1. Introduction

The emerging networked multimedia environment presents a major challenge to the existing system of intellectual property. In the words of John Perry Barlow, the renowned prophet of the Internet and founder of the Electronic Frontier Foundation, ‘everything you always knew about intellectual property is wrong’.1 According to other, less pessimistic scholars, the future of copyright in a digital environment still shines brightly. However, the scope of rights and limitations, the management of rights, the problems of applicable law, and several other aspects of copyright law might require a thorough rethinking in the not too distant future.2

Many of the complicated problems involved are currently being discussed at different national and international governmental levels. In July 1995, the European Commission (DG XV) issued its *Green Paper on Copyright and Related Rights in the Information Society*, identifying 55 copyright questions for the future.3 The Green Paper was triggered by the Bangemann report of June 1994, which considered intellectual property

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protection to be a crucial factor in the development of a European multimedia market.

Across the Atlantic, new copyright policies have been developed at an even more rapid pace. Following its Green Paper of July 1994, the Working Group on Intellectual Property Rights of the National Information Infrastructure Task Force—set up by President Clinton in 1993—published its White Paper in September 1995. The White Paper has resulted in elaborate proposals to adapt the U.S. Copyright Act to the digital environment, which are currently being discussed in the U.S. Congress.

On the international, the intergovernmental discussions within the framework of WIPO (the World Intellectual Property Organisation) have led to a series of three draft treaties (on copyright, neighbouring rights and database protection) that are to be concluded at a diplomatic conference in Geneva from 2-20 December 1996.

In this article a number of the most relevant legal issues for the emerging multimedia industry will be identified. The main focus of this paper will be on the complicated licensing problems involved in producing and publishing multimedia programmes.

2. Definitions

2.1 Multimedia

So what are multimedia? Multimedia is, to say the least, a rather diffuse notion. Perhaps this lack of definitional clarity is the very essence of multimedia. The notion of multimedia implies, at least, the delivery of digitalized information in mixed mode. Multimedia information products combine text, sound and visual (still or moving) data. An other distinctive feature of multimedia is interactivity. Users may interact with the information stored in the multimedia product and retrieve information in customised form.

As has been observed before, the term "multimedia" is a misnomer. The very essence of a multimedia programme is that it carries a multiplicity of works in a variety of modes on a single medium.

Multimedia products may be distribute either off-line, i.e. on information carriers (CD-I, CD-ROM, 3DO, software diskette) or on-line, i.e. via cable systems, local area networks or telecommunication networks. The electronic superhighways of the future will carry a lot of multimedia programmes.

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5 WIPO Diplomatic Conference on certain copyright and neighboring rights questions, Geneva, December 2-20, 1996; Basic proposal for the substantive provisions of the treaty on certain copyright questions concerning the concerning the protection of literary and artistic works, August 30, 1996, Document CRNR/DC/4; Basic proposal for the substantive provisions of the treaty for the protection of the rights of performers and producers of phonograms, August 30, 1996, Document CRNR/DC/3; Basic proposal for the substantive provisions of the treaty on intellectual property in respect of databases, August 30, 1996, Document CRNR/DC/6.
2.2. The information superhighway
The complex problems of multimedia licensing are amplified by the emerging information superhighway, the telecommunications infrastructure of the future. The information superhighway represents the integrated, broad-band, high-speed, general-purpose telecommunications network of the coming century. The superhighway is not a single physical network, but a conglomerate of local, regional, national and transnational telecommunications infrastructures, interlinked to form a global information superhighway. In the superhighway a variety of existing telecommunications infrastructures, such as the telephone network, cable networks, satellite networks and broadcasting stations will converge.

The superhighway will be a broad-band network, permitting communication of data, text, audio, video and images at high speed and high fidelity. As an integrated "network of existing networks", the superhighway will carry both digital and analogue signals. In contrast to most existing cable networks, the superhighway will permit interactive, two-way communication on the network. Information can be uploaded and downloaded to and from any point in the network; consumers will be able to receive information on individual demand. Conversely, information users may become information providers as well.

Today, more than 25 million computer owners are linked on a global scale by the INTERNET, the forerunner of the information superhighway. INTERNET users all over the world have direct access to vast quantities of text, data, maps, photographs, computer games, still and moving images, and sound recordings. Spectacular advances in network fidelity, data compression and storage capacity will enable the INTERNET (or any other computerised telecommunication network) to eventually carry the complete Berne Convention catalogue of works.

2.3 Applications
Applications of multimedia are diverse. The following categories may be distinguished:

* education or training (including interactive home learning products);
* entertainment (games, adventures);
* music (interactive rock);
* information (interactive encyclopedias, atlases, directories).

Many multimedia products fit into several of these categories. Typically, a multimedia product is entertaining and "educational" at the same time. Once again, multimedia defies definition, giving birth to neologisms such as "edutainment" and "infotainment". What makes multimedia really different from traditional information products is a much richer variety of underlying works. The typical multimedia product contains graphics, film, video, music, photographs, paintings, animation, text, data, maps, games, and multimedia software. The typical multimedia product is a blend of practically all categories of works protected by copyright law.

2.4 Players in the multimedia market
One of many critical copyright issues of the (near) future is the convergence of roles in the digital environment. Historically, the information and entertainment industries are structured according to the specific media (platforms) employed to deliver the information or entertainment product. Multimedia transcends these technology-inspired borderlines. Thus, players from all branches of the information and entertainment industries, including providers of hardware and telecommunications infrastructure, will be competing in the multimedia market place:

* print media
* electronic publishers
* software producers
* film producers
* music industry
* broadcasters
* PTO's
* cable operators
* electronic hardware manufacturers.

This convergence is exemplified by an unprecedented number of cross-industry alliances and mergers. In many cases these alliances involve software or entertainment companies linking up with telecommunications or cable operators, thus providing right owners with guaranteed access to and control over multimedia delivery channels.

3. Copyright-related problems of multimedia

3.1 Copyright in general
Copyright law protects works of literature and art. Producers of original works are granted a catalogue of exclusive right: rights of reproduction, adaptation, publication, public performance, etc. These exclusive rights are limited by a set of statutory licenses, some of which may be relevant to multimedia, e.g. privileges for classroom education, library privileges, etc.

Not all copyright protected works are treated equally. Many European copyright laws contain special rules and limitations regarding computer programmes, film works, photographs, sound recordings, etc. Following the Council Directive harmonizing the term of protection (O.J. 1993, L 290/9), the regular term of protection is extended with another 20 years. Thus the German term of "life plus seventy" has become the European standard.

Copyright vests in the creator of the work: the author. In many countries copyrights in works made under employment contracts are allocated to the author's employer. In most countries, rights in audiovisual works (films, television programmes and video productions) are concentrated in the producer, enabling the producer to exploit the work without having to deal with a multitude of copyright owners.

3.2 Restricted acts
The incorporation and ensuing exploitation of copyright works in multimedia products qualify as a number of restricted acts. The multimedia producer must secure rights or
licenses for all the relevant acts. The following acts may be distinguished:

* **Adaptation**: the original work will be "tailored" prior to incorporation.
* **Fixation**: the work will be fixed in a tangible medium of expression, such as a master tape.
* **Reproduction**: the production of identical copies of the multimedia product.
* **Publication**: the distribution of copies of the multimedia product.
* **Communication to the public**: the distribution of the multimedia work through electronic networks.
* **Broadcasting**: the transmission of the multimedia work via hertzian waves or cable systems.

In electronic environments, copyright possibly includes an exclusive *use right*. According to Article 4(a) of the European Council Directive on the legal protection of computer programs (O.J. 1991, L 122/42), the restricted acts include:

"...the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole. In so far as loading, displaying, running, transmission or storage of the computer program necessitates such reproduction, such acts shall be subject to authorization of the right holder".

The recently adopted Council Directive on the legal protection of databases (Directive 96/9/EC, O.J. 1996, L 77/20) contains similar language in Article 5(a). The European Commission Green Paper (p. 51-52) suggests this approach should be applied to the digital environment in general. In line with the Commission's policy, the draft WIPO Copyright Treaty contains an express proposal to extend the exclusive right of reproduction to include the temporary fixation of a work in a computer memory. Contracting states would retain a limited freedom to exempt certain "transient" reproductions from the scope of the reproduction right.

This would imply that, in principle, every act of transmitting a work over the network, as well as each subsequent act of downloading and screen display, would qualify as "reproduction" of the protected work. Thus, any act of usage, including emailing, viewing a file on screen or "browsing" the Internet, would qualify as a restricted act.

According to many legal scholars, such a broad reproduction right would be carrying the copyright monopoly one step too far. In the analogue world, acts of information consumption, e.g. reading a book or watching television, are not copyright protected. Arguably, the same should be true for the digital environment.6

3.3 Moral rights

In all Berne Convention states, authors enjoy specific rights to protect their works against distortion. These moral rights are mostly inalienable; they cannot be transferred or assigned. In view of the endless possibilities of digital manipulation, both by the multimedia producer and by the end user, the risks of moral rights infringement are

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substantial. Therefore, in many cases additional licenses must be secured directly from the authors of works underlying the multimedia product.

A study by the Tokyo Institute of Intellectual Property, commissioned by the Ministry of Intellectual Property of Japan (MITI), identifies the moral rights problem as one of the critical legal issues in developing multimedia products. It is suggested the validity of a waiver of the right of integrity must be established in Japanese law - consistent with the situation in the United States and the United Kingdom. Moreover, the study proposes to restrict the right of integrity to acts which are prejudicial to the author's honour or reputation.

3.4 Neighbouring rights and rights of publicity

Multimedia producers may not content themselves with securing merely copyrights. Many materials incorporated in the multimedia product are subject to other exclusive rights, such as "neighbouring" (or "related") rights and rights of publicity. In nearly all European countries, neighbouring rights are granted to performing artists, producers of phonograms (sound recordings) and broadcasting organisations. The European Commission's Green Paper proposes to strengthen the rights of phonogram producers considerably by granting them exclusive digital transmission rights. Similarly, the draft WIPO treaty would grant to performing artists and phonogram producers an exclusive right of on-demand-delivery, either via the Internet or any other interactive medium.

In many cases neighbouring rights will overlap with underlying copyrights. For instance, a clip taken from a television series will involve copyrights (book, dialogue, format, film), neighbouring rights (performances, broadcast programme) and rights of publicity (names and faces of well-known actors). The scope of neighbouring rights protection is comparable to copyright. Rights of publicity often lack a statutory basis; nature and scope differ considerably from country to country.

3.5 Who owns electronic rights?

A crucial problem for multimedia producers and publishers is to identify the party that holds the electronic rights in a particular work to be included in a multimedia production. This is especially problematic in cases of grants of rights or transfers predating the computer age. How should a broad transfer of rights executed in analogue times be interpreted in the light of multimedia exploitation? In many countries such a transfer will be narrowly construed in favour of the original grantor or licensor. Thus, a transfer of "all copyrights" to a book publisher will probably not include electronic rights, if publishing in electronic form was not originally intended. In addition, a number of countries provide for a right to "proportional" remuneration from the copyright owner for unforeseen forms of exploitation.

In the United States, the National Writers Union has initiated legal proceedings on behalf of free-lance journalists against a number of newspaper publishers to establish that electronic rights have been retained by the original authors. The Tasini case is, at present, still pending before the New York District Court.

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Very recently, a most important case has been decided by the Brussels Tribunal de Première Instance. On 16 October 1996 the Brussels court ruled in favour of the Belgian association of professional journalists (AGJPB) and others in a test case concerning the electronic re-utilization of press articles. According to the Court, the journalists' copyrights were infringed by the unauthorized use of their copyrighted works in the Central Station database, which was jointly operated by a number of Belgian newspaper publishers.

The problem of residual rights - rights that have remained with the original author of the work - appears to be a major obstacle in many multimedia deals. Needless to say, all parties concerned should have a close look at existing licenses and transfers. Moreover, prospective licensees are strongly advised to insist on solid warranties and indemnification clauses from parties claiming to own electronic rights.

4. Licensing

According to the Financial Times "a battle between copyright holders and multimedia publishers threatens to obstruct the emerging market."8 There is more than a measure of truth in this statement. The multimedia industry is, indeed, struggling with difficult licensing problems. From time to time, multimedia program developers run into licensing problems so complex that further development of the product is aborted.

Typically, multimedia products are made from a multitude of pre-existing works, owned by a multitude of copyright owners, exercising a multitude of - sometimes overlapping - rights. Adding to the producer's difficulties, right owners will belong to different segments of the entertainment and information industry (music, cinema, software, education), applying different licensing practises. Multimedia publishers wishing to acquire rights by the book might end up negotiating with hundreds or even thousands of right holders for one single multimedia product.

4.1 Example: clearing rights in musical recordings

Multimedia products or services regularly contain short bits of recorded music or sound tracks taken from movies or popular recorded songs. Are these samples protected? The question has been raised in respect of sound sampling: the use of pre-existing sound "particles" in popular music. Even though doctrine and case law remains unresolved, multimedia producers are advised to acquire rights in all musical samples used.

Clearing these rights may be a tedious task, involving a wide range of (potential) right owners: the composer of the song, the writer of the lyrics, the performing artist, the producer of the recording, et cetera. More often than not the relevant rights will be exercised by someone other than the author. The right of mechanical reproduction of the song will probably be exercised by a mechanical rights society. Rights in the recording of the song will probably belong to a record company, whereas other rights may belong to a music publisher.

If the multimedia product features the option of displaying the notes or song lyrics on screen, additional so-called graphics or lyrics rights must be obtained. If the sample is to be used in combination with non-musical elements, an additional synchronisation license will be required.

4.2 Inventory of licensing problems
The following is an inventory of the most pressing licensing problems encountered by multimedia publishers:

* Multiplicity of rights
Multimedia products are composed of multiple protected works. Moreover, multimedia exploitation involves a number of restrictive acts. The multimedia producer has a lot of rights to clear.

* Multiplicity of right owners
Copyrights and related rights are rarely owned by one single entity. In practice, rights are divided along vertical and horizontal lines, for different modes of exploitation and different territories. Moreover, some rights will be exercised by agents or collective licensing societies. The multimedia producer has a lot of right owners to search for.

* Overlapping rights
Individual items incorporated in multimedia products may be subject to overlapping rights: copyrights, neighbouring rights, rights of publicity, etc. Even if copyrights have expired, the multimedia producer must reckon with surviving rights of publicity or neighbouring rights.

* Legal insecurity
Licensors of original materials may not know whether multimedia rights are available. In many cases, original authors have granted rights only for exploitation in traditional media. Current right holders, such as record companies, collection societies or film producers, may not have acquired all the rights necessary to license multimedia products. This legal insecurity is considered a serious problem in the multimedia business.

* Lack of established licensing practices
Copyright owners are inclined to apply royalty schemes developed for traditional media. These schemes do not take into account the peculiarities of the multimedia product. For instance, in the music business mechanical royalties are sometimes calculated on a per-minute basis. It would seem unfair to apply these schemes without reservation to interactive products.
In practice, multimedia producers are confronted with a bewildering variety of licensing schemes. Each "family of rights" has its own licensing tradition.

* Foot dragging
The lack of existing licensing practices has induced many players in the industry to adopt a wait-and-see approach. If right holders don't know how much to license for, they simply refuse to license. Moreover, many right holders have fears of paying compensation to original authors claiming "residual" rights.
5. Possible solutions

For multimedia publishers and producers the best legal advice would be: *don't do it.* Or better: *don't use copyright materials.* Indeed, this is a route regularly taken. Many multimedia products are built on public domain materials; more than one would expect from a novel information product. Another solution, equally attractive for multimedia producers, is to incorporate only commissioned works. In doing so producers remain in control of all copyrights and related rights concerned.

In most cases multimedia products will contain materials owned by third parties. For these situations present licensing practises are proving to be highly impractical. Not surprisingly, multimedia producers are looking for alternatives. A possible solution would be some form of collective licensing; in some branches of the information and entertainment industries collective licensing systems are very successful.

Should the acquisition and management of (multimedia) rights be facilitated by legislative or contractual mechanisms? In its Green Paper the Commission acknowledges the practical need for a so-called *one-stop-shop*, in order to facilitate the acquisition and management of multimedia rights. However, any non-voluntary solution to the problem of acquiring multimedia rights is flatly rejected.

Multimedia producers dreaming of a future where they can acquire all necessary licenses from a single collecting agency, are probably overly optimistic. Right owners will soon discover that the electronic use of copyright works is becoming, increasingly, a *primary* form of exploitation. Right owners would then be reluctant to empower collecting societies or other agents to license multimedia uses.

Until the *one-stop shop* opens its doors or any other system of collective licensing is established, multimedia producers must negotiate a multitude of individual licenses with a multitude of right holders. In some cases, the logistics of clearing rights will be more complex than the development of the multimedia product itself. In such cases, the multimedia product might never reach the market.

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Seville, 23 October 1996