Copyright Law and Digital Exploitation of Works

The Current Copyright Landscape in the Age of the Internet and Multimedia

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Foreword to the Original Edition

The development and use of new communications and information technology progresses rapidly. In a number of years one may expect a convergence of computer and telecommunications technology.

These developments emphasize the importance of the enforcement of intellectual property rights in

general and of copyright in particular. Copyright ensures authors and producers the control over and participation in the proceeds of the commercial exploitation of their works. Yet how is it possible to provide effective protection for intellectual property and acquired rights if just a few mouse clicks are necessary in order to make perfect copies of works by using digital technology and to distribute them throughout the world? Authors, rights holders and politicians are called upon to respond to this situation. On the one hand, legislation must provide sufficient legal certainty to promote creactive activities and investments in this field. On the other hand, a strengthening of copyright law in the digital context must not lead to the exclusion of users, e.g. of public libraries, from the enjoyment of works.

The Friedrich Ebert Foundation commissioned Dr. Thomas Dreier, senior researcher at the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law, Munich, to analyze the effects of new technologies on copyright law and to pinpoint the areas in which the legislature is called upon to react.

The author views copyright law as an essential instrument of cultural and economic control in the digital environment, an instrument, however, which requires precise tuning in order to contend with the changing technological possibilities of exploiting protected works.

It is important to obtain clear guidelines not only at a national level; the participating circles are called upon to work towards achieving a global harmonization of copyright law.

The changes in society engendered by the advances in digital communication and information cannot be foreseen fully at this point in time.

The studies commissioned by the Friedrich Ebert Foundation are intended to provide impetus and contribute to the discussion among participants in and observants of these developments.

Dr. J ürgen Burckhardt Executive Member of the Board of Directors, Friedrich Ebert Foundation

1. The Problem: Digitization and Networking - What Will New Technologies Change?

As with every kind of technical innovation, digitization and global networking - currently being discussed under the catchwords "multimedia," "Internet," "data superhighway" and "global information society" - alter the manner in which people communicate with one another, preserve their history and build the future.

This applies especially to the contents being communicated by means of digital technology. Previously, these contents were made available to the general public in analogue form. The legal framework in this context is copyright law, provided such contents were not simply unprotected data or mere information, but were protected works (including text, music, images but also computer programs and databases) or the achievements of a number of other persons or institutions participating in the culture business (in particular performing artists, phonogram and film producers, broadcasting companies). Copyright law secures for creators and producers the control over and participation in the commercial exploitation of their protected works and achievements. Copyright is protected by the German Constitution and anchored as a human right. This is how creative activity and the related investments can be rewarded and authors stimulated to create new works.

In order to determine the extent to which new technologies necessitate a reform of the legal instruments currently available, it is first necessary to address the issue of what is actually new in the context of

digitization and networking when viewed from the copyright perspective.

There is nothing new in the combination of several types of works within one larger work or on one data carrier; phonograms and cinematographic works are examples from the past. The digital format of data to be communicated is not new either; computer programs and computer games may be a relatively recent phenomenon, but they have been the object of detailed legal scrutiny. Finally, networking is not new either, since the telephone and cable networks have been in use for a long time; traditional wireless radio may also be viewed as a network, yet one that does not permit a response to be given and hence does not permit inter-activity.

What is new is that text, sound and visual information (photographs and moving images) is now presented and stored in digital form. This means that the entire information can be generated, altered and used by and on one and the same device, irrespective of whether it is provided on-line or off-line. The following aspects are of particular significance from the viewpoint of authors and rights holders:

- the fact that it is possible to make copies extremely fast, at low cost and without any loss in quality. This means a considerably enhanced intensity of private possibilities of use vis-à-vis traditional reprography and previous video and phonogram recordings, possibilities that may well conflict with the exploitation of the original products and hence the interests of authors and rights holders in optimal control over and exploitation of their rights. The latter applies especially where third parties appropriate works created by others in order to exploit them commercially themselves;

- the fact that digital data files are particularly vulnerable to manipulation (or: digipulation) by third parties; in this context it is unimportant whether the third party is entitled to use the protected work or not; and

- the fact that it is almost impossible to control the exploitation of individual protected works and achievements in cross-border, global data networks - of which the Internet is merely one prominent example. Each participant is able to cast aside his one-sided role as a recipient and become a provider; it is possible for anyone not only to access databases but - according to a familiar quotation - to act as a database him or herself.

These changes result in a marked increase in the demand for pre-existing or newly produced material, which is ingested, adapted and re-marketed in ever-increasing quantities by the copyright industry and consumers alike. At the same time, from the viewpoint of authors and rights holders a loss of control sets in, which is much more severe in digital on-line media (Internet, proprietary Networks, Intranets, etc.) than in digital off-line media (disks, DAT, CD ROMs, DVD, etc.). The problem is compounded by legal uncertainty and a number of lacunae deriving from the fact that, from a linguistic point of view, copyright law was previously oriented towards analogue exploitation technologies.

On the one hand, legal uncertainty and the feared loss of control may impede investments in the digital infrastructure and lead to an undesired restraint in making available attractive material. On the other hand, numerous users fear that a strengthening of copyright in the digital field will increasingly exclude them from enjoyment of works; finally, libraries see their future role as information agents in the digital age endangered.

In the face of such conflicting interests, it is necessary to arrive at a balance that is both reasonable and takes into account as far as possible all the legitimate interests involved.

2. Executive Summary: The Need for Legislative Action

Point of Departure

1. Copyright is a legally anchored exclusive right comparable with a property right and embracing aspects of moral rights and property rights. Hence, it constitutes a basic and human right which enjoys the protection of Art. 1, Art. 2(1) and Art. 14 of the German Constitution. Copyright protects the creators of literary works, of scientific and artistic works (text, music and images, but also databases and computer programs) as well as certain participants in the culture business (in particular performing artists, phonogram and film producers, broadcasting organizations).

2. Copyright guarantees creators and producers both control over and participation in the commercial exploitation of their protected works and subject matter; in contrast to property in a tangible object which can only be sold once by its original owner, basically speaking creators have the right to permit or prohibit not only the first but also every subsequent exploitation of their works.

3. Even before the digital age the copyright industry generated approximately 3% of the German gross national product (GNP); future digitization developments will give rise to a further increase in this percentage. Hence, copyright will gain considerably in significance as regards securing employment and the industrial future of Germany.

Problems in Connection with the Digital Use of Works

4. Digital technology enables protected works and subject matter to be copied at low expense and without any loss in time or quality; an additional problem is the vulnerability of digital data vis-à-vis manipulation ("digipulation") by third parties. This leads to a loss of control over data that can be accessed - even with permission - by third parties. This loss of control is even greater as regards on-line media (Internet, proprietary Networks, Intranets, etc.) than it is with respect to off-line media (disks, DAT, CD ROMs, DVD, etc.).

5. Owing to the fact that the language of the German Copyright Act is directed at analogue exploitation technologies, certain lacunae and in numerous cases uncertainties arise with respect to the exploitation of works in digital form. The same applies at the international level, for global digital networking is characterized by the ubiquity of the works fed into the net, yet a global copyright will not exist in the near future. Therefore, problems will continue to be regulated by a bundle of co-existing national copyright laws, giving rise to the necessity of world-wide harmonization as regards both substantive law and issues of applicable law, international jurisdiction as well as the effect, recognition and execution of national judgments in foreign countries.

6. From the perspective of rights owners, a loss of control and uncertainty in legal issues may well entail a drop in investment activities. This could lead to an undesirable restraint regarding investments in the digital infrastructure and in attractive digital products. Such restraint would be heightened by the fact that in many sectors it is currently impossible to predict the manner and extent to which analogue exploitation will be replaced by digital exploitation options (which will co-exist in the mid- if not even in the long term). Moreover, there are differences of opinion between the creators and producers as to the division of rights on the content providers' side. Contrary to continental European traditions - protecting the author as the original creator and weaker contracting party - producers aim to acquire all the rights at once and on a centralized basis from the authors ("buy-out" in a "one-stop-shop"). Yet on the other hand, authors and rights owners are united in demanding a strengthening of copyright protection in order to compensate for loss of control.

7. In contrast, users of protected works and subject matter fear that such a strengthening of legal protection would result in their gradual exclusion from enjoyment of coyprighted works and that access would be blocked, even to unprotected information. It is alleged that broader copyright protection would make a large number of acts that as yet do not require authorization subject to the consent of the creator. Libraries in particular have joined the users' side, for in accordance with their responsibilities they wish to lend not only analogue books but also to participate in digital information transmission; yet this means that they will become direct competitors of producers (publishers). The same holds true as regards independent information providers who make use of the preparatory work undertaken by third parties.

Recommendations

8. The following principles should be observed in amending coypright law to contend with the challenges posed by digitization and digital networks:

- contrary to negative prognoses (e.g. Negroponte), copyright will prevail in the digital world as a vital instrument of cultural and economic control. There is no need for a fundamental new system to regulate the rights in immaterial goods that are of such significance to commerce and society as a whole;

- Uncertainties in coypright law should be resolved. Apart from this, copyright law should be strengthened and not undermined, for defective or a total lack of copyright protection means that necessary investments cannot be recouped and as a result will no longer be made. Yet without attractive products, the future development of the information society's infrastructure is at risk;

- however, the loss of control will only be compensated in part by strengthening copyright protection; over and above this the answer to the problems posed by new technologies must be sought in precisely thesetechnologies;

- the strengthening of legal protection and the development of technical access control mechanisms, control of use and accounting mechanisms, does not preclude the future co-existence of legally protected and "unregulated" spheres (such as the Internet at this point in time). Moreover, unfettered access to information does not necessarily mean that this access will be free of charge;

- finally, it should be noted that the necessity for global harmonization of laws owing to developments in technology leads to a drastic reduction in the scope for national regulatory policy. This applies not only to the field of copyright law but to all legal matter affected by networking. The price to be paid for any attempt to uphold national specific legislative features will be a weakening of the international enforceability of rights.

9. Consequently, the following criteria should be observed in order to achieve adequate and suitable copyrightprotection:

- firstly, the legislature is called upon to rectify lacunae and uncertainties in the German Copyright Act and, at the international level, to contribute to global harmonization of copyright law. The conclusion of the TRIPS Agreement and of the two WIPO Treaties (WCT; WPPT) represents a first step in the area of substantive law. In this context, taking traditional aspects into account, particular attention should be paid to attaining a balance of interests (see in detail Annex 1);

- secondly, support should be provided for initiatives commenced by rights holders with the aim of providing information on the ownership of rights in individual works, facilitating access to works whilst

developing accompanying technical protection;

- thirdly, it is the responsibility of practitioners to adjust copyright contracts to the changing technological situation with respect to the exploitation of protected works and achievements, and to develop new models of centralized rights management in addition to the existing system of collective administration.

3. Point of Departure:Copyright and Protection of Creative Acts

Before moving on to the problems and need for adaptation entailed in the sphere of copyright law by the new technologies of digitization and networking, it is first advisable to outline the basic principles of copyright law.

3.1. Copyright as an Exclusive Right

Copyright is the right to which the creator of a literary, scientific or artistic work is entitled in his or her immaterial, i.e. intangible work; the catalogue of works ranges from text via sounds and images to embrace computer programs and databases. Comparable with a property right in a material object, copyright has been structured by the legislature as a so-called exclusive right. Hence, it is solely for the creator of a work to decide whether - and if then in which manner - he or she wishes to exploit the work and who should be excluded from such exploitation.

The copyright in an immaterial, i.e. intangible, work should not be confused with the property right in the material carrier medium in which the intangible work is embodied (namely the paper of a book, the plastic of a CD ROM, etc.). A person who buys a copy of a book acquires the property right in the carrier of the work, yet without a specific agreement to this end he or she does not acquire any copyright entitlement in the content of the book. Hence, the purchaser may do what he likes with the book itself, yet he may not reproduce the content of the book he owns as property beyond the provisions of the limitations on copyright (see for further details point 4.5), nor may he use the content for any other kind of public communication.

The exclusive rights granted to the creator of a work by law (so-called exploitation rights) are anchored in detail in Secs. 15 et seq. of the German Copyright Act. According to these provisions, the creator is entitled to exploit his or her work in tangible form (essentially by reproduction and distribution of the copies thus obtained) or in intangible form (by any kind of communication to the public, whether live, with the use of videos and phonograms or by broadcasting). If the creator permits a third party to exploit the work, he or she may in return demand payment of a remuneration and thus participate in the profits of the exploitation of the work. The aim of the remuneration is to compensate the creator for the efforts he made in order to create the work and, in addition, to enable him to make a profit. In other words, the purpose of the exclusive right is to stimulate creators to create works that have a commercial value. It is for this reason that not each and every work attracts protection, but only works that are individual and have sufficient creativity (or: originality); material that does not fulfil this criterion, e.g. mere data or information, is not protected by copyright. It may be used freely, provided that such use does not amount to the unauthorized appropriation of substantial parts of a database which required substantial investments, or to conduct deemed unfair under competition law.

Of course, the exclusive rights conferred on creators are subject to certain limitations and exceptions. The interest of authors in controlling as far as possible the exploitation of their works is set against the interest of the general public in being able to use protected works under certain circumstances and for

certain purposes (education; freedom of private use; criminal proceedings etc.), without the consent of the author and, in some cases, without having to pay remuneration. The so-called limitations on and exceptions to copyright take these interests into account. The balance of the individual interests of the creator and of his or her heirs against those of the general public is also the reason behind the limitation in time imposed on copyright. Contrary to proprietary rights in material objects, copyrights do not last forever, but expire throughout the EU 70 years after the author's death (Sec. 64, German Copyright Act).

3.2 Ideal and Material Interests

Copyright law protects not only the material interests of an author in his or her work, it also protects his or her "intellectual and personal relations to the work," in short, his or her ideal interests.

These interests include the right of first publication of the work, the right to be identified as the author and the right to the integrity of the work (the right to prevent distortion or mutilation of the work) (Secs. 12 et seq., German Copyright Act). Violation of the latter right takes place where a work is altered in a manner likely to prejudice the legitimate personal interests of the author, or where the work is placed in a context that gravely conflicts with author's intentions.

The "spiritual ties" linking the author to his or her work continue to exist after assignment of the exploitation rights to the work; the central core of such "ties" is deemed to be unassignable and unwaiveable (see in further detail point 4.3). This concept is reflected in other copyright provisions, e.g. the right to revocation by reason of changed conviction (Sec. 42, German Copyright Act); in the provision requiring the author's consent for the re-assignment of a licence by the licensee or where the licensee wishes to grant a non-exclusive license (Secs. 34, 35, German Copyright Act); in the prohibition on altering the title of the work, the designation of the author or the work itself by the licensee, provided that the author does not abuse this right (Sec. 39, German Copyright Act), and finally in the prohibition on modification of the work (Sec. 62, German Copyright Act) and in the obligation to indicate the source where a work is reproduced (Sec. 63, German Copyright Act), if use of the work is permitted without the consent of the author on the basis of one of the limitations on copyright anchored in Secs. 45 et seq., German Copyright Act.

3.3 Authors and Related Rights Holders

In addition to authors, other natural and legal persons who engage in activities within the culture business also enjoy legal protection (Secs. 70 et seq., German Copyright Act). These activities are of a performing or interpreting nature, e.g. in the case of performing artists, or - e.g. in the case of phonogram producers, broadcasting companies and film producers - of a commercial, organizational nature. Under German law, authors of scientific editions, publishers of posthumous works and photographers of photographs that do not fulfil the originality criterion required for protection as photographic works also enjoy protection under related rights. Protection of related rights is not as extensive as that afforded by copyrights proper; in particular, the term of protection runs for 50 years after the first public communication or after the creation of the work, if publication does not take place during that period, and is thus shorter than the term of protection afforded by copyright proper.

These related (or neighbouring) rights must also be taken into consideration when analyzing the implications of digital technology for the exploitation of protected works and achievements. In this respect, the interests of the individual groups of related rights holders are frequently - but by no means always - identical. Certain conflicts of interest arise particularly in relations between the individual creator of a work or the individual performer and the publisher or producer, although both groups do pursue the same interests vis-à-vis those exploiting works and end users.

4. Substantive Copyright Law: Problems and Need for Reform

The producer Multimedia has created a new interactive product. Before launching his product on the market, he - and his employees - want to know to what extent the product attracts protection and which rules will apply in an individual case. He is startled by the prognoses of renowned media gurus, according to whom the copyright laws, constructed for an analolgue world, are absolutely unsuited to the digital environment and have hence become obsolete. Yet being a businessman, Multimedia will not launch his product onto the market until he is certain that he has a chance of recouping his investments and making the envisaged profits. In order to achieve these aims, however, he must be in position to prohibit others from taking or imitating his product without permission and without paying licence fees.

According to the law as it currently stands, corresponding to previous technical developments, the provisions expressly cover collections, cinematographic works, databases, computer programs, videograms and phonograms. Where do digital works fit in? To which rights are employed creators entitled? May existing works be altered or even faked without restriction by using any of the digital tools available? How does on-line and off-line distribution of digital works fit into the traditional distinction between tangible and intangible exploitation of a work? In particular, is protection afforded to authors and producers against the digital product being made available in a database by a third party, without permission? What are private users allowed to do with digitally obtained products? How much scope for manoeuvre do libraries and information brokers have in the digital environment? And just who is liable for infringement in the long chain of information transmission - ranging from content provider via several service providers, network operator and access provider to the end user?

It is often postulated that copyright law has fallen hopelessly behind the explosive developments in technology and will therefore soon become obsolete as a regulatory instrument in the digital world. Yet this prognosis appears unlikely, for a number of reasons:

- firstly, in the past copyright law has proved that it is flexible and open to reform in the face of technological advances; in this respect it was unimportant whether the technology led to new objects of protection (photographs, film, phonograms and videograms, computer programs and databases) or whether it enabled new kinds of exploitation of protected works and achievements (by phonograms, radio, television, video, cable networks and satellites); consequently, there are no principal obstructions to incorporating multimedia works and on-line provision thereof into copyright law;

- secondly, in a digital context there is still a need for a categorization of goods in the sense of property, guaranteeing to creators rights in the intellectual creations they have created. The reason lies not only in the fact the a certain degree of property protection is afforded under constitutional law and general human

rights, but primarily in the fact that exclusive rights in goods the production of which requires investments constitute one of the main pre-requisites for the function of a market economy. In other words: creators and producers will only make available immaterial goods the creation of which entails considerable investment if they can rely on a legal framework which enables them to gain a profit or at least to recoup their investments in commercial competition. This applies all the more in view of the fact that the creation of protected works is shifting from the individual author to the copyright industry. Hence, in the end the users also have a long-term interest in effective copyright protection, although theirshort-term interests lie more in being able to undertake acts of use without being subject to copyright provisions;

- Finally, copyright law does not focus on the interests of creators alone, rather, it embraces the interests of all participants - of authors, producers and even of end-users - and arrives at a reasonable balance between them. In particular, the information contained in a work is not protected as such, but the configuration in which the information is transported to the user. In this respect as well, copyright law does in fact appear to be the right instrument to provide adequate provisions in the digital environment.

Consequently, it is not necessary to develop a completely new model in order to categorize the products in a digital context. Copyright law will remain an essential instrument of cultural and economic control in the digital world. Yet it is true that the law as it is currently in force, with its underlying balance of interests between creators, producers and (end) users, is based primarily on the fixation of protected works and achievements in analogue form; one only need mention the terms "reproduction" and "printed media." Hence, it is necessary to pinpoint the lacunae, legal uncertainties and any inappropriate implications of the Copyright Act as it currently applies in a digital context, and to develop and put forward corresponding solutions for these issues.

4.1 Protection of Multimedia Works

The first question to be posed is what kind of copyright protection is granted to digital off-line and on-line media. Two problems must be distinguished: firstly, whether the mere digitization of analogue material gives rise to copyright protection; secondly, what kind of protection does a multimedia work attract in its individual combination of component parts.

As regards digitization as such, independent protection does not come into question under the law as it stands, nor should such protection be introduced in future. The reason is that, with the exception of certain individual cases, digitization using a scanner or similar device is simply an act of reproduction without any personal creative achievement on the part of the person who carries it out; the originality requirement of Sec. 2(2), German Copyright Act is not fulfilled. According to previous case law, a person who merely copies another's picture does not obtain a copyright or even a related right in the copy. Were such a right granted, it would then exist side-by-side with the copyright vested in the original author, so that exploitation of the digitized work would require additional authorization. Such a situation would unnecessarily complicate trade in digital products.

Digitization as such does not attract protection to the benefit of a person or entity who merely digitizes analogue material.

The second question is how to qualify digital off-line and on-line media from a copyright perspective. The significance of the issue lies in the fact that the relevant categorization entails different legal consequences. To give a few examples: different provisions apply to computer programs created in the course of an employment relationship than do to other works created in the same circumstances; for cinematographic works there are specific legal presumptions as regards the exploitation rights which the authors of the individual creative contributions have assigned to the producers; phonogram producers, film producers and now database producers enjoy rights that are not conferred on other producers. Categorization is especially compounded by the fact that digital technology permits the creation of a multitude of very different products ranging from music CDs, digital dictionaries, traditional databases to interactive CD ROMs; the future will doubtlessly bring other kinds of multimedia work. A solution should be guided by two considerations:

- firstly, protection of the individual elements of a multimedia production must not be confused with protection of the multimedia production as a whole. This corresponds to the previous tradition in copyright law and, in addition, takes into account the fact that it remains possible to dispose of the

individual contributions separately, even after the individual elements have been combined in one single work. A different solution is conceivable, but not advisable in the current economic situation; - secondly, there is no reason to set aside existing legal protection possibilities for digital products without necessity and to replace them with a completely new kind of protection; this is all the more true since in practice the definition of a multimedia work is still extremely unclear, so that a sufficient delimitation vis-à-vis other types of work appears to be impossible.

The implications of the above remarks for multimedia works are as follows: to the extent that the multimedia work is a database in the sense of the EU Directive, it attracts copyright and related rights protection as a database; to the extent it is a cinematographic work or a video game, it attracts copyright protection as a cinematographic work under Sec. 2(1)(6), German Copyright Act and also attracts related rights protection to the benefit of its producer pursuant to Secs. 94 and 95, German Copyright Act; to the extent that it is a pure phonogram, its producer is protected under Sec. 85, German Copyright Act. Finally, collections that do not fall within the database definition attract copyright protection under Sec. 4, German Copyright Act; in this respect, however, an independent related right is not granted.

Since it has not yet been clarified to what extent multimedia works, and interactive multimedia works in particular, fall within one of the above-mentioned types of work, it should be pointed out in legislation that a work can consist of the combination or merging of other works. This would ensure that the prerequisites of protection were not examined separately but in relation to the multimedia work as a whole, which would enable protection of the interactivity so characteristic of many multimedia works, provided that it fulfils the originality requirement. The question whether or not it is necessary to provide additional related rights protection for producers of non-original multimedia productions can be left open, at least for the time being, especially in view of the broad related rights protection conferred on database producers.

First, it is necessary to point out that data carriers also fall within the definition of videograms and phonograms.

In addition, it would be advisable to clarify in legislation that a work can consist of the combination or merging of works; this would ensure that the prerequisites for protection are not examined separately but in relation to the multimedia work as a whole. However, it would not be advisable to equate all multimedia works with the existing category of cinematographic works; at any rate, analogous application of the presumption of assignment of rights with respect to cinematographic works laid down in Secs. 88 and 89, German Copyright Act, to multimedia works is not considered to be advantageous.

The fact that digital products are vulnerable not only to copying of the whole work but also vis-à-vis copying of parts of the work poses additional problems. According to the previous prevailing opinion, unauthorized appropriation of parts of a work only amounts to an infringement of copyright where the relevant part attracted protection as such. This follows from the copyright principle of refusing protection to the smallest components in order to avoid excessive impediments to the creation of new works. Therefore, it is intended to maintain the practice of granting protection against the appropriation of non-original parts under related rights (see point 4.6), if at all, or under competition law.

4.2 Rights Ownership

It is often claimed that the large number of authors of works necessary in order to produce digital off-line and on-line media complicates acquisition of all the rights involved to a degree that sometimes renders realization of the planned production impossible. Consequently, there are demands for a simplification of the acquisition of rights, the most radical demand advocating the concentration of all

rights, from the outset, not with the authors but with the producer of the final digital product.

Notwithstanding the fact that this solution would not be of any use to the producers of digital products comprising works created without regard to their future use in such products, such a radical solution also gives rise to fundamental reservations. According to German copyright law, as a matter of principle the author is the person who creates the work (Sec. 7, German Copyright Act). This still applies where the work is created within the context of an employment relationship (Sec. 43, German Copyright Act) and all the more so where it is created within the context of a commission. Even where works contain numerous individual creative contributions, e.g. cinematographic works, the legislature has consciously upheld the principle of the authorship of the persons who created the individual contributions. In this respect attribution of the original authorship is largely determined by international conventions (Revised Berne Convention; TRIPS); in particular, such works would not be made available if those who created them were not able to rely on a legal basis for their exploitation.

In order to facilitate legal transactions in individual cases, the legislature did not establish original authorship of the producer, but determined certain presumptions as regards the assignment of rights (Secs. 43, 69b, 88 and 89, German Copyright Act, for works or computer programs created within an employment relationship and for cinematographic works). Since Sec. 43, German Copyright Act, applies generally to works created in the course of an employment relationship and hence to multimedia works as well, the question arises whether the presumptions of assignment of rights anchored in Secs. 69b, 88 and 89, German Copyright Act - which go beyond the provisions of Sec. 43 of the same Act - should be applied to digital products as well. The answer to this question is negative. Section 69b, German Copyright Act, pursuant to which any exploitation rights in computer programs created by an employee are transferred to the employer, unless there is an explicit contractual provision to the contrary (not only those rights required by the employer in accordance with the purpose of the employment relationship, as under Sec. 43 of the Act), such provision deriving from the EC Computer Program Directive, was not carried over to the EU Database Directive. There is no reason for German law to adopt a different path to Europe on this issue. It does not seem advisable to apply the cinematographic presumption of assignment of rights under Secs. 88 and 89, German Copyright Act, to multimedia works either. This would require a sufficiently precise definition of multimedia works, something that appears to be impossible (see point 4.1). Furthermore, an important prerequisite of Secs. 88 and 89, German Copyright Act, is a contractual agreement between the author and the producer, within the framework of which the producer may explicitly obtain the grant of the corresponding rights.

Consequently, a change in the original authorship is not advisable, nor is an extension of the existing presumptions of the assignment of rights. Instead, it would be advisable to take into account the legitimate interests of the copyright industry by facilitating acquisition of rights in practice (see point 5.3) and the interests of lawful users of digital works by crafting corresponding limitations on copyright similar to Sec. 69d(1), German Copyright Act (see point 4.5).

4.3 Moral Rights Digital technology enables the user to alter, adapt, distort, and divide a protected work in almost any manner desired, to combine it with other works or parts of works, and to erase the author's name. In the face of such a loss of control, it would appear advisable to strengthen the author's preventive powers deriving from moral rights rather than to undermine or revoke these rights on the basis of the frequently voiced argument that the law should not block the way for technical developments.

Notwithstanding the latter argument, changes to the existing preventive powers of authors on the basis of their moral

rights are not recommended in a digital context:

- according to the current statutory language, the author's right to the integrity of his or her work requires a balancing of the circumstances of each individual case (danger of prejudice to "lawful intellectual or personal interests"), including the conflicting interests of the user or of the person or entity exploiting the work; hence it only applies in case of serious interference. In addition, the problem of effective protection against unlawful interference with the integrity of a work lies less in a lack of legal protection than in the practical aspects of control;

- the right to be identified as author is sufficiently flexible as it is construed in case law. At any rate, identification of the author in the digital context poses less problems than in the analogue sphere, since the names of even a larger number of authors can be integrated easily into digital files. Moreover, producers themselves will have an enhanced interest in being identified correctly and in the correct identification of the relevant authors;

- as regards other preventive powers deriving from moral rights, there is no need for legislative action at the moment. This applies e.g. to the right of divulgation (or first publication) (Sec. 12, German Copyright Act), the right to access to copies of the work (Sec. 25, German Copyright Act) and to the right of revocation on the basis of non-exercise or changed conviction (Secs. 41, 42, German Copyright Act). The exclusion of these rights in the field of cinematographic works and non-original moving images (Sec. 90, German Copyright Act), justified by reference to the enormous expense of cinema film production, does not have to be extended to multimedia works since it is usually quite easy to remove the part of such a work for which the exploitation rights have been revoked.

The main problem arising from protection of moral rights in a digital environment is that as yet there has been no final clarification of the conditions governing, and the extent to which it is possible to conclude, binding contracts disposing of moral rights prerogatives. On the one hand, copyrights are inalienable as a whole, just like moral rights and their individual elements (see Sec. 29, German Copyright Act); on the other hand, modification agreements are permissible in principle (see Sec. 39(1), German Copyright Act), and the author may only prevent a licensee from modifying the work within the boundaries of good faith (Sec. 39(2), German Copyright Act). In the literature it is attempted to draw a line around a so-called inalienable core of rights which the author may not assign or otherwise dispose of, even if he wishes to. Case law concerning the right to be identified as author adopts a similar standpoint, permitting agreements reaching up to the so-called inalienable core, which, however, is not defined precisely. Conversely, case law does accept implied covenants, if they correspond to customary practices in the relevant sector. This legal situation poses a considerable threat to the legal and planning certainty of the copyright industry; in addition, the author is deprived of the possibility of self - determination even in an area where he or she is able to appreciate the implications of his or her disposition from the outset.

Therefore, it would be advisable to determine precisely the prerequisites of legal transactions concerning permission to modify works and other impairments of authors' ideal interests. Individual, precisely described alterations, even those of a drastic nature, should be rendered permissible. Yet blanket agreements should remain prohibited. This solution does not require a legal presumption or changes to authors' preventive powers deriving from moral rights.

4.4 Authors' Exploitation Rights

One of the main problems facing copyright law in the digital environment concerns the categorization of acts of use within the existing system of exploitation rights as anchored in Secs. 15 et seq., German Copyright Act. In this context the clear distinction in the Act between communication of a work in tangible form and communication in intangible form becomes rather blurred. In addition, acts of transmission which from a legal viewpoint constitute intangible use of the work, are more similar to

exploitation in tangible form when viewed from an economic perspective. Yet within the sphere of intangible communication of a work, the act of making a protected work available on-line is not easy to categorize (broadcast or other kind of communication to the public?).

As regards the primary form of the right to material exploitation of a work, namely the reproduction right (Secs. 15(1)(1) and 16, German Copyright Act), the following problem arises: in the course of digital use of a work a number of reproduction acts take place which are of a purely technical nature (interim storage, computer-internal reproduction), and which as such do not open up new and independent possibilities of use. In contrast to the use of works in analogue form (reading of a book, watching of a film), use of a digital work also necessitates numerous acts of reproduction which are reserved to the author under the law as it currently stands. On the other hand, authors and rights holders have a greater need to control matters owing to the ease with which the digital data files they have made available to third parties can be copied.

It would be advisable to satisfy the rights holders' need to control matters by broad application of the reproduction right, which would only exempt purely technical acts of reproduction; this would be in accordance with the previous case law handed down by the German Federal Supreme Court with respect to computer programs. It is not necessary to include within the term reproduction under Sec. 16(1), German Copyright Act, the display of protected works on a screen, since the right proposed below, namely the right to make protected works available for delayed access, also covers the act of transmission. Apart from this, the legitimate interests of users should be taken into account by establishing a corresponding limitation on copyright (see point 4.5). Consequently, the following factors are of significance in amending the reproduction right:

Digitization, input, storage and printing of protected works all constitute independent acts of reproduction under the law currently in force. Hence it is not necesssary to amend Sec. 16(1), German Copyright Act, in this respect (the same applies to Sec. 23, German Copyright Act, as regards adaptations).

In contrast, with regard to all works in digital form, it should be clarified in Sec. 16(1), German Copyright Act - parallel to Sec. 69c(1), German Copyright Act, and Art. 5(a) of the Database Directive - that temporary reproduction of such works does fall under the exclusive reproduction right; yet purely technical acts of reproduction should not fall within this right.

With respect to intangible transmission of works, it is

undisputed that making such works available for retrieval by members of the public is something that should remain reserved to authors and rights holders. The differences of opinion concern the question whether the distribution right, the broadcasting right or another, previously untitled right of intangible communication should cover such acts. There are two fundamental issues behind the dispute: firstly, not all related rights holders are entitled to a broad right of public communication; performing artists and phonogram producers in particular are only entitled to adequate remuneration when their phonograms are broadcast. Secondly, in practice it appears necessary to make a legal distinction between traditional radio broadcasting and making products available digitally on-line. After all, economically speaking, some acts of on-line transmission do appear rather similar to previous distribution of material copies of the work (e.g. similarity of video-on-demand to sale and rental of video cassettes), so that a number of authors advocate application of the distribution right.

However, if one takes into consideration that by nature making protected material available on-line belongs in the category of intangible exploitation of works, and remedies the previous deficits in

protection of related rights by strengthening these rights (see point 4.6), and, finally, if one retains the distinction between the right of making available on-line and traditional radio broadcasting, then one necessarily arrives at the following solution to amend the German Copyright Act:

The right to make protected works available for delayed (interactive) access via digital networks should not be granted through analogous application of the right of material distribution or by applying the rental and/or lending right.

Rather, it is recommended to list this right as a sub-category of the right of intangible communication in a special paragraph of Sec. 15(2), German Copyright Act; this would distinguish the right from the broadcasting right (Sec. 20, German Copyright Act) and from the rights of making available using technical means (Secs. 19(3) and (4), 21 and 22, German Copyright Act). The right could be called a "right of intangible transmission" or "right of intangible making available" or simply a "transmission right." The contents of the right would be described as "the right to make available to the public protected works, by wire or wireless means, in such a way that members of the public may access them," in accordance with the wording of Art. 8, WCT, and Arts. 10 and 14, WPPT.

In addition, it is recommended to revise the meaning of the term "public" laid down in Sec. 15(3), German Copyright Act with respect to all kinds of public communication of a work; the revised wording could read as follows: "The communication [of a work] shall be public if it is intended for one or a number of persons that belong to the public. It shall not be public if personal relations exist between the person or persons and the organizer."

It will remain the task of case law to clarify when an individual person or a number of persons belong to the public in an individual case.

4.5 Limitations on Copyright

The limitations placed on copyright serve to adjust precisely the exclusive rights reserved to the author. They balance the interests of authors against the legitimate interest of the copyright industry, of users and the general public especially in freedom of information and freedom of intellectual creation. In accordance with their nature as exceptions to exclusive rights, as a matter of principle the existing provisions limiting copyrights are subject to a narrow interpretation. In principle, de lege ferenda the legislature does have a broader scope for manoeuvre at its disposal, yet the relevant balancing of interests must be oriented to the principle of proportionality anchored in constitutional law. There are a number of instruments available for this purpose, ranging from compulsory licences, mandatory administration of rights by collecting societies and statutory licences to a complete freedom from authorization and remuneration, all instruments permitting different modes of procedure.

In the context of limitations on copyright, evolutive amendments to the existing limitations laid down in Secs. 45 et seq., German Copyright Act, are advisable. The amendments proposed are guided by the principle that the exclusive rights should be limited to the smallest possible extent and to the extent necessary in order to arrive at a reasonable balance between the interests of all participants in the digital environment. Consequently, the current wording of the existing provisions should be examined from threeperspectives:

- it should be broadened where it is too narrow to fulfil the previous purpose of the relevant limitation, in a digital context;

- it should be narrowed where it embraces digital exploitation but where the interests of rights holders

would thus be impaired unreasonably;

- finally, in view of the specific nature of digital exploitation of works, the extent to which additional exceptions should be laid down to the benefit of users should be examined, exceptions that were not deemed necessary so far within the previous context of exploitation in purely analogue form.

Analysis of the existing limitations to and exceptions from copyright reveals the following scenario:

The following limitations on copyright do not require revision: * Sec. 45, German Copyright Act (Administration of Justice and Public Safety); * Sec. 47, German Copyright Act (School Broadcasts); * Sec. 51, German Copyright Act (Quotations); * Sec. 55(1), German Copyright Act (Reproduction by Broadcasting Organizations); * Sec. 57, German Copyright Act (Accessory Works of Secondary Importance) * Sec. 62(1), (2) and (4), German Copyright Act and Sec. 63, German Copyright Act (Indication of Source).

The same applies to the claim to remuneration for rental and lending pursuant to Sec. 27(1) and (2), German Copyright Act.

In contrast, the following provisions require clarification, amendment, harmonization or deletion:

* Sec. 46, German Copyright Act (Collections for Religious, School or Instructional Use), could be broadened corresponding to the purpose of the provision to include incorporation of multimedia works having small dimensions, without consent being necessary, and to include transmission of privileged collections by making them available on-line;

* Sec. 48, German Copyright Act (Public Speeches), should be broadened to include speeches about questions of the day that are made available to the public on-line, and distribution of such speeches on data carriers could also be permitted, subject to the conditions laid down in the provision. Moreover, for the purpose of clarification the exception laid down in para. 2 of the provision should be broadened to include public communication;

* Sec. 49, German Copyright Act (Press Articles and Broadcast Commentaries), the group of articles, commentaries, news and news of the day listed in sub-sec. 1, first sentence and sub-sec. 2 that may be incorporated in a work without consent being necessary, should be broadened to include expressions of opinion made available on-line. It would be no problem to include digital off-line media in the incorporating media as well; as regards incorporation of such material into digital on-line media, expansion of the exception to internal use for personal use would seem appropriate;

* Sec. 50, German Copyright Act (Visual and Sound Reporting), should be extended to cover any kind of reporting by deleting the words "visual and sound" in the field of intangible use of works. At the same time not only reporting "by broadcast or film," but generally speaking any kind of reporting by communication to the public - i.e. including on-line reporting - should fall under the exemption;

* In Sec. 52(1) (Public Communication), public communication of works should exclude from the exemption the communication of works by making them available on-line; in Sec. 52(3) (Public Communication), the restriction of the exemption for certain forms of public communication should be extended to public communication by making available on-line, and the public communication of works for purely private purposes by making them available on-line should possibly be exempted from copyright;

* In Sec. 53(1) and (2)(1) and (2), German Copyright Act, it should be clarified that digital reproduction, i.e. making of a single digital copy of a work for private use and for personal scientific use, as well as inclusion of a work in digital archives for private and personal scientific purposes is permissible without the author's consent, provided that a personal copy of the work is used as the model for the reproduction. Only personal making of copies, not making by another person should be permissible. Otherwise, digital reproduction of works - also with regard to the obligation under TRIPS to grant protection that does not prejudice the normal exploitation of the work and the legitimate interests of the author - should not fall under Sec. 53, German Copyright Act. In the interests of libraries and documentation services one may consider introducing mandatory administration of the right by collecting societies if agreements are not concluded on a voluntary basis;

* In Secs. 54(1) and 54a(1), German Copyright Act, it should be clarified that a levy is payable for blank, recordable digital storage media and for equipment that is likely to be used to make digital copies of a work within the sense of Sec. 53, German Copyright Act;

* In Sec. 54d(1), German Copyright Act, the reference to the amounts set out in the annex should be deleted;

* Sec. 55(2), German Copyright Act (Reproduction by Broadcasting Organizations), should be deleted as a whole or at least as regards the archiving of lawfully made digital fixations pursuant to Sec. 55(1), German Copyright Act;

* Sec. 56, German Copyright Act (Reproduction and Public Communication by Commercial Enterprises), should be extended to cover - if not devices for digital data processing as a whole, then at least - devices that are suitable for retrieving works made available on-line;

* Sec. 58, German Copyright Act (Illustrated Catalogues), the restrictions to works "of visual art" and to inclusion in "catalogues" should be deleted. Further, public communication by making works available on-line should be rendered permissible without the author's consent. In return, authors could be granted a claim to remuneration which is subject to mandatory administration by collecting societies;

* Sec. 59, German Copyright Act (Works Exhibited on Public Premises), should be extended to include reproduction, distribution and public communication of street scenes by means of digital on-line and off-line media;

* Sec. 60, German Copyright Act (Portraits), should be broadened to the benefit of those exempted so as to include digital making available on-line - but not broadcasts pursuant to Sec. 20, German Copyright Act;

* Sec. 61, German Copyright Act (Compulsory Licence for Phonogram Producers), should be revoked with respect to digital phonograms as well;

* As to Sec. 62(3), German Copyright Act (Prohibition of Modifications), in addition to the cases mentioned in the provision, any modification entailed by methods of tangible or intangible exploitation should be permissible, provided that the legitimate interests of the author are not prejudiced thereby;

* In addition, the scope of application of Sec. 101(1), German Copyright Act, could be extended to cover cases of negligent infringement, where the infringing party was unable to locate the injured party despite all reasonable efforts undertaken to this end, and where he put on deposit an adequate remuneration, even before commencing exploitation;

* Finally, parallel to Sec. 69d(1), German Copyright Act, acts of reproduction that are necessary for the use of protected works in digital form by a lawful user, such use being in accordance with their intended purpose, should not be subject to the authorization of the rights holder.

4.6 Related Rights

Not only authors, but related rights holders also require adequate protection in order to control exploitation of their achievements or performances in digital form. In comparison with copyrights proper there are two significant differences to be considered: firstly, so far moral rights protection of performing artists only exists in rudimentary form, so that performing artists are not entitled to an independent right to be identified and, in addition, are left almost unprotected as regards modification of their performances by a lawful user. Secondly, contrary to authors, performing artists and phonogram producers are not entitled to a broad right of communication to the public; in particular, in the case of radio broadcasting of commercial phonograms they only have a claim to remuneration. Where their subject matter and performances are made available on-line, performing artists and broadcasting companies would at most be entitled to this claim to remuneration, if they do not remain without any protection at all since making a work available on-line, according to the opinion of this author, does not constitute a broadcast in the sense of Sec. 20, German Copyright Act.

On the basis of the Treaty negotiated and concluded at the end of 1996 under the aegis of the World Intellectual Property Organization (WIPO), a right to be identified as performer and a right of integrity for performing artists will have to be introduced as regards performances fixed in a phonogram; therefore an express recommendation is necessary regarding a general right of name attribution and integrity of performing artists.

The same considerations apply to the creation of an exclusive right for performing artists and phonogram producers as regards the making available of their performances and achievements in on-demand services. This right corresponds to that proposed for authors; consequently it should be granted not only to performing artists and phonogram producers, but to all related rights holders protected under the German Copyright Act.

This right would be independent of the previous broadcasting right, so that in the field of radio broadcasting the previous regulation of a mere obligation to pay remuneration for use of commercial phonograms would remain unchanged. However, a more specific regulation would be advisable as regards special-interest (multi-channel) digital broadcasting services. In the sense that the sequence of programs broadcast is still determined by the broadcasting companies, these services still amount to radio; however, owing to the digital broadcasting signal and the recognition codes together with thematic specialization, users are able to use the signals received in a manner comparable to the use of phonograms. Since the distribution of protected phonogram subject matter is subject to the exclusive right of performing artists and phonogram producers, it would appear advisable to introduce a corresponding exclusive right to cover the use of protected subject matter and performances within the context of multi-channel services as well.

The final question in this context addresses the issue of whether related rights only confer protection against appropriation of a subject matter or performance as a whole, or whether protection exists against taking of individual parts. The argument against such protection of parts is that related rights protection must not be more far-reaching than protection under copyright proper. However, appropriation of even the smallest parts (in particular individual characteristic notes) can be of such commercial interest that the person taking the notes saves on his own efforts by profiting from another's investments. In the literature, opinions are divided on this issue, on the law as it currently stands and as regards the desirable scope of such protection.

According to the solution proposed by this author, protection for parts of a performance or achievement should at least be granted where the appropriation thereof diminishes the possibilities of exploiting the performance or achievement as a whole; this applies to performing artists in particular, to the creators of simple photographs, and to phonogram and film producers, inasfar as more than very small parts of a work are taken.

In conformance with the new WIPO Treaty (WPPT), performing artists should be granted a right to identification and a broad right of integrity. This right should not be limited to fixations in phonograms.

In addition, going beyond the provisions of the WPPT, not only performing artists and phonogram producers, but all those entitled to related rights protection under the German Copyright Act should be granted an exclusive right to make their performances and/or achievements available on-line.

Performing artists and phonogram producers should be granted an exclusive right with respect to digital multi-channel services; as regards traditional radio broadcasting, the previously applicable remuneration rule can remain unchanged.

Finally, it is recommended to mention explicitly protection against appropriation of parts where such appropriation impairs the commercial exploitation of the subject matter or performances from which the parts were taken.

4.7 Liability for Copyright Infringements

An issue of enormous significance for those who partitipate in the digital transmission of protected works and achievements is that of who - and under what circumstances - is liable for any copyright infringement that may occur. Participants will only undertake the necessary investments if the risk of being sued for damages and/or an injunction is calculable. In this context it must be taken into account that the extent to which the individual participants are legally and technically expected and in a position to control the contents of the material they handle depends on their relevant activity (provision of contents, operating of a server, of a network service, provision of communication cables/lines, access provider, etc.).

According to the German Copyright Act, a person who interferes with the legally defined exclusive rights of the author is liable for infringement of copyright. This means the person who actually carries out the offence, who instigates or is an accessory to the offence. According to case law, a person who does not make copies of a work him or herself but who commissions another to do so infringes the reproduction right. If such person was acting with fault or negligence, then he is liable for damages; liability for injunction and removal arises irrespective of fault or negligence.

Under copyright law as it currently stands typical preparatory acts are as a rule defined as constituent elements of an infringement (e.g. importation and offering for sale as independent infringements of the distribution right). In this respect, a person who stores a protected work or performance without permission on a server, or a person who makes available on-line to a third party works and performances, is liable for copyright infringement. The only problematic issue in the on-line field appears to be liability for damages where there is fault or negligence, such liability applying not only where there is intent but also in cases of slight negligence. In practice, it is very difficult for those in the chain of making protected material available on-line to pinpoint infringements that were initiated by third parties. However, these problems could be solved by imposing corresponding demands as to the care to be taken in the trade. Where such a solution is considered unsatisfactory, relief from liability according to the example of the so-called press privilege anchored in competition law may come into

consideration for those persons who are merely involved in transmitting contents that infringe copyright. Yet on no account should a complete exemption from liability (i.e. even for intentional infringements) be laid down.

However, liability may be questionable where the person concerned, e.g. the network operator, the access provider or the person who only provides storage capacity, does not him - or herself interefere in another's copyright. In this respect liability for injunction or removal of a so-called indirect interference with property rights comes into question. According to general principles of civil law (Sec. 1004, German Civil Code), such liability exists where the person concerned has an obligation to cease or remove the interference, and where this is technically possible, allowed by law and reasonable following consideration of the surrounding circumstances. So far specific regulation of this issue has only taken place in Sec. 69f(2), German Copyright Act, based on the EC Computer Program Directive of 1991, such provision being a claim to destruction of unauthorized devices intended to circumvent access control measures applied to computer programs, which is enforceable against the owners or proprietors of such devices.

If one transfers the above-mentioned principles to digital on-line transmission of protected works and achievements, one may draw the conclusion that, in view of the technical impossibility of monitoring all the communications processes in the network and in view of the legal protection of the contents communicated, at least network operators and access providers are not obliged to monitor contents; at most they would be subject to a - probably random - obligation to monitor where they had knowledge of repeated and severe infringements. In contrast, in an individual case a network operator may reasonably be expected to prevent an individual infringement of copyright where he has knowledge of it or where it has been declared imminent in a preliminary injunction; this applies all the more in cases where this is the only possibility of preventing a copyright infringement and where it is not possible to stop the person behind the infringement in time (the so-called subsidiarity of liability of a person causing indirect interference with a property right). Owing to the fact that such cases must be decided on an individual basis following consideration of all the circumstances involved, it is not advisable to incorporate more detailed description and provisions into the Act; this holds all the more true since, so far, decisions leading to unacceptable results have not been handed down.

From a technical point of view, efforts should be undertaken to achieve improved identification of infringing contents and improved prevention of infringements without encroaching upon basic rights guaranteed by the Constitution.

The currently applicable, general principles of liability still appear appropriate in the digital environment. In view of the loss of control on the part of rights holders, it is not advisable to reduce liability; in particular, liability for damages in case of intentional infringement and liability to cease in case of individual infringements should not be revoked. However, one may consider excluding from liability slight negligence on the part of persons who are merely concerned with transmitting contents that infringe copyright.

5. Copyright Contract Law

The producer Multimedia has created a new phantastic product which combines several hundred texts, images, image sequences and bits of music originating from a number of famous authors and composers. Multimedia's legal advisor explains that he will first have to locate each individual author and composer and conclude an individual contract on every individual component part; where the author or composer is deceased, Multimedia must negotiate with the heirs. The same applies, he is informed, if he wishes to incorporate his own earlier analogue productions; for under German Copyright law Multimedia was not

able to acquire the rights to digital exploitation of pre-existing productions although he was explicitly granted all rights in the previous contracts. Here again, each and every author, composer and rights holder must be consulted.

Even if it were possible to obtain the consent of all the authors and composers addressed, in view of the large number of rights holders involved, it would have to be feared that the licence fees payable would be so expensive that the product could not be sold in sufficiently large quantities and that it would be necessary to drop the production altogether. At the same time, the producer himself does not have a clear idea of how to protect himself contractually against unauthorized further use of his future product and what a reasonable price would be for exploitation of, e.g., a protected film sequence within his multimedia product. Should he negotiate a lump sum payment or a percentual share in the net retail price of the CD ROM? How will the license fee be calculated if the product is made available on-line?

Digitization and networking give rise to problems in the area of copyright contract law as well. Application of the legislative provisions (Secs. 31 et seq. German Copyright Act) is the focal point of interest. The main issue is the extent to which digital exploitation of works constitutes a new and unknown means of utilization in the sense of Sec. 31(4), German Copyright Act. If this is the case, then one must consider how to alleviate the resulting obligation to obtain subsequent licences (5.1). To a certain extent, in practice the loss in technical control can be countered by a corresponding contractual framework (5.2); finally, one should consider which of the different types of collective, joint and centralized licensing would best take into account the user's demands for a simple and trouble-free acquisition of rights (5.3).

5.1 Substantive Copyright Contract Law

On the one hand, providers of digital off-line or on-line products or services require rights in a previously unimaginable number of individual protected works. In this respect, one may ask whether the acquisition of rights should not be facilitated. On the other hand, pursuant to Sec. 31(4), German Copyright Act, any disposition or obligation made with respect to manners of use that were unknown at the time of conclusion of the relevant contract shall have no legal effect.

In order to facilitate the acquisition of rights, copyright law has created the instruments of statutory and compulsory licences as well as mandatory administration of exclusive rights by collecting societies. The difference lies in the degree to which the exclusive right is limited: whereas a statutory licence permits the user to utilize the work on the basis of the Act, meaning he or she may commence use immediately and pay remuneration subsequently, in the case of a compulsory licence he must first obtain the consent of the author, who however is obliged to grant it. As regards the mandatory administration of rights by a collecting society, the exclusive right is no longer exercised by the individual author but by the collecting society. It would be advisable to exercise restraint in employing such restrictions on author's rights in the future, in view of their exceptional character. Anyway, currently applicable international law (RBC; TRIPS) prohibits the use of statutory or compulsory licences in fields other than radio broadcasting and phonogram production. Although such licences may well satisfy the needs of multimedia producers, it does not appear advisable to introduce such involuntary licences in order to solve the problems involved in acquiring digital rights. The same consideration applies with respect to a possible extension of the presumption of assignment of rights in cinematographic works anchored in Secs. 88 and 89, German Copyright Act; extension of this presumption to multimedia works made available off-line or on-line is not advisable. It is true that acquisition of the rights would certainly be facilitated, yet in the end this would not offset the loss of control suffered by rights holders. An additional aspect is that producers active in the digital environment would like to be able to incorporate other works and achievements without difficulty, but are not likely to release their own resulting products for similarly easy incorporation into other works. Hence, the solution to the problems of

acquisition of rights should be sought at a technical and administrative level, in particular by establishing so-called clearing centres (see point 5.3).

The second contractual law problem arising in the sphere of digital exploitation of works and achievements lies in the fact that, according to the provision laid down in Sec. 31(4), German Copyright Act, to the benefit of the author, dispositions and obligations with respect to means of utilization that were unknown at the time the contract was concluded do not have any legal effect. According to case law, this applies where a new means of utilization is distinguishable from a technical and commercial point of view; the means of utilization may have been known at the time of conclusion of the contract, but its commercial implications could not have been foreseen by the author at that point in time. In other words: where Sec. 31(4), German Copyright Act, applies, the digital rights remain vested in the authors even though they intended to assign all rights to the publisher or producer in the original contracts; in certain cases it will be necessary to obtain subsequently additional licences.

From a technical point of view it is easy to distinguish exploitation of works in digital form from previous kinds of analogue exploitation. Hence, application of Sec. 31(4), German Copyright Act, turns upon the commercial distinction being possible and on the date as at which the means of utilization was known. According to the opinion expressed by this author the following distinction should be made:

- where analogue processing stages are simply replaced by digital steps within a production process in order to obtain a product that is still analogue, from a commercial point of view it is not possible to speak of a different means of utilization; - the same applies where analogue broadcasting signals are simply replaced by digital signals, since neither does this necessarily increase the number of radio and television users nor does it alter decisively the manner and dimensions of use; - in contrast, the prevailing opinion in the literature is that digital use, e.g. on CD ROM, of material licensed for printed media, as well as inputting and making available of such material in the form of generally accessible on-line databases, do constitute a new means of utilization from both a technical and commercial point of view.

The question as to when a certain digital use should be considered to be known remains to be clarified. The only German court decision to date in the digital context applied Sec. 31(4), German Copyright Act, to the incorporation of music on digital data carriers (DCC, MD, DAT and in particular CDs) and held this means of utilization to have been unknown technically in 1971. The point in time at which this means of utilization became known - although a distinction must be made in individual cases (music CDs were known before CD ROMs, and these probably after on-line databases) - may be set at around the beginning of the 1990s.

In practice, the obligation to obtain subsequent licences of digital rights in any case in which Sec. 31(4), German Copyright Act, applies has proved to be an almost insurmountable barrier to the marketing of digital products, where a vast number of rights require subsequent licensing. This is the case with new editions of back numbers of periodicals, with encyclopaedic works, but also affects the digital exploitation of analogue archives of newspapers and broadcasting companies. In order to avoid obstructing the digital access desired for information policy reasons, with regard to these rights it might be advisable to introduce general mandatory administration by collecting societies. This would mean that the producer would no longer have to acquire the digital rights from each individual author (or his or her heirs), but would be able to obtain them in total from the collecting societies; at the same time he would not have to fear disturbance of his digital exploitation by outsiders. From the authors' perspective, such a solution would also be advantageous: they would no longer be forced to look after the subsequent individual licensing of rights that are frequently of no particular value to them, but would be able to rely on a potent agent to negotiate their rights. Clearly, the exact conditions of such mandatory administration of rights by a collecting society should be examined in more detail. In particular, it must

be ensured that the original producer alone (publisher, broadcasting company) is able to acquire the rights from the collecting society, and not any third party.

Introduction of new statutory or compulsory licences in order to facilitate the acquisition of rights required for the production of off-line multimedia products and on-line databases is not recommended.

In contrast, in certain individual cases (e.g. for publication of back numbers of periodicals on CD ROM or for digitization of previously analogue archive material), it is recommended that administration of digital rights which have previously remained vested in the author pursuant to Sec. 31(4), German Copyright Act, be carried out exclusively by collecting societies.

5.2 Contracts in Practice

In practice, a distinction must be made between prior contracts (i.e. contracts concluded in the past) and newly concluded contracts.

As regards prior contracts that were concluded before the points in time mentioned in point 5.1, there is the above-mentioned problem that the rights to digital exploitation have not been assigned to the licensee even where the parties intended an overall transfer of the rights. In contrast, contracts concluded after the point in time decisive for Sec. 31(4), German Copyright Act, that do not mention digital exploitation explicitly, shall be interpreted in good faith and with consideration to the customs of the trade (the same applies where, contrary to expectation, the case law does not apply Sec. 31(4), German Copyright Act). In this respect the principle of the so-called purpose-of-grant rule applies, according to which it is assumed that the author wished to assign all the rights necessary in order to satisfy the purpose of the contract, just as he or she retains all those rights assignment of which to the licensee is not necessary in order to fulfil the purpose of the contract. Determination of the purpose of the contract depends decisively upon the scope of exploitation intended by the parties and upon the kind of exploitation the licensee has previously engaged in within the context of his commercial enterprise. An author who assigns the reproduction right to a multimedia enterprise, for example, certainly agrees to digital exploitation; a person, however, who concludes a contract with a publisher who previously focussed on publishing volumes of poetry, will in case of doubt not be deemed to have authorized digital exploiation when he or she assigned the reproduction right.

In order to avoid such doubts from the outset, it would be advisable to incorporate into new contracts provisions that explicitly regulate the rights with respect to exploitation of protected works and subject matter in digital form in both off-line and on-line media (something that is already taking place in practice). However, it is not possible to give general advice as to the details of such contractual provisions, in view of the variety of works and the different kinds of exploitation involved. It is possible to negotiate all the digital rights upon conclusion of the contract and to provide for specific remuneration, which may still consist of a lump sum payment or a percentage share in the proceeds, or for no additional remuneration at all. Where the parties are not yet sure whether the licensee will in fact require the digital exploitation rights, then they may agree on an obligation of subsequent grant of such rights or on subsequent negotiations in good faith. The main difficulty in practice is determining the reasonable amount of remuneration for the digital rights and the criteria according to which the remuneration should be calculated (number of connected terminals, of users, of screen displays or of print-out copies, etc.). In this context, for the meantime one may operate with remuneration solutions or even assignment of rights that are limited in time; in such cases it would be important to negotiate a clause determining how investments should be compensated upon termination of the contract. In any case, it is likely that in the digital environment creators of contents will in the end earn much less than was previously the case in the analogue sphere; this results from the comparatively low final retail price of digital off-line media in particular, and from the large number of creators involved in a production,

who must share the remuneration.

5.3 Clearing Centres and Joint Management of Rights

In the digital environment use of protected material is rapidly becoming a mass business. As a rule, the production of a single CD ROM requires acquisition of a large number of individual rights; this applies especially to on-line databases. This gives rise to the question as to which structures are suitable and capable of satisfying the needs of the copyright industry in licensing without difficulty and at low cost, without encroaching too far upon the author's interests in the most individual exploitation possible.

In such cases where, in the face of mass use of their works, it was previously impossible or impracticable for authors to manage their rights themselves, they were assigned to a collecting society, which then managed the rights collectively on behalf of all authors vis-à-vis the users. Moreover, the majority of statutory claims to remuneration under the German Copyright Act can only be administered by collecting societies (including in particular the royalties for photocopying and lending). Collecting societies are legally recognized monopolies which are subject to an obligation to conclude contracts (Sec. 11, Copyright Administration Act), i.e. they may not refuse permission to a user who pays or at least deposits the tariffs they have established. For this reason they are not permitted to grant exclusive licences; an additional aspect is that rights holders have essentially relinquished their control over establishing the tariffs with respect to the rights managed by the collecting societies. In the digital environment this kind of licensing by collecting societies is viable where rights holders are not absolutely set on retaining control over individual works, where the individual works seem interchangeable to a large extent, or where the commercial dimensions of the exploitation of the works are relatively limited (e.g. rights in small parts of works; published literary works and contributions to periodicals for use in so-called in-house communications systems, etc.)

In order to satisfy rights holders' demands for increased control and users' (especially multimedia producers') demands for facilitated acquisition of rights, as favoured by the EU Commission in its Green Paper, the collecting societies have in the meantime developed the model of a so-called Clearingstelle Multimedia (CMMV). According to the model all collecting societies will cooperate within a joint organization which will be the joint addressee of users' enquiries and wishes with respect to digital rights (the so-called one-stop shop). During its first phase of operation the CMMV will concentrate on providing information. Enquiries concerning rights holders and licensing conditions with respect to individual protected works will be answered by CMMV on the basis of its own information or passed on to the relevant rights holders, and the relevant information subsequently communicated to the person making the enquiry. CMMV would only be able to grant licences in a second stage of development which is still in planning, provided that the rights holders - who would still be able to determine the terms of use and in particular the amount of remuneration to be requested - explicitly authorize CMMV via the collecting societies to undertake such direct licensing.

Currently there are a number of barriers preventing realization of the second stage of development. Firstly, owing to Sec. 31(4), German Copyright Act, the majority of collecting societies currently have a very limited number of digital rights, if any, at their disposal. Although recent rights management contracts contain an express reference to digital rights, rights holders have been extremely slow to assign these rights to collecting societies. In view of the legal and especially commercial uncertainties with respect to digital exploitation of works, at the moment the majority of rights holders are unwilling to relinquish control over their rights. In the area of music rights administered by the GEMA, there is the additional problem that in previous rights management contracts composers and rights holders retained the so-called synchronisation right (i.e. the right to combine music with other types of work), so that they are able to control the use of music in digital productions if they so desire in an individual case. Finally, problems of antitrust law would be likely to arise if standardized terms of use were established

outside the framework of the Copyright Administration Act (terms which would doubtlessly facilitate the future activities of CMMV at the second stage of development currently in planning).

It remains to note that all participating circles are called upon to develop and implement solutions that contribute towards the smoothest possible legal transactions which are satisfactory to all sides. Joint licensing (clearing centers) will probably play a particular role.

6. Technical Protection

Producer Multimedia makes his product available for access in a network. If he fails to incorporate an access control mechanism or any other kind of encoding, anyone in the world will be able to download the product free of charge, use it without restrictions, incorporate the product into his own product and make the resulting product available in a global network, hence entering into competition with Multimedia. How can technology assist Multimedia in controlling where possible access to and further use of his protected product?

It is possible to circumvent each and every technical protection measure by using technical means. It is simply a question of time and of the relation between the effort necessary to circumvent and the value of the decoded contents. What use are the best access control mechanisms and security measures if providers are unable to prevent crafty people - who so far have usually specialized in selling counterfeit telephone cards or illegal decoders for encoded satellite programs - from offering for sale and selling circumvention devices without having to fear legal sanctions?

If the aim is to counter the loss of control entailed for protected works and achievements by digital networks, the legal instruments as such will not be sufficient. To a large extent the solution to a loss in technical control should be sought in technology itself. For this purpose protected works and achievements must first of all be electronically identifiable (6.1). Control of use of works also requires the installation of access control mechanisms, use controls and accounting mechanisms (6.2), which on their part require legal protection against circumvention (6.3).

In particular, in areas where it was only possible to document mass use on the basis of rough estimates, in future the new technologies will permit more precise documentation of individual acts of use and thus lead to a fairer participation of individual authors and rights holders in the exploitation of their works and achievements. However, this entails a certain loss in the current social balance function of copyright - as currently maintained by lump sum tariffs or by the social funds run by the collecting societies.

Although the use of technology appears to be essential in order to provide effective copyright protection in the digital environment, there is a serious risk that technology alone - and no longer the law - will decide who may obtain access to which information and at what price. In such a scenario, copyright law would only provide the legal foundation for the conclusion of licence agreements and for taking action against persons who unlawfully access protected contents by circumventing technical protection measures. Yet this would seriously disturb the fundamental balance in copyright law between the scope of the exclusive right and the public domain, as well as between the restriction and the promotion of competition. In addition, the freedom of access to information could also be obstructed without justification. However, apparently such a development could not even be prevented if one decided not to facilitate the use of technology but, on the contrary, to make it more difficult.

6.1 Identification of Works

The primary requirement for the automated grant of rights in a digital context is that the individual protected works and subject matter can be identified as such. The relevant authors, rights holders and the licensing terms must also be available electronically. On the one hand, this information must be easily readable for a potential user, on the other hand it should not be easily erasable so that it remains embodied during the subsequent stages of exploitation in connection with the work. In addition, rights holders must be able to prove their authorship or their ownership of rights in case of infringement; the relevant information should not be discernible to third parties and should remain embodied within the work even after the latter has been adapted, printed out using analogue techniques and subsequently re-digitized, or where parts of the work are used.

The pre-conditions for this are that the participating circles first agree on which information should be embodied in which form (encoding, encryption), at which point (file, work and/or part of work). In this respect, a globally comprehensive system is not necessary; rather, it will apparently suffice that individual regional or work-related sub-systems are compatible with one another or can at least be read by a single uniform software. The advantage of this would be that the existing systems (e.g. ISBN, ISSN, IRC, etc.) that so far have functioned side-by-side, albeit separately, could form the basis for this development. During the second stage the information could be implemented and made available via a system of databases.

The first examples of such systems have evolved in practice. Particular reference is made to the International Standard Work Code (ISWC) developed by the Confédération Internationale des Sociétés d'Auteurs et Compositeurs (CISAC).

Preparation of and agreement as to the information required in order to identify works should be left to the participating circles, the public authorities should support their development wholeheartedly.

6.2 Access Control Mechanisms, Use Controls, Accounting Mechanisms

The first models in the area of access control mechanisms, use controls and accounting mechanisms have entered the test phase. Work involving control of subsequent digital usage of a digital data file once obtained with authorization has been embarked upon within the framework of the EU ESPRIT progam under the CITED and IMPRIMATUR programs. In the area of images, the TALISMAN project initiated by DG XIII should be mentioned, which focuses on the identification and incorporation of digital watermarks in the field of images in particular.

It is necessary to wait and see whether in future so-called "software agents" will search the entire global network for authorized and unauthorized usage of works, communicate the relevant information to rights holders and, where necessary, block or even destroy unauthorized data packages.

6.3 Legal Protection Against Circumvention

Since every kind of technical protection provokes circumvention, technical identification and control mechanisms require accompanying legal protection. This requirement does not fall flat simply because circumvention of technical protection devices is not worth the effort where the value of the material protected is negligible.

The current - in particular cross-border - legal landscape is more than patchy. The only pertinent provision under German copyright law is laid down in Sec. 69f(2), German Copyright Act, which served to implement the EC Computer Program Directive. As regards other technical safeguard measures, in Germany protection is currently only available under the terms of Sec. 1, Act Against Unfair

Competition. The pre-requisite of such protection is the competitive individuality of the infringed, i.e. unlawfully decoded, subject matter and obstruction of competitors, a pre-requisite that will always be met where more than a few copies are distributed.

A legal solution will have to clarify at least three issues: - firstly, who will own this protection against circumvention? The holder of rights in the protected material (as in the case of computer programs under the EC Directive) and/or the provider of encoded services? - secondly, how should means of circumvention be described? As "exclusively," "predominantly" or "also" suitable for circumvention? The criterion of exclusive suitability for circumvention of protection mechanisms would be too narrow, that of possible suitability too broad. This leaves in essence the criterion of the predominant kind of use of such devices, despite the fact that in practice this allows considerable scope for manoeuvre; - thirdly, against which acts of use will protection exist? Against importation, putting into circulation, against offering for sale or just exportation?

Hence, the issue of the legal definition of protection against circumvention should be the object of further examination and, in accordance with the WCT and the WPPT, should be regulated as fast as possible in conformance with the solutions arrived at in other countries.

7. Cross-Border Exploitation

Producer Multimedia has found out that his product is being marketed illegally and via a digital network by a competitor whose place of business lies in a foreign country. How can he stop this activity and demand compensation for the damage he has suffered? To which court should he turn? May he rely on German law? And, should he win the case, what should he do to enforce the judgment against the infringer whose place of business lies in a foreign country? What use is the best protection in legislation if in the end Multimedia is not able to take successful action against foreign infringers?

One of the main characteristics of digital exploitation of works and achievements is that is not limited to one single national territory, but in the majority of cases crosses borders. Yet traditional copyright law proceeds from the concept of equal validity of national copyright laws side-by-side - hence proceeding from a cumulation of national provisions in the case of cross-border exploitation.

Consequently, the first question to be addressed is which specific law is applicable to a case of cross-frontier exploitation and whether its provisions are also appropiate in the digital environment (7.1); subsequently the issue of jurisdiction in case of infringement is discussed (7.2) and, finally, the problems involved in executing national court judgments in foreign countries (7.3).

7.1 Applicable Law

First of all, the act of reproduction is governed by the law of the country in which the reproduction takes place. This applies to the production of CD ROMs, to the input of a work into a computer and hence to storage of a work on a server.

Apart from this, a distinction must be made between making available of a work in digital form off-line and making available on-line:

- in the case of cross-border distribution of off-line media (e.g. CD ROM), the laws of each country in which copies of the protected work are distributed are applicable. Legally and economically, cross-frontier distribution of off-line media is not distinguished from distribution of traditional analogue

copies of works (e.g. books, records, etc.). Here as well production and distribution rights may be assigned individually for different countries; within the EU the first putting into circulation of the products leads to so-called Community-wide exhaustion of the distribution right, meaning that the products may circulate freely within the Community once they have been put into circulation. In this respect, there is no need to take action as regards digital products.

- The legal scenario is less clear as regards cross-frontier making available of protected works in digital networks. In this context dispute already exists as to which right is applicable in case of a traditional, cross-frontier communication of the work to the public by means of radio broadcasting. According to one opinion, the law of the broadcasting country should apply, whilst the laws of all receiving countries remain unimportant (theory of country of emission); according to another opinion, the entire process of a cross-frontier broadcast should satisfy the copyright law not only of the broadcasting state but also the copyright laws of all receiving countries (so-called country-of-reception theory). The objective is to protectrights holders against their works being broadcast from a state without or with a very low level of protection, who would thus be deprived of the fruits of their creative efforts. The country-of-reception theory means that a broadcasting company wishing to broadcast works on a cross-border basis must acquire the rights for each individual country of reception; this poses problems where the rights in the individual countries are no longer held by the author or by one and the same rights holder.

In the field of traditional television and radio broadcasting the EU introduced the principle of the country of emission. However, this was only possible on condition that a certain minimum level of protection was introduced throughout the Community, as regards the rights of authors and related rights holders involved. Moreover, certain particularities of transactions concerning film rights and music rights facilitated the decision in favour of the principle of the country of emission.

These reasons render it questionable whether in the near future the principle of the country of emission can be transferred to making available and transmission of protected works and subject matter in digital networks. In the end, this would require globally harmonized - and in a digital environment global means global - and uniformly effectively enforceable copyright protection, something that does not seem likely in the medium term, despite the conclusion of the TRIPS Agreement.

Hence, the solution will presumably lie in a system of subsidiary points of attachment, starting from the person who inputs information and proceeding progressively to other participants in the communication and their active locations. Yet another problem arises in that it is almost impossible to locate works unequivocally in digital networks, owing to their ubiquity. This is the point at which any kind of legal control - even control restricted to an approach bound to the country of emission - reachesits boundaries. Once again, technology itself can provide assistance, inasfar as in future it will be possible to trace the journey of a certain protected material through the network and, where necessary, to halt the progress of certain individual works.

Nevertheless, the issue of which law is applicable in case of cross-borderon-line transmission merits particular attention.

7.2Jurisdiction

An additional problem arises in cases of cross-frontier infringement in finding a court which accepts international jurisdiction to take on the case and, possibly, to hand down a corresponding judgement. Even where a national court has jurisdiction under the applicable national procedural law, in many cases this court will not render a judgment on the entire cross-frontier case but only on the relevant national part thereof.

Basically speaking, in the majority of countries the rule applies that the courts of the state in which the defendant is domiciled or has his place of business have jurisdiction. In case of torts, which category includes copyright infringements, the courts of those countries in which the effects of the infringement occur also have jurisdiction. As regards copyright infringement by reproduction this means the state in which the copies of the work were made (but only as regards the reproduction right), as well as those states in which they were distributed (as regards the relevant national distribution right). In contrast, in states in which the copies of the work were merely in transit, as a rule it is not possible to obtain a court judgment, although evidently infringing copies are involved. According to the above-mentioned principles, as regards copyright infringements by means of dissemination of works via digital networks, the courts of those states have jurisdiction in which under national substantive law the right of public communication has been infringed; hence, the uncertainty as to the law applicable to on-line dissemination discussed under point 7.1 also affects international jurisdiction.

Where a national court accepts jurisdiction, as a rule it will only award the injured party damages for the entire infringement if it has accepted jurisdiction on the basis of the defendant's domicile, i.e. if the infringer is domiciled or has his place of business within national territory. In all other cases the national court will probably only compensate the injured party for that part of the damage incurred within the national territory of the court. This principle applies under the majority of national procedural codes and under the European Convention on Jurisdiction and Enforcement (which applies among EU Member States) and under the parallel, so-called Lugano Convention (which applies among EU and EFTA States). Where the injured party cannot or does not wish to file suit at the infringer's place of domicile, then his only option is to file suit for each and every national part of the damage separately. This is particularly awkward and uneconomic where the infringement is absolutely clear and obvious and does not give rise to complicated and/or disputed legal questions in the countries involved. Corresponding considerations apply as regards injunction orders; here again the rights holder is only able to enjoin the infringer from international distribution through a court in the latter's native country, otherwise a specific injunction order is required in each country of distribution. An exception in this context is the procedural law of the Netherlands, under which at least in the case of obvious patent infringements a number of injunction orders enforceable in foreign countries has been issued, even in "kort geding" proceedings.

Consequently, it is recommended to expand the international jurisdiction of national courts to the effect that, in cases of obvious infringement, the courts of those states in which the defendant is not domiciled and does not have a place of business, are also entitled to issue a cross-border injunction order and award compensation for the entire damage caused by an infringement that took place in several countries. These amendments should be laid down in national procedural codes, in the European Convention on Jurisdiction and Enforcement and in the Lugano Convention.

7.3 Enforcement of Rights in Foreign Countries

Where the infringer is neither domiciled nor has his place of business or property within national territory, the rights holder has no choice but to enforce a judgment obtained within national territory in a foreign country. There are proceedings for recognition of foreign judgments, but they are sometimes rather tedious and time-consuming. Even within the framework of the European Convention on Jurisdiction and Enforcement of Judgements and the Lugano Convention, which were concluded specifically in order to facilitate the enforcement of national judgments, at least within the EU and the EFTA, in practice it is frequently simpler and faster to obtain a foreign judgement directly, instead of seeking recognition of a national judgement in a foreign country; these considerations apply in particular to proceedings for provisional protection.

Consequently, steps should be taken towards creating an international convention for the recognition of

foreign judgments, applicable throughout the world. At the same time, within the context of the existing Conventions, it should be ensured that in practice it is faster and simpler to seek recognition of foreign decisions than to obtain a specific national decision.

8. International Harmonization

What use is it to the producer Multimedia if he is satisfied with the copyright provisions in Germany, the European Union and possibly in other industrialized countries such as the US and Japan, but if copyright protection is insufficient or totally lacking in just a few other countries, and if pirates are able to make infringing products available for global access via digital networks, operating from these "copyright Eldorados"?

8.1 Foreign Approaches to Solving the Problem

The same questions confronting the German legislature are also posed in all other national legal systems. Disregarding a small number of legal amendments concerning specific issues mostly in connection with databases or certain individual forms of digital exploitation of works, at the moment foreign countries are focussing their attention on national studies.

8.2 World Intellectual Property Organization (WIPO)

An indication of the urgency of the current problems is the fact that it was possible to conclude two new international Treaties within the framework of the World Intellectual Property Organization (WIPO). As a rule, international instruments ensue from long-term experience with different or gradually converging national provisions. It is hardly surprising that neither the Revised Berne Convention (RBC) directed at authors, last revised in 1967, nor the so-called Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations dating from 1960, contained provisions tailored specifically towards the exploitation of works and achievements in digital form.

The new WIPO Copyright Treaty (WCT) - obliges its contracting parties to grant a right of communication to the public, "including 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 individually chosen by them," thus explicitly covering on-line transmission of protected works as well; - as regards provisions on limitation and exception, the scope of which was particularly disputed, the future WCT contracting parties remain free to provide for such provisions, provided that they do not conflict with a normal exploitation of the work and do not unreasonably prejudice the author's legitimate interests; - in addition, the WCT obliges its contracting parties to introduce adequate and effective legal protection against devices for circumventing technical measures employed by rights holders for protection against unauthorized acts subject to their consent; - finally, national legislatures shall provide effective remedies against unauthorized alteration of information which serves to identify the work, the author of the work, the owner of any right in the work, or which concerns conditions of use of the work.

A disputed issue concerned the liability of those participating in making protected works available on-line; in this respect it has been clarified that persons who merely provide facilities for transmission are not themselves liable for infringement of the right to communication in case of unlawful transmission.

The new WIPO Performances and Phonograms Treaty (WPPT) contains corresponding provisions for the benefit of performing artists and phonogram producers. In this Treaty, however, the interactive making available to the public of fixed performances and phonograms is expressly distinguished from

other kinds of public communication. Thus, the above-mentioned persons are only entitled to an exclusive right with respect to digital making available on-line, as in the past there is no exclusive right in relation to previous forms of public communication, in particular by means of traditional radio broadcasting.

The conclusion of an international treaty for the grant of independent sui generis protection of databases according to the example of the EU Directive (cf. point 8.3) was postponed within the context of the diplomatic conference, yet negotiations have been envisaged for the near future. Finally, the rights of broadcasting organizations - and hence possibly those of providers of on-line services - also require international harmonization.

8.3 European Union

In 1996 the European Union (EU) laid the first stone for digital copyright law in its Directive for the Legal Protection of Databases. According to the Directive, databases attract copyright protection with respect to the originality of their selection or arrangement; in addition, a new sui generis right was created against unauthorized "extraction and/or re-utilization of the whole or of a substantial part of a database," the preparation of which required "a substantial investment." Implementation of the Directive in Germany was undertaken in the recent Multimedia Act.

In addition, in view of the reactions sparked by its Green Paper "Copyright and Related Rights in the Information Society," the Commission has announced plans for further legislative initiatives in its Communication of November 1996. According to the plans announced, the next Directive to be proposed and passed concerns the right of making available on-line, limitations on and exceptions to copyrights and legal protection of technical access control mechanisms, issues which shall be harmonized or regulated for the first time on a Community-wide basis. At a further stage issues of applicable law and of the liability of persons participating in the transmission process shall be examined and harmonized to the extent necessary.

It is evident that the details of these issues will pose considerable problems, since traditional national concepts must be abandoned in numerous practical details. Yet the improvements in national and European legal certainty will more than compensate for this.

The efforts undertaken by the EU Commission to arrive at the most uniform solution possible should be supported wholeheartedly by the German government with pertinent advice. This applies all the more since the EU will create an international model - as in the case of its legislation on computer programs and databases - and retain its role as an international pacemaker.

Annex I

Summary of Recommendations

In the digital environment, copyright law will prevail as an essential instrument of cultural and economic control. Consequently, it is not necessary to develop a completely new model of categorizing property in the digital context. Rather, the task is to pinpoint the lacunae, legal uncertainties and inappropriate effects of the current Copyright Act within the digital context and to craft corresponding solutions to these problems.

Protection of Multimedia Works:

* Digitization as such does not attract protection to the benefit of a person or entity who merely digitizes analogue material.

* It is necessary to point out that data carriers also fall within the definition of videograms and phonograms.

* It would be advisable to clarify in legislation that a work can consist of the combination or merging of works; this would ensure that the prerequisites for protection are not examined separately but in relation to the multimedia work as a whole. However, it would not be advisable to equate all multimedia works with the existing category of cinematographic works.

Ownership of Rights:

* A change in the original authorship is not advisable, nor is an extension of the existing presumptions of the assignment of rights. Instead, it would be advisable to take into account the legitimate interests of the copyright industry by facilitating acquisition of rights in practice and the interests of lawful users of digital works by crafting corresponding limitations on copyright similar to Sec. 69d(1), German Copyright Act.

Moral Rights of the Author:

* It would be advisable to determine precisely the prerequisites of legal transactions concerning permission to modify works and other impairments of authors' ideal interests. Individual, precisely described alterations, even those of a drastic nature, should be rendered permissible. Yet blanket agreements should remain prohibited. This solution does not require a legal presumption or changes to authors' preventive powers deriving from moral rights.

Exploitation Rights of the Author:

ReproductionRight:

* Digitization, input, storage and printing of protected works all constitute independent acts of reproduction under the law currently in force. Hence it is not necesssary to amend Sec. 16(1), German Copyright Act, in this respect (the same applies to Sec. 23, German Copyright Act, as regards adaptations).

* In contrast, with regard to all works in digital form, it should be clarified in Sec. 16(1), German Copyright Act - parallel to Sec. 69c(1), German Copyright Act, and Art. 5(a) of the Database Directive - that temporary reproduction of such works does fall under the exclusive reproduction right; yet purely technical acts of reproduction should not fall within this right.

Right of Communication to the Public:

* The right to make protected works available for delayed (interactive) access via digital networks should not be granted through analogous application of the right of material distribution or by applying the rental and/or lending right.

* Rather, it is recommended to list this right as a sub-category of the right of intangible communication in a special paragraph of Sec. 15(2), German Copyright Act; this would distinguish the right from the broadcasting right (Sec. 20, German Copyright Act) and from the rights of making available using

technical means (Secs. 19(3) and (4), 21 and 22, German Copyright Act). The right could be called a "right of intangible transmission" or "right of intangible making available" or simply a "transmission right." The contents of the right would be described as "the right to make available to the public protected works, by wire or wireless means, in such a way that members of the public may access them."

* In addition, it is recommended to revise the meaning of the term "public" laid down in Sec. 15(3), German Copyright Act with respect to all kinds of public communication of a work; the revised wording could read as follows: "The communication [of a work] shall be public if it is intended for one or a number of persons that belong to the public. It shall not be public if personal relations exist between the person or persons and the organizer."

* It will remain the task of case law to clarify when an individual person or a number of persons belong to the public in an individual case.

Limitations on and Exceptions to Copyrights:

* The following limitations on copyright do not require revision: - Sec. 45, German Copyright Act (Administration of Justice and Public Safety); - Sec. 47, German Copyright Act (School Broadcasts); - Sec. 51, German Copyright Act (Quotations); - Sec. 55(1), German Copyright Act (Reproduction by Broadcasting Organizations); - Sec. 57, German Copyright Act (Accessory Works of Secondary Importance); - Sec. 62(1), (2) and (4), German Copyright Act and Sec. 63, German Copyright Act (Indication of Source). The same applies to the claim to remuneration for rental and lending pursuant to Sec. 27(1) and (2), German Copyright Act.

* In contrast, the following provisions require clarification, amendment, harmonization or deletion:

- Sec. 46, German Copyright Act (Collections for Religious, School or Instructional Use), could be broadened corresponding to the purpose of the provision to include incorporation of multimedia works having small dimensions, without consent being necessary, and to include transmission of privileged collections by making them available on-line; - Sec. 48, German Copyright Act (Public Speeches), should be broadened to include speeches about questions of the day that are made available to the public on-line, and distribution of such speeches on data carriers could also be permitted, subject to the conditions laid down in the provision. Moreover, for the purpose of clarification the exception laid down in para. 2 of the provision should be broadened to include public communication; - Sec. 49, German Copyright Act (Press Articles and Broadcast Commentaries), the group of articles, commentaries, news and news of the day listed in sub-sec. 1, first sentence and sub-sec. 2 that may be incorporated in a work without consent being necessary, should be broadened to include expressions of opinion made available on-line. It would be no problem to include digital off-line media in the incorporating media as well; as regards incorporation of such material into digital on-line media, expansion of the exception to internal use for personal use would seem appropriate; - Sec. 50, German Copyright Act (Visual and Sound Reporting), should be extended to cover any kind of reporting by deleting the words "visual and sound" in the field of intangible use of works. At the same time not only reporting "by broadcast or film," but generally speaking any kind of reporting by communication to the public - i.e. including on-line reporting - should fall under the exemption; - In Sec. 52(1) (Public Communication), public communication of works should exclude from the exemption the communication of works by making them available on-line; In Sec. 52(3) (Public Communication), the restriction of the exemption for certain forms of public communication should be extended to public communication by making available on-line, and the public communication of works for purely private purposes by making them available on-line should possibly be exempted from copyright; - In Sec. 53(1) and (2)(1) and (2), German Copyright Act, it should be clarified that digital reproduction, i.e. making of a single digital copy of a work for private use and for personal scientific use, as well as inclusion of a work in digital

archives for private and personal scientific purposes is permissible without the author's consent, provided that a personal copy of the work is used as the model for the reproduction. Only personal making of copies, not making by another person should be permissible. Otherwise, digital reproduction of works - also with regard to the obligation under TRIPS to grant protection that does not prejudice the normal exploitation of the work and the legitimate interests of the author - should not fall under Sec. 53, German Copyright Act. In the interests of libraries and documentation services one may consider introducing mandatory administration of the right by collecting societies if agreements are not concluded on a voluntary basis; - In Secs. 54(1) and 54a(1), German Copyright Act, it should be clarified that a levy is payable for blank, recordable digital storage media and for equipment that is likely to be used to make digital copies of a work within the sense of Sec. 53, German Copyright Act; - In Sec. 54d(1), German Copyright Act, the reference to the amounts set out in the annex should be deleted; - Sec. 55(2), German Copyright Act (Reproduction by Broadcasting Organizations), should be deleted as a whole or at least as regards the archiving of lawfully made digital fixations pursuant to Sec. 55(1), German Copyright Act; - Sec. 56, German Copyright Act (Reproduction and Public Communication by Commercial Enterprises), should be extended to cover - if not devices for digital data processing as a whole, then at least - devices that are suitable for retrieving works made available on-line; - Sec. 58, German Copyright Act (Illustrated Catalogues), the restrictions to "works of visual art" and to inclusion in "catalogues" should be deleted. Further, public communication by making works available on-line should be rendered permissible without the author's consent. In return, authors could be granted a claim to remuneration which is subject to mandatory administration by collecting societies; - Sec. 59, German Copyright Act (Works Exhibited on Public Premises), should be extended to include reproduction, distribution and public communication of street scenes by means of digital on-line and off-line media; - Sec. 60, German Copyright Act (Portraits), should be broadened to the benefit of those exempted so as to include digital making available on-line - but not broadcasts pursuant to Sec. 20, German Copyright Act; - Sec. 61, German Copyright Act (Compulsory Licence for Phonogram Producers), should be revoked with respect to digital phonograms as well; - As to Sec. 62(3), German Copyright Act (Prohibition of Modifications), in addition to the cases mentioned in the provision, any modification entailed by the method of tangible or intangible exploitation should be permissible, provided that the legitimate interests of the author are not prejudiced thereby; - In addition, the scope of application of Sec. 101(1), German Copyright Act, could be extended to cover cases of negligent infringement, where the infringing party was unable to locate the injured party despite all reasonable efforts undertaken to this end, and where he put on deposit an adequate remuneration, even before commencing exploitation; - Finally, parallel to Sec. 69d(1), German Copyright Act, acts of reproduction that are necessary for the use of protected works in digital form by a lawful user, such use being in accordance with their intended purpose, should not be subject to the authorization of the rights holder.

RelatedRights:

* In conformance with the new WIPO Treaty (WPPT), performing artists should be granted a right to identification and a broad right of integrity. The right should not be limited to fixations in phonograms.

* In addition, going beyond the provisions of the WPPT, not only performing artists and phonogram producers, but all those entitled to related rights protection under the German Copyright Act should - like authors - be granted an exclusive right to make their performances and/or achievements available on-line.

* Performing artists and phonogram producers should be granted an exclusive right with respect to digital multi-channel services; as regards traditional radio broadcasting, the previously applicable remuneration rule can remain unchanged.

* Finally, it is recommended to mention explicitly protection against appropriation of parts where such

appropriation impairs the commercial exploitation of the subject matter or performances from which the parts were taken.

Liability for Copyright Infringements:

* The currently applicable, general principles of liability still appear appropriate in the digital environment. In view of the loss of control on the part of rights holders, it is not advisable to reduce liability; in particular, liability for damages in case of intentional infringement and liability to cease in case of individual infringements should not be revoked. However, one may consider excluding from liability slight negligence on the part of persons who are merely concerned with transmitting contents that infringe copyright.

Copyright Contract Law:

* Introduction of new statutory or compulsory licences in order to facilitate the acquisition of rights required for the production of off-line multimedia products and on-line databases is not recommended. In contrast, in certain individual cases (e.g. for publication of back numbers of periodicals on CD ROM or for digitization of previously analogue archive material), it is recommended that administration of digital rights which have previously remained vested in the author pursuant to Sec. 31(4), German Copyright Act, be carried out exclusively by collecting societies.

* Participating circles are called upon to develop and implement solutions that contribute towards the smoothest possible legal transactions which are satisfactory to all sides. Joint licensing (clearing centers) will probably play a particular role.

* Preparation of and agreement as to the information required in order to identify works should be left to the participating circles, and the public authorities should support their development wholeheartedly.

* The issue of the legal definition of protection against circumvention should be the object of further examination and, in accordance with the WCT and the WPPT, should be regulated as fast as possible in conformance with the solutions arrived at in other countries.

Harmonization of Laws:

* The issue of which law is applicable in case of cross-border on-line transmission merits particular attention.

* It is recommended to expand the international jurisdiction of national courts to the effect that, in cases of obvious infringement, the courts of those states in which the defendant is not domiciled and does not have a place of business, are also entitled to issue a cross-border injunction order and award compensation for the entire damage caused by an infringement that took place in several countries. These amendments should be laid down in national procedural codes, in the European Convention on Jurisdiction and Enforcement and in the Lugano Convention.

* Steps should be taken towards creating an international convention for the recognition of foreign judgments, applicable throughout the world. At the same time, within the context of the existing Conventions, it should be ensured that in practice it is faster and simpler to seek recognition of foreign decisions than to obtain a specific national decision.

* The efforts undertaken by the EU Commission to arrive at the most uniform solution possible should

be supported wholeheartedly by the German government with pertinent advice. This applies all the more since the EU will create an international model - as in the case of its legislation on computer programs and databases - and retain its role as an international pacemaker. The Author:

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