, as was mentioned above. Ginsburg, supra note 65.

[188] If one visits the http://www.digitalfilms.com will come across this flash message of digitalfilm.com; "Unleash your creativity and make your digital film for free! Choose a background scene, characters, animated actions, dialogue, introduction, and ending credits. Put your name as the producer and e-mail

much to the market success of video (or computer) games during recent years and their recently established copyright protection as an audio-visual or cinematographic work, a film, as well as a video recording.[189] Interestingly, most states have preferred to expand the scope of audio-visual works in order to protect this valuable new IT product, rather than consider it as an enhanced type of computer game, for instance. This is so because the motion effect of the interrelated images projected onto the screen, held to be sufficient for a computer game to be considered as audio-visual work, is the result of its interactive function facilitated by the underlying computer program.

On these grounds one may argue that multimedia should be also treated as audio-visual works, since computer games are the ancestor of early multimedia works by reason of their interactive nature, and their high-quality composite of various information elements. However, computer games are created only for entertainment

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the movie to your friends! You can also sign up at no cost as a registered user, which gives you access to more advanced features, such as being able to save or edit the movies that you create."

[189] As such, it was decided in a German case, in *Re Copyright Protection for Computer Games* [1994] ECC 354 OLG (Bavaria) (Case 4 St RR 64/92), that a computer game was a "cinematograph work" (instead of the term 'audio-visual') as long as the (moving) picture sequence concerned, produced an impression of movement, since "a montage of still shots with sound is insufficient to achieve protection." In a US case, *Midway Mfg Co v Artic International Inc* [1983] 704 F 2d 1009 at 1011-12, it was also held by the 7th Cir. court that a video game was an audio-visual work, in so far as it possessed a series of related images, displayed as some kind of unit. Furthermore in Australia, video games are regarded as satisfying the requirements of a 'film' on the grounds that an overall sequence exists in so far as all player inputs are 'correct', even though, there is only a limited series of smaller sequences that may occur within this overall sequence. See Aplin, supra note 167. In the UK in *R v Christopher Lewis* [1997] 1 Cr App R (S) 208 CA, computer games were found to be protected by copyright, and in particular under section 107 (d) (iv) of the CDPA 1988 without considering them expressly as a film or a video work. Furthermore, in *British Amusement Catering Trades Association and another v Westminster City Council* [1989] AC 147, HL, it was held that video games were not an exhibition of moving pictures for the purposes of the 1909 Cinematograph Act. By contrast to the above rulings, in a French case, *Atari Ireland and Atari Inc v Alain Valadon and Others* [1987] ECC 212 Cass (F), it was ruled that an electronic game cannot be treated as an audiovisual work on the pretext that the specific elements of the game move about on the screen with a succession of images and sounds which can capture the player's attention.

purposes since they are only meant to be played, whereas films are meant to be viewed, while multimedia is intended to be all these simultaneously, and much more.

Imagine, for instance, a multimedia work consisting of a series of photographs portraying a famous dancer posing in various ballet postures, accompanied by piano melodies, and some biographical data. At first glance this multimedia work could be defined as audio-visual, in so far as the visual elements move about onto the screen with a succession of images and sounds dictated by the user's choices for such projection though, the images were originally 'still' and may not be in motion at all times. From another perspective, the same work could simultaneously be considered as a database, since each one of these elements can be individually accessible and for that purpose all elements have been pre-arranged in a systematic or methodical way.

Given the prospect of an undesirable cumulative and overlapping protection, it may be better to contend that the regime of audio-visual works should rather require a sequence of 'moving' rather than 'still' images[190], which have previously been fixed in such a way as to be watched in a meaningful mode of motion. In this way we could avoid the risk of an overlapping situation, where a particular subject matter may qualify at the same time as (a) a film and a database, or (b) a film and an artistic work, or (c) a film and a multimedia work. Even more importantly we should avoid the risk of multimedia qualifying at the same time as both an audio-visual work and a compilation. Otherwise, the individuality of multimedia would be undermined.[191]

New information technology tools and digital works, as well as the convergence of communications, necessitate a broad interpretation of the 'moving images' requirement, and further criteria ought to be identified to avoid the risk of a possible cumulative or overlapping protection. For example, today users of the most sophisticated mobile phones can capture a series of still images, and transmit them using MMS. Soon, they will be able to compile them with their favourite MP3 music files downloaded through their mobile phone, send them to their friends and ask them to link and morph them in order to jointly create an interactive audio-visual work based on this material, solely using their mobile phones. As such the moving images,

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[190] In Germany, in *Re Copyright Protection for Computer Games*, ibid., it was held that "a montage of still shots with sound is insufficient to achieve protection" as a cinematographic work.

[191] Since multimedia supersedes compilations as already explained.

or else the 'motion' effect prerequisite alone should not be overstretched. Instead, attention should be focused on the necessary characteristics of nature of moving images and the whole work, in order to determine whether the particular work is an audio-visual work.

Imagine for example an artistic work comprised of a series of digitised photographs, but exhibited through a sound and video installation. In this environment, the series of still photographs are projected onto a wall in different sequences, following the particular choice of background melody. Viewers watch the images of the photographs unfolding at such speed as if they are moving, and as such get the impression that a different story depending on the sequence of photographs chosen is being shown each time. In search of some extra criteria to help us determine whether such a work constitutes performance of an artistic work or an audio-visual work, it would be important to see whether the elements of such work have been interrelated following a particular scenario or plot, predetermined by the author of that work, as in the case of films. However, this criterion alone will not be a complete solution, since both works are based on a plot, which is the underlying creative idea-scenario that inspired the author to create that work. Furthermore, distinguishing between art and films (or audio-visual works) cannot always be easy, since almost any kind of audio-visual work can be at the same time artistic in nature (literally speaking), whereas no artistic work can be simultaneously a film (legally speaking).

As such, attention should also be focused on the aims, the intention of the authors when they create the work, and the purpose of use of that work. It may be helpful to clarify whether the author tried to express himself in an abstract way through his work, or whether he was mostly concerned with the perceptibility of his work by the public, and its market value.[192] If the latter, it would appear that the artist had acted primarily as an entrepreneur, rather as an artist. If this is the case, it might then be defined as an audio-visual work for the purpose of being protected by copyright.

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[192] In most cases an artist, the author of an artistic work, aims to express his conceptual idea, vision, irrespective of the acceptability of his work by others. In essence artists create art rather than produce it according to what they think will be likeable and worth buying. Of course, this may not always be the case (see for instance, maps, charts, diagrams).

Nonetheless, not all multimedia works will satisfy these requirements given the far greater diversity of their elements, ensuring a much higher quantity and thus, quality of content work[193], compared to audio-visual works. A multimedia work must consist of more than two different elements, whereas the combination of only two works, audio and visual elements, will suffice for a work to be defined as audio-visual.[194]

Suppose, for example, that a particular multimedia work consists of text, photographs, video shots and music, only some of which are interrelated to each other, with a computer program, allowing users to access some of the constituents and morph them. This work will not qualify as an audio-visual work as a whole, if the necessary degree of continuity and flow, which would otherwise result from a true audio-visual work such as a film, is not present. Only a part of the multimedia elements, those pictures and music shots interrelated to each other, could possibly qualify as an audio-visual work provided they were unfolding as a unit in such a logical sequence that only then could they be watched in a meaningful way. Such a part may be the user interface of multimedia, viewed as a sequence of displays provided that some fixed, temporal and meaningful link exists between these audio and visual elements, satisfying the purpose of a particular motion show.

Notwithstanding the fact that protecting only a part of the whole multimedia work may not be appropriate, it is unclear to what extent it is necessary that the sequence of moving images should be permanently fixed, and uninterrupted for the motion effect to be present. A film recorded in DVD, for instance, will not necessarily be exhibited in a permanently fixed and unchangeable mode. Once viewed in a digital environment, the audio and visual elements will most likely be displayed in a variable sequence, dictated by the user's choices in the course of interacting with the

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[193] Multimedia works combine computer generated displays and digitised pre-existing information to form its images, which may be more diverse than those appearing in a film. Furthermore, the more diverse information elements are included in a work such as multimedia, the higher its quality will be, as was explained in Chapter 1.

[194] This is so considering also the definition of multimedia in the first chapters, and although not expressly required, since the visual information is the prevailing element of audio-visual works as illustrated in related definitions of audio-visual, cinematographic works, and films.

individually accessible audio and visual materials. In this context, the presence of interactivity raises further implications. It is questionable whether interactivity can be prevalent in such a work, without undermining the required motion effect, and without transforming the otherwise would-be audio-visual work into something different. If this is possible, the next question should concern its degree, considering the fact that interactivity takes place in films recorded in DVD only through a multi-angle-options menu, whereas interactivity in multimedia takes place in much higher, almost infinite levels.

### 4.1.3. The Role of Interactivity and Computer Games

In most cases concerned with the protection of computer and video games as audio-visual works, interactivity was not treated as an obstacle to their recognition as such.[195] One reason justifying this approach has been the fact that technological developments have caused the creation of new forms of audio-visual works, such as computer games. So far no other criteria, however, have been identified to support the presence of interactivity or to assert which particular level of interactivity can be acceptable, without undermining the status of that subject matter as audio-visual or film.

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[195] Inter alia, in the previously mentioned German case, *Re Copyright Protection for Computer Games*, it was also held that "given the many ways in which cinematograph films can now be produced one cannot say that a computer game is, by analogy, not entitled to copyright protection because it consists of the manipulation of electronic data which have no physical form rather than the playing of a tangible roll of film. Nor does the possibility of the game's being influenced by the player prevent its external presentation on the screen from having the character of a sequence of images so as to bring it within the protection of section 95 of the Copyright Act, since all conceivable changes are already pre-programmed, so that the changes made by the player cannot constitute a new film produced by him". Supra note 189. Similarly in *Midway Mfg Co v Artic International Inc*, it was generally held that the sequence of images of a video game, found to be an audio-visual work, although varied according to the user' interaction, was not sufficient to exclude the video game from being subject to the scope of audio-visual works. Supra note 189. Hence, the Australian CLRC has supported the view that "interacting with a multi-media production" is not so different in essence "from editing a celluloid film", not that much "as making it infinitely more possible to modify the multi-media production in an infinite variety of ways." As reported by Aplin, supra note 167.

As such, if interactivity is regarded as the newly acquired element of audio-visual works resulting from technological developments, one may assert that multimedia could possibly fit into this category by analogy to their ancestors, namely computer games. This development is possible particularly in those jurisdictions supported by such precedents. Applying this analogy, however, the lessons learned by some computer games cases on multimedia would be a considerable drawback for the following reasons.

First of all, the courts have not treated the status of computer games consistently, and have avoided considering them in relation to the degree of interactivity employed.[196] At this point, any claims that multimedia is an audio-visual work, in so far as a computer game is so, would be premature and inappropriate.

Secondly, computer games and multimedia differ, since multimedia is not just an interactive entertainment product. The creativity involved in the design of a multimedia work goes beyond foreseeing what the user would like to do, and how to proceed given the logically predetermined scope of his role and actions in a fixed background action story. From this aspect a computer game functions more as a computer program, since all users' options have to be pre-programmed in order to be functional and be realised in this environment. In so far as a user's interaction has to be fixed and predetermined at all instances, computer games differ substantially from sophisticated multimedia works of higher interactivity levels. Thus, if we were to consider multimedia as another case of computer games, which may by analogy be considered as an audio-visual work, we would also fail to recognise the real value of multimedia. Not only would the importance of interactivity in multimedia be downgraded, as it has been in computer games cases, but most importantly, the true nature of multimedia would be disregarded in the long run.

Thirdly, considering computer games by analogy as audio-visual works disregards the purpose of computer games' interactivity and their nature to some extent. In fact, interactivity in audio-visual works may be present only in so far as it would not disrupt the continuity and flow of the images; a vital function of audio-visual works, and particularly films, since they are primarily meant to be watched. By

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[196] Supra note 189.

contrast, computer games are mainly intended to be played. In practice it is submitted that the satisfaction of this (action) aim will determine the market success of the computer game, rather than the look of it as a filmed story. As such, having recognised a computer game as an audio-visual work may already have been erroneous for the computer games industry and their consumers; the same mistake should not be repeated in respect of multimedia.

Additionally, supposing that the degree of interactivity involved in an audio-visual work should not be high enough to undermine the necessary continuity required to be present in audio-visual works[197], this condition could place an extra restriction upon multimedia. As already mentioned, multimedia is essentially interactive and preferably so to the highest possible degree. Any predetermined restriction over the kind and degree of interactivity taking place in multimedia would inevitably result in requiring multimedia authors and producers restricting the scope of their creativity in relation to the design of interaction, and expressing it only within predefined boundaries. Ultimately the added-value of multimedia would be decreased, its nature would be undermined, and its overall future would be threatened. Lastly, it should be noted that the multimedia creators do not aim at the creation of a film-like work or a computer game. Their aim is far greater than these combined.

In particular, the goal of an overall sequence of moving images should not be compulsory in multimedia, as it is in audio-visual works. The purpose of multimedia production cannot be constrained by such an objective. It goes further to making available a considerable amount of interrelated information content with maximum flexibility to the user for any purpose, whether reference, retrieval, entertainment, and/or creative.[198] In this sense, multimedia can be used as a dynamic information-

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[197] It is submitted here that interactivity in audio-visual works cannot be high enough; otherwise it could potentially undermine what has to be perceived in a meaningful way as "unit" type of motion work.

[198] The role of multimedia as an information-reference, and information-retrieval tool is justified by reason of its resemblance to a compilation and a database respectively, as already mentioned in this chapter. Once the purpose of the user's interaction is not restricted to these functions but, in a more abstract sense, aims at enhancing user's abilities to 'play' with the contents, and watch them the way they wish, even to modify them and create their own work multimedia, also functions as a creative entertainment game.

retrieval-reference tool, similar to a database and a computer program, look like a comprehensive compilation or a film, and feel like a creative game. Therefore, multimedia differs from audio-visual works, films and computer games, in being greater than these. Notwithstanding the above differences, some argue that multimedia could be protected by analogy as audio-visual works since they are produced as films.[199] Whether this proposition can be confirmed will be considered next.

### 4.2. Protecting Multimedia as a 'Film' or 'Audiovisual' Work?

In contrast to literary works, a film does not have to be original in order to be protected by the UK CDPA 1988.[200] It will be protected by reason of the actual recording of the images rather than the underlying images themselves,[201] since a film has been considered to be something more than the sum of its copyrightable parts, each of which may enjoy its own protection.[202] Multimedia is also something more than the sum of its constituents alone. However, it is doubted whether affording protection by analogy only to the recording of the multimedia constituents would

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[199] See the discussion in the following section.

[200] Section 5B of the CDPA 1988.

[201] As such the re-shooting of a film sequence was held not to be a copy for the purposes of the CDPA 1988. This would be the case even if the second-comer's film closely resembled to the claimant's copyright film, or reproduced the essential features of that film. See *Norowzian v Arks*, at 400, supra note 3. See also Bently and Sherman at p. 128, supra note 19.

[202] Notably the 1952 UK 'Gregory Committee' recommended in its White Paper (1952) that "a film is more than the sum of its copyright parts". On these grounds it applauded the introduction and creation of a separated copyright for films, since until that time, the only copyright protection offered was by the 1911 Copyright Act solely in relation to the underlying contents of this work; a series of photographs, the screenplay as a literary work, artistic copyright in the sets of animation, dramatic copyright and musical copyright in the musical accompaniment on the soundtrack. See Williams, Calow, and Lee, p.108 et seq.; supra note 167.

suffice, given that the added-value of multimedia is found in the whole work, rather than in one part of it alone.[203]

In practice, protecting one dimension of multimedia alone, such as the actual recording code, let alone the user interface part, for instance, would not be a complete form of protection[204] because the 'look, use and feel' value of multimedia is also invested in the user interface.[205] Any attempts to differentiate and treat the actual recording of moving images and the interactivity design perceived though the user interface, particularly designed for that purpose differently, would undermine the totality of multimedia itself.[206]

However, some argue that multimedia should be protected as films by analogy since multimedia and film producers have undertaken similar risks, and have overcome similar problems in the course of producing their work.[207] The film producer has to invest a considerable amount of time, effort and money in the overall course of production.[208] This person also, has to face a long chain of pre-existing

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[203] Assuming that the code or the actual images produced from the code are not copied, protecting only one part of multimedia such as the actual code of recording let aside the user interface part, would not be a complete form of protection.

[204] This may be so, in so far as the code or the actual images produced from the code not copied as suggested by Aplin, supra note 167.

[205] The creativity and value invested in the particular interactive design is interrelated to the user interface. A user will enjoy to the maximum his interaction with the constituents within the appropriate 'environment' as perceived through the user interface. For this purpose, the multimedia producer and author invest a considerable amount of effort and creativity in the design of the interactivity modes in relation always to the user interface.

[206] Notwithstanding the difficulty of acting as such, it would be inappropriate to break up into pieces whole 'look, use and feel' of multimedia for the purpose of protecting only a part of this work. It would undermine the concept and value of multimedia per se, as explained in Chapter, section 3.1, and defined in Chapter 1.

[207] See Turner, at p. 107, supra note 167. Cornish also suggests that "there seems no strong reason for distinguishing multi-media products from other material equally complex in its constitution, such as operas and films", Cornish, at p. 534, supra note 174.

[208] At this point it should be noted that copyright protection for films has been justified on the same grounds as it has been for the sui generis right protection of non-original databases. The only difference is that it refers to different parts. The database right protects the contents, whereas copyright in films protects the actual recording.

rights, for which he should acquire the necessary licences and permissions from right-holders and collecting societies.[209] Arguably similar financial risks, and problems of copyright management, have to be faced by both the film and the multimedia producers.[210]

### 4.2.2. Film Producer or Film Director

On these grounds, UK copyright law traditionally favoured the film producer[211] awarding him first ownership in order to secure his investments in future production, reward him as well as protect those already produced.[212] In support of this situation, emphasis was suggested to be put on the underlying production process prior to the materialisation of the audio-visual composite feature and the moving images' effect, instead of focusing on the audio-visual composite per se, since a film is more than its sum, as is multimedia.[213]

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[209] In general see Hoeren, T, 'An assessment of long-term solutions in the context of copyright and electronic delivery services and multimedia products', European Commission, Brussels, Luxembourg, 1995 at p. 53 et seq. and Stamatoudi, I, 'The European Court's love – hate relationship with collecting societies' [1997] 6 *EIPR* 289 et seq.

[210] Hugenholtz, B, 'Licensing rights in a digital multimedia environment' paper presented at the European Commission Legal Advisory Board Conference on the Information Society: Copyright and Multimedia, Luxemburg 26 April 1995. See also, Fitzgerald, J, 'Licensing content for multimedia' [1998] 84 *Copyright World* 23 et seq.

[211] This person can be either natural or legal in the UK in contrast to the more authorial civil law copyright paradigms.

[212] The role of film producers is difficult and crucial for future development for which it should be appropriately supported. The film producer is the one who initiates and manages all necessary arrangements for the production of a film, as well as invests a considerable amount of economic value. As a result the film producer is considered to be the author and first right-owner of the new film to be produced according to section 9 (2) (a) of the CDPA 1988. However, following the implementation of the Rental Directive, and as a result of the Copyright and Related Rights Regulations 1996 (SI 1996/2967), the author of a film is the producer and principal director; see section 9 (2) (ab) of the CDPA 1988. Unless the producer and principal director are one and the same, a film is treated as a work of joint authorship; section 10 (1A) of the CDPA 1988.

[213] This was the view of the UK 'Gregory Committee' 1952, suggesting that, "it is not sensible, although scientifically exact to see a film either as a set of graphic works or as a collective work or as a

By contrast, in civil law jurisdictions all copyright-protected works are treated as an authorial work, whose authors have to be natural persons rather than legal entities. As such, in Greece and Germany, for instance, authorship is vested in one person alone, the real and the actual creator of the film, if not the film director, by reason of his creative role in the overall film production.[214]

Under this philosophy, authors of audio-visual works are always granted the moral rights in civil law countries, irrespective of their employment status, which can be exercised as soon as their works are completed.[215] Whereas in the UK, moral rights not being mandatory, but rather treated on a case-by-case basis at a contractual level (though statutory), can be waived even for future works, and will not be awarded to employees.[216] An attempt to bridge this divergence between civil and common law jurisdictions was reflected in the Rental Directive, although it favoured the civil law paradigm of authorship, by designating the principal film director as its author or another person from one of its possible authors.[217]

### 4.2.3. The Multimedia Producer and Editor Regarded as a Film Producer and Director?

Although films and multimedia producers may face similar problems of investment and management rights, nonetheless it is doubtful whether present film production practices are sufficient and adequate for multimedia.[218] The fact that

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compilation or work of joint authorship". As referred to by Williams, Calow, and Lee supporting the view that multimedia should be protected as films on these grounds. Supra note 202.

[214] In France, authorship can also be awarded to a number of authors. See Articles L113-7 of the French Copyright Act; Article 9 of the Greek Copyright Act, and Article 65 (2) of the German Copyright Act.

[215] See for instance, Article 34 (1) of the Greek Copyright Act.

[216] In contrast to civil law, see sections 11 (2) and 8 7(2) and (3) of the CDPA 1988.

[217] Following the implementation of the Rental Directive in the UK, films are no longer treated as a type of entrepreneurial work, rather as an authorial work, whose authorship is awarded jointly to both the principal film director and the film producer, except where they are the same person. This is so for films made on or after the 1st July, 1994. See sections 9 (2) (ab) and 101(A) of the CDPA 1988; supra also note 234. See Article 2 (2) of the Rental Directive (92/100/EEC), ibid.

[218] Should multimedia be protected as films by analogy, it is not clear how such practices and regulatory provisions applicable for films will be sufficient for multimedia. See Turner at p. 109, supra note 167.

multimedia works are far more complex than films implies that more people can contribute interchangeably in the creation of the whole multimedia work. Furthermore, in some cases more than one multimedia participant may share the same role. In these cases determining who is the real author may not be as clear as it has been for films. In particular, if we compare the roles fulfilled by a multimedia producer to that of a film producer and the role of the multimedia editor[219] to that of the principal film director, we come across the following differences.

The multimedia producer and editor often play a far more creative role than that fulfilled by a film producer and director respectively. For instance, not only the multimedia editor, but also the multimedia producer, may be directly involved in the design of the interactive function and the user interface, of the end result, either separately or jointly.

Where the multimedia editor is responsible for selecting and acquiring the multimedia elements, his role differs substantially from that performed by a film director, who is responsible only for directing authors' acting performance, the background scenes set-up, lighting, and everything that will transform a written work, the scenario, into an audio-visual work. Instead it comes closer to that performed by a film producer, in so far as his creative input is minimal. If the multimedia editor has undertaken the above tasks as well as bringing together and editing the constituents, no similarity can be drawn either to the film director or the film producer.

If the multimedia producer is involved with the multimedia editor in the editing and the user interface design, it may be difficult to distinguish each one's share of contribution and evaluate whose creativity is greater or more significant, and accordingly determine who is the principal director and thus, the author. Notwithstanding the fact that the UK authorship regime could be applied by analogy in such cases, it may not be easy to determine who is the principal director. Even if it was possible to distinguish between each one's creativity and evaluate it in its own right, without implying that it would also be appropriate to do so, awarding first authorship only to one of them would be unfair to the other contributor. In so far as both the multimedia producer and editor have shared and fulfilled the same creative

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[219] In relation to their tasks and roles performed see Chapter 1, section 4.

role, both of them should be entitled to the same fruits of their labour.[220] Therefore, the multimedia editor and producer being co-authors should be awarded the same economic and moral rights, the same type of protection. Should this approach be taken, further implications have to be faced.

In this context, the multimedia editor should be treated as the principal film director, and the multimedia producer should be treated as the film producer and recognised as a co-author, in so far as allowed by Member States' legislation.[221] Some Member States though recognise only one person as a film author.[222] By analogy, the multimedia producer would not be qualified for authorship in these jurisdictions, although this person may have actually exercised his own creative role alongside the editor. Not only would such a treatment be most unfair to the multimedia producer, but also further disparities would be raised at a Community level, thus undermining the consistency of the European internal market.[223]

On the other hand, should moral rights be vested in more than one multimedia contributor for the same work, the transferability and commercialisation potential of that work would be weakened. In practice, if both the multimedia editor and producer were vested with the integrity right[224], the market value of their work would be

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[220] This would be sensible following the 'natural justice' related principles and doctrines as referred to in Chapter 2, section 4.2.

[221] Such would be the case in the UK and France, for instance, although it would be justified on different grounds. In the UK film producers have traditionally been recognised as authors because they are the investors and as such they are entitled to be preferably treated. Whereas in France a number of persons are recognised as authors, because each one of them has exercised its own creative role for which they should be awarded and protected. See Muenchinger, supra note 182.

[222] Such as in Greece; Kallinikou, D, *Principal issues of Law 2121/1993 on intellectual property and related rights* supra note 7.

[223] Since the same person could be recognised as a co-author in the UK and France, for instance; supra note 221. In this event it is submitted that production of the said multimedia work would preferably be initiated, and completed by a multimedia company residing in the UK, overcoming also any potential problems raised in relation to moral rights, the transferability and exploitation of the work at a contractual level, by means of including a waiver clause even for future works.

[224] Otherwise by analogy it should be the multimedia editor who is the one to be awarded with moral rights as the principal film director has the right to be identified as the main author of the work, whenever the film is publicly shown.

inevitably decreased, and the creation and dissemination of other derivative creations would become even more difficult than it already is.[225] The fact that film producers consider current licensing practices cumbersome is not encouraging for multimedia producers, should they by analogy be protected as film editors.

In order to overcome the problem of who really should be considered as author or first owner of rights, one solution might be to follow the de minimis authorship rule provided by the Rental Directive. Should only one person be recognised as the multimedia author, such as the multimedia editor in whom moral rights should be vested, the problem of complexities related to administration of rights could only be overcome to some extent at a contractual level, by allowing only one right holder to administer rights on behalf of the others.

Nonetheless, the effectiveness of this measure is doubted at European level as long as there is a continuing disparity in various Member States.[226] At this point it could be argued that the problem of different national solutions as regards ownership

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[225] The larger the number of moral rights is vested in a work, the more licenses and grants should be made by third parties, thus, making it more difficult for original right-holders to profit from their work. Although this problem could be overcome at a contractual level in the UK by means of waiving moral rights, the same would not apply in France, where moral rights are inalienable. The more persons are entitled to exercise the integrity right the more difficult it becomes for entrepreneurs' and disseminators' to exploit their economic rights the way they want, to the extent moral rights, such as the right of integrity may unjustifiably restrict third parties' rights, preventing the creation and dissemination of derivative works, or the publication of a parody of the original work conflicting also with public interest rights. In practice this problem can be overcome if only recognising only one person as an author and vesting moral right only to one person, justifying the approach above taken by in Greece and Germany. See Dworkin, G, 'Moral Rights and the Common Law Countries' [1994] 5 *AIPJ* 34 et seq; Gaster, J, 'Authors' rights and neighbouring rights in the Information Society' in ASLIB, Copyright in Multimedia, ASLIB London 1995; Hoeren; and Kallinikou, supra notes 209, and 7 respectively.

[226] "Although the Directives provide that the principal director of an audiovisual work should be vested with the right of first authorship, they do not prescribe any other changes to authorship of audio-visual works. The rules on the presumed assignment of right as provided by the Directives have only a very limited scope." As concluded at the Report from the Commission to the Council, the European Parliament and the Economic and Social Committee on the question of authorship of cinematographic or audio-visual works in the Community, COM (2002) Brussels, at p. 11, http://www.europa.eu.int/comm/internal_market/en/intprop/news/index.htm.

of rights can be overcome by contractual solutions. If contractual arrangements, however, remain the primary means for the exploitation of audio-visual works in the Internal Market and, by analogy, of multimedia, the problem of national disparities will have to be overcome in relation to copyright contract law, too. In so far as Member States provide for different mandatory rules, national copyright contract rules will have to be subject to continued scrutiny and be harmonised, since otherwise they could lead to further distortions within the Internal Market.

It is still doubted whether these differences can be overcome at a contractual level since neither the effectiveness of the Rental Directive, nor of the Copyright Directive, has been sufficiently tested and proved at European level.[227] It would be premature, therefore, to advocate the protection of multimedia as audio-visual works by analogy merely on the grounds of some minor similarities compared to their outstanding differences, and further implications that would subsequently be raised.

## 5. Conclusions

The analysis above has shown that multimedia cannot be fully adequately protected by any single existing category of copyright works, because the nature of multimedia is far more complex than that of existing subject matters. Multimedia is a multi-dimensional work, capable of being looked at, used and felt in all possible ways simultaneously. As such, multimedia is a far more complex hybrid work than compilations, databases or films. It serves informational, utilitarian, functional,

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[227] When the Rental Directive was adopted, some Member States feared that recognition of the principal director would make it more difficult to manage the intellectual property rights associated with audio-visual works, and would hamper distribution and marketing by adding to the number of authors whose permission is needed for a work to be shown. Although it was recognised that there may be some difficulties for the Internal Market resulting from by the differences in national contractual practices, for which the Commission promises to continue monitoring this situation, it is asserted that those fears have not become reality. As such the Commission's report on this matter suggests that, "potential difficulties of this sort are avoided by contractual arrangements adapted to take account of the modified legislation, for example by allowing one right holder to administer rights on behalf of others". See the Commission Copyright: report highlights successful EU-wide recognition of directors as "authors" of films, Brussels, 9th December 2002, IP/02/1824, http://www.europa.eu.int/comm/internal_market/en/intprop/news/index.htm. In relation to the efficacy of the Copyright Directive, see Chapter 4.

entertainment, and communication purposes in society all at the same time, unlike literary works and audio-visual works which mostly serve two different purposes of use, as though being only one object.

Being highly interactive in its content, presentation and use, and allowing users to communicate with the work per se as well as with the author and other users, multimedia is more complex and dynamic in its entire 'look, use and feel'. Unlike the latest technology and different media works, (computer programs, databases and audio-visual works), whose scope of protection has been defined while thinking two-dimensionally of technology facilitating their creation, production, and dissemination, multimedia needs to be treated differently. The higher the level of convergence of media and technologies, the more three-dimensionally we should be thinking of multimedia creation, dissemination, and thus protection.

All these factors indicate that the individuality of multimedia cannot be sufficiently covered or exhausted by existing copyright categories, although some parts of its nature and purpose of use are similar to that of these works. Multimedia is something more than compilations, databases, computer programs, and audio-visual works. In this light it appears that multimedia could be treated either as the extension of all pre-existing literary and audio-visual works together, or as a new entity.

Therefore, we should investigate the following three options:

(a) whether multimedia should be treated as the advanced extension of what has already been referred to as literary and audio-visual works, so far as the Berne Convention allows multimedia to be treated generally as 'literary and artistic works' according to Article 2 (1), or

(b) the sophisticated extension of one or the other literary or audio-visual works as the case may be, or

(c) as something unique, independent of literary and audio-visual works.

## 5.1. Multimedia in a 'Copyright No Man's Land'[228]

The possibility of protecting multimedia as literary and artistic works according to Article 2 (1) of the Berne Convention, or as a 'collection', irrespective of any further classification norms, is only possible in some Member States, whose copyright law systems are more flexible than others. Such a nationalistic form of protection would benefit only a few selective Member States, to the detriment of a strong single market, and disregarding the European policies for a harmonised protection of copyright works in the Information Society. For the purpose of overcoming the potential problem of an overlapping protection, and a distortion of the European internal market, it was concluded that this option should be rejected as inappropriate for protecting multimedia within the information society at a Community level, as well as worldwide.

Attempting to fit multimedia within an existing category of copyright works, and classifying it as a literary or audio-visual work, it became apparent that multimedia as a whole cannot be sufficiently identified with these subject matters, because of its variably complex, interchangeably interactive, and overall, dynamic nature.

In particular, having compared multimedia with compilations, databases, and computer programs, it appeared that databases could satisfy more particularities of multimedia and come one step closer to its nature, compared to compilations and computer programs. To some extent the copyright and sui generis databases' regime of protection appears attractive for protecting multimedia, though not entirely sufficient and appropriate considering multimedia works' far more complex nature and roles. A database can be interactive, but is so only to a limited extent, and only for a particular purpose of use, mainly that of a functional information retrieval tool. By contrast, multimedia is essentially far more dynamic in its constituents' presentation and usage, and it is intended to be used in various ways and for many different purposes without restrictions, such as for entertainment and communication purposes in addition to the informational and utilitarian role served.

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[228] Lehman, and Brown, at p. 43 and note 125; supra note 163.

Alternatively, the category of audio-visual works was considered, and it was concluded that multimedia cannot be identified with films, nor with audio-visual works. Only the audio and visual part of its composite, (such as the user interface), which happens to be presented in motion could perhaps by analogy be protected under this category, whilst, leaving the remaining valuable parts of multimedia unprotected, and disregarding the full nature of multimedia.

Therefore, neither category of literary works, nor that of audio-visual related works, alone suffices to adequately protect the whole 'look, use and feel' of multimedia, extending only to parts of it, those which 'look' like and are 'used' like a compilation, a computer program, a database and an audio-visual work. From this perspective it seems that multimedia is not entirely different from these copyright protected works. The similarities found between multimedia and each one of these works could suggest that multimedia is something like a 'patchwork', an extension, or a hybrid of all pre-existing work categories that come closer to different parts of its nature, and as such it should accordingly be protected.

### 5.2. A 'Patchwork' Form of Protection for a Composite of Old Works?

If a multimedia work is considered as a 'patchwork' of different copyright protected works, which may 'look' like, be 'used' like and ultimately 'feel' like multimedia, it would mean that a partial and cumulative form of protection should be applied on the same object of work. In theory, this would be possible only if different copyright norms would apply in relation to different parts of multimedia, in so far as the respective co-existing subject matters were broadly enough defined, and this form of protection would not contradict the law.[229] In practice, this option would require the multimedia work to be divided into different parts, each part being protected on its

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[229] As was previously discussed in the UK cumulative protection of a literary work as an artistic is outlawed according to Article 3 (1) of the CDPA 1988 as to which a literary work is held to be any work, other than a dramatic or musical work. Additionally, the Database Directive does not allow the same object of work to be protected in parallel as both an audio-visual (including films) and database work; Recital (17).

own, as a computer program, a database, a compilation or an audiovisual work, as the case would be.

Such a collectively partial, and potentially overlapping form of protection, applied on a case-by-case basis, however, is neither a viable, nor an appropriate solution for multimedia in the long term; it would undermine its totality, and eventually discard its existence. The fact that multimedia is interchangeably interactive and so complex, not allowing it to be identified with any of the existing subject matters is because some parts of multimedia are interrelated to each other in various ways without following a standard form of presentation and interactive functioning. Most often some or all multimedia elements are arranged in such a manner that is meaningful only if viewed as a whole, rather than in parts.[230]

Besides, even if such fragmentation was practically possible, it would not be appropriate, since it would fail to appreciate the added-value, and overall creativity put into all interrelated layers of the multimedia work by multimedia creators and producers. In this event, multimedia producers and authors would not be adequately protected, since their work would have been devalued, and thus, disregarded. More importantly, fragmentation of multimedia would irrevocably injure the totality of multimedia, since the added-value of multimedia found in the whole 'look, use and feel' of the work, cannot be remedied simply by summing up its constituents.[231] The missing 'feel' part cannot be conceived merely from the marriage of the 'look' and 'use' counterparts bestowed by databases, compilations, computer programs and audio-visual works in one object form, as the case may be.[232]

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[230] See also note 232.

[231] As discussed also in Chapters 1 and 2.

[232] Interactivity alone does not make the difference. In the best scenario case, the outcome of such a patchwork could only be a non-original, low creativity multimedia work, which could be alternatively protected under a sui generis right, provided the maker of this work could prove that he had invested a considerable amount of money, time and effort in the selection and arrangement of the constituents. It is the degree and kind of its interchangeability, and interrelation to the multimedia constituents that may reflect the added-value, and creativity input of multimedia producers and authors that has been put in addition to the 'look' and 'use' parts, and is finally expressed as a whole in the particular multimedia work.

In addition, the application of different regimes in parallel in relation to the same object of work is neither practical, nor commercially realistic in the national and international marketplace, since the market value of multimedia would also be decreased. The co-existence of many different authors exercising their rights in relation to different parts of the same object under different regimes of protection, would create a situation far too complicated for third parties having to deal with many different right-holders. A far greater confusion would develop worldwide in the event of an overlapping protection, in so far as different copyright laws and licensing practices would be applied in parts of the same object of work. In the long term, such a work would be commercially unattractive, and the uncertainty over its real status would make one think of multimedia as a work left unprotected in "a copyright no man's land".[233]

This would have been the case, even if multimedia was to be considered as an extension of pre-existing works, should the previously mentioned missing part thought to be found in taking one step further into the said patchwork. In theory, multimedia could interchangeably appear as the extension of all previous single-dimension form works, such as (a) a compilation and an audio-visual work compounded with a computer program; (b) a database mixed with an audio-visual work; (c) a computer program compounded with an audio-visual work; or (d) all four combined. In practice, an obscure situation would emerge for the reasons discussed above.

Attempting thus to establish multimedia in the sphere of copyright law as a 'patchwork' or an extension of all pre-existing (copyright) works resembling multimedia to some extent, and protect it in such a way, would only render a false treatment of multimedia based upon a fractional and incomplete picture of its real concept, nature and needs of protection. Such a deceptive portrayal of multimedia could be overcome if emphasis is not focused merely on the fact that multimedia supersedes compilations, computer programs, databases, and audio-visual works merely as a result of digital technological improvements.

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[233] Supra note 228

In this sense it would appear that technology potentially affects our perception and understanding of 'new' and 'old' objects; which work is 'old' and which one is 'new'. Old works, meaning already classified works such as compilations and audio-visual works, could be presented as a new work, such as a multimedia work, if they were made to look like a multimedia work by means of adding some measure of interactivity. For example, a film made in a digital environment, and then recorded on a DVD so as to benefit from the DVD technology, (which allows films to be watched in various ways, and users to interact to some extent with it), could be marketed and labelled as 'multimedia' in order to attract more consumers. In essence, digital technology, especially interactivity, alone do not suffice to transform an 'old' work (in this case, the film) into a creative 'new' work, as multimedia is. It would only be a film packaged and presented in a more 'hi-tech' form. Thus, attention should be focused primarily on the nature of the particular object under consideration, and the role served by it before contemplating, whether it is an 'old' or a 'new' work, and accordingly classifying it under one or the other category.[234]

## 5.3. In Search of a New Form of Protection for a New Work?

It should be accepted therefore that multimedia is a totally new work that should better be protected on its own, under an EU harmonised regime of protection; preferably accepted worldwide. Being a multi-purposive and a hybrid information, utilitarian, entertainment and communication in nature work, multimedia is also a hybrid literary and audio-visual, authorial and entrepreneurial creative work.

Since no single existing category or subcategory of copyright works has proved able to protect multimedia as such adequately, and any 'patchwork' solution is neither adequate nor appropriate, it seems that we may be confronted with a legal gap within the scope of copyright law. Unless other means, doctrines and practices of protection

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[234] Loewenheim has also suggested that the traditional classification of works in work categories is losing some of its original significance in the multimedia environment. They are all stored in the same bitmap file, forming part of a homogenous product, where distinguishing between different work categories not only can be difficult but also meaningless. Supra note 105, at p. 45.

are available even outside the scope of copyright law, perhaps a new category should be introduced especially for protecting multimedia, closing this legal gap.[235]

In this context it is important to consider the availability and effectiveness of other readily available means of protection, and particularly of contractual, technical, public policy and competition law doctrines, devices, principles and practices that could perhaps suffice for protecting multimedia. These non-copyright law mechanisms of protection will be considered in the next chapter, before contemplating whether further legal action should be taken, by introducing a new category and right of protection for a new subject matter, especially designed to satisfy the individuality of multimedia, and to protect it accordingly.

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[235] Otherwise creators and producers, policy and law makers will have to face the risk of market failure in the developing multimedia market, as will be concluded in Chapter 4, section 5. Alternatively, it has been suggested that all existing categories should be annulled and a flexible copyright system should reformed; see Christie, A, 'Reconceptualising copyright in the digital era' [1995] 11 *EIPR* 522, at p. 525.

# CHAPTER 4
# NON-COPYRIGHT PROTECTION MEASURES

## 1. *Introduction*

The previous analysis has shown that multimedia cannot be appropriately defined or protected as any established form of copyright work. Its complex nature, interchangeably interactive function, and multiple uses prevent it from being adequately identified with any of the traditional forms of literary and audiovisual works.

In the event of any established copyright regime not being appropriate, and readily available for protecting multimedia works, one may assert that multimedia creators and producers are entirely unprotected especially in the on-line environment.[1] However, this assumption cannot be accepted unequivocally before considering the effectiveness, and appropriateness of other means of protection currently available outside the scope of copyright law. Contracts, various technical devices, as well as competition law norms and practices are some of the most essential non-copyright means of protection that could potentially protect the rights and interests of multimedia creators and producers, as well as of users.

In this chapter we shall consider each of these non-copyright forms of protection to the extent necessary to determine whether they can satisfactorily safeguard the rights and interests of multimedia creators and producers particularly in the on-line environment. Almost by default both contractual and technical protection measures being tailor made, fast and flexible can ensure at least the minimum necessary level of protection of the rights and interests of multimedia creators and producers. Technical protection measures either alone or in addition to contractual protection measures are also the most effective means of protection against the risk of piracy and of potential loss of revenues. It is not clear though, whether each of these measures alone and/or cumulatively can adequately protect the interests of all interested parties in multimedia, including users, who may be later creators as well as

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[1] As was concluded in Chapter 2, in the absence of an appropriate form of protection of multimedia, the degree and kind of on-line piracy currently present, can potentially undermine the totality of multimedia and jeopardise the future development of the multimedia market.

would-be competitors. Since multimedia is the next most important source of information power for all players in the Information Society[2], who could contribute in the development of the multimedia market, and the creation of more sophisticated multimedia works, it is of utmost importance to ensure that all parties' rights are adequately protected.

We should therefore measure the effectiveness of these non-copyright law protections particularly in respect of present and later creators, producers, and users rights, whose freedoms are most often over-restricted by right-holders, and particularly by already established producers in all IP markets sectors. In this context attention shall also be focused on the sufficiency and appropriateness of competition law per se including the doctrine of unfair competition practices that could protect multimedia right-holders and users against potentially unfair restrictive practices. In the event of any such non-copyright protection measures being not entirely appropriate for protecting multimedia overall, it should be examined whether further legal action should be taken for protecting the subject matter of multimedia in its own right. Considering its hybrid nature and the reasons justifying the inadequacy of competition law, it should be investigated whether a new regime of protection should be established that can combine elements of copyright law principles together with the notion of abusive conduct contained in competition law. This may be a new sui generis right in respect of certain valuable and not highly creative multimedia works that should be protected according to what they represent and stand in their own right.

## 2. Contracts and Multimedia

Creators, producers, and exploiters of popular technological, as well as creative, works and projects have traditionally preferred contracts as a more flexible and effective form of protection. The reason for this is obvious; the freedom of contracts allows those parties actively involved in the creation and development of such works to determine in their own right what particular terms and conditions shall apply prior to, and following the creation and exploitation of these works.

By analogy, the interests and rights of multimedia creators and producers can potentially be adequately safeguarded provided they have been regulated by appropriate

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[2] As was discussed in Chapter 1.

contractual terms and conditions, which have taken into account the particulars of their multimedia work. Effectively such bespoke contracts may prove to be a more generous and flexible form of protection compared with a permanently established and more traditional regime of (copyright) protection. For example, any questions related to authorship issues will be dealt by the directly involved parties and law practitioners in accordance with the traditional IP (copyright) law principles, and competition law practices, while taking into account each party's contribution in the course of creation, production and development of the particular multimedia work. As such, if both multimedia producer and editor have equally invested in the creation and production of their work, it is submitted that both parties will envisage the most appropriate co-authorship formula to the satisfaction of both parties' interests and expectations prior to the commencement of the overall multimedia project.[3] Ultimately this mutual understanding can be effectively regulated and enforced under such contractual protection measures.

At this point one may argue that contractual agreements as such are not the most efficient form of protection for multimedia creators and producers erga omnes, especially against users and consumers, who may have access to their work.[4] Nonetheless, right-owners of popular (digital) proprietary works, such as e-books, computer games, music and films, can bind users and consumers of their works to respect their ownership, and prevent them from misappropriating it, especially in the on-line environment by means of custom made terms and conditions agreements, as well as such technical devices.

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[3] If they cannot reach a satisfactory consensus at such an early stage, they will simply not proceed with the creation of that work. However, practice has shown that this is most unlikely to happen, since the parties concerned have already agreed at a pre-contractual stage what the input of each one will be, and accordingly what claims each party will have in respect of the end result and in accordance to its merit of contribution. See also Latreille, A, 'The legal classification of multimedia creations in French law', in *Copyright in the new digital environment: the need to redesign copyright*, edited by Stamatoudi, I, and Torremans, P, (ed) Blakeney, M, *Perspectives on intellectual property series,* London, Sweet & Mawell, 2000, 43, at pp.63 to 65.

[4] The contractual agreement regulating the particulars of the creation and production of multimedia cannot be an erga omnes form of protection. They bind only the signatory parties, including without limitation to the editor, and the producer, who are actively involved in that course, but, not users and consumers.

In this context, copyright owners and particularly producers of such works increasingly prefer entering into standard types of licensing agreements directly with consumers, such as 'click on' and 'shrink wrap' licensing terms and conditions of use. These contractual measures of protection are thought to be a particularly fast and efficient way of protection since no negotiation takes place, and users are automatically bound to use their work only to the permissible extent. It is further submitted that such self-regulatory means of protection can potentially enhance the market value of their work, if they can satisfy the particular needs and interests of users.[5]

By analogy, the same is becoming true for authors and producers of multimedia works, as of any other popular digital work, which is made available as such to users and consumers in the digital environment. In this way, the incentive to create more multimedia works can potentially be safeguarded, and competition in the developing multimedia market be strengthened, thus, overcoming the threat of a possible market failure in response to which, certain copyright action should otherwise be taken. In this light, it could be argued that no further legal action seems to be necessary for protecting multimedia. However, being sufficiently protected multimedia creators and producers does not necessarily mean that users' interests, who could be later creators or competitors, are also appropriately safeguarded.

### 2.1 Balancing the Interests of Contracting Parties; Multimedia Creators, Producers and Users

Taking a closer look at most popular contractual measures of protection, and particularly at standard types of (electronic) agreements, it appear that right-holders of popular digital works, including multimedia, could potentially be overprotected at the

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[5] Once producers and authors have the ability to tailor the particular contract regulating their collaboration aimed at the creation of a particular work, and to tailor that work, as well as its price to the specific desire of consumers, electronic contracting allows them to increase the market value of their work, while permitting users to tailor the product they wish to acquire, or the use they wish to make. As such users are given more choices and right-holders are empowered to exploit their work at higher levels. See also Vinje, T, 'Copyright imperilled' [1999] 4 *EIPR* 192 at p.195.

expense of certain fundamental rights of users.[6] The fact that 'click on' agreements and 'shrink wrap' licences are structured on the basis of the 'take it or leave it' business practice does not essentially ensure a proportionate amount of respect for users' rights as of producers and creators.[7] While consumers are required to click on the 'I agree' button in order to access a particular work they wish to view, (otherwise they should leave it), right-holders are enabled to restrict users from certain acts of use of their work, which they would otherwise not be able to do so through copyright law, such as fair use practices. In doing so, right-holders are enabled to enforce 'extra-contractual'[8] restrictions which otherwise could not have taken place because users' acts would either fall outside the scope of the rights, or within an exception provided under copyright law and/or non-copyright doctrines, (such as constitutional or international law).[9]

In normal life users are entitled to reproduce right-holders' work for certain purposes, such as for the purpose of scientific and academic research, non-commercial and fair use practices.[10] In the digital environment this may not be the

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[6] Such as the rights of the public in relation to access to information, culture and privacy, and freedom of expression. See Article 10 (the right to freedom of expression and right to information) of the European Convention for the Protection of Human Rights and Fundamental Freedoms, Rome, November 4, 1950.

[7] See O' Rourke, M, 'Drawing the boundary between copyright and contract: copyright preemption of software license terms' (1995) 45 *Duke Law Journal* 479 at p.482.

[8] In this context, Vinje refers to all such restrictions imposed though contractual agreements and technical protection measures as 'extra-copyright' restrictions, at p. 196 et. seq, supra note 5. In this thesis reference to 'extra-contractual' and 'extra-technical' or 'extra-technological' restrictions shall be made so as to emphasise the far too extensive type of protection afforded to right-holders, as a result of these over-restrictive measures imposes on users of IP protected works, and adversely affecting the scope of users' rights (copyright exceptions).

[9] Ibid.

[10] The public has not only a vital interest in fostering creativity through strong exclusive rights, but also in access to information and culture, which should be respected and preserved not only by any copyright system but also by contract law worldwide. Otherwise the concept of these fundamental human rights and freedoms will become meaningless in practice. For this reason, certain exceptions to the bundle of exclusive copyright owners' rights should be recognised as mandatory worldwide, as will be discussed further below, in so far as these exceptions reflect fundamental human rights and liberties,

case at all times. A law student for instance, who decides not to click on the 'I agree' button because he disagrees with the particular contractual terms, will automatically be deprived of his (statutory) right to reproduce or even to access the data, he wished to reach for the completion of his research. Almost the same could take place even if he had waived his fundamental right for such use by clicking on the 'I agree' button. He would automatically adhere to the stipulated term according to which he can only browse certain content by means of reading it, but he cannot save it on disk or print it in order to study it at the time and place best suiting him.[11]

By analogy, users of multimedia works transmitted over the Internet may potentially be over-constrained, and prevented from reproducing certain multimedia content for private purposes that should otherwise be permitted either on the basis of a constitutionally or copyright law based fair use defence.[12] Even worse, users may be required to pay-per-view for every single item they access that would otherwise have been made available free of charge. [13]

It is feared that these practices could potentially over-restrict users' fundamental rights, as well as the free flow of information.[14] In the long term they could potentially jeopardise future creation, if users and later multimedia creators, or

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such as the right of the public to have access to information, culture and privacy, and freedom of expression, (Article 10 of the European Convention for the protection of human rights and fundamental freedoms, Rome 1950, supra note 10).

[11] Arguably it could be said that this student could take notes from this material. In practice, however, students would be discouraged from doing this and would prefer to leave it and go. In essence then, users would be deprived of their right to access information.

[12] See Articles 9 (2) and 10 (2) of the Berne Convention, Article 13 of the TRIPs. See also note 21 below.

[13] See for instance Recital (36) of the Copyright Directive where it is mentioned that Member States may provide for fair compensation for right-holders also when applying the optional provisions on exceptions or limitations, which do not require such compensation.

[14] In theory consumers could potentially take legal action against right-holders who undertake such practices, so far as they could prove that these terms, and practices are unjustifiably unfair pursuant to Article 82 of the Treaty of Rome. In practice however, individuals may not be that keen on taking legal action especially under competition law considering how complex and time consuming these procedures can be as will be discussed also later in section 4 below.

even would-be competitors, are over-restricted from having access to information[15] compared with the previous level of freedom.[16]

While users, consumers and the public at large may be harmed as a result of these practices, multimedia creators and producers may also be adversely affected in the long term. Enforcement of such 'extra-contractual' restrictions could ultimately undermine the commercialisation of multimedia works, if consumers become less and less attracted to works marketed as such, and finally become discouraged from acquiring them under those restrictive terms. Hence consumers' dissatisfaction could affect the market vale of these works in a negative manner, and then, producers would not be able to recoup their investment in the production, development and marketing of these works.[17]

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[15] Access to information and free flow of information are important to the public particularly for this reason; it is important to make sure that later creators will have in their availability a respectable amount of raw material for their future creations. This is vital especially for later creators of multimedia works, since a new multimedia work often involves borrowing or building upon pre-existing materials, apart from contributing original elements to it. In this context it is argued that the less extensive copyright protection is, the more an author, or other creators can borrow from previous works without infringing copyright. (It therefore follows that the costs of creating a new work will be lower). See Landes, W, and Posner, R, 'An economic analysis of copyright law' (1989) 18 *Journal of Legal Studies* 325, pp. 332 and 333. See also Boyle arguing that a "reconcile" should better be found in these cases, Boyle, J, *Shamans software & spleens: law and the construction of the information society,* Harvard University Press 1996, at pp. 38 and 39.

[16] Traditionally copyright and constitutional law safeguard such fundamental rights of users and basic freedoms. See the discussion below at notes 24, 25, 26 and 27.

[17] As the case was in the early 1990s when the software industry introduced various software copy protection devices. As such, in the prospect of such devaluation of their work, producers could be forced to refrain from such extra restrictions on users' rights, and thus, a kind of 'natural' justice could be replaced increasing the market value of their work and raising their profits. In this way it could argued that users, consumers and the market itself can potentially establish the necessary balance (between right-holders' and users' rights traditionally established in copyright law), where this has been disturbed. Consequently it could be submitted that the market itself can potentially protect multimedia works as such without further legal action need to be taken. However, it is doubted to what extent consumers could be sufficiently protected if they relied only upon the willingness of all interested parties to co-operate, and respect each other's rights, given the insufficiency of competition

In this sense it appears that particularly standard forms of electronic contracts can be a powerful means of protection of multimedia authors' and producers' rights against third parties' potentially infringing acts.[18] However, the appropriateness and legality of this form of protection should be questioned, in so far as producers and creators can potentially undermine users' fundamental rights and the public domain's safety when relying on such 'extra-contractual' restrictions.[19] In other words it should be questioned to what extent multimedia creators, producers, or any right-holder of a (copyright) protected work are entitled to enforce such 'extra-contractual' restrictions, given the potential risk of jeopardising even the future of Information Society. Especially when taking into account the fact that multimedia shall be increasingly distributed over all contemporary communications networks, the question above becomes of greater importance.[20]

Even if the answer is affirmative only in limited cases, the fact that the necessary balance of the interests of all contracting parties (multimedia right-owners and users) can potentially be disturbed so easily in the digital environment, indicates that users' rights may not be sufficiently protected through such contracting practices. It is crucial therefore to ensure that the necessary balance of the rights of all

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law alone, for example, as well as of copyright and non-copyright law doctrines as will be discussed below.

[18] They may actually exercise their exclusive rights at an unjustifiably and impermissible extent when restricting the scope of users' respective rights far beyond what is legally permissible. In the long term though this could jeopardise future development of multimedia, should future creation be bestowed only to few, those who can afford access to pre-existing material, and creation of new material, as a result of an increasingly extensive copyright protection in the expense of users, would be creators of multimedia.

[19] In relation to the debatable issue whether shrink wrap and click on licences are still enforceable when copyright issues arise, see Lambert, P, 'Copyleft, copyright and IPRS: is contract still king?' [2001] 4 *EIPR* 165 at pp. 165-171. Notably, the validity of shrink wrap licenses was recognised as enforceable in the US by the Court of Appeals for the Seventh Circuit in *ProCD v Zeidenberg* [1996] 86 F 3d 1447.

[20] Such restrictions should usually be enforceable for narrowly distributed trade secret works. Whereas the enforceability of such restrictions for widely distributed works should be treated cautiously, since "the more broadly a work is distributed, the more suspect a restriction might become. The wider the distribution, the greater is the potential clash between the private law of contract and the public law of copyright." As supported by Vinje, p. 195, supra note 5.

contracting parties, including users, will be maintained especially in the digital environment.[21]

Notably this balance has been traditionally reflected in copyright law through a set of certain exceptions to owners' exclusive rights safeguarding as such users' fundamental rights and liberties.[22] However, in the absence of a directly applicable copyright regime of protection on multimedia[23], it is not clear whether users of multimedia could be sufficiently protected outside the scope of copyright law, under the doctrine of 'abuse of right'[24], for instance, or competition law[25], or even consumer

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[21] As provided also in the Preamble of the WCT (1996). This is important particularly within the scope of copyright law protection, where a balance between the rights of authors and the larger public interest, particularly education, research and access to information, has to be maintained at least to the extent provided in Articles 9 and 10 of the Berne Convention. Supra also note 12. See the Preamble of the WCT, WIPO Document CRNR/DC/94, at http://www.wipo.int/eng/diplconf/distrib/94dc.htm.

[22] Exceptions to copyright are an indispensable complement to the exclusive rights of authors. They offset the disadvantages of a total monopoly over information, and as such, they form an important part of the balance required between authors' rights and the interests of the community. Spoor, J, 'General aspects of exceptions and limitations to copyright' paper delivered at the ALAI Study Days conference *The boundaries of copyright: its proper limitations and exceptions*, Cambridge, September 14 -17, 1998 at p. 1.

[23] As concluded in Chapter 3.

[24] Although UK copyright law provides a specific number of statutory exceptions in contrast to the open system of exceptions found in civil law jurisdictions, it is submitted that there is room for judicial interpretations to adapt them for the changing climate. See sections 28-76 of the CDPA 1988 and section 171 (3) of the CDPA, according to which it is understood that the common law discretion of the courts is preserved in the general public interest. As supported by Goddard, T, 'National report: United Kingdom', paper delivered at the ALAI Study Days conference *The boundaries of copyright: its proper limitations and exceptions*, Cambridge, September 14 -17, 1998 (hereafter, 'ALAI Study Days') at p.1 et seq. However, it is argued that the implementation of this doctrine seems uncertain, and its application could take place only to actual abuses, rather than potential. At this point, competition law could perhaps be of some assistance, as was argued by Ginsburg, J, 'Comment on general report on limitations found outside copyright', paper delivered at ALAI Study Days, at p.3.

[25] In particular Article 82 of the Treaty of Rome could be of some assistance as will be discussed later in relation to competition law. In relation to the interface between competition law exceptions and copyright see also O'Rourke, M, 'Striking a delicate balance: intellectual property, antitrust, contract and standardisation in the computer industry' (1998) 12 *Harvard Journal of Law and Technology* 1 at p. 12; P. Jaszi, P, 'Goodbye to all that - a reluctant (and perhaps premature) adieu to a constitutionally-

protection laws[26], should their rights be infringed through a potentially unfair contractual practice. In so far as their underlying principle is the protection of general public interests[27], it could be submitted that these norms can establish the necessary 'economic and cultural bargain'.[28] By extension, in the presence of a readily applicable copyright law protection on multimedia, the 'extra-contractual' restrictions of right-holders should not to be enforced to the extent they contradict statutory and mandatory copyright exceptions or limitations serving public interests and users' fundamental rights.[29]

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grounded discourse of public interest in copyright law' (1997) 29 *Vanderbilt Journal Transnational Law* 599 at pp. 595, 599-600.

[26] Most Member States provide certain provisions in relation to misleading and comparative advertising that can be used as a possible limitation to author's exclusive rights on the grounds of consumer protection law. In the UK although there is no explicit consumer protection legislation dealing with access to information, the statutory defences listed in the CDPA 1988 could potentially serve as consumer protection principles. As argued by Goddard, supra note 24. Hence it is submitted that playing this role consumer protection law would also be adequate with the spirit of the Distance Contracts Directive 97/7/EC, as reflected in its Recitals at (4) and (13). As supported by Guibault, L, 'The copyright and droit d' auteur regimes' in Hugenholtz B, (ed) *Contracts and copyright exemptions* iMPRiMATUR IViR report, Institute for information law, University of Amsterdam, December 1997, at pp. 20-22 and note 63 and 69.

[27] In principle, laws are enacted only if they are thought to be in the public interest. See Guibault L, 'Limitations found outside of copyright law', paper delivered at the ALAI Study Days, supra note 24, at p.1.

[28] While attempting to balance incentives to production and creation against the public interest for both access to copyright protected information works and culture, and to free and healthy competition, an "economic and cultural bargain" has to be somehow established. As supported by Jaszi, supra note 25. See also Reichman, J, 'Charting the collapse of the patent - copyright dichotomy: premises for a restructured international intellectual property system' (1995) 13 *Cardozo Arts & Entertainment Law Journal* 475, at p.486 and note 47, and of the same 'Electronic information tools-the outer edge of the world intellectual property law' (1993) 24 *IIC* 446, where she stresses out that "these fictitious portable fences neutralise essential attributes of property that possession would ordinarily confer". See also Mackaay, E, 'The economics of emergent property rights on the internet', in Hugenholtz B (ed) *The future of copyright in a digital environment,* proceedings of the Royal Academy Colloquium, Information Law Series 4, Kluwer Law International, 1996 at p. 16.

[29] Supra note 22.

Of greater importance is the question whether the same as above should also apply in the case of optional copyright exceptions, which are not statutorily recognised as mandatory, although they may serve public interests. Even more can the beneficiaries of these exceptions be deprived from such rights even through a non-negotiated 'click on' type of agreement? In other words, can copyright provisions pre-empt any contractual clause to the contrary in all cases or only under certain conditions? Undoubtedly, these questions are of the utmost importance for multimedia since the future creation and development of these works depends on their appropriate protection and dissemination in the on-line environment.[30]

Since not all non-copyright doctrines and copyright exceptions[31] can be held as mandatory, and even more so not all Member States recognise the same non-copyright and copyright exceptions to be mandatory, the above questions may become more complicated.[32] If different mandatory rules apply in different countries at

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[30] As was discussed in Chapters 1 and 2.

[31] Arguably the notion of 'public interest', for example, plays a more important role in common law jurisdictions rather than in civil law countries. See section 171(3) of the CDPA, according to which it is provided that "nothing in this Part affects any rule of law preventing or restricting the enforcement of copyright, on grounds of public interest or otherwise"; in relation to the fair dealing defences provided in the CDPA, see sections 29(1),(2),(3)(a)(b) and 30(1),(2) and (3). Supra also notes 21 and 24. Notably the copyright exceptions related to back-up copies and reverse engineering including de-compilation of computer programs have been expressly recognised as mandatory. See Article 9(2) of the Computer Programs Directive. Furthermore, the Database Directive also makes it clear in Article 15 that contractual provisions contrary to Articles 6 (1) and 8 shall be null and void.

[32] The fact that not all copyright exceptions are recognised as mandatory could be partly explained by the fact that members of the Union are permitted to create exceptions to the exclusive rights they vest in right-holders only in limited circumstances, pursuant to Article 9 (2) of the Berne Convention, which provides that "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 they have followed as a de minimis rule. This is known as the so-called 'three-step test' provided in Article 9 (2) of the Berne Convention, Article 13 of the TRIPs requires all limitations to comply with this test. (The same applies also in relation to the rights of phonogram producers pursuant to Article 16 of the WPPT. In relation to phonograms and broadcasts, see Article 15 (1) of the Rome Convention.) Furthermore, Article 10 (2) of the WCT provides that "it shall be a matter for legislation in the countries of the Union, and for special agreements existing or to be concluded between them, to permit the utilization, to the extent justified by the purpose, of literary or artistic works by way of illustration in publications, broadcasts or

Community level in relation to extra-contractual provisions unjustifiably overriding users' rights, the distortion of the European Single Market would seem very likely to happen. Such disparities could be prejudicial to the proper functioning of the Single Market and the future development of multimedia; unless such extra-contractual provisions are subjected to the scrutiny of law, and all interested parties (including consumers' and users' protection organisations) could cooperate in adopting a uniform code of practice at European level.[33]

As such, ensuring the viability of the fundamental preconditions to the future creation of new works, participation in, and development of the Information Society by all interested parties, as well as the viability of the public domain worldwide, becomes crucial for everyone interested in multimedia.[34] Especially those rights of

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sound or visual recordings for teaching, provided such utilization is compatible with fair practice." As such, copyright legislation in Belgium has explicitly recognised the statutory copyright exceptions as mandatory (see the new Article 23bis added to the Belgian Copyright Act). In the UK a closed number of fair dealing defences was initially provided under sections 29 and 30 of the CDPA, according to which a person will not be liable if he/she can show (1) fair dealing for the purposes of research or private study, section 29 (1); or (2) fair dealing for the purposes of criticism or review, section 30 (1); or (3) fair dealing for the purpose of reporting current events, section 30 (2). Following the implementation of the Computer Programs and the Databases Directives, however, the scope of these statutory exceptions was expanded and further limitations were added in sections 29(4) in relation to de-compilation of computer programs (see also section 50B) and sections 29 (1A),(5) in relation to research or private-study defence and databases. Hence under section 56 of the CDPA, if the purchaser of a work in electronic form such as an e-book, is entitled to make further copies or adaptations of the work, then unless there is an express stipulation to the contrary, so too is anyone to whom the ownership of the copy has been transferred. (See section 56 (2)(3) of the CDPA). As supported by Bently, L, and Sherman, B, *Intellectual property, Law* Oxford University Press Oxford 2001, at p. 222.

[33] It is doubted whether the Copyright Directive can satisfactorily protect users in these cases as will be discussed in the following sections of this chapter.

[34] Such 'extra-contractual' limits can potentially diminish users', and would-be authors', incentive to create new works if they are deprived from their right to access information, which is their 'food for thought' and future creation. Hence, "the copyright bargain would be put in serious jeopardy if, irrespective of the copyright rules, right owners were able to contractually impose their terms and conditions of use with complete impunity. If this were the case, the copyright regime would shrink away to the hands of mass-market licenses and technological measures." As stated by Guibault at p. 2, supra note 27.

users based on public policy doctrines and principles, fundamental rights and liberties, such as education, culture, freedom of expression, and access to information, should be sufficiently safeguarded in the Information Society and the on-line environment. Accordingly a minimum amount of regulation or control should spring from these sources in order to protect such rights and freedoms in case they are adversely affected by any 'extra-contractual' powers the creator(s) and producer(s) of multimedia, as of any valuable information work, may have.

**2.2. Freedom of Contract, Copyright and Public Policies**

Ideally the most vital exceptions or limitations (non-copyright and copyright) reflecting public policy interests should be recognised as mandatory. In this sense it would be right to accept that constitutional and consumer protection laws should be capable of limiting the exercise of exclusive (private) rights, in cases where extra (contractual) restrictions imposed by copyright owners affect users' fundamental rights and freedoms.[35] This should not imply that all non-copyright doctrines and copyright exceptions safeguarding to a given or less extent public interests should be de lege ferenda mandatory, and thus, limit the freedom of contracting parties and states.[36]

It would be meaningful to establish a carefully designed de minimis rule of protection according to which extra-restrictions of right-holders upon non-infringing acts of

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[35] This would be appropriate even under the Distance Contracts Directive, supra note 26.

[36] Only when the terms of the standard form contract impose an unreasonable burden on the other party, should the legal rules on abusive contract clauses take precedence. It appears that legislators have preferred to differentiate between each one exception in so far as any exception admitted by national law is to be conditioned by the three-step test of the Berne Convention (Art. 9 (2)) pursuant to the TRIPs Agreement (Art. 13). As such see also Article 9 (2) of the Computer Programs Directive and Article 15 of the Database Directive; supra note 31. Hence de lege ferenda recognition of all copyright exceptions as mandatory would also conflict with the freedom of states to treat matters according to their own cultural, financial and public interests policies as reflected in Article 9 (2) of the Berne Convention, according to which Member States should be the ones to provide in first place such exceptions to copyright for private purposes, for the purposes of illustration, teaching or scientific research, public security, administrative or judicial procedure and so on. See also Article 10 (2) of the Berne Convention; supra notes 12, 21 and 32.

users should be deemed either invalid, subject also to the 'three-step test' of the Berne Convention.[37] Otherwise a rather cumbersome situation could emerge to the detriment of the European Community and the Single Market, and the necessary balance[38] between the public and private interests would be distorted. Ideally the following criteria should be called upon to justify the legality of users' non-infringing acts, whilst contractually restricted by right-holders: (a) they do not conflict with the normal exploitation of the particular work, (b) they do not unreasonably prejudice the legitimate interests of right-holders and (c) such utilization is compatible with fair practices.[39]

At least in legal theory such a teleological approach would be compliant with the spirit of basic constitutional, copyright and consumer protection principles reflected also in Articles 8 and 10 of the European Convention on Human Rights. In practice though, such an approach may be less helpful. Inter alia its success would depend upon: (a) the willingness of consumers and the actual independence of national regulatory authorities (NRAs) to take (legal) action in re-establishing the lost balance even through courts, if necessary[40], and (b) a coherent response from courts

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[37] In so far as it would be applicable with respect also to constitutional or consumer protection laws that could potentially fill in the gap of users' protection in the absence of a readily available copyright regime. Notwithstanding the potential application of competition law should the user be a would-be competitor of the right-holder and unjustifiably restricted to access certain material that could not be otherwise accessed. Also, such application of non-copyright doctrines (contract, competition law, etc.) would not contradict the Copyright Directive, which states that its provisions are without prejudice to these rules, (Article 9). Even more, it would be compliant with Articles 8 and 10 of the European Convention on Human Rights; supra notes 6 and 10.

[38] See the statements of Guibault, supra note 26; See also Spoor, at pp. 23-24, supra note 22; Ginsburg, supra note 24; Hugenholtz B, (ed.), 'Contracts and copyright: the legal framework for future electronic copyright management', at http://www.imprimatur.alscs.co.uk/IMP_FTP/contract.pdf,.

[39] See also Articles 9 (2) and 10 (2) of the Berne Convention, Article 13 of the TRIPs.

[40] Even if such extra-restrictions were enforced through electronic contracting only on a case-by-case, consumers whose rights were unjustifiably and unlawfully restricted, could either directly address their case to a court or through a consumers' protection regulatory authority. Should this situation take place on a wide-scale, regulatory authorities supervising consumers' protection could perhaps initiate on their own an investigation Once they conclude that such practices are taking place at the expense of consumers, they could take this matter further to the courts, and raise a legal action against those

especially when concerned with fair dealing defences.[41] Nonetheless reliance upon such a self-regulatory form of protection alone may not be that effective, considering how non-flexible, costly and time consuming such procedures can be, especially when lobbyists can put too much pressure on NRAs, courts and governmental bodies.[42]

The law itself should automatically ensure users and consumers that their rights will be respected by right-holders as much as they are required to respect the proprietary rights of right-holders in all cases of contracting, especially when they employ additional strong technological protection measures.[43] A fair balance of the rights of the contracting parties (users and right-holders) should be ensured by law in respect of all interested parties in multimedia, especially in the digital environment.[44] At this point a close look at the Copyright Directive will show us how EU legislators

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companies and persons liable towards consumers on the grounds of consumer protection, unfair competition and possible copyright law. This approach however, is likely to be rare, considering the heavy lobbying exercised by giant media and entertainment corporations and the de-motivation of single persons to initiate such legal action.

[41] In relation to Article 9 (2) of the Berne Convention it should also be noted that a considerable amount of uncertainty has resulted in relation to the validity of fair use defences, as well as how the concept of 'commercial' purpose of use, 'prior knowledge' and 'normal exploitation' should be interpreted, especially in the light of the Copyright Directive, as will be discussed later.

[42] As more and more software, film and music industries in Europe and the US increasingly rely on intellectual property protection, various intellectual property lobby groups such as the BSA (Business Software Alliance), the IFPI (International Federation of the Phonographic Industry) and record companies such as PolyGram, the RIAA (Recording Industry Association of America), and the Bertelsmann group, exercise their power worldwide to preserve their monopolies through international public and private law. In fact, this was illustrated prior to the introduction of the Copyright Directive as will be discussed in further detail below. From a wider international perspective, this situation was also demonstrated in the East; see. Burrel, R, 'A case study in cultural imperialism: the imposition of copyright on China by the west', in Bently L. and Maniatis S. (1998) 4 *Intellectual property and ethics: perspectives on intellectual property* at pp. 197 to 224; See also Gerhart, P, 'Why lawmaking for global intellectual property in unbalanced' [2000] 7 *EIPR* at p. 309 et seq.

[43] As will be discussed in the following section of this analysis.

[44] Otherwise contracts per se could over-protect the interests and rights of right-holders of multimedia works at the expense of their users' rights and the public domain as already discussed above.

have considered these complex issues while taking into account the importance of protecting multimedia, as well as of any other IP work in the Information Society.[45]

### 2.3. Contracting out of Rights in the Information Society?

Of the greatest relevance to the previous questions, (especially, to what extent copyright can pre-empt contractual restrictions and the legality of any 'extra-contractual' restriction imposed by right-holders in the on-line environment), is the Copyright Directive[46]; and to a lesser degree the Electronic Commerce Directive.[47] Unfortunately, the answers one can find particularly in the Copyright Directive are neither clear, nor satisfactory. Prior to considering the implications raised by the use of technical protection measures per se at this early stage the following four points can be discussed here.[48]

(a) In relation to the issue of mandatory exceptions it should be noted that the Copyright Directive recognises only one copyright exception as mandatory[49]; that of

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[45] See Recitals (10) and (13) of the Copyright Directive.

[46] Although multimedia is not expressly included in its scope of protection, a teleological interpretation of Articles 1 and 10 read in combination to Article 6 (3) ("of any copyright or any right related to copyright as provided for by law or the sui generis right provided for in Chapter III of Directive 96/9/EC") could indicate that multimedia works hypothetically protected under copyright law in its own right could be subjected to the scope of protection of the Copyright Directive, in so far as it would not contradict any provision included in the would-be copyright protection framework of original multimedia works. Besides the EU legislators had thought of multimedia works and the need to protect investment in these works against piracy even through technological protection measures; see Recitals (10) and (13).

[47] Directive 2000/31/EC of the European Parliament and of the Council of June 8, 2000 on certain legal aspects of information society services, in particular electronic commerce in the Internal Market (Directive on electronic commerce), OJ L 178/1, 8.6.2000, (hereafter 'Electronic Commerce Directive').

[48] At this early stage is should be clarified that only the most relevant to contractual issues provisions will be briefly considered here before considering them further in detail in relation to technical protection measures.

[49] Notably the Copyright Directive concerns the legal protection of "copyright and related rights in the framework of the internal market, with particular emphasis on the information society" Databases and

technical copies made over networks, transient and incidental acts of copying, including browsing and caching, to the right of reproduction[50], and a closed exhaustive list of optional exceptions or limitations to the right of reproduction and distribution.[51] Hence these optional exceptions will be applied only in certain "special" cases provided they do not conflict with "a normal exploitation of the work or other subject matter and do not unreasonably prejudice the legitimate interests of the rightholder"[52]. The effectiveness of this scheme becomes immediately debatable since no single de facto nor de jure criterion exists to ensure that all Member States, and all parties concerned, will apply this three-step test in a consistent and coherent manner across the Community.[53]

Even worse for the beneficiaries of copyright exceptions, the Directive includes a detailed and exhaustive list of exceptions to the reproduction right and the right of public communication of users. In this sense Member States are indirectly restricted from recognising any other than these exceptions or limitations as

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computer programs are expressly excluded from its scope of protected. See Article 1 of the Copyright Directive.

[50] In particular, telecoms operators and service providers are exempted for the acts of reproduction that are considered an essential part of a technological process and take place in the content of a transmission in a network. See Article 5 (1) of the Copyright Directive and its Recital at (33). The efficacy of this exception is doubted as will be discussed in the following section in relation to technical protection measures.

[51] Article 5 (2), (3) and (4) of the Copyright Directive.

[52] Inter alia, they will be applied provided that the right-holders receive "fair compensation" and "in certain special cases which do not conflict with a normal exploitation of the work or other subject matter and do not unreasonably prejudice the legitimate interests of the right-holder"; Article 5(2), (3) and (5); However, these provisions will be considered in relation to technical protection measures below in the following section.

[53] Article 5 (5) of the Copyright Directive. Apparently the EU legislators of this Directive felt that they also should repeat the three-step test of the Berne Convention used also in the WIPO Treaties and the TRIPs Agreement in evaluating permissible exceptions. In this way however, the Copyright Directive fails to achieve its primary objective; that of harmonisation as will be discussed later. See for instance Hugenholtz arguing that this Directive is "badly drafted", "compromise-ridden", and "a total failure in terms of harmonisation". See Hugenholtz, B, 'Why the copyright directive is unimportant, and possibly invalid', [2000] 11 *EIPR* 499 at p. 504 et seq.

mandatory or optional. By extension, it appears that Member States may no longer be free to introduce any new exceptions or limitations other than those included in the Directive. If so, such a restrictive approach towards Member States' freedom would undoubtedly contradict the wider scope of freedom they may have pursuant to Article 10 of the WCT and Article 9 of the Berne Convention.[54] In the long term it would also prove disastrous for users and the public domain considering how over-protected right-holders can be by means of contractual and technical protection measures.

(b) Furthermore, the Copyright Directive has failed to deal successfully with the interface between 'extra-contractual' restrictions (imposed by right-holders) and non-mandatory copyright exceptions (or limitations), especially in cases where right-holders employ additional protection measures; meaning 'extra-technical' protection devices. As will be discussed in the following section, right-holders may employ certain technical devices that can effectively restrict users from certain acts of reproduction in an on-line and interactive environment, even for fair use purposes.[55]

In this context, it is questionable to what extent the beneficiaries of certain copyright exceptions can be legally restricted from such acts by right-holders through 'extra-contractual' restrictions to that effect through a 'click on' type of agreement; especially when these copyright exceptions are not recognised as mandatory, and any co-operation between right-holders and users, prior to this event, has failed.[56] In other

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[54] According to which not only the three-step test compliant limits and exceptions may be applicable in the digital environment, but also new exceptions and limitations may be adopted, in so far as Member States feel necessary in the light of technological changes. Supra notes 21 and 32. Although Article 5 (5) of the Copyright Directive requires Member States to apply the three-step test when formulating their copyright exceptions or limitations, it is provided at its Recital (44) that Member States have to limit the scope of certain exceptions. This issue however, will be discussed in relation to technical protection measures at notes 134 to 136, as well as 150 and 151 below.

[55] See Article 6 (3) and (4) of the Copyright Directive; to be discussed in relation to technical protection measures; see sections 3.2.1. and 3.2.2 below.

[56] See Article 6 (4) fourth subparagraph; If such cooperation fails, can right-holders be obliged to permit use on an appropriate scale and not to use technological measures to that effect? However, should this imply that this rule should not be applied to interactive services, such as the on-demand transmission of a multimedia work over the Internet, where the conditions for use have been supposedly agreed by the parties through a standard type of contract, such as 'click on' electronic agreements? See this discussed in relation to technical protection measures at 138, 152 and 153 below.

words, it is not clear whether the user(s) of a multimedia work, for instance, delivered on-demand pursuant to a 'click on' type of agreement, will be able to be protected against potentially unfair contractual restrictions imposed through such an agreement?[57]

The Copyright Directive provides an ambiguous answer to these questions. In reading Article 6(4) in combination with Articles 5(2)(4) and 9, it is understood that the protection offered by Member States to the beneficiaries of traditionally established copyright exceptions shall not be provided in cases where the particular work protected is made available "to the public on agreed contractual terms in such a way that members of the public may access them from a place and at a time individually chosen by them".[58] The meaning of this provision of the Copyright Directive is by no means clear.

Interpretation of what should be understood as 'agreed contractual terms' (Article 6(4)) will be critical given the fact that contemporary types of electronic contracts such as the 'click on' agreements are not negotiated.[59] If the answer to the above questions is to be found in interpreting the meaning of "agreed", it is the author's personal view that a teleological interpretation should be followed at this point. Accordingly, it should be accepted that the restriction encompassed in the fourth subparagraph of Article 6 (4) above should not apply in respect of standard

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[57] In other words, it is not clear from the fourth subparagraph of Article 6(4) whether users' non-infringing acts as provided under Article 5(2) and (3), will be lawful following right-holders' decision to override these rights of users by contractual means, especially through a standard (non-negotiated) type of agreements, such as the 'click on' agreements.

[58] While reading Article 6 (4) fourth subparagraph in combination with Article 9 of the Copyright Directive, it could be understood that contract law will take precedence rather than non-mandatory copyright provisions of the Copyright Directive, such as the optional copyright exceptions listed in Article 5 (2) pursuant to Article 5 (4). If this is so, the same way it is true a fortiori for standard type contracts; it seems that "the acquis communautaire of the Computer Programs and Databases Directives, both providing for mandatory user freedoms, has suddenly become irrelevant." As supported by Hugenholtz, supra note 53.

[59] It is doubted whether such agreements can be considered as "agreed", in so far as consumers are not actually given the opportunity to negotiate their terms and object to such extra-contractual restrictions. See also Reinbothe, J, 'European omission, the legal framework for digital rights management' *Digital Rights Management Workshop*, Brussels, 28 February 2002.

types of agreements, (including 'click on' and 'shrink wrap' agreements), since these agreements are not mutually agreed; rather they are imposed, given the standard nature, the non-negotiable way of their provision, and their mass- production.[60]

Otherwise we may be confronted with the establishment of a de facto normal practice for right-holders to restrict (fundamental) users' rights to any extent, even more than copyright (or constitutional) law might otherwise allow. Hopefully, Member States will clarify this issue in their national legislation implementing the Copyright Directive and take all necessary measures to prevent right-holders from issuing such 'extra-contractual' restriction through standards terms and conditions. If not, it is feared that courts may apply that provision (Article 6(4) fourth subparagraph) in all instances of contracting while interpreting the concept of 'agreed' very broadly, and disregarding the fact that in normal life consumers are de facto and systematically forced to click on the 'I agree' button. [61]

(c) Thirdly, the legality of that provision may become debatable if it implies that right-holders are free to override through a contractual agreement users' fundamental rights to access and use their protected work, albeit for personal (private and non-commercial reproduction) and fair use purposes.[62] It would be disastrous to

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[60] The same should also apply with respect to authors' interests, which may be jeopardised by organisations of collective administration of rights, for instance, through such contractual practices. See Article 7 ('obligations concerning rights-management information') of the Copyright Directive. Unless they have been previously subjected to the scrutiny of a NRA (national regulatory authority) or a consumer protection organisation, and have been recognised as valid and 'fair'.

[61] This is the author's personal view for the following two reasons; (a) it will be easier for them not to have to distinguish between each other on a case-by-case basis, and then scrutinise the content of a particular standard term and condition agreement at issue, (this is not the courts' role, it is rather the role a NRA for the protection of consumers should play); and (b) because of the significant lobby power right-holders can exercise.

[62] However, fair use rights are constitutionally protected in most Member States' legislation, such as in Germany and Greece. The legality of this provision could be successfully challenged on these grounds, especially in States where constitutional provisions are expressly held to be superior to any other law potentially coming in conflict with fundamental human rights and public policies. As such Hugenholtz has also argued that the constitutionality of the Copyright Directive should be challenged at European courts. Supra note 53. However, the overall efficacy and constitutionality of this Directive will be discussed later in relation also to technical protection measures at section 3.3 below.

imagine that right-holders, and particularly producers of popular IP works, including multimedia, who wish to make profit from their works on-line, are as such over-protected under this 'quasi-copyright' and 'quasi-e-commerce' regulatory framework. It would mean that a new 'para-copyright'[63] regime is being established favouring right-holders, and particularly the media, music and film industries being the strongest players in the Information Society to impose their information monopolies through contractual agreements on other parties, users and creators.[64]

It is hoped that this was not the real intention of the EU legislators, rather the outcome of their respect of the freedom of contracting parties and states[65], to the effect of which the necessary demarcation line had to be established pursuant to Article 9; that application of the Copyright Directive shall be without prejudice to contract law. Otherwise it would seem that the Copyright Directive openly favours the private interests of right-holders, and particularly of producers to the detriment of the basic fair use and private reproduction rights of users (including would-be creators and competitors).[66] Inter alia[67], for these reasons it is doubtful whether the Copyright Directive reflects the necessary balance between users' lawful acts and right-holders' 'extra-contractual' restrictions, in the Information Society.

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[63] In a letter sent to the US Congress jointly by several US copyright law professors it is stated that "the enactment of anti-circumvention provisions would represent and unprecedented departure into the zone of what might be called paracopyright – an uncharted new domain of legislative provisions designed to strengthen copyright protection by regulating conduct with traditionally has fallen outside the regulatory sphere of intellectually property law." As reported by Koelman, K, 'Protection of technological measures in the copyright context' in Hugenholtz B, (ed) *Protection of technological measures* iMPRiMATUR – IViR report, Institute for information law, University of Amsterdam, November 1998, at p.38 and note 189.

[64] Copyright per se vests right-holders with de facto monopolies in respect of the protected subject matter. The extent to which right-holders, users of multimedia works, and consumers could possibly benefit from the unfair competition doctrine and competition law overall, will be discussed in sections 4 and 5 below.

[65] Supra notes 12 and 21.

[66] Some indications of this imbalance favouring right-holders' interests in most cases can be found in the Recitals at (14), (22), (30) to (32).

[67] As well as, for the reasons to be discussed in relation to technological protection measures below.

It is further doubted whether Member States can succeed in establishing the appropriate balance, since not all Member States can recognise the same mandatory (copyright) exceptions in the interest of public policy and users.[68] It remains to be seen how Member States will respond to these issues that were intentionally left open by EU legislators.[69] It also remains to be seen whether courts will respond consistently across the Community, should any of the questions considered so far be addressed to them by individuals, consumer protection organisations and NRAs at European level.[70]

(d) Fourthly, unlike the Copyright Directive, the scope of protection of the Electronic Commerce Directive is even narrower and of less assistance.[71] It covers only services provided for remuneration at distance by electronic means, however, excluding broadcasting point to multipoint transmissions.[72] Although this Directive differentiates between situations where services are mere conduits, and where they are involved in caching, it actually aims at protecting service providers' interests rather

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[68] At Recital (32) it is provided that "this Directive provides for an exhaustive enumeration of exceptions and limitations to the reproduction right and the right of communication to the public. Some exceptions or limitations only apply to the reproduction right, where appropriate. This list takes due account of the different legal traditions in Member States, while, at the same time, aiming to ensure a functioning internal market", hence at (33) it is clarified that "the degree of their harmonisation should be based on their impact on the smooth functioning of the internal market" alone.

[69] The impression one could get is that the settlement of these debatable issues was actually thrown to them for the reasons explained also in relation to technological protection measures below. See also note 70 below.

[70] Taking into account also the second round of lobbying and infighting to be played at national level, the European Court of Justice will most likely have to "finish the job left largely undone by the European legislature". As argued by Hugenholtz, at p. 502 supra note 53.

[71] The Electronic Commerce Directive provides detailed provisions aimed at protecting providers of telecommunications services from certain liabilities for copyright infringement when they are unsuspecting conveyors of material, which infringes copyright. It therefore touches the same territory as the Copyright Directive. As supported also by Cornish, W, *Intellectual property: patents, copyright, trade marks and allied rights,* 4th edn, Sweet & Maxwell, London, 1999, at p. 538.

[72] See Morrison, A and Gillies, L, 'Protecting webcast content, copyright on the internet and problems of jurisdiction in the European Union' paper delivered at 16th BILETA Annual Conference, Edinburgh, Scotland, April 9-10, 2001, at p.9. Also available at http//www.bileta.ac.uk/01papers/Morrison.html.

than consumers. As such, its scope of protection could potentially be beneficial to producers and authors of multimedia works disseminated only on-demand over the Internet.[73]

In this context, it is not prima facie clear whether protection of service providers or right-holders should take precedence in case of conflict of interests. Both the Copyright and the Electronic Commerce Directives touch one sensitive area; that of those intermediaries the liability in "whose services are used by a third party to infringe a copyright or related right".[74] Supposing that a multimedia producer was seeking to apply an injunction against an ISP (intermediary) pursuant to Article 8 (3) on the grounds of contributory infringement[75], it is not clear how the courts will react in such a case, given the fact that an ISP could successfully argue that it is an 'innocent host', (pursuant to Article 14 of the Electronic Commerce Directive), and thus should not be held liable for contributory copyright infringement. If that case of conflict of interests reaches the courts it is clear that they will have to deal with particularly complex and novel legal problems.[76] Nonetheless, if one considers the

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[73] See Articles 12 to 15 of the Electronic Commerce Directive. The same effect could be achieved under the Conditional Access Directive 98/84/EC, should a multimedia work be transmitted as part of an 'information society service' (Article 2) to the extent the Copyright Directive and the Conditional Access Directive could apply cumulatively and their scope of protection could overlap. See Article 9 of the Copyright Directive and Article 2 of the Conditional Access Directive.

[74] See Article 8 (3) of the Copyright Directive.

[75] Imagine for example, an ISP providing access to a consumer, who can then access on-demand a particular multimedia work, and then reproduces an insubstantial part of that work for fair use purposes, albeit contrary to the terms and conditions implied by the producer through a 'click on' agreement, (which does not allow users to reproduce that work for any reason including fair use practices, but only to browse).

[76] In the previous example (supra note 71) the multimedia producer would most likely seek to be protected against the ISP pursuant to Articles 1, 6 (4) fourth subparagraph, and 8 (3) of the Copyright Directive. The difficult issues that the court would have to resolve would be mainly three: (a) whether the particular multimedia work falls in the scope of Article 1 of that Directive; (b) how should the 'agreed contractual terms' be interpreted, (c) whether the ISP was an 'innocent host' under Article 14 of the Electronic Commerce Directive, and if so (d) how should Article 9 of the Copyright Directive be applied; should Article 8 (3) of the Copyright Directive or Article 14 of the Electronic Commerce Directive take precedence?

hints in Recitals (25) and (59) of the Copyright Directive[77], one will be convinced that right-holders are in a stronger position (than intermediaries) to prove that the Copyright Directive safeguards their interests and rights of protection against all, should a case of conflict of interests arise.

In sum, contracts are a fast, flexible and strong form of protection for all parties involved in the creation, production and development of multimedia works. Even more so it ensures a cost-effective and strong form of protection against acts of infringement and alteration of their work without their authorisation. Especially electronic standard types of agreements, such as the 'click on' agreements, enable right-holders to contract with users even outside their rights. In doing so, however, the rights of users, consumers and the public at large can be seriously threatened given the fact that the Copyright Directive can potentially over-protect creators and producers erga omnes as was explained above.[78]

As such, in the absence of:

(a) a harmonised response to the recognition and application of copyright and non-copyright exceptions as mandatory when confronted with extra-contractual exceptions,

(b) a timely, cost effective and 'user-friendly' self-regulatory mechanism of protection[79], and

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[77] According to Recital (25) of the Copyright Directive; "the legal uncertainty regarding the nature and the level of protection of acts of on-demand transmission of copyright works and subject-matter protected by related rights over networks should be overcome"; and according to Recital (59); "In the digital environment, in particular, the services of intermediaries may increasingly be used by third parties for infringing activities. In many cases such intermediaries are best placed to bring such infringing activities to an end. Therefore, without prejudice to any other sanctions and remedies available, right-holders should have the possibility of applying for an injunction against an intermediary who carries a third party's infringement of a protected work or other subject-matter in a network. This possibility should be available even where the acts carried out by the intermediary are exempted under Article 5." See also Article 5 of the Copyright Directive.

[78] Provided of course that multimedia was recognised as a copyright work protected under Article 1 of the Copyright Directive. Supra note 46.

[79] Meaning that right-holders should draft such contractual terms and conditions of use that will effectively respect users' legitimate rights to reproduce non-substantial parts or amounts of the

(c) a regulatory regime of protection for multimedia per se that reflects a fair balance[80] of rights of all contracting parties (including users), contractual protection measures alone cannot protect multimedia appropriately in respect of the interests and rights of all interested parties.

In so far as contracts can over-protect multimedia producers and creators against users and other third parties, and no other regime of protection is readily available in respect of the parties adversely affected, such as copyright or competition law, it seems that contracts alone could fail to establish the necessary balance of the interests of all interested parties in multimedia, including users and later creators. Before contemplating further on this we should also consider the currently available technological protection *measures* as an alternative and/or additional[81] method of protection of multimedia works per se, as well as of all parties affected.

### 3. Technological Protection Measures

Digital technology has opened up new opportunities and challenges to authors and producers for creation and production of new works, marketing, administration of proprietary rights, monitoring and controlling access, dissemination and use of their works.[82] New forms of piracy and misappropriation have also been realised through digital technology.[83] Not surprisingly producers and authors have been asking for extra-legal protection. On the other hand, creators and producers have found that the

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particular object of work for non-commercial purposes, and fair-dealing practices, without unjustifiably restricting them from lawful acts of use. See the proposed measures in section 5.1 at Chapter 5 below.

[80] Rather than a 'balanced compromise' reflected in the Copyright Directive, as will be discussed later. See note 128.

[81] Meaning as an alternative to copyright protection and/or in addition to contractual protection measures.

[82] Commission of the European Communities, Green Paper on copyright and related rights in the information society, Brussels, COM (95) 382 final, July 19, 1995 (hereafter, 'Green Paper 1995') at pp. 49-50.

[83] See the related discussions in Chapters 1 and 2.

answer to their problems resulted from the advent of digital technology in technology itself.[84]

In particular, several different technological protection measures, which form the basis of data right management (DRM) systems, are employed by intellectual property owners to enforce their control over content, and limit its use to the terms of copyright law, and/or contracts both on-line and off-line.[85] At present, various systems performing key DRM functions, such as the SCMS (Serial Copy Management System)[86] or the CSS (Content Scrambling System)[87], the SDMI (Secure Digital Music Initiative)[88], watermarking[89], the Microsoft DAS (digital Asset Server)[90], the

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[84] Clark C, 'The answer to the machine is the machine' in Hugenholtz B, (ed), *The future of copyright in a digital environment*, Kluwer Law International, The Hague, London, Boston, 1996, 139. See also Dusollier, S, 'Electrifying the fence: the legal protection of technological measures for protecting copyright' [1999] 6 *EIPR* 285.

[85] DRM strategies target both the B2B and B2C markets. DRM systems consist broadly of two elements, the identification of intellectual property and the enforcement of usage restrictions. The identification consists in the attribution of a (standard) identifier such as the ISBN number of books, and the marking of the property with a sign, (such as a watermark). The enforcement works via encryption, by ensuring that the digital content is only used for purposes agreed by the right-holder. Using metadata, owners can control and fine-tune automatically what end users can do with content. The metadata is usually stored in the headers of an XML document or other digital content format or embedded in the digital content using watermarking. See http://www.networkcomputing.com.

[86] This system is used on CDs primarily to protect music. It uses copy-control 'flags' embedded in the CD which allow digital copies to be made only from the 'master' CD, not from a copy of that master. In this way, 'second generation' copies are blocked and thus, serial copying is prevented. In this sense the SCMS performs an identification function. http://www.mitsuicdrstore.com/SCMS_nh.html.

[87] This system relies on a combination of content scrambling, key encryption and conditional access. However, it uses a 40-bit key, which makes it so vulnerable, that it was cracked for the first time in 1999. See http://www.wyvern.org/decss/dvd-discuss-faq.html. See note 155 below.

[88] This DRM scheme is a group whose goal is to protect the playing, storing, and distribution of digital music. It is developing specifications for a system to be enforced by future music recorders/players to hinder unauthorised copying by screening music. Devices that play or record music will first screen it and protected music clips will only be playable under certain conditions. As such if one buys a CD containing protected music, he will be able play it in a SDMI compliant CD player, however, if he takes a song from that CD and compress it into an MP3 file and send it to his friends through the Internet or make it available on a bulleting board, those who will download that MP3 file, will have

DVB CPCM (Digital Video Broadcasting Copy Protection and Content Management), are applied on CDs, DVDs, electronic books, digital video and television, and DRM components are integrated into software decoders, and mobile devices.[91] These measures enable authors and producers to control users' access to their works, subsequent acts of use, and as such to protect themselves against piracy.

Furthermore some technological devices such as the IMPRIMATUR or the COPYMART are available to producers to be used for the administration and clearance rights in a much faster and more efficient way compared to traditional systems of rights management.[92] Unlike electronic contractual protection measures, technological measures potentially promise a much faster and more effective copy-

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difficulties playing it on a SDMI compliant device. See http://www.sdmi.org and http://www.princeton.edy/sip/sdmi/faq.html#A1.

[89] Watermarking is an identification technique ensuring the integrity and authenticity of digital content and is principally applied on content stored on DVD. If one, for example, copies a DVD film, the watermark follows the copy he made, and by the time the DVD player detects the watermark on that copy, it refuses to play it and ejects the disc. http://www.digimark.com.

[90] This system, part of Microsoft' 'eBooks initiative', is client server based, which enable the user to download books at various levels of security. Publishers can set their own usage rules preventing the user passing on the book to more than one other computer, it allows users, however, to make a back up of it. http://www.microsoft.com/reader/es/das/default.asp

[91] A manufacturer's playback system, under license by the content owner, provides the decryption algorithms. Once content has been decrypted for viewing and listening, these systems enforce the terms and conditions of licenses by the content's self-describing nature. Self-describing content embeds copy-control information in the content's data stream. Using a digital watermarking technology, copy-protection levels can follow the content without any special processing. Watermarking works by embedding bits among the video and audio signals in a digital file. These bits identify the content to playback systems without affecting the quality of the content.

[92] Such as the 'IMPRIMATUR', which identifies works marked with a unique number and allows the marketing of these works either by sale or by license with payments to the copyright owner, and the COPYMART, which establishes a central international administration of copyrights. See the related report, Hugenholtz, B, (ed), Koelman, K, and Helberger, N, iMPRiMATUR IViR, *Protection of technological measures*, Institute for information law, University of Amsterdam, November 1998.

control and DRM mechanism, since no regulatory or administrative procedures and testimonial evidence related problems have to be faced by the concerned parties.[93]

The fact that technological devices can play a two-fold role[94] of protection enhances their value further with respect to the interests of multimedia producers, who need to be protected against second comers, as well as to clear pre-existing rights quickly and efficiently in a wide range of areas[95]. In so far as multimedia producers and authors employ certain technological protection measures best suited to the particular needs of their work in terms of protection and administration of rights, technical protection measures may be the answer to the problem of protecting multimedia appropriately and effectively, and satisfying its particulars in all cases. In order to examine the extent to which this protection proves to be sufficient and appropriate for multimedia, we should first measure its efficacy erga omnes; meaning not only with respect to producers' and authors' interests, but also users and consumers whose interests are directly affected by technical devices controlling their access, and acts of use.

In this context it should also be considered, whether the widespread implementation of various technical measures controlling access to and use of proprietary works, such as different encryption codes embedded in CDs and DVDs, can impede mandatory copyright, and non-copyright exceptions to right-holders' exclusive rights, and as such disregard users' rights, as well as public policies.[96]

### 3.1. Right-Holders and Users

Although right-holders may feel it natural to protect their work against second-comers as far as possible by means of employing the strongest DRM system

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[93] As the case may be with electronic contracts where the user seeks to be protected and compensated under unfair consumer protection laws or unfair competition rules as the case may be.

[94] Meaning protecting against unauthorised reproduction, piracy and used for the effective administration of rights in the on-line environment.

[95] Producers of multimedia works in particular need to employ the most effective DRM system as compared with producers of others works since multimedia can be far more complex and valuable as it consists of a great variety of pre-existing works whose ownership rights may be vested in different entities as was mentioned in the first two chapters.

[96] See this discussed at section 3.4, and note 176 below.

they can afford, sometimes, however, they may exaggerate deploying those DRM systems, which allows them to prevent generally accepted uses that usually cannot be prevented through (copyright) law. In that case, users of a multimedia work for instance, whose audio elements are protected by the SCMS will be prevented from making a second-generation copy of that work against the eventuality they lose the 'master' copy, although they have paid for it.

Furthermore, certain DRM systems may invade users' privacy at unprecedented levels by tracking their personal data and transmitting it to DRM managers without users' prior knowledge. Non-controlled use of technical protection measures can therefore prevent users' essential access to and use of the so protected multimedia elements. Also, once works can be obtained through on-line DRM systems allowing their immediate acquisition, the bargaining and marketing power of organisations of collective administration of rights may be strengthened against authors and users. This could happen in so far as users and authors are treated simply as the receiving end of one of the many standard type of contracts drafted by these organisations on the basis of the 'take it or leave it' philosophy reflected in the 'click on' agreements as was previously discussed.[97]

As was the case with the previous discussion concerning 'extra-contractual' restrictions, here too public policy interest considerations[98] are raised, challenging the appropriateness of technological protection measures with respect to multimedia. Users' and consumers' fundamental rights to free access to information, expression

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[97] This practice will put authors in a difficult position in so far as their disagreement, and refusal to sign such a contract could effectively amount to their exclusion from the market place, provided they have no other alternative means of protection readily available, and right-holders, such as organisations of collective administration of rights, have secretly agreed to impose such unfair terms to all interested parties.

[98] In addition to these, consumer protection laws as well as the doctrine of unfair competition law could apply cumulatively. The doctrine of unfair competition law would most probably be applied in cases, where certain licensing practices imposed by managers of on-line clearing systems in cooperation with powerful copyright management societies, for example, could potentially facilitate the imposition of certain information monopolies or the contracting parties operating in the same market. Supra note 56 and see also notes 152 and 153 below. See also the discussion in relation to competition law in section 4 below.

and privacy can be seriously threatened. They can also be over-restricted either in limited cases, or on a wider scale, and thus be undermined. In this event, the future of the public domain may also be jeopardise; hence later authors' creativity would be constrained and future creativity could then become a privilege of the currently benefited right-holders.[99]

On the other hand, just as right-holders use technical measures to enforce their rights even at the expense of users, users may also utilise circumvention devices to overcome such technological restrictions, and enforce their rights of use to which they may be entitled by law.[100] In that case it is questionable whether circumvention of such strict technological restrictions could be illegal, although carried out for the purpose of enforcing users' non-infringing acts and legitimate right against right-holders' infringing acts.[101]

It is therefore questionable, to what extent right-holders are entitled to control and limit users' rights given that some users may disable DRM systems. There is undoubtedly need for some form of regulation on the use and legitimacy of technical protection measures and circumventing acts. Hence this regime should also establish the necessary balance between right-holders' and users' rights.

From an international law perspective, the WIPO provided the first regulatory framework on the use and protection of technological measures in 1996.[102] This regime

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[99] Supra also notes 4 and 6 in relation to the impact of 'extra-contractual' provisions.

[100] Such as a fair use act permitted by copyright law. In relation to this see discussion on the DeCSS case, see notes 103 and 155 below.

[101] Exceptions to exclusive rights vested in copyright owners form an indispensable complement of copyright law, as previously mentioned. They also limit copyright owners' rights to exercise their rights in conformity with public interests. On the hand users and the public at large are entitled to certain fundamental rights, such as the freedom of information and access to information. From their perspective, it appears that these acts of copyright owners aiming at the prevention or restriction of their (users') acts, which are permitted by law, infringe their (users') legitimate rights and thus, are unlawful.

[102] After much debate, the delegates at the conference in Geneva agreed to add Articles 11 and 12 to the WCT (1996) and Articles 18 and 19 to the WPPT (1996). In particular, Article 11 of the WCT requires "the contracting parties" to provide "adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of works, which

has formed the basis for corresponding legal actions taken in the US[103], Australia[104], Japan[105] and recently in Europe.[106] In relation to the latter it is also questionable to what extent the current European legal framework has responded to the above questions and satisfied the necessary balance traditionally reflected in copyright law.[107]

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are not authorised by the authors concerned or permitted by law." Article 12 of the WCT provides similar protection for rights management information. (Articles 18 and 19 of the WPPT come also in line with Articles 11 and 12 of the WCT).

[103] Digital Millennium Copyright Act 1998 (hereafter 'DMCA'). Notably the DMCA is broader than the WCT (1996). Prior to this some interesting arguments were expressed by Lehman, B, and Brown, R, 'Intellectual property and the national information infrastructure', *Report of the Working Group on Intellectual Property Rights,* US Patent and Trademark Office, Washington DC, September 1995, at pp. 2, 177 and 230. The effect of the US DMCA 1998 has recently been tested in a case decided by three US courts (District Court, Court of Appeal and Court of Appeal en banc) concerned with the distribution of an allegedly illegal program (the code for DeCSS) over the Internet, which enabled users to break the encryption codes of DVDs and made possible their copying. Unfortunately for the appellants, their argument that the DMCA is unconstitutional without a fair use defence was considered an "extravagant claim" (Corley, 2001 US App. LEXIS 25330, at 73.). See *Universal City Studios Inc v Eric Corley*, [2001] App. 2nd Cir. 2001; *Universal City Studios Inc v Reimerdes*, [2000] 111 F.Supp. 2d 294. See also notes 154 and 155 below.

[104] Copyright Amendment Act 2000.

[105] Amendments to the Copyright Act and to the Unfair Competition Act - Join 1999.

[106] Directive 2001/29/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, OJ L 167/10, 22.6.2001 ('Copyright Directive'). Prior to the Copyright Directive, see also: (1) the Amended proposal for a European Parliament and Council Directive on the harmonization of certain aspects of copyright and related rights in the information society, COM (1999) 250 final OJ C180/6, 25 June 1999 (hereafter, 'Amended Copyright Proposal'); (2) the European Commission Proposal for a Directive on copyright and related rights in the information society, COM (1997) 628 OJ C108/6, 7 April 1998 (hereafter, 'Copyright Proposal'); (3) the Green Paper 1995 at pp. 49, 50; and (4) the Commission of the European Communities, Green Paper on copyright and the challenge of technology - copyright issues requiring immediate action ('Green Paper 1998'), at p. 121 et seq.

[107] As was mentioned above; supra note 22.

## 3.2. Use and Legal Protection of Technological Measures in the Information Society

Pursuant to the WIPO Copyright and Phonograms Treaties (1996), the European Parliament and Council issued the Copyright Directive in 2001, which provides the legal framework for the protection of technical measures taking the form of DRM systems against acts of circumvention.[108] Such protection, however, is not restricted only to acts of circumvention. It rather extends to devices facilitating circumvention of technical measures, since Member States are required to provide adequate legal protection against acts of circumvention[109], and inter alia, the manufacture and sale of circumvention devices[110].

Not all technical protection measures, however, are subjected to this form of protection, rather only those, which are "effective" and "designed to prevent or restrict acts not authorised by the right-holder of any copyright or any right related to

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[108] See Article 6 to 8 of the Copyright Directive. However, the Copyright Directive has not been implemented yet by all Member States, although the deadline was the 22nd of December 2002 (Article 13(1) of the Copyright Directive). It has been only Greece and Denmark that met the 2002 implementation deadline, whereas only Italy and Austria have followed since then. (See Greek Copyright Law 3057/2002 implementing the Copyright Directive and subsequent amendments to the Law 2121/1993). In relation to the implementation in Denmark see Foged, T, 'US v EU anti circumvention legislation: preserving the public's privileges in the digital age' [2002] 11 *EIPR* 525. In the UK, although section 296 of the CDPA 1988 provided the only existing anti-circumvention provision in EU, the implementation of the Copyright Directive is still under progress. See the respective consultation document at http://www.patent.gov.uk/about/consultations/ecopyright/#1. Whereas a draft Statutory Instrument has not yet been submitted before the UK Parliament, although it was expected by late spring 2003. As reported at http://www.patent.gov.uk/copy/notices/copy_direct2.htm.

[109] Article 6 (1). (Notably this Article is similar to Article 11 of the WCT). According to Article 6 (3) technological measures are defined as "any technology, device or component" that is designed to prevent or restrict acts not authorised by a copyright, related rights, or database rights holder "as provided for by law." The term "effective" is defined as "an access control or protection process", which "achieves the protection objective." Although the Directive identifies access control and protection processes, the list is certainly only meant as illustrative, and does not exhaust the category.

[110] Article 6 (2) of the Copyright Directive.

copyright as provided for by law" or the database sui generis right.[111] The fact that technological devices' effectiveness is dictated by the amount of "access control or protection process", which "achieves the protection objective" implies that right-holders are indirectly vested with the exclusive right to control access to, and subsequent use of, their work.[112] The next question to be answered here is how far this control can go; does the answer to this question lie in the protection objective it achieves pursuant to law?

### 3.2.1. The Legality of Technological Measures and Circumvention Acts

According to the definition of technological measures above, the primary objective that should be achieved seems to be the prevention or restriction of acts non-authorised by the right-holder. Whether these non-permitted acts are subject to the discretion of right-holders alone or pursuant to law is not prima facie clear since reading of the phrase "as provided for by law" could lead one to misinterpretation.[113]

If the phrase "as provided for by law" is read in relation to the particular subject matter protected under this or the other category of copyright or related rights' protected works, one might consider that only copyright protected works other than computer programs can be protected under this regime.[114] Taking this approach would

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[111] Article 6 (3).

[112] Ibid. Notably the UK CDPA 1988 aims to provide that not only the copyright owner but also the person issuing or communicating copies to the public "have the same rights under section 99 or 100 (delivery up or seizure of certain Articles) in relation to any such device, product or component which a person has in his possession, custody or control with the intention that it should be used to circumvent effective technological measures, as a copyright owner has in relation to any infringing copy." See the new proposed subsections 296ZA(2), 296ZC(2) and (5) of the CDPA 1988 at http://www.patent.gov.uk/about/consultations/ecopyright/#1.

[113] Article 6 (2) of the Copyright Directive. See also Esler, B, 'Technological self-help: its status under European law and implications for UK law' paper delivered at the 17th BILETA Annual Conference, 5-6 April, 2002B at note 85.

[114] If that was the case, it should be construed that protection against circumvention applies only in respect of works, which are already protected by "copyright or any right related to copyright as provided for by law", or the databases' sui generis right. In this context it has been supported that reading the phrase "properly" would mean "that the circumvention of even the most effective and

mean that authors and producers of works, which are not protected as such, would not be entitled to this protection, and thus circumvention of such material should be permitted.[115] Hence considering the proposed definition of technological measures bu the UK, it seems that authors and producers of multimedia works would not be entitled to this protection against unlawful circumvention, at least in the UK, so far as multimedia as such is not de jure protected by any regime related to copyright or the database sui generis regime.[116]

Under these conditions, one might argue that legal action should be taken to explicitly protect multimedia through "copyright" or the databases sui generis right, otherwise multimedia producers and authors might be left unprotected against acts of illegal circumvention.[117] Nonetheless, the Copyright Directive emphasises the

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efficient TPM should be permitted if the underlying material is not otherwise protected by law, i.e., not protected by copyright, a related right, or the database right. Hence, the public should be entitled to circumvent technical protection measures to obtain access to material otherwise in the public domain, even if commercial interests attempt to 'lock' it away digitally." As supported by B. Esler, supra note 113.

[115] This is only a hypothesis, however, whereas, in practice, the ordinary user will find it hard to assert their 'right' to use, if producing the anti-circumvention device is outlawed overall.

[116] Multimedia cannot be identified with computer programs, nor with databases as concluded in Chapter 3. Hence, the proposed new subsection 296ZD(1) of the CDPA 1988 provides that "in sections 296ZA to 296ZC, 'technological measures' are any technology, device or component which is intended, in the normal course of its operation, to protect a copyright work other than a computer program." As was explained in the previous chapter, the subject matter of multimedia is not expressly recognised as a copyright (literary or audio-visual) work in the UK in order to be automatically protected under the CDPA. A teleological interpretation of the Copyright Directive however could imply that nothing precludes multimedia from the scope of the Copyright Directive at least in those countries where multimedia could hypothetically be considered and protected as a copyright work other than computer programs and databases without necessarily being expressly protected as such. Supra note 46.

[117] See Article 1 (1) and (2) of the Copyright Directive (Scope of protection) according to which "(1) This Directive concerns the legal protection of copyright and related rights in the framework of the internal market, with particular emphasis on the information society." and "(2) Except in the cases referred to in Article 11, this Directive shall leave intact and shall in no way affect existing Community provisions relating to: (a) the legal protection of computer programs; (b) rental right, lending right and certain rights related to copyright in the field of intellectual property; (c) copyright and related rights

importance of protecting and rewarding the creativity and investment put into "multimedia products"[118] in parallel with other copyright protected works, as well as services, for which "a consistent application at European level of technical measures"[119] should be envisaged on the basis of an "adequate legal protection of intellectual property rights"[120].

Instead of adopting the above approach, the phrase "as provided for by law" should preferably be read directly in relation to the acts "not unauthorised by the right-holder".[121] In this way it should be accepted that the intention of the EU legislators was to limit the prohibition on circumvention devices to those specifically designed, marketed, or advertised to facilitate infringing acts, and limit the prohibition to those devices without a significant non-infringing use. As such it becomes appropriate to assert that right-holders may restrict or prevent only infringing acts (as "provided for by law") in relation to their work, by means of controlling its use through technological measures. This teleological interpretation would also be consistent with the draft changes in the UK anti-circumvention legislation embodied in the recently proposed subsection 296ZD(1) and (3) of the CDPA 1988, and conform with the spirit of Article 11 of the WCT.[122]

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applicable to broadcasting of programmes by satellite and cable retransmission; (d) the term of protection of copyright and certain related rights; (e) the legal protection of databases." Supra also notes 116 and 46.

[118] See Recital (13) where it is provided that; "if authors or performers are to continue their creative and artistic work, they have to receive an appropriate reward for the use of their work, as must producers in order to be able to finance this work. The investment required to produce products such as phonograms, films or multimedia products, and services such as "on-demand" services, is considerable. Adequate legal protection of intellectual property rights is necessary in order to guarantee the availability of such a reward and provide the opportunity for satisfactory returns on this investment."

[119] See Recital (13) of the Copyright Directive.

[120] See Recital (10).

[121] Article 6 (3) of the Copyright Directive. Hence at Recital (33) in a very broad manner it is provided that a use shall be considered 'lawful' where it is "authorised by the rightholder or not restricted by law".

[122] In particular the new subsection 296ZD(3) aims to provide that "In this section, references to protection of a work are to the prevention or restriction of infringing acts in relation to the work." The WCT refers to acts "which are not authorised by the authors concerned or permitted by law". See also

If this approach is correct, it should be held that use of powerful technological protection measures will be lawful in so far as their efficacy is restricted to preventing only infringing acts.[123] As such, use of effective technological protection measures aiming at over-protecting public domain material should not be permitted by law. By extension, it could be argued that the use of circumvention devices should not be held as illegal in so far as they are used for the purpose of facilitating only lawful acts; meaning acts permitted by (copyright or constitutional) law. In this way it will be easy for honest people to remain honest, as they have always been.[124]

Ultimately the legality of potentially extensive technical protection measures, as well as of acts of circumvention against these measures, should be determined by the validity of users' non-infringing and lawful acts facilitated by such measures.[125]

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Article 11 of the WCT. It is also noteworthy that Article 6 (3) of the Amended Proposal for the Copyright Directive had expressly linked infringement with technological measures defining them as "any technology...designed to prevent or inhibit the infringement of any copyright...". See also Comment 3 in respect of Article 6 at the Explanatory Memorandum to the proposed then directive. Such a teleological approach is taken also in French penal law, where the unlawfulness of decoding equipment is not expressly defined, it is rather teleological, since the French law "n. 86- 1067 of 30 September 1986 as modified by law n° 92- 1336 of 16 December 1992" in Articles 79-1 refers to equipment that is "designed, in total or in part, to fraudulently receive televised programmes". As supported by Vercken, G, 'Technical protection arrangements viewed in a broader context' paper delivered at ALAI Conference 2001, New York 13-17 June 2001, at p. 8 and 9.

[123] In this context one could argue that 'infringing' could be understood as the opposite of 'lawful' as mentioned at the Recital (33) of the Copyright Directive; meaning those acts restricted by law. Such an interpretation would however, be very broad and potentially dangerous in respect of the rights of users.

[124] Otherwise, users who have the appropriate technical means, and knowledge of DRM systems, as well as of their fair use rights, would feel tempted to circumvent a particular DRM system that did not allow them to a particular which could be otherwise permitted by copyright. See also Marks, D, and Turnbull, B, 'Technical protection measures: the intersection of technology, law and commercial licences', [2000] *EIPR*, 198 emphasising the importance to "keep honest people honest" at p. 199.

[125] It is provided in Recital (47) that the danger "that illegal activities might be carried out in order to enable or facilitate the circumvention of the technical protection provided by these measures" justifies the present "need to provide for harmonised legal protection against circumvention of effective technological measures and against provision of devices and products or services to this effect." Hence, at Recital (51) it is provided that "in order to prevent abuse of such measures taken by right-holders,

However, the viability of beneficiaries' rights provided especially by copyright law exceptions (and limitations) is not automatically ensured, unless a fair balance of lawful acts, (fair use) rights and strong technological measures between users and right-holders is reflected in law.[126] Although the Copyright Directive aims at safeguarding a fair balance of rights and interests between right-holders and users, it is doubted whether it has effectively succeeded in this. At this point the viability of users' rights is called into question.[127]

### 3.2.2. The Viability of Users' Rights Against Technological Protection Measures

Allegedly the EU legislators of the Copyright Directive have attempted to establish a "balanced compromise"[128] between beneficiaries' rights and right-holders'

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including within the framework of agreements, or taken by a Member State, any technological measures applied in implementation should enjoy legal protection". Similarly see Recital (52).

[126] Copyright exceptions and limitations depend on the actual circumstances of usage. Thus a technical protection measure will be protected in one situation and may be lawfully circumvented in another. See Koelman, K, and Helberger, N, iMPRiMATUR IviR report, *Protection of technological measures*, at p.26, supra note 92.

[127] The importance of safeguarding "a fair balance of rights and interests between the different categories of right-holders, as well as between the different categories of right-holders and users of protected subject-matter" is addressed at Recital (31). However, no explicit reference is made as to how exactly or under what criteria this balance will be achieved. It is only vaguely suggested that, "existing exceptions and limitations to the rights as set out by the Member States have to be reassessed in the light of the new electronic environment", and "in order to ensure the proper functioning of the internal market, such exceptions and limitations should be defined more harmoniously. The degree of their harmonisation should be based on their impact on the smooth functioning of the internal market". Recital (31).

[128] As soon as the Directive was issued, it was reported at the Commission's web-site that the issue of legal protection of "anti-copying devices and exceptions" had been "the most political and controversial topics of the whole debate", and thu, a "balanced compromise" had to be established. As reported this was achieved through Articles 6 (2) and 6 (4), as a result of which "right-holders have complete control over the manufacture etc. of devices designed to circumvent anti-copying devices" and either voluntarily or by way of agreements with other parties, right-holders have to provide those who would benefit from a particular exception, such as schools or libraries. See Intellectual Property News, Commission welcomes adoption of the Directive on copyright in the information society by the

interests with respect to the protection of their work through technological measures particularly through Articles 6(2) and 6 (4) of the Directive.[129] In consideration of these provisions it could be argued that the aim of EU legislators was to preserve the validity of copyright exceptions and limitations, and safeguard vital public policy and security issues. [130]

However, closer attention shows that this aim can be achieved only to a limited extent through the provisions of Article 6 (4) of the Directive; Member States are required to preserve the viability of certain narrowly defined exceptions.[131] Does this restrictive scheme indicate that a "balanced compromise" has been established by means of indirectly restricting Member States to apply any new or other copyright exceptions or limitations other than those referred to in this Directive? [132] It is doubtful how balanced and effective this formula can be.[133]

As previously mentioned, any directly or indirectly implied restriction on Member States' freedom to issue new copyright exceptions (subject to the three-step test of the Berne Convention following the TRIPs' Agreement mandates) would contradict the wider scope of freedom they may have pursuant to Article 10 of the

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Council, as of 27-09-01 at http://europa.eu.int/comm/internal_market/en/intprop/news/copyright.htm. In support of this view one could also refer to Recital (48), where it is clarified that such protection should not prevent "the normal operation of electronic equipment and its technological development", it should rather "respect proportionality" and not prohibit "those devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. In particular, this protection should not hinder research into cryptography".

[129] Notably this rule does not apply on those works defined and protected as computer programs or databases. See Article 1(2) of the Copyright Directive.

[130] "The legal protection of technological measures applies without prejudice to public policy, as reflected in Article 5, or public security", as clarified at Recital (51).

[131] Article 6 (4) first subparagraph.

[132] If this is how the first subparagraph of Article 6 (4) should be interpreted; Member States "shall" ensure the application of only certain exceptions or limitations, provided in Article 5 (2) and (3), and only "to the extent necessary to benefit form that exception or limitation, ...concerned".

[133] Needless to contemplate here why they felt that a ('balanced') compromise had to be established instead of a fair balance, especially if one considers that the Copyright Directive establishes an exhaustive list of permissible exceptions, and only one mandatory exception, namely the one for certain temporary copies as provided in Article 5 (1), as will be discussed below.

WCT and Article 9 of the Berne Convention. Given the potential of such contradiction and the state-of-art of technology[134] reflected in the Directive, it would be inexcusable that Member States could have been restricted in experimenting with new exceptions that otherwise might have to be issued as a result of forthcoming technological developments.[135]

If so, the flexibility and freedom of Member States to ensure the effectiveness of other rights and lawful acts of users other than those expressly listed in Article 5(2) and (3), may have been already hazardously and unjustifiably restricted. Thus, it would not be unrealistic then to submit that the Copyright Directive could become outdated in its core parts by the time all Member States have implemented it; unless the limited amount of flexibility left to Member States with respect to private use exceptions proves more successful in establishing the necessary balance[136], despite the hints provided at its Recital (44); that "the scope of certain exceptions may have to be even more limited when it comes to certain new uses of copyright works".

Undoubtedly the task of drawing a line between users' permissible actions and unlawful circumvention acts at European level in order to achieve the primary objective of harmonisation is by default a difficult one. In this sense Member States are free to choose between any of the non-mandatory exceptions listed in Articles 5(2) and (3; however, they are required to protect the beneficiaries of these exceptions in

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[134] Hart, M, 'The copyright in the information society directive: an overview' [2002] 2 *EIPR* 58, at p. 63.

[135] Particularly the concept of temporary and private acts of reproduction reflected in the Directive seems to be lagging behind today's state-of-art of technology. Especially in relation to the concept of caching and temporary copies as reflected in the Copyright Directive. This is so, since EU legislators attempted to answer the most debatable questions and problems that were raised during the negotiation of the WCT, reflecting the state-of-art in technology by 1996. As such, they have failed to keep up to date with current implications regarding caching and temporary copies resulted by latest technological advances and the convergence of telecommunications networks. See Hugenholtz, B, 'Caching and copyright: the right of temporary copying' [2000] 10 *EIPR* 482, and of the same 'Why the copyright directive is unimportant, and possibly invalid' [2000] 11 *EIPR* 499. In comparison with the issues addressed during the WIPO treaties' negotiation, see Reinbothe, J, and Lewinski, S, 'The WIPO treaties 1996: ready to come into force' [2002] 4 *EIPR*. 199. See also Koelman, K, 'A hard nut to crack: the protection of technological measures' [2000] 6 *EIPR* 272.

[136] Meaning pursuant to Articles 6 (4), 5 (4) and (5).

their national legislation in accordance with Article 6(4). But the same requirement does not apply in cases where users are entitled to "reproduction" for "private use" as will be discussed further below.[137]

The approach taken under the first subparagraph of Article 6(4) also does not preclude some Member States from adopting all of the enumerated exceptions, and others only some of them. However, in this way only a distorted situation can potentially develop across the Community, rather than a harmonised regime of optional copyright exceptions, in so far as not all Member States may enforce the same exceptions with respect to beneficiaries' legitimate rights against 'extra-technological' restrictions. As such, the argument of harmonisation can no longer justify the restrictive approach taken towards Member States pursuant to Article 6(4). Further restrictions are also placed upon Member States to the extent they are required to take such action, (a) when other means to do so have failed, (b) only to the extent necessary to benefit from that exception or limitation[138] and (c) provided the beneficiaries have legal access to the protected work or subject-matter?.[139] Overall, it is implied there that users will have to rely primarily on Member States, and secondly on right-holders, who should appropriately respect users' rights to access and use such protected material for certain purposes. Even more so users will have to rely on their criteria in judging how "necessary" that lawful act of theirs may be.

Nonetheless, it is doubted how effective this measure of discretion may be considering how different and conflicting users' and right-holders' interests may be as well as the much inferior negotiating power users have in most cases.[140] Normal life

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[137] As provided in Article 6 (4) second subparagraph of the Copyright Directive.

[138] Such as "voluntary measures" of cooperation. As to what is implied by this, see Recitals (51) and (52) notes 152 and 153 below.

[139] Article 6 (4) first subparagraph.

[140] It is doubted whether Article 6 (4) can ensure the "balanced compromise" that EU legislators were seeking to establish when providing that right-holders, either voluntarily or by way of agreements with other parties right-holders, have to provide those who would benefit from a particular exception, such as schools, libraries, and research institutions, since it will be up to Member States to ensure that such means exist. (Supra note 128). This would of course be subject to the condition that "the right-holders receive fair compensation which takes account of the application or non-application of technological

has shown that the copyright industry cannot be expected to adopt meaningful voluntary measures, unless the EU legislators of the Directive had reason to believe that Member States will scrutinise any such measures before taking action.[141]

It is also questionable how successful this quasi-copyright protection of users can be, if the permitted acts and legitimate rights of beneficiaries based on those copyright exceptions listed in Articles 5(2) and (3) are respected only in so far as users have ensured first their "legal access"[142] to the work, and secondly that the right-holders have received "fair compensation"[143]. Given the fact that copyright exceptions and public policy interests alone (outside the scope of this Directive) aim at safeguarding users' and consumers' fundamental rights, it is questionable whether there is any reason in these exceptions if legal access and compensation is required for such acts, which may be nonetheless permissible at least under constitutional and copyright law in the first place.[144] Even more so, the Copyright Directive stipulates

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measures referred to in Article 6 to the work or subject-matter concerned", as provided in Article 5 (2)(b). The legality and effectiveness of these will be discussed below.

[141] As supported also by Vinje, T, 'Should we begin digging copyright's grave' [2000] 12 *EIPR* 551 at p. 557.

[142] It is debatable whether this condition should indicate that users are actually restricted from circumventing a DRM system, which unlawfully restricts them from accessing and browsing a particular work for private purposes of academic research for instance.

[143] In particular this condition applies in the case of Article 5(2)(a), (b) and (e) pursuant to Article 6(4) first and second paragraphs. In this context, Member States are required to provide for a fair compensation as an alternative to copyright levies, whereas the form such fair compensation may take, is left to the discretion of Member States to decide (Recital 35). Arguably it is suggested that it would be inappropriate to award right-holders "a statutory levy for copying that is (or can) be controlled and for which payment can effectively be obtained", "while it is appropriate for copyright owners to be fairly compensated". As argued by Vinje, at p. 554 and 555, supra note 141.

[144] See Recital (36), where Member States may provide for fair compensation for right-holders when applying the optional provisions on exceptions, which do not require such compensation. These exceptions form an indispensable complement to copyright as previously mentioned. However, this complement is undermined so far as right-holders are entitled to compensation even in these circumstances. See also the opinion of the EVA (European Visual Artists) according to which the exclusion of Article 5 (2)(c) does not strike a balance between the museums interests and those of artists since museums are less involved in promoting young and unknown artists. European Visual Artists (EVA) 'Comments on Article 5.2 and 5.3 of the political agreement of the Council dated 7th

that this protection offered by Member States to beneficiaries pursuant to the first and second paragraphs of Article 6(4) can be contractually overridden. So what was the intention of the EU legislators with all these manoeuvres?

Further questions will also arise as to how "fair compensation" will be interpreted and applied in relation to existing levy systems which apply in some Member States, such as Germany and Greece, since the Directive has not defined what should be held as "fair" compensation. Or should this matter be referred to the European Court of Justice should national courts feel too insecure to resolve this vagueness?[145] Such a broad "fair compensation" condition indirectly imposed on Member States, as well as on beneficiaries of these permitted acts may potentially disturb the balanced compromise traditionally reflected in copyright.[146]

Even worse, Member States are not required to ensure the viability of users' legitimate rights in reproducing the particular work for private use under certain conditions.[147] Rather, it is left to their discretion so to act in cases of 'fair use'

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June 2000 on the amended draft directive on certain aspects of copyright and related rights in the information society' (1997) 359, at http://www.Europeanvisualartists.org.

[145] Probably this matter will be eventually left to the discretion of the ECJ since national courts will either apply different criteria, or feel too uncertain to resolve this matter on their own, and prefer to address it to the ECJ, since not even the Recitals can be of any assistance at this point. Similarly this has been the case with the interpretation of the concept of "equitable remuneration" provided in the Rental and Lending Directive 92/100/EEC, (Art. 8(2)), but not defined. As such the (Hoge Raad der Nederlanden) court concerned with the case of *Stichting ter Exploitatie van Naburige Rechten (Sena) v Nederlandse Omroep Stichting (Nos)* C-245/00 [2003] EMLR 17 (ECJ (6th Chamber)) referred to the ECJ for a preliminary ruling on the interpretation of Article 8 (2) of the Rental and Lending Directive. According to the decision of the 6th Chamber of the ECJ, it was held only that the concept of "equitable remuneration" must be" interpreted uniformly in all Member States and applied by each Member State", while "it is for each Member State to determine, in its own territory, the most appropriate criteria for assuring, within the limits imposed by Community law and Directive 92/100 in particular, adherence to that Community concept", since the "Directive 92/100 does not preclude a model for calculating what constitutes equitable remuneration". Most likely the court and parties involved will not find this decision of great assistance.

[146] In that case, right-holders are once again mostly favoured, since their enforcement costs will be eventually transferred to Member States.

[147] Article 6(4) second subparagraph of the Copyright Directive.

practices when "reproduction for private use has already been made possible by right-holders to the extent necessary to benefit", "without preventing right-holders from adopting adequate measures regarding the number of reproductions".[148] In view of all these restrictive provisions it is doubted whether the viability of users' fundamental rights and particularly those of fair use practices can be ensured through the Copyright Directive.

### 3.2.3. The Viability of Fair Use Practices Through Technological Protection Measures

One of the many problems potentially resulting from the second paragraph of Article 6(4) of the Copyright Directive is that it may jeopardise the essence of private use exceptions to the detriment of users' rights, as well as the public at large. This may be the case in relation to certain actions of use of protected works by users, including for private purposes or circumventing effective technological measures for the purpose of lawful acts of use, including fair use practices. This will be dictated primarily by right-holders' willingness to respect users' legitimate rights. While there may be some right-holders who may appropriately value users' legitimate fair use rights without having excessive recourse to DRM systems, nothing precludes that they would not be ostracised by giant lobby corporations opposed to such a 'user-friendly'[149] attitude.

In so far as users' are expected to depend upon right-holders' criteria determining "the extent necessary" for them to benefit from these exceptions, there seems to be no reason in preserving copyright law exceptions. Consequently, if this provision implies that copyright law is no longer necessary for determining when a

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[148] Ibid.

[149] Supra note 79 in relation to electronic contracts.

particular action amounts to be a lawful 'fair use', an "infringing activity"[150] or an "offence"[151], this would be disastrous for the public good.

Moreover, it is hard to believe that consumers' reliance upon national policy makers and legislators' impetus[152] to respect their fair use rights would prove trustworthy, considering how heavy the lobbying power of media and entertainment companies can be.[153] This becomes apparent especially in light of recent developments caused in the US by powerful lobby groups, and the US courts' response to their demands in the first two reported US cases concerning the constitutionality of the DMCA (1998).[154]

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[150] See Article 8 (1) and (2) of the Copyright Directive in relation to the appropriate sanctions and remedies in respect of infringements of the rights and obligations to be taken by Member States.

[151] According to the draft amendments of the CDPA 1988, it is provided in various stages that a particular act will constitute an offence when inter alia "he provides, promotes, advertises or markets a service in the course of a business, or otherwise than in the course of a business to such an extent as to affect prejudicially the copyright owner, the purpose of which is to enable or facilitate the circumvention of effective technological measures", as provided in the (draft) amended ss. 296 ZB(2). See also the (draft) amended ss. 296 ZB(1) and the new (draft) subsection 107 (4A) in relation to Article 8 (1) and (2) of the Copyright Directive.

[152] Pursuant to Article 6 (4); subject to the discretion of Member States they shall take appropriate measures where other measures of cooperation have failed. Supra also notes 98 and 138.

[153] In particular the Copyright Directive has been the most lobbied piece of legislation recently adopted within the EU. The initial proposal on the Copyright Directive came under strong lobbying by the IFPI, BSA, RIAA, record companies (amongst them PolyGram), and the telecoms and computer hardware industry. As reported also at 'EU: New Copyright Directive' at http://www.geocities.com/SiliconValley/Network/5054/marcos/autor/docs/eu_copyright.htm29/09/02. As a result, the Commission refrained from proposing any exceptions to strict legal protection for technical protection measures in the Amended Copyright Proposal in 1999. In this way the music, software and film industries had their time to lobby the Commission and push the Council to reach a political agreement on the Copyright Directive in 1999.

[154] Supra note 103. In the case of *Universal City Studios Inc v Reimerdes* [2000] (82F. Supp. 2d 211) the first reported US case concerning the application of the DMCA on the distribution of anti-circumvention software, Judge Kaplan ruled that the defendants' conduct violated section 1201 of the DMCA, and it was not protected under the First Amendment or any of the safe harbour provisions in the Act. The judge emphasised that there was no evidence of any commercially significant purpose of DeCSS other than circumvention of CSS encryption technology. Following a grant of a preliminary injunction against Corley's co-defendants, Judge Kaplan took the same approach against Corley in the

Both cases concerning the application of the US anti-circumventions provisions (DMCA) on the distribution and publication of anti-circumvention software, the *Universal City Studios Inc v Eric Corley* and the *Universal City Studios Inc v Reimerdes*, have demonstrated that policy makers (and courts) in the US are not willing to allow users and consumers benefit from any copyright exceptions or constitutional doctrines including that of fair use, no matter how valid and superior they may theoretically be when compared to opposing private rights.[155] While US consumer protection organisations and academics[156] failed to convince the US courts that strong circumvention protection without any respect for users' fundamental rights and freedom, is anti-constitutional and should be invalidated, nothing precludes that

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next anti-circumvention case concerned with the publication of the DeCSS code decrypting DVD movies; *Universal City Studios Inc v Eric Corley* [2001](273 F.3d 429). Corley argued that computer code per se was protected by the First Amendment. Kaplan J, rejected this in saying that "computer code is not purely expressive anymore than the assassination of a political figure is purely a political statement". Although both cases have stretched out that fair use does not lack constitutional grounding, the US courts were not convinced that these provisions of the DMCA that provide an inferior level of fair use protection should be invalidated. In support of this, see Mihet, H, at http://www.law.duke.edu/journals/dltr/articles/2002dltr0003.html; see also Massey, R, 'Anti copying technology – freedom of speech or IPR infringement' [2002] 6 *Ent LR* 128 and 129. Supra note 103. Not only did eight US major film and entertainment companies take an action against the publishers of web-sites that had disclosed the 'DeCSS' (Decrypted Content Scrambling System) code, they also commenced proceedings against 'Copyleft' for reprinting the code onto a T-shirt. As reported on the news web-site at http://www.wizardfkap.com/page6.html, August 7, 2000, and at http://www.copyleft.net. See also MacMillan, F, 'The cruel c: copyright and film' [2002] 10 *EIPR* 483 at p. 486.

[155] Although a Californian court's decision in *DVD Copy Control Association v. Andrew Bunner* [2001] (Ho2 1153) indicates that the right to protect copyright works, by invoking the anti-circumvention provisions of the DMCA, is in principle outweighed by the First Amendment right to freedom of speech. In particular the court ruling the case held that posting the code for DeCSS was simply like publishing other types of controversial speech, and was protected by the constitution, and the decision went so far as to define software code as speech per se. Nonetheless, that court's decision is being appealed. Massey, ibid.

[156] Supra note 63.

these lobby groups would not succeed at Community level.[157] Although the European courts may be sensitive with constitutional matters reflected also in the European Convention on Human Rights, it is doubtful whether they would sacrifice the important rights of major European industries for the sake of public fair use rights.[158]

Undoubtedly, the interface between fair use principles and strict circumvention protection is very delicate and difficult. To some extent it is reasonable that the legislators of this Directive cannot actually establish the most appropriate balance between beneficiaries' fair use rights and right-holders' interests in all Member States especially because of cultural differences affecting the concept of fair use practices. Unfortunately they have failed in drawing even the necessary demarcation line.[159] Although the Copyright Directive pronounces aims of promoting "learning and culture", "while permitting exceptions or limitations in the public interest"[160], it is nonetheless clarified that "the objective of proper support for the dissemination of culture must not be achieved by sacrificing strict protection of rights".[161]

Given the above, should such a cumbersome case arise it will most likely be treated on a stand alone basis subject also to the market value of the particular work as this will be determined by courts. Nonetheless, most signs in reading Article 5 (2) and

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[157] However, in putting the DeCSS facts and arguments in the context of the Copyright Directive, it is at least arguable that this device was not made available for commercial purposes, in which case Article 6 (2) should not apply. As argued by Hanbidge, N, 'Protecting rights holders' interests in the information society: anticircumvention; threats post Napster; and DRM' [2001] 8 *Ent LR* at p. 223. Still, "these entities have huge resources to devote to lobbying and their voices" can be heard "disproportionately in the halls of European Union power", as supported also by Vinje, supra note 143. Additionally, the validity of the Copyright Directive should be challenged in the light of the EC Treaty. See for instance, Hugenholtz, 'Why the copyright directive is unimportant, and possibly invalid', at p. 506, supra note 53.

[158] Without necessarily sacrificing strict protection of their rights per se, something they would not do so as clarified in the Recital (22).

[159] See also Hugenholtz, supra note 157.

[160] It is thereby provided that the Copyright Directive "should seek to promote learning and culture by protecting works and other subject-matter while permitting exceptions or limitations in the public interest for the purpose of education and teaching." Recital (14).

[161] "...or by tolerating illegal forms of distribution of counterfeited or pirated works". Recital (22).

(3) in combination with Article 6 (4), and taking account of the aforementioned point as clarified in the Recital (22), indicate that the effective scope of such exceptions is likely to become narrower than that of the general fair use exception when exercised outside the scope of this Directive.[162]

Furthermore it is regrettable to imagine that the delicate and vital mission of striking the appropriate balance between right-holders' interests and consumers' fair use rights has been thrust upon Member States and national courts in such an incompetent manner.[163] This manoeuvring cannot even be justified by the Directive's objective for establishing a harmonised regime of protection related to copyright, related rights and technological protection measures.[164] Most probably, not all Member States will respond in the same manner when confronted with unfair practices of right-holders employing extra-technological measures in the expense of consumers' fair use rights, unless the EU legislators' intention was to leave Member States deal with the same lobbying groups the Commission had previously been confronted with, and a harmonised response to this matter be established, albeit to the detriment of users and consumers.[165]

### 3.3. The Effect of the Copyright Directive on Multimedia

It appears therefore that the Copyright Directive may provide an excessively broad protection to right-holders, especially producers of a multimedia work disseminated over the Internet to the extent this work is protected by copyright law or

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[162] In other words it seems that the Copyright Directive may encompass a lower level of fair use protection than that traditionally afforded under classic copyright and constitutional law regimes, unless Member States manage to enforce the same level of protection afforded in their copyright laws, when implementing the Copyright Directive, irrespective of the US recent case law trends and the lobbying power of major right-holders companies and alliances. Supra notes 103 and 157.

[163] Even in this case, it is most likely that the national courts may refer such problematic cases to the European Court of Justice if they feel unsure to give their own answer to this delicate matter, unless the lobby groups operating in the US and the EU manage to pass their own approach through national courts.

[164] Meaning the requirement imposed pursuant to Article 6(4) first paragraph.

[165] This would be so if all national governments lose the battle with these lobby groups.

by the databases sui generis right. While it is fair for them to be protected against unlawful circumvention acts, nonetheless this form of protection coupled with extra-contractual restrictions threatens to replace the balance traditionally reflected in copyright law for the benefit of users, with technological[166] and contractual monopolies.

Unless Member States succeed in establishing the necessary balance between users' fair use rights and extra-technological restrictions, users will lose their faith in both law and technological protection measures. This could eventually harm the development of the EU market, and the production of new works, particularly of multimedia, if consumers become increasingly discouraged from acquiring their favourite (multimedia) work on-line because of such discriminatory conditions. Even worse, this situation may be overcome in case consumers and users are not willing to fight for their fundamental (constitutional) rights and freedoms, and thus waive their rights through such contractual agreements. In that case a new order could potentially be established in the Information Society, which shall involve paying for every single use, no matter how fair or trivial that use may be, and users may be restricted by all means[167] from enjoying their natural rights[168].

Overall the Copyright Directive promises a 'hyper-protective' form of protection for right-holders of copyright or sui generis protected works compared with that envisaged under traditional copyright law prior to the Copyright Directive, as well as under the Database and the Computer Programs Directives.[169] Given the above reasons, it seems that the reproduction rights of right-holders, who may employ contractual as well as technical protection measures, are over-protected without

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[166] As such see also Vinje, supra note 141.

[167] Such as unfair competition practices, and extensive technological and contractual legal restrictions.

[168] Meaning those fundamental rights reflected in public policies and safeguarded under constitutional law and the European Convention on Human Rights; the right to freedom to information, communication and expression, as previously referred to. Supra notes 6, 10 and 37.

[169] As discussed in relation to the copyright exceptions maintained in both Directives; supra notes 31 and 36.

ensuring a proportionate extension of users' acts of fair dealing and private use.[170] In fact, the Copyright Directive favours established producers of IP works, the software, media and entertainment industries, rather than actual creators and users.[171] Nonetheless, it is creators who provide the invaluable content, and it is users craving for more content that feeds the on-line market of IP works while stimulating authors' creation. It is astonishing how openly EU policy and law makers have neglected the authors and the public domain. As such, the legislators of the Copyright Directive have intentionally avoided to deal with the sensitive and important issue of moral rights protection, although the primary objective is (or, was) to establish a harmonised regime of protection of valuable IP works, including multimedia, in the Information Society.[172]

Without underestimating the importance of these findings, the effectiveness of technical protection measures has also to be tested in the real market place erga omnes within the Information Society. Especially in the light of convergent technologies and telecommunications and the presence of different standards currently applicable DRM systems will prove their effectiveness only if they are operational and widely accepted, not only by producers, but also by consumers and content providers.

Since developments in the field have recently taken off by different players in the media, entertainment and music industries, many incompatible standards are applied on various platforms, reducing the ease of use, and demand for multimedia content.[173] In this light, it may be argued that the success of technical protection

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[170] The viability of private copying rights and fair dealing practices are seriously jeopardised, especially if one compares the Copyright Directive on these issues to the related provisions contained in the Database Directive on private copying rights, as well as in the Computer Programs Directive. Ibid

[171] Even more than intermediaries, when it comes to a conflict of interests. See point (d) at section 2.3. above.

[172] Albeit Recitals (10) and (13), it is clarified at Recital (19) that moral rights remain outside the scope of this Directive and they should be exercised according to the legislation of the Member States, the provisions of the Berne Convention for the Protection of Literary and Artistic Works See, the WCT and the WPPT.

[173] Submitted also at the Commission staff working paper, 'Digital rights, background, systems, assessment', (hereafter 'Digital rights') Brussels, 14.02.2002, SEC (2002) at p. 3.

measures erga omnes depends[174] on the level to which inter-operability and, perhaps, standardisation of technical devices is widely appreciated and established.

Therefore further attention should hereby be focused on the issue of technological neutrality, in so far as it could be indicative of the degree to which multimedia authors and producers can rely upon technical protection measures. Taking into account the above remarks concerning the appropriateness of the Copyright Directive to users and the public at large, any conclusions drawn in relation to the problem of inter-operability can be a sign of the adequacy of technical protection measures on the whole as a substitute to legal protection of multimedia and/or as a supplementary means of reinforcing the existent regulatory framework.

### 3.4. Technology against Technology

Although some producers are keen on deploying certain technological protection devices and DRM systems, not all information players are comfortable with this technology. Most players do not have confidence in technological devices, in so far as currently available DRM solutions are not only expensive, but also defective.[175] Particularly consumers of music CDs have been the real victims of this unfair situation; these may purchase certain copy protected CDs without any notification or warning that these CDs do not play in all CD players as a result of the underlying technical protection measures.[176] Hence problems related to

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[174] See Article 21 of the Proposal for a Directive of the European Parliament and of the Council on measures and procedures to ensure the enforcement of intellectual property rights 2003/0024 (COD). Following the Green Paper 1998, the Commission presented a follow-up Communication to the Green Paper on 30 November 2000, in which a whole series of measures was announced in the form of an action plan intended to step up, and improve the fight against counterfeiting, including a proposal for a Directive intended to strengthen the means of enforcing intellectual property rights. (COM (2000) 789 final). As for its relation to the Copyright Directive, it is made clear in the Preamble (15) that the provisions of the proposed Directive are without prejudice to Article 8 of the Copyright Directive.

[175] Due to the incompatibilities present at the underlying operating software, DRM systems cannot operate without crashes and bugs.

[176] Early in 2002, the US RIAA was reported to have secretly dropped copy protected CDs into the market without any notice or warning to the public that these CDs do not work in all CD players, at http://www.kyro5hin.org/story/2002/6/25/153034/124. Numerous complaints and campaigns for

incompatibility and lack of standardisation have not been resolved yet by developers of DRM technologies across product lines in either the B2B or the B2C market.

In particular, developers of DRM systems have come up with different technical solutions depending on the licence agreements between content owners and hardware vendors.[177] While device makers need to purchase licences from five, for instance, different proprietary DRM vendors, the prices are bound to escalate accordingly. As a result consumers are forced to purchase expensive and defective products. Hence, these systems cannot always prove successful in enforcing licence restrictions or copyright laws as a result of the underlying compatibility and standardisation differences. Unfortunately the same situation applies also in the field of broadband services. Such strategies cannot, of course, inspire customer loyalty. [178]

In view of this situation compatibility and inter-operability of technical protection measures and DMR systems become critically important to all information players, and particularly to consumers, whose interests should be equally important to producers and authors, media and entertainment companies, who aim at increasing their profits and sales. Inter-operability and compatibility should therefore be encouraged in the Information Society.[179]

In this context it is suggested that open and flexible DRM systems should be the answer to market distortions and lost revenues resulting from illegal circumvention of DRMs and illegal file swapping practices while facilitating

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consumers' rights are currently supported by some web site owners and consumers' protection organisations, which have decided to inform the public of currently available corrupted audio discs known as "Bad CDs". See for instance the lists of such works published at http://uk.eurorights.org/issues/cd/bad/.

[177] For instance, if one wants to legally copy music to a portable CD player to play that music in a car, or at home, how should one decide what portable device to should buy? If a device that is compatible with the proprietary DRM solution A, for instance, is bought, what happens when the song to be copied is only protected by solution B, or C, or D, or E? Should one buy five portable music players? Of course, not. Or should one wait for a single standard to emerge victorious in this standards' war? As supported also at the Commission staff working paper 'Digital rights', supra note 173.

[178] As supported by Curran, T, on behalf of Bertelsmann, at the Digital rights management workshop, Brussels, February 28, 2002.

[179] As acknowledged also in the Copyright Directive in Recital (54).

legitimate use of proprietary information.[180] It is also thought that open DRM standards will benefit consumers to the extent they ensure that web sites selling inter alia multimedia works shall offer consumers the selection they crave and inter-operability they will need to enjoy multimedia across the multitude of platforms and devices they might own.[181] While taking this approach alone might not be enough for valuable enterprises' content, it is also recommended that DRM strategies should focus on the mass market taking a lesson from the B2B market.[182]

In the field of broadband services, in order to bring about true convergence, it is further suggested that leaders in the DRM space should "think three dimensionally, not two dimensionally"[183]. Instead of devising schemes "horizontally across one media or industry sector, such as the music or the film industry"[184], these leaders should develop solutions "vertically, covering every type of content under the sun", and by extension, in the multimedia market.[185]

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[180] "Without standards online sites populated by pirates will continue to thrive unabated". Hence, "preparation of content for five different incompatible DRM schemes will create escalating costs for media companies." Furthermore, "selection and interoperability guaranteed by open DRM standards make legitimate media sites compelling alternatives to the illegal file swapping services", and "media companies, all of who had challenging years in 2001, will continue to see profits from their legitimate business models drained by illegitimate ones". "In addition to the enormous amounts of revenue lost to illegitimate services, the fragmented DRM space also hinders legitimate online business models." As supported by Curran at p. 2, supra note 178.

[181] Ibid. Open and flexible DRM systems are also supported at the Commission staff working paper, supra note 173.

[182] In this context it is recommended that DRM strategies focused on the mass market should focus on enterprise solutions that can stand alone or combine with a DAM (Digital Asset Management) platform like DMOD (Digital Media On Demand) to use encryption and metadata to identify, and control content from creation to distribution. As reported at http://www.networkcomputing.com/1319/1319ws1.html.

[183] As supported by Curran at p. 3, supra note 178 and at the Commission staff working paper, at p. 17, supra note 173.

[184] Ibid.

[185] Since development of multimedia depends also upon the true convergence of communications and technologies as was discussed in Chapter 1. Supra also note 183.

The need to encourage inter-operability and compatibility of technical protection measures has already been acknowledged by the EU legislators in the Copyright Directive, as well as recently in amending the proposal for a Directive on a common regulatory framework for electronic communications networks and services.[186] Some measures towards this direction have already been approved by the European Parliament while amending this draft Directive.[187] In this context the European Council has suggested that current problems related to standardisation should not be resolved by means of imposing one standard, such as the MHP (Multimedia Home Platform) for interactive services on digital-TV on all new market players.[188] This would contradict the new approach on standardisation.[189] Prior to the Council's position, the European Parliament had supported the view that such problems should be treated as a standards-battle and be won by one leading company, as the case was resolved in the battle standards for videocassette recorders[190]

Actually the present approach put forward by the European Council, that a dominant proprietary standard presents its own problems, comes also in line with that recently supported inter alia by a major media group player.[191] In particular it is argued that should one proprietary DRM scheme emerge as the industry standard, the company that developed it might charge monopolistic rent to other media companies.[192] Inevitably the emergence of a dominant proprietary standard shall lead to an anti-competitive

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[186] Recital (54) of the Copyright Directive. See also the Opinion of the Commission on the European Parliament's amendments to the Council's common position regarding the proposal for a Directive of the European Parliament and of the Council on a Common Regulatory Framework for Electronic Communications Networks and Services amending the proposal of the Commission pursuant to Article 250 (2) of the EC Treaty, COM (2002) 78 final, COD 2000/0184.

[187] In particular the Parliament had adopted an amendment mandating implementation of the so-called Multimedia Home Platform (MHP) standard for interactive services on digital-TV on all new market players. See Amendments 46, 47, 48 and 53, ibid., at p. 2.

[188] Ibid.

[189] Meaning that "standardisation should be industry-led and voluntary", supra note 187.

[190] Meaning the battle between the VHS and Betamax standards for videocassette recorders. The war was won by VHS and then consumers felt confident about buying VCRs and the films industry expanded when the home-movie business took off.

[191] The Bertelsmann group of companies, supra note 178.

[192] As supported by Curran on behalf of Bertelsmann, ibid. at p. 4 and 5.

market, where the only companies that may be allowed to compete will be "those that are fortunate to receive a license from the developer of the proprietary standard."[193]

In this prospect the death of competition will most likely stifle innovation in the multimedia market, limit incentives to make software more 'user-friendly', and decrease downward pressure on prices, while forcing media companies and consumers to absorb some of these additional costs.[194] In the light of convergence of telecommunications and media sectors, the main victim will be the consumer, the public domain and the currently developing multimedia market. Alternatively it is strongly suggested by representatives of media companies and the Council that standardisation should be "industry-led and voluntary".[195] For that purpose the Council's proposal that a public consultation be held by the Commission upon the desirability of making a standard mandatory, and codes of conduct be developed in the circles directly affected as a supplementary means of bolstering the regulatory framework, is more than welcome.[196]

Therefore, it becomes apparent that implementation of technical measures requires co- operation across industries and a consensus is to be encouraged by all media players, consumer protection organisations and policy makers. In the meantime, the private sector should be left alone to ensure that technological systems are "robust"[197] and accepted by all information players including consumers, leading to a healthy competitive environment, before any further legal action is taken with respect to technological protection measures. Alternatively, competition law may be another substitute instrument for protection where access to information concerned is

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[193] Supra note 178.

[194] Supra note 173.

[195] As supported also at the Commission staff working paper, ibid, and by the Council at Amendments 46, 47, 48 and 53, COM (2002) 78 final, COD 2000/0184, at p. 2., supra note 186. See also Marks and Turnbull supporting that "technology requires a high level of agreement and implementation by both content providers and manufacturers of consumer electronics and computer products. This can be achieved by legislation, whereby certain types of devices are required to respond to a particular copy protection technology, or by negotiated cross-industry agreements". Marks and Turnbull, at p. 200, supra note 124.

[196] Ibid.

[197] Supra note 182.

unjustifiably restricted, and information-monopolies are imposed by a few selective companies in order to force their standards to become mandatory.[198]

**4. Competition Law Measures and Multimedia**

Competition law is a major topic in its own right. This thesis does not purport to provide an exhaustive analysis of its scope. Almost by definition, a copyright owner enjoys a monopolistic position in respect of the particular work. Of course, such dominance is not per se illegal.[199] Identification of the relevant market is a key element of any action brought alleging abuse of a dominant position as under Articles 81 and 82 of the EC Treaty of Rome (1957). In most cases involving multimedia or indeed other copyright works a wide range of substitute works might be identified.

In the field of media and communications' regulation, more and more emphasis is being placed upon the application of competition law principles either in substitution for or as an integral part of sector specific regulation.[200] The question arising is how far such an approach may have benefit in the IP field. The Database Directive discussed in the previous chapter illustrates such an approach through the new sui generis right provisions.[201]

In relation to right-holders' and users' rights two aspects of competition law can be identified. One is the doctrine of unfair competition law, recognised widely in mainland Europe, but not, per se, in the UK, which may offer a measure of protection

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[198] It is reported that several German courts have held that the provision of programs that enable a dongle to be circumvented constitutes unfair competition under the German Act on Unfair Competition. Aas reported by Koelman, K, and Helberger, N, Hugenholtz, B, (ed.), iMPRiMATUR IViR, *Protection of Technological Measures*, Institute for information law, University of Amsterdam, November 1998 at p.36.

[199] It will become an infringing act only when one abuses one's dominant position by means of imposing unfair and discriminatory conditions on others It would be misleading to assert a priori that copyright contradicts competition law merely because it vests monopolistic rights in right-owners.

[200] See for instance the cases of *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs und Zeitschriftenverlag GmbH & Co. KG and Others* (Case C-7/97) [1999] 4 CMLR 112; [1998] ECR I-7791, and *Tierce Labroke v Commission* (Case T-504/93) [1997] ECR II 923, (appeal pending, Case C-300/97P); ([1997] ECR I-7007 (Case C-353/95)).

[201] Supra note 142 in Chapter 3.

to right-holders outside the scope of copyright law. Of greater significance for end-users may be the provisions of competition law, especially Article 82 of the Treaty of Rome.[202]

Production and development of multimedia can be so expensive and time consuming that not all persons or small size companies may be able to afford this without some investment help. Significant amounts of investment in multimedia must also be protected, although this may not lead to the creation of creative works worth protecting by copyright. Still, investors are entitled to some reward for their efforts and money invested, and to some level of protection against piracy by third parties and would-be competitors. At least in theory, competition law seems to be the most appropriate response to the needs and interests of multimedia producers and developers, who may not be able to claim authorship under copyright law, but may be protected under competition law norms.[203]

The fact that multimedia producers may often be large companies, rather than single persons, holding a dominant position in the IT, communications, entertainment, publishing, and media industries raises certain difficulties in establishing the appropriate balance between their interests and the public domain's and consumers' rights.[204] Even more so their dominant position can be strengthened by reason of their collaboration[205] in order to be able to deal with more kinds of works and market

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[202] Although the facts in *Oscar Bronner v Mediaprint* at paras. 56 and 63 did not directly concern intellectual property issues, the Advocate General, Jacobs F, went further in his opinion, and inter alia, he noted that (a) the justification for Article 82 is to prevent distortion of competition so as to safeguard the interests of consumers, not to protect the position of competitors as such, and (b) intellectual property rights are per se limited so as to balance the interests of free competition with the need to provide incentives for research, development, and creativity.

[203] Ibid. To enable the creation of new works, copyright limitations allow building on existing works. Similarly it may be considered abuse of a dominant position if a party refuses access to information that is essential to a new competing product and no substitute is available. Supported also by Koelman at p.31, supra note 198.

[204] As supported by Guibault, at p. 6, supra note 27.

[205] In the event of licensing copyright agreements between right-holders that affect adversely trade between Member States distorting the Single Market, the key provision of European competition law is Article 81 of the Treaty of Rome so far as it can render them void. In the UK section 2 of the Competition Act 1998 has a similar effect to Article 81.

segments in ever wider territories and worldwide. The Internet and e-commerce also facilitates this target by means of applying 'extra-contractual' and 'extra-technological' restrictions on users' legitimate rights as was previously discussed.

In this way producers of multimedia may become more prone to abuse their position by imposing unilateral rules to which either other competitors or users have no option but to accede if they do not want to be left out of the market. In this prospect the public domain would suffer irreversibly, raw material would be blocked for the creation of new derivative works and for access to information by the public, and later creators would no longer be able to create. Inevitably these companies will exercise their information monopolies worldwide the way they wish, and no one will be able to oppose this, unless the market itself and the law can avoid this potential risk.[206]

In this context one may witness that copyright owners are able to demonstrate their ability to control the value of their rights while taking advantage of the protected work by means of setting the conditions of use, and fixing the price of their work through exclusive licenses.[207] A number of such infringement cases have been considered by the European Commission.[208] Applying by analogy the findings of the

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[206] It is submitted that the Commission itself is unlikely to intervene, investigate breach of Articles 81 and 82, and take such action against these companies, or even collecting societies (see note 207 below) on the ground that their activities lack sufficient 'Community interest'. As supported by Bently and Sherman, at p. 292, supra note 32.

[207] In addition to this one may consider also that of granting the copyright-owner with the right to restrict others from certain activities, such as the right to restrain performances in a film constitutes a part of the specific subject matter. In this case, an exclusive licence may infringe Article 81 only if excessive charges are made to exhibitors. Of course, another issue worth considering is how far this exclusivity would be required, and upon what criteria could it be applied. If one wishes to take this further it is worth considering the cases of *Coditel II, Coditel SA and Others v Cine Vog Films SA and Others*, (No2) (262/81), [1982] ECR 3381, [1983] 1 CMLR 49, CMR 8862, where the Court tried to help by giving a series of criteria that relate to whether, after the event, profits have turned out to be too high. This however reduced the incentive to investment, which must be encouraged ex ante, as the Court had also asserted. See also Korah, V, *Technology transfers agreements and the EC competition rules,* Clarendon Press, Oxford, 1996, at p. 16 note 56.

[208] See the judgement of the Court of First Instance in *IMS Health Inc v Commission* [2002] (Case T-184/01R ECR and Case COMP D3/38.044 - NDC Health/IMS Health: Interim measures); *AB Volvo v*

'*Magill*' and/or the '*IMS*' cases in respect of multimedia works one has to prove first that the work constitutes an "element indispensable" or has become "a de facto", or else "industry standard"[209] "to the supply of a separate service and of no utility unless incorporated in the latter".[210] Secondly it will have to be proved that additional behaviour that is, in itself, abusive, such as unlawful pricing or refusal to grant a license, either prevents the emergence of that new product and thus of the emergence of a secondary market that is not part of the licensor's main activity[211], or the emergence of other competitors within the same market on the relevant market[212].

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*Eric Veng* (C-238/87) [1998] ECR 6211, para. 7; *CICRA v Renault* (C-53/87) [1998] ECR 6039, para.10; See also the judgments of the Court of First Instance in *RTE v Commission* (Case T-69/89) [1991] ECR I-485, para. 71, (hereinafter '*RTE*' judgment), and *ITP v Commission* (Case T-76/89) [1991] ECR II-575, (hereinafter '*ITP*' judgment); and to that of the Court of Justice, given on appeal in respect of those judgments, in *RTE* and *ITP v Commission* (C-241 and C-242/91 P) [1995] ECR I-743, para. 49, (hereinafter, '*Magill*').

[209] See *Magill* para. 53. See also the Order of the President of the Court of First Instance relating to a proceeding pursuant to Article 82 EC (Case COMP D3/38.044 - NDC Health/IMS Health: Interim measures, hereinafter '*IMS*') at para. 20-23, 84, 96, 98 and 102-103, ibid. In the *IMS* case the Commission first addressed the question whether or not the appellants' proprietary brick structure had constituted an essential facility. Following the results of its investigations it concluded that access to that structure appeared to be indispensable for competitors, that the applicant's refusal to grant licences was not objectively justified and that the said refusal potentially constituted an abuse of the dominant position. Nonetheless the President of the Court of First Instance ibid., concluded that execution of the Commission's Decision on the *IMS* case should be suspended until such time as the Court of First Instance has given judgment in the main action.

[210] Ibid. at para. 84.

[211] As the case was with *Magill* at para.56.

[212] As the President of the First Instance Court pointed out, the Commission had provisionally concluded in the IMS case that, without access to the structure concerned in that case, which had become an industry standard, the applicant's competitors could not compete with it on the relevant market. In essence the Commission's analysis was that the prevention, by means of a refusal to license an intellectual property right, of the emergence of new competitors willing to offer, at most, new variations of the same services and on the same market as the dominant undertaking may amount to an abuse where those competitors cannot otherwise access the market in question because the protected work constitutes a *de facto* industry standard. See the Order of the Court of First Instance in *IMS Health Inc v Commission*, at para. 20, 21 and 101, supra notes 208 and 209.

These conditions have to be applied cumulatively[213], and be related to the market share one has, since not everyone holding an intellectual property right is really in possession of a legal monopoly and therefore holds a de facto dominant position. In order to avoid such misunderstandings and misrepresentations the market share has to be measured successfully. This measurement depends on how narrowly or widely we define the particular market segment. In the case of multimedia works, however, this is neither possible nor appropriate for the following two reasons.

First, it should be taken into great account that currently multimedia per se has not developed to its true extent and as a result the multimedia market has not been yet shaped clearly. It is only expected that the multimedia market will be established at the cutting edge of all communications and media industries.[214] The true convergence, however, has not come yet and as a result it is not possible to portray the full extent of the scope of multimedia market but only to visualise what is expected.

Secondly, in so far as the multimedia market is immature and defined without consistency, it cannot be appropriately identified or defined, and thus successfully subjected to competition law.[215] In the absence of readily available and appropriate competition law remedies following the lack of a substantially well defined relevant market, the true monopolistic power of a multimedia producer will not be successfully measured.[216] Even more so if the present multimedia market segments are continually

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[213] In *Oscar Bronner v Mediaprint* also the ECJ held that all four factors mentioned in Magill must be present; supra note 202.

[214] See Chapter 1 in relation to the insecurity and uncertainty regulating this area.

[215] This had been the case also with computer programs when the software technology was at its infancy.

[216] The importance of defining the relevant market has been manifested also in the *IMS* case, where regarding the existence of a prima facie infringement of Article 82 EC, the Commission, first, analysed the relevant product and geographical markets. Once it was concluded that the relevant market was "the largest of its kind in the Community", the Commission considered it to constitute a substantial part of the common market and that *IMS* enjoyed a quasi-monopoly situation on that market "with a market share of over x%", "*NDC* and AzyX being its only competitors", the Commission found *IMS* to have a dominant position on the relevant market. See *IMS* at para. 60, 62. Apart from the serious risk of irreparable harm to *NDC*, it also supported that there was "a risk of intolerable damage to the public interest within the meaning of the La Cinq judgment". See the Order of Court of First Instance at para. 24, 26 and 27, supra note 209.

shifting while technology advances, it will be neither practical nor desirable to subject such an ill-defined multimedia market to the structures of competition law.

## 5. Moving from Competition Law to a Sui Generis Regime?

It appears therefore that, in the absence of a minimum amount of healthy competitive pressures, multimedia will not be appropriately protected whether outside or within the scope of copyright law. The landscape of multimedia may become a place of anarchy and mega-information monopolies may block further evolution and development in this area. The basic problem remaining to be confronted is that of striking a fair balance between the interests of all parties, rather than a 'balanced compromise'.

Copyright law provides strong protection for right-holders, but may leave potential users (including competitors) excessively vulnerable especially in the light of the Copyright Directive as was already illustrated. The Computer Programs and Database Directives provide exceptions for the purpose of securing inter-operability.[217] All this is not replicated in the Copyright Directive.[218] Both the Computer Programs and the Database Directives recognise certain private copying exceptions as mandatory.[219] The reason for this more user-friendly approach taken by these Directives may be that computer programs and databases have creative (original) functional as well as aesthetic features. As has been stated, multimedia has at least the same attributes as part of its 'look, use and feel', which justify its treatment in this respect, at least similar to computer programs and databases.

Generally competition law can potentially protect users to the extent of unreasonable behaviour by right-holders. Normally, proceedings are brought by a

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[217] See Articles 5 (3) and 6, as well as 9 (2) of the Computer Programs Directive, which also renders void contracts that attempt to restrict those rights; see sections 50A, 50B, 296 A(1)(b) and (c) of the CDPA 1988. A similar approach has been followed in the Database Directive see section 296 B of the CDPA, and the Databases Regulations at 19 (2).

[218] Only some indication is provided at Recitals (50) and (53) which is not enough.

[219] Unlike the Copyright Directive that provides only one. Supra also notes 31 and 36.

national authority rather than the individual or organisation affected.[220] In this respect competition law, including the doctrine of unfair competition law, is overall a complex field and proceedings may be lengthy and costly. Although neither competition law per se, nor the doctrine of unfair competition law alone, will be adequate, elements of its underlying principles, and particularly the doctrine of unfair competition law combined with aspects of copyright law may serve as the basis for a sui generis form of protection, akin in many respects to that provided in respect of databases.[221] The main benefit of such a scheme as will be outlined below will be to provide increased certainty and confidence to all parties concerning the nature and extent of their mutual rights and obligations.

Production and development of multimedia works necessitates serious investment without necessarily leading to the genesis of a truly dynamic and creative work that would be capable of being protected under copyright. Rather, it is the substantial investment of producers and developers that should be appropriately protected against the risk of piracy, and be rewarded in order to stimulate future development in this market. For that purpose non-creative and thus non-original multimedia should be protected under a sui generis right, almost similarly with non-original databases protected under a

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[220] In theory, the Commission can initiate such proceedings and investigations of course, however, it will be in rare cases; supra note 206.

[221] It could be useful as a complementary means of protection subject to the market conditions present at a particular time, and the flexibility of the particular copyright regime eventually protecting multimedia. This was also manifested in *Societe Tigest Sarl v Societe Reed Expositions France*, [2002], ECC 29 C d'A (Paris), at 12, 13 and 16, (supra notes 46, 121 and 141 in Chapter 3). As was submitted in the decision of this case, if the sui generis form of protection was absent, then the maker of such a database would be only partially protected by contract and/or the doctrine of unfair competition law, particularly because prior to 1998, and in the absence of the sui generis right, the respondent companies claimed for the benefit of a contractual restriction in their catalogues. These restricted the right of third parties to use the information provided for the personal needs of the purchaser, and prohibited of any form of sale, commercialisation or transfer to third parties. In this context, the appellants unsuccessfully tried to convince the court that the maker of these catalogues had abused a dominant provision ("within the meaning of the Ordinance of 1 December 1986"). It was held that the appellants had committed "a wrongful act and profited unduly from the investments" made by the maker, "which the court found to be an act of serious parasitism." As such, it was submitted that the sui generis protection closes the legal gap created by the absence of a harmonised system of unfair competition law.

sui generis right.[222] In this context multimedia producers and developers, who have invested a substantial amount of time and money in the production and development of multimedia should be distinguished from multimedia creators (authors), and be protected separately under a sui generis right as in the case with databases.

At this point one may argue that raising additional property fences will ultimately, and adversely, affect the public domain.[223] This risk is possible if legislators decide to take legal action in respect of multimedia either at an inappropriate time[224] or to an extensive degree such as by means of vesting producers of multimedia with extensive reproduction rights[225]. Nonetheless, producers of such works cannot benefit in producing low creativity (low quality) multimedia works since not all consumers are attracted to this kind of works. The market value of such products is limited by reason of their low quality, and thus so should the property rights vested in producers of these works. They should be protected and benefit accordingly for what they have made.

Anyhow arguing against such legal action becomes de facto meaningless today that more and more producers of non-original databases try to benefit from the sui generis regime as much as possible.[226] Why should they not also be entitled to similar, if not the same, 'fruits' of their labour for investing and developing non-creative albeit, added value multimedia works, too? In this light it would be unfair to deny producers and developers of multimedia a similar form of protection.[227]

Alternatively, one could argue that seeking to protect investment in low quality multimedia works sounds as if one is seeking some kind of unfair competition law

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[222] As will be proposed in Chapter 5.

[223] Supra notes 109, 111 and 136 at Chapter 2.

[224] Meaning, when the market conditions are not appropriate with respect to the problems of inter-operability, standardisation, the multimedia market as well as the convergence of communications, the mass availability of broadband services are not developing that fast as expected etc.

[225] Meaning, more than what they should be entitled to taking into account the fact that it is they, who most often produce low creativity and thus, low quality works based on their pre-existing information assets, rather than creating new original works.

[226] Not surprisingly too many disputes concerning unauthorised copying of databases have reached national and European courts. Supra note 145 at Chapter 3.

[227] Saying this however, one should not underestimate the fact that the efficacy of the sui generis right of the Database Directive is still strongly criticised as was discussed in Chapter 3; supra note 143.

protection combined with an industrial property form of protection. However, competition law per se is not an adequate measure of protection alone as was explained above. It cannot 'do the magic' in so far as the relevant market has not been appropriately defined, though it can be effective in so far as multimedia could be subject to copyright law. Although the latter applies with respect to multimedia works being creative (original), it would be inappropriate to suggest that non-creative multimedia works should be protected under unfair competition law alone, and thus, avoiding the establishment of a new sui generis right within the scope of copyright, whereas original multimedia works (being intellectual creations) be protected under another regime and category of subject matter, possibly copyright for literary works.

This would create a rather cumbersome situation, making one wonder, who is who among right-holders and what is really multimedia. In this context, an overlapping situation would emerge giving rise to further problems and risks of a distorted market, which should be avoided as explained in the previous chapter. Besides, if that was the case then why did the EU legislators of the Databases Directive not do so with non-creative (sui generis protected) databases?

It is for this reason that the sui generis right formula was then developed; to fill in the gaps of a missing unfair competition form of protection within the scope of copyright law for works that reflect this hybrid formation in need of a quasi-copyright-unfair-competition, and quasi-industrial property protection.[228] This is exactly what multimedia requires[229].

Under these circumstances protecting non-creative multimedia under a sui generis regime seems appropriate. Whether this takes the form of the databases sui generis right should be carefully examined considering the differences found in the previous chapter between databases and multimedia products. As was discussed, the databases sui generis right aims at protecting the contents of the non-original database rather than its structure. Since these parts can be clearly distinguished it is possible for original databases to qualify for both copyright and sui generis protection.

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[228] As was mentioned in Chapter 2, section 3.1, note 50.

[229] As was illustrated in Chapter 3, where it was considered whether multimedia should be protected under patent or copyright law.

Demarcation, however, of a multimedia work into original and non-original parts by means of differentiating between its structure and contents may not be so easy in all cases as was explained in the previous chapter. It was concluded that this would be neither feasible nor appropriate since it would undermine its totality. If this was possible, multimedia would not be multimedia, but a database or a compilation. It does not make sense to imagine that the multimedia elements could be distinguished into content and structure and the sui generis right protection referring to the contents alone and not to the structure, since multimedia content and elements of structure become one when projected on screen. This is actually what we perceive as the whole 'look, use and feel' of multimedia. Thus, it is not possible for the same multimedia work to be protected at the same time by both regimes as is the case with databases. Multimedia as a whole can be either non-creative or creative and as such it should be protected either under a sui generis or a copyright regime.

In view of the above it would be sensible to imagine that sui generis protection should be awarded only to those multimedia works that are not creative enough to qualify for copyright protection, provided a substantial amount of investment has been expended in their production and development. This sui generis right should function as an unfair competition form of protection awarding the producers of these works with the exclusive right to prevent substantial parts of their work being extracted and re-utilised in other productions for commercial purposes.

Production and development of multimedia works necessitates serious investment, which may not necessarily lead to the genesis of a truly dynamic and creative work that would be capable of being protected under copyright. Rather, it is the substantial investment of producers and developers that should be appropriately protected against the risk of piracy, and be rewarded in order to stimulate future development in this market. For that purpose non-creative, and thus non-original multimedia should be protected under a sui generis right, similar to that applying to databases.[230] In this context multimedia producers and developers, who have invested a substantial amount of time and money in the production and development of multimedia, should be distinguished

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[230] As will be proposed in Chapter 5.

from multimedia creators (authors), and be protected separately under a sui generis right as in the case with databases.

In considering also that right-holders of multimedia may potentially be over-protected by means of applying 'extra-contractual' and 'extra-technological' restrictions, it is submitted here that use for private purposes and fair use practices should not be completely restricted. Supposing that creative multimedia is subjected to copyright protection on its own and by extension to the scope of Copyright Directive[231], the right-holders of the sui generis right could be protected under Article 6 as right-holders of a sui generis protected database do.[232]

At this point one might argue that private use should be completely restricted since there seems to be little value in reproducing for private purposes what is of low creativity and quality. But makers of a sui generis protected multimedia work will be mostly harmed since the commercial value of their work will potentially be diminished if users copy their work and will no longer need to access it and thus, pay for the appropriate fee. Nonetheless, a low quality work should be protected against private reproduction only to the extent it is worth so.

Since producers of low creativity works know better than anyone else what is worth copying in their works, they know which parts of their work (how much of it or for how long) they can allow users to look at, use, or play without receiving any fair compensation.[233] In this way they can actually raise the market value of their work more than locking it up and hiding it perfectly as if it was made of gold. They also have the appropriate technological and legal means available to lock and keep safe information,

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[231] Pursuant to Article 1 of the Copyright Directive.

[232] Articles 1 and 6 (4) of the Copyright Directive.

[233] For instance they could use such devices allowing users to taste the work for a limited period of time subject to the nature and kind of the particular multimedia work, as the case is with Acrobat Reader software program for example, which is available free of charge, but not the Acrobat Distiller program. As such, any potential problem in determining how substantial or insubstantial a particular portion of multimedia content (reproduced with or without their permission) may be, should be overcome by right-holders prior to making available their work on the Internet, in so far as they prefer to let users copy and use free of charge what they want them to, for as long as they feel that users actually advertise their work, and thus, raise its market value. In that way right-holders not only raise their profit expectations they also reduce marketing costs.

which is really worthy protecting in the most appropriate way subject to the particular product profile and market conditions.

Furthermore it would be hyperbole to overprotect low quality multimedia works as if they were truly creative. There would not be any point in differentiating between non-creative and creative multimedia and protecting them differently. Even more so the incentive to create original works would be disrespected and ultimately undermined. Such a hyper-protection of sui generis right-holders of multimedia would also be disastrous for the public domain.[234]

## 6. Conclusions

The above analysis has demonstrated that existing non-copyright and self-regulatory mechanisms of protection and particularly electronic contracts, technical devices and competition law alone cannot ensure the most appropriate form of protection of multimedia. Hence existing copyright regimes do not suffice for the purpose of protecting multimedia, in so far as they cannot accommodate the whole work into their scope of protection. Currently available contractual and technological protection measures can promise the minimum necessary amount of protection to multimedia right-holders against the risk of piracy. Especially technological protection measures can be faster and more effective compared to (electronic) contracts.

The efficacy, however, of these forms of protection has not yet been fully proved due to certain market and technical insufficiencies, problems of inter-operability and standardisation, as well as a lack of generally applicable codes of practices. Even more so the effectiveness of the current regulatory framework of technological protection devices used for copyright protected works, and potentially for multimedia, namely the Copyright Directive, is doubted, particularly for reasons related to the restricted protection of users' fundamental rights and liberties and for public policy considerations.

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[234] For the reasons discussed in the previous section in relation to electronic contractual and technological protection measures.

In particular both electronic and technological protection measures may be used by multimedia right-holders as the vehicle of undeserved exclusive rights and information monopolies at the expense of the future creation and development of multimedia itself. Unfortunately the Copyright Directive provides only a broad legal protection for technical measures and to some extent facilitates the replacement of naturally mandatory copyright, constitutional and consumer protection doctrines being replaced by electronic contracts. Users' and authors' rights run the risk of being sacrificed particularly for producers', whereas authors' moral rights are not dealt with at all despite the primary objective of this Directive being the harmonisation of right-holders' rights in the Information Society.

This regime has failed to ensure the minimum necessary level of fair use mandatory privileges to users and the public domain. In doing so it threatens to replace copyright law with electronic contractual and technological monopolies. Furthermore it has not succeeded in establishing a truly harmonised regime of protection, thus increasing the potential of market distortions within the EU multimedia market, in so far as multimedia could potentially be subjected to its scope of protection as any other than databases and software copyright protected work could.

In these circumstances it is important to ensure the necessary amount of flexibility for some built-in mechanisms to be established by market leaders and national authorities in order to replace the damaged balance between rights, legitimate rights and right-holders' extra power. In this context Member States must ensure that fair use practices will be practically exercised and kept lawful in the on-line environment by all means, legal and technical, and users of multimedia works will not be requested to pay per use for what should be free. They must also make sure that later creators will have available a respectable amount of raw material for future multimedia creations, since otherwise the public domain will be converted into a "fallow landscape of private plots"[235] and information monopolies, as well as of low quality multimedia works.

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[235] See Boyle at p. 38 and 39, supra note 15.

Most importantly, Member States must be willing to act forcefully and quickly when self-regulatory protection measures such as electronic contracts and technological devices fail to respect copyright limits and exceptions, and no other effective means are provided to enable beneficiaries to benefit from such limits and exceptions. In collaboration with the Commission they could also encourage the development of codes of conduct in the field of electronic commerce, and technological protection measures to be open to the scrutiny of independent regulatory authorities protecting users and consumers.

While technological protection measures potentially help to limit infringements of intellectual property in the sectors, they may suffer from piracy on a larger scale if honest people are not kept honest. For that purpose contractual and technical protection measures must not be misused with a view to protecting information monopolies imposed by a few selective market leaders, who happen to own intellectual property rights in these sectors. All this can be even worse for the development of multimedia per se, in so far as the relevant multimedia market cannot be appropriately defined and thus sufficiently subjected to competition law. Furthermore the actual creators of original multimedia works usually being natural persons are in a weak negotiating position compared to multimedia producers being usually large media corporations. This insufficiency of competition law amounts to being inappropriate for protecting multimedia to the extent that it would favour mostly producers' interests rather than authors, unless creative multimedia works are appropriately protected under copyright law.

Overall it appears that contract law, technical protection measures and competition law alone or cumulatively cannot sufficiently, and thus appropriately, protect creators, users and producers of multimedia. Hence, the legal gap created so becomes ever greater as a result of the absence of a readily available copyright regime as was concluded in the previous chapter. It appears therefore sensible to assume that multimedia should be protected by a new category in its own right, both copyright and sui generis orientated, accordingly protecting its creative and non-creative aspects as a whole. Hopefully, the recipe of a quasi-copyright coupled with a quasi-unfair competition law formula of protection shall satisfy the need of protection, and the particulars of this hybrid in nature added value creative work.

Therefore, legal action should be taken for the establishment of a new category and regime of protection especially for the subject matter of multimedia works; it should be carefully designed to take into account the current insufficiencies and risks resulting from applying any of the so far discussed self-regulatory non-copyright protection measures, and currently applicable regulatory and market conditions. It remains to be seen how this new regime of protection of multimedia will be structured, and when such legal action should be taken.[236]

[236] To be proposed in Chapter 5.

# CHAPTER 5
# CONCLUSIONS

## 1. In General

Multimedia is a complex notion, which lacks precise and settled definition. Our understanding of multimedia arises from a comparison between what is perceived as novel and what has pre-existed in the field of (creative) works. Speculation as to what multimedia constitutes, or how fast a particular characteristic of it can become technologically outdated, by no means guarantees the best understanding of future multimedia, since no one can predict with certainty how it will look, or be used.

Inevitably contemplation of the most appropriate legal regime for the protection of multimedia cannot escape from current statutory provisions established for pre-existing works, whose nature can have similarities to that of multimedia. In considering any such regime, account has to be taken of the potential impact that any scheme could have in the Single Market, as well as in the wider international economy. To some extent the appropriateness of a particular regime of protection for multimedia will be mandated by what is feasible and practical, as much as by considerations of intrinsic desirability.

## 2.The Nature of Multimedia

In the course of the analysis undertaken in this thesis, it was shown that the key features of multimedia are:

(a) multiplicity of new or pre-existing (information) works, media and data;

(b) interactivity; and

(c) integration of all constituent elements into a homogenous, albeit dynamic 'look, use and feel'. The condition of fixation traditionally applicable is technologically outdated, and thus, can no longer be a prerequisite for copyright protection, drawing a clear distinction between copyright protected products as they have been in the past, and para-copyright protected services in the future.

In theory, all multimedia works should be characterised by the above elements. However, this may not always be the case in practice, since multimedia is the result of

both creativity and investment, and the respective inputs of each varies from work to work. The extent to which one of these elements dominates in a multimedia work, creates difficulties, which could mislead us when attempting to define the subject matter, and accommodate it within a particular regime of protection.

The question whether a novel object of work should be considered as a new phenomenon, or as a variety of old ones has to be considered. Multimedia is currently the most compelling example of this puzzle. Digital technology has turned to reality what was not possible before. The corrosion of past technological constraints in terms of time and space, quantity and quality, has enabled the evolution of some old works to look, be used, and feel like new.[1]

In view of this perplexing situation, legal discussions and debates are open. Not everyone may agree as to how multimedia works should be protected. Consequently, the question attempted to be answered in this thesis is; whether multimedia constitutes a new 'work' or an old one, such as a 'compilation', a 'computer program', a 'database', or a 'film'; or, whether copyright can protect multimedia appropriately as a literary or an audio-visual work. In quest of an erga omnes satisfactory regime of protection, it has then been questioned whether the solution to this problem, could be found outside the scope of copyright, and/or in a new regime of protection especially designed for multimedia works.

The real problem is that digital technology can transform old types of works, and copyright adapts to such transformations. The challenging effect of multimedia, though, is that interactivity compounded with integration has amplified our perception of what we could only look at and use through traditional works into the 'look, use and feel' experience through multimedia. The answer to the problem of multimedia works' protection then lies with its true nature, and the role it serves today, and in the near future.

### 3. The Superiority of Multimedia Works

Multimedia is considered to be a new work because it looks, is used and is felt so differently from traditional works. Its overall value is different because it is greater

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[1] See Chapter 3, section 3.2.2.5.

than that of its constituent traditional works. Effectively a multimedia work is more than the sum of its constituent parts. In this sense, multimedia supersedes previous works, and although not being entirely new, it is not the same as other literary or audio-visual works.

In summation:

- In an ideal world of intellectual property law, multimedia constitutes a new class of unified hybrid works, and hierarchically above the previously known 'literary and artistic works' (as defined in Article 2 (1) of the Berne Convention).
- The nature of multimedia in its entirety is a hybrid of informational, functional, (utilitarian), entertainment, and communication works. Multimedia can serve all these roles today.
- Practically speaking, multimedia constitutes a new method of acquiring information and knowledge in a functional, entertaining and creative way.
- In the marketplace, multimedia is a new source for generating profits at products and services level, depending on traditional media, and new technologies, and/or communications industries' success in gaining the lead in the new market sector of multimedia works and on-demand services.[2]
- On the whole, multimedia is a new form of expression, creation, learning, and communication, which can function as a hybrid of copyrightable and industrial proprietary works, whose added-value can be marketed, either as a new commodity, or as another suite of added value-para-copyright protected services.
- The balance to be established will be left to legislators, who will formulate the most appropriate legal regime aiming at the harmonised protection of multimedia, at least, across the EU[3], and ideally worldwide. Not surprisingly,

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[2] It remains to be seen whether full convergence and liberalisation of communications services and technologies, as well as wide public access to broadband services will become reality by the year 2005 in the EU as has been proclaimed. It is not clear yet, who amongst these industries and established media companies will benefit most from this potential, as discussed in Chapter 1.

[3] Member States may respond differently as explained in Chapters 2 and 3, and this potential should be avoided.

such a regime can partly be the result of lobbying and negotiation between consumers' interest groups, states and lobby industry groups.[4]

## 4. Fitting Multimedia Works within Existing Legal Frameworks

Since multimedia is a work of the mind, copyright appears to be the appropriate means for its protection[5]. Insofar as the notion and nature of multimedia are not going to be dramatically transformed by developments resulting from the convergence of traditional media and present communications sectors, multimedia works can be subjected to an open and flexible copyright law system, which can embrace its nature, value and needs.

This analysis has demonstrated, however, that although multimedia works share some common elements with traditional copyright protected works, especially with compilations, databases, and to a lesser degree with computer programs or films, they do not fit satisfactorily within the current copyright law regime. Classifying multimedia, as a 'literary' work, a 'compilation', a 'database', or an 'audio-visual' work by means of stretching the scope of the subject matter, is not a viable solution, (although possible on a case-by-case basis, across the EU), particularly because of certain strict borderlines the UK copyright system preserves compared to the more flexible design adopted in several continental states.

Overall, three different possible solutions can be foreseen:

(a) a cumulative application of different categories of subject matter;

(b) a wider form of protection for similar, but different works; and

(c) a new category of subject matter to be designed for filling the gap of an appropriate regime of protection for multimedia.

Neither the first, nor the second solution constitutes an appropriate form of protection of multimedia across the EU, let alone internationally. Not even the third solution is satisfactory if it is applied only by some states, and others adopt either of the previous

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[4] As recently witnessed with the Copyright Directive as discussed in Chapter 4.

[5] Outside the scope of copyright, solutions offered by competition and contract law, as well as by the use of technical devices of protection can only partially and temporarily be of any use, subject to conditions discussed in Chapter 4.

two options. The prospect of an overlapping form of protection of multimedia at European level will inevitably cause the distortion of the Single Market in the near future. The need to protect satisfactorily the developing multimedia market, entails also the need for coherence not only in the EU, but also internationally. In reality a harmonised and uniform response can only be achieved through a new mechanism of protection of multimedia for the benefit of the European Community and its Members States.

Therefore it is suggested that a new regime of protection for multimedia should be cautiously designed to be broad and flexible enough to respond to the particular nature, value and role of multimedia, drawing at the same time a fair balance between the needs of the industry and the public at large, including today's and tomorrow's creators.[6] The project of introducing a new category of subject matter (copyright protected), especially designed for multimedia can be realised provided the following conditions are met:

- Policy makers and legislators should feel confident enough to introduce a new category of subject matter within the scope of copyright law.
- They will necessarily have to face and respond to some long standing issues posed by the dialectic relationship of copyright and technology in a more 'user-friendly' way.[7]
- To achieve the necessary level of confidence and security, a certain amount of experience has to be accumulated by all interested parties with respect to multimedia. This means that the market segment to be defined as multimedia has to gain a certain degree of maturity.

Only when these conditions are satisfied should a new regime for protecting multimedia works be introduced and implemented. Only then will legislators and policy makers be acquainted with the real identity, value and potential of multimedia. The

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[6] This is particularly so considering how many powerful means of protection right-holders have today, (both legal and technological), given also the fact that the Copyright Directive has failed to establish the necessary balance. Instead it has favoured right-holders' interests somehow jeopardising vital users' and consumers' rights. As was explained in Chapters 2 and Chapter 4.

[7] Hopefully, other than that reflected at present in the Copyright Directive, particularly in relation to the scope of right-owners' exclusive right of reproduction and that of users' fair use practices.

market still needs time for sophisticated multimedia works to be developed and fill in all the readily available channels and pipes of distribution and communication. Multimedia has first to be made appropriately available in order to be accorded satisfactorily protected. Once the multimedia market is firmly defined it will be possible for policy makers and legislators to protect it consistently responding to the genuinely established rights and expectations of all interested parties.

## 5. Time for Legal Action

It is the author's view that to date these preconditions have not been satisfied.[8] It would be premature and inappropriate to suggest that a new regime should be urgently introduced, and implemented for protecting multimedia works today. Only when broadband services have reached the public at large, the convergence of communications and technologies has become a common reality, and subsequently more, and more sophisticated multimedia works will be created to be widely distributed, probably some time after the year 2005, should legislation follow.[9]

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[8] As was discussed in Chapter 1 there is a significant amount of uncertainty related to the development of multimedia since we cannot proclaim whether multimedia will develop as a commodity at a products level, or at an added-value services level. Furthermore, the fear of on-line piracy is no greater than that of piracy taking place in the off-line environment. There is no indication today of multimedia works being copied and/or altered without right-holders' authorisation, on a scale capable of encompassing the urgent introduction of a law specifically made for protecting these works. Furthermore the relevant multimedia market cannot yet been well defined, since no one really knows which particular objects should be subjected to this market.

[9] It is the author's personal view that the year 2005 is a landmark of a series of regulatory, judicial, market, and technological developments important for the future of multimedia anticipated to take place in the EU by the year 2005; (a) for the reasons mentioned in Chapters 1 and 2; (b) since most of the currently pending questions referred to the ECJ from Member States' courts concern the application of the sui generis databases right; most likely they will be answered by the year 2005, and hopefully, they will clarify the doubted sui generis database copyright regime; (c) the Copyright Directive will be implemented by all Member States, and it will be under the necessary revision process ; and (d) the private sector may have reached a consensus in establishing an open and flexible DRM standard before the year 2005, as will be discussed below.

Prior to the introduction of legislation, a variety of self-help measures may be taken by right-holders. In particular:

### 5.1. Preparatory Remedies and Action

(a) Creators and producers of multimedia can benefit from contractual and technological self-regulatory mechanisms of protection provided they are:

- bespoke and custom made[10]
- technology compliant, albeit, technology neutral[11],
- cost and time effective, and
- user-friendly[12].

(b) The private sector should reach a consensus in establishing an open and flexible DRM standard before the year 2005 as expected.[13] It is absolutely vital for the industries interested in gaining the lead in the multimedia market, first to overcome the

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10 Meaning that, (a) bespoke contractual agreements of cooperation, development and intellectual property rights *management* containing custom-made terms and conditions of use should be drafted especially in respect of a particular multimedia work, regulating the interests and rights of all parties' directly involved in respect of their work, prior to and following its development, distribution and exploitation, and (b) technological protection measures (including DRM systems) should be customarily employed to ensure a satisfactory and effective protection mechanism against the risk of unauthorised copying, alteration of all types of multimedia works, as well as an efficient cost and time effective model of payments, and rights management.

11 Both contractual and technological protection mechanisms should be up to date with technological advances, and flexible enough to allow the necessary amount of inter-operability, and a consensus to be achieved for an open and flexible DRM to be established.

12 In this context, it should be understood that being 'user friendly' DRM systems should (a) respect users' legitimate rights to reproduce non-substantial parts or amounts of the particular object of work for non-commercial purposes, fair-dealing practices, without unjustifiably restricting them from lawful acts of use, and (b) be technologically inter-operable and compliant.

13 In particular consumers, who own different platforms and devices and cannot be confident that they will be able to access any kind of information content and media irrespective of such platforms and devices, crave for interoperability. As supported also by the Commission, "DRM systems should be designed to be open and flexible, and facilitate the legitimate use of content" and "consensus should be encouraged, though the private sector should be left to ensure that technological systems are robust and are accepted by the market place." See Commission staff working paper, 'Digital rights, background, systems, assessment', (hereafter 'Digital rights') Brussels, 14.02.2002, SEC (2002), p.16-17.

problem related to inter-operability, and thus satisfy the needs of both consumers and providers, with respect to lawful access to and use of multimedia works. Otherwise they will face:

- fragmented DRM systems and multimedia market, coupled with
- decreased consumer demand for protected multimedia works, and
- a number of multimedia pirates.[14]

Such an open standard will guarantee the necessary amount of inter-operability, which is in the best interests of: (i) consumers ensuring access and use of multimedia to its full extent[15], and (ii) involved media and content industries to ensure consumers can lawfully use their works, albeit protected by strict technological protection systems.

(c) National regulatory users and consumers, competition and communications authorities should take all necessary measures to:

- educate the public of its rights in respect of legitimate use of copyright protected works, (which are made available on the condition of their acceptance of certain standard terms and conditions agreements, such as the shrink-wrap licenses), as well as of right-holders' potentially unfair behaviour, by means of issuing appropriate public press releases and information packages, having readily available users information access points, and time and cost effective resolution and complaints procedures,
- ensure right-holders do not over-restrict users legally permitted rights of use of their works, by means of issuing the necessary mandatory orders and codes of fair practice in respect of which, certain acts will be illegal and void,
- encourage producers, authors, communications services providers and operators, and other interested parties to agree among themselves on certain behavioural rules based on their own codes on conduct, within the limits of their ability to do so,

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[14] If consumers cannot use a single multimedia work at all places and platforms, not only they will be unhappy, but some may also feel necessary to circumvent such DRM systems in order to use it as they feel like, and they should.

[15] Curran, T, on behalf of Bertelsmann, at the Digital rights management workshop, Brussels, February 28, 2002.

- intervene in cases, where such self-regulation mechanisms prove insufficient, and/or fail to deliver those objectives identified in their orders, codes and regulations of fair practice.

The true convergence of new and established communications, technologies, services and industries sectors will become a reality only in so far as their leaders successfully develop and establish horizontal solutions while thinking in a three-dimensional way to ensure that every type of content and media and multimedia can be distributed under one stream. An open and flexible DRM standard can satisfy this requisite, as well as that of widespread availability of broadband services. Once consumers find out that the pipes of broadband services' networks are fed with high quantity and quality multimedia works disseminated though inter-operable systems, they will feel more confident to migrate to broadband connections.

Under these conditions any uncertainty with respect to the future development of multimedia will diminish and a strong and consistent multimedia market will grow faster. Once the market segment of multimedia has been firmly formulated and thus consistently defined, policy makers and legislators will be more knowledgeable of the real needs of the interested parties, as well as of the nature, value and potential of the subject matter, so as to introduce the most appropriate legal regime of protection for multimedia.

As such, the IT, publishing, entertainment and communications industries are given the opportunity to face within this time frame their own insecurities, risks, and potential problems (of digital piracy, under-production or lost revenues) by their own rules and remedies; and thus prove to policy and law makers who is who in the multimedia market, and which objectives should be achieved by law. The entire solution to the problems of creators, producers and developers cannot be found in law; part of the necessary solution should be found where it has originally emerged; in the market and in technology itself, prior to subsequent legal actions. In doing as proposed, regulators have the opportunity to facilitate the development and expansion of on-line, and on-demand multimedia works, (and perhaps services), as well as to achieve a relatively secure legal environment prior to any new regimes establishment.

## 5.2. The Ideal Pattern of Multimedia Works Legal Protection

Ideally the appropriate regime of protection of multimedia should be influenced by the principles and approach of the Berne Convention towards the protection of 'literary and artistic' works (as defined so under Article 2). A new category of subject matter should be introduced especially for multimedia works within the copyright regime, and designed in part on the basis of our knowledge in both legal and market practice of these pre-existing paradigms; copyright and sui generis protected databases and copyright protected films. On such legal basis, multimedia can be distinguished in creative and non-creative works, and be protected as follows:

### 5.2.1. Copyright Protection for Creative Multimedia Works

Multimedia works, which are creative (original) by reason of their contents' interactive presentation, should qualify for the award of copyright protection along the lines of database and films regimes. Since multimedia is to some extent functional and utilitarian in nature the originality criterion should not be higher than has already been adopted by Member States and applied by courts following the implementation of the Database Directive. As long as the entire 'look, use and feel' of multimedia is its actual creator's/or author's creation, is not copied, and is distinctively a creative work, such multimedia work will be defined, and protected as original.

Authorship of creative multimedia should be vested jointly in its producer and editor, since multimedia is normally distributed to users as a commodity, albeit potentially part of on-line and on-demand services. In this context the same (economic) exclusive rights awarded to all owners of traditional copyright works should be vested equally in multimedia authors (the producer and editor).[16] Moral rights, however, should be vested only in the multimedia editor, provided it is he who has successfully brought about the required level of creativity. But moral rights should be afforded to a minimum degree, only in so far as they do not impede with multimedia producers (or publishers)

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[16] It is not fair to discriminate between the producers and the editors, and/or artists (if other than the editor, albeit, in rare cases) contribution, since it is different in kind, not in degree; hence both types of contribution are equally necessary for the realisation of the entire 'look, use and feel' in all aspects from all perspectives, conceptually and practically.

investment in the overall multimedia production.[17] As such, the multimedia producer and editor will equally and appropriately be rewarded and compensated for their creative input, labour and investment.

Attention should be focused on the scope of exclusive right to control and restrict users' permitted acts for private purposes, especially in the Information Society. As was explained, the Copyright Directive overprotects right-holders' reproduction rights without ensuring a proportionate extension of users' acts of fair-dealing and private use. In particular, the right of private copying should be allowed in the same way as for copyright protected databases and computer programs, and fair-dealing practices should not be limited any more than they already are under the Computer Programs and Database Directives.

### 5.2.2. Sui Generis Protection for Non-Creative Multimedia

Multimedia products, which cannot reach such a high level of creativity, but whose production (creation and development) has been the outcome of substantial investment and effort, should be protected under a new sui generis right. This hybrid form of unfair competition doctrine and copyright law protection is the most appropriate means for protecting the substantial investment and effort put into multimedia production (including design, development, implementation and marketing) that deserves in its own right to be recouped.

The need for this kind of protection will inevitably be dictated by the needs of the market, and particularly of the developing multimedia market, to secure the necesary investment. The sui generis protection of non-creative (non-original), but valuable non-original multimedia works should be designed along the lines of the database sui generis right. In this context, multimedia works, on the grounds of quality-added-value, should qualify for this as follows.

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[17] Exercise of moral rights should not conflict with the interactive functionality of multimedia, and its resulting added-value, given the high number of participants in its production and development, and its derivative nature in so far as it is based on pre-existing works, for which a high number of licenses and permissions should be granted.

The person to be recognised as the right-holder (or else to be referred to as 'maker') of a sui generis right in a non creative multimedia work should be the producer of that work, who has invested a substantial amount of time, money and effort (either quantitatively and/or qualitatively measured) in producing it. This person should be entitled to prevent extraction and/or re-utilisation of the whole or a substantial part of the protected multimedia works content, and permit private use of insubstantial parts.

The scope of users' acts of reproduction for private purposes and fair-dealing practices should only be restricted to a minimum extent, not only in terms of time, but also of scope, by means of exempting certain forms of reproduction of insubstantial parts of their work for purposes of private and fair use. Ideally, this exception should be recognised as mandatory in all cases. As with the Database Directive, contractual terms with effect to the contrary should automatically be recognised as null and void.

As for the term of protection awarded under the sui generis right, ideally, it should not exceed a period of three years, and it should not be renewable (unlike databases). Being of low creativity, sui generis multimedia works market value will most probably not exceed that period of time.[18] It is important to ensure that the law will not encourage producers in recycling the same kind of inferior works over and over again as the case may be with sui generis renewed databases. The potential of a perpetual form of protection in the developing multimedia market would be disastrous for the public domain, and multimedia per se.

Overall, the scope of both copyright and sui generis protection for multimedia works should be designed broadly and flexibly enough to avoid the potential risk of overlapping protection between creative multimedia works protected under copyright, and non-creative multimedia protected under the sui generis right. Such a regime of protection should be established at Community level. Ideally the same regime of protection should be implemented worldwide along the lines of the Berne Convention, and the WCT and the WPPT agreements.

Arguably this option may not be feasible or realistic because of the difficulties encountered in practice in initiating and accomplishing such new legal measures at an

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[18] Otherwise, a perpetual, (common law) form of protection would be disastrous for all interested parties.

international level. The law, however, should not remain silent or static in the face of new developments. Copyright law is given the opportunity to prove its validity in the Information Society and the Single Market. As such, copyright law must face the new challenges posed by multimedia works.

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## 4. SELECTED LECTURES, PROJECT PRESENTATIONS, OPINIONS AND POLICIES ANNOUNCEMENTS

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