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ELECTRIFYING THE FENCE : THE LEGAL PROTECTION OF TECHNOLOGICAL MEASURES FOR PROTECTING COPYRIGHT

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1. INTRODUCTION

"The answer to the machine is in the machine". By this sentence, Charles Clark launched the idea that the copyright would finally enter in a new era of management and enforcement¹, where technology could be envisioned in order to provide an answer to safeguard the intellectual property rights threatened by the same technology. It is now well-known that protected works can be digitised, uploaded, downloaded, copied, disseminated without any effort nor cost, in open computer networks such as the Internet.

Facing the new issues of protecting and managing IPR in an electronic environment a number of initiatives and R&D projects have developed different types of technological measures (TM) for protecting copyright and related rights in the Information Society.

A proper protection of technical measures protecting copyright against circumvention is a prerequisite for their economic development, and thus for IPR management in the Information Society. As soon as technology has been envisaged to enhance an effective exercise of copyright, it has been feared that a similar technology might be used to defeat the technical protection. Building a technical fence around works was not considered as sufficient. Electrifying it by criminalizing its circumvention was needed. Therefore a due protection of the electronic copyright protection and management systems has always been a great concern of the rightholders and of the industry developing these systems.

The WIPO Diplomatic Conference of 1996 has considered this issue as a priority field for action. As a result, the Members of WIPO will have to stress the legal protection of technical measures by implementing the WIPO Treaties in their national law. The European Union and the United States have already enacted or proposed pieces of legislation aiming, amongst other things, at taking a due account of this important development of copyright management. All the initiatives are based upon a prohibition of circumvention and the so-called preparatory activities, i.e. any act of distribution and manufacture of circumventing devices.

Another important development of the digital technology as regards the IPR protection is the digital information system enabling a proper identification of works, rightholders and digital support. These identification systems, such as CIS (Common Information System) developed by the CISAC² or the DOI (Digital Object Identifier)³ developed by the Association of Publishers, need to be protected against any removal or alteration. Therefore, the WIPO Treaties and the Proposals hereabove mentioned have equally provided a legal protection prohibiting the defeating of the so-called 'rights

¹ Ch. CLARK, " The answer to the machine is in the machine ", in *The Future of Copyright in a Digital Environment*, P. Bernt Hugenholtz (ed.), Kluwer, 1996, p. 139-146

² see <<http://www.cisac.org>>

³ see <<http://www.doi.org>>

management information'. We will see that the definition given to these Rights Management Information could cover some technological measures whose features go beyond the mere identification function.

2. Technological measures to be protected

Numerous devices, tools, technologies might be considered as technological measures (TM) enabling a protection and management of intellectual property rights. The following distinction amongst all shapes of TM could be drawn:

- ***Anti-copy devices*** that prevent the making of a copy of work or make it harder. These systems are probably the oldest and most used devices protecting the work by integrating in its support a mechanism preventing or inhibiting to carry out some restricted acts. A well-known example is the SCMS or Serial Copy Management Systems or the new digital supports, such as DVD video standard, which prevent any copies or only authorise a copy of a lesser quality.
- A great number of TM consist of ***controlling the access*** to protected content. This category encompasses encryption, password systems or set-top-boxes. We will see later on that such systems of conditional access will enjoy from a different protection than mere TM even if both protection could easily overlap. Another system is the ***digital envelope*** or container that contains information about identification and use of contents. Such envelope wraps the encrypted digital object and contains for instance abstracts of the contents, identification of copyright owner, or the conditions to use the work.
- ***Proprietary viewer***, i.e. a software keeping a digital object always under its control, hence allowing only uses authorised by the copyright owner.
- ***Watermarking or fingerprinting*** technique adding an invisible digital mark in the digital code of a work enabling the identification of the work and of the copyright holder and authenticating the work.
- ***Metering Systems*** enabling a record keeping of all uses carried out related to a specific work.
- Finally, a number of initiatives and R&D projects have developed the so-called ***Electronic Copyright Management Systems (ECMS)*** enabling to identify copyright materials, monitor their usage and reward their rightholders with a appropriate remuneration⁴. Actually, ECMS are software integrating different technical features described hereabove combined with an automated and electronic licensing system.

⁴ For instance, the COPEARMS project whose objective is to assist other EC-funded projects using a ECMS (in fact the CITED model of ECMS developed in a former Esprit project), to address the technical, legal and business constraints of an ECMS and to promote the ECMS interoperability and pre-standardisation. See <<http://www.ifla.org/VI/2/p5/>> Another important project, IMPRIMATUR, focuses on seeking an overall consensus on business, technological, standards and legal requirements of IPR trading in future electronic markets. Both projects have considered to change the name ECMS into ERMS since the same technical device can equally be used to protect and manage rights other than copyright (see GERVAIS, D., (1997) *Electronic Right Management Systems (ERMS), The next logical step in the evolution of rights management*, <http://www.copyright.com/stuff/ecms_network.htm>

3. EXISTING PROTECTION OF TECHNOLOGICAL MEASURES

a. Software Directive

The software directive of 19 May 1991⁵ is the first piece of enabling legislation which has ever provided a legal protection of anti-copy devices. The protection contained herein should be similar in Member States legislation having transposed the Directive.

The relevant provision which could be used to protect technical systems of protection in so far as they protect computer programs is the Article 7 1 (c) of the software directive which states that "... Member States shall provide...appropriate remedies against a person committing (...) c) any act of putting into circulation or the possession for commercial purpose of, any means the sole intended purpose of which is to facilitate the unauthorised removal or circumvention of any technical device which may have been applied to protect a computer program."

As far as we know, only German case law⁶ has ever dealt with that provision. Indeed, the German Supreme Court has stated that in order to apply the criteria of the 'sole intended purpose', it is not the purpose of the program enabling the circumvention which has to be considered but rather the purpose of the application itself. Therefore, a program being capable of other features than the mere circumvention of a technological measure might be prohibited if the sole purpose of one application thereof aims at circumventing. The criteria of the Directive has thus been largely construed.

As soon as the Proposed Directive on harmonisation of certain aspects of copyright⁷ will be adopted, this protection should be modified so as a harmonised level of protection could be applied to all TM protecting different types of works and prestations.

b. The protection of Technological Measures as a Software

Some sorts of TM can be a computer program protected as such by the Software Directive. This is namely the case of some ECMS or some conditional access systems. Is the protection granted by the Directive sufficient to protect the TM against any circumvention or defeat ?

By virtue of the Directive, the rightholder enjoys from a exclusive right to authorise the reproduction, adaptation and any other alteration of a computer program. In the course of the act of circumvention, an adaptation or reproduction might occur. Equally, in the manufacture of circumvention devices, a reproduction or adaptation of the software to be circumvented can take place.

Nevertheless, the protection granted by the Directive on computer programs is limited to the case where the TM itself is a software and where the circumvention activities presuppose a reproduction thereof or any other restricted acts. Moreover, other technical protection measures might not be protected by this provision. And last, but not least, the protection shall only be enjoyed by the author of the TM-software, thus the person or company having developed it. The rightholders using it for protecting their works won't be entitled to prohibit the reproduction of the computer program.

In conclusion, the protection by this Directive, at least by the general rules of copyright and not by the special protection provided by the article 7 of the Directive, appears to be inappropriate.

⁵ Directive 91/250/CEE , JO L 122/42, 17.05.91

⁶ mentioned by M. LEHMANN, German Report, ALAI Study days, June 1996, Otto Cramwinckel, 1997, p. 367,

⁷ Proposal for a European Parliament and Council Directive on the harmonisation of certain aspects of copyright and related rights in the Information Society, 10.12.1997, COM(97)628 final, hereafter 'the Proposed Copyright Directive'

Yet, in a US case law⁸, a plaintiff has evoked this protection. The facts of the case were the following: Vault had developed a software protecting other software against unauthorised copy. Quaid developed a software product enabling to undo Vault's system. Vault sued Quaid for direct infringement⁹ on the basis that Quaid had probably made an infringing reproduction of Vault's software so as to learn its way of working before developing its circumvention device. This argument was overruled since such a reverse engineering can be qualified as fair use. This judgement wouldn't be the same in Europe where the reverse engineering exemption is valid upon strict conditions. Indeed, the decompilation exemption provided by the Directive, should not be of application in this case since this exemption requires that the decompilation is made to achieve the interoperability. Of course, the decompilation of a TM-software should not be permitted for the purpose of designing a circumvention device.

c. Protection by other civil rules

The manufacture, sale or any other act of distribution of circumvention devices could be inhibited by evoking a contributory infringement to copyright. This has namely be done in the US¹⁰, albeit with no success. Two US judgements held that since the device can carry out any other substantial non infringing use, besides the circumvention of technological protection measures, the manufacturer of this device should not be contributory liable.

In Europe, a German decision¹¹ has held contributory liable the provider of the means to copy, upon the condition the device was intended for a use which could normally infringe copyright.

A problem can be raised by the use of liability rules which requires the proof of a damage. What is the actual damage suffered by the rightholder when circumvention devices are manufactured and sold? The damage in this case is only future and contingent. Nevertheless, the common liability rules could help prohibit devices which are specifically and intentionally designed for circumvention purposes, by default of anti-circumvention legal protection.

Other case law have outlawed circumvention devices on the ground of competition law or unfair commercial practice¹² or on grounds of computer crime legislation¹³.

4. LEGAL INITIATIVES FOR PROTECTING TECHNICAL MEASURES

a. WIPO TREATIES

On December 20, 1996, the Diplomatic Conference on Certain Copyright and Neighbouring Rights Questions¹⁴ adopted the "WIPO Copyright Treaty" (WCT) and the "WIPO Performances and Phonograms Treaty"¹⁵. (WPPT)

⁸ Vault v. Quaid, 655 F. (5th Circ. 1988)

⁹ There were also other grounds for the action, see P. SAMUELSON, 1996, Technological protection for copyrighted works, available at <<http://www.sims.berkeley.edu/~pam/courses/cyberlaw/docs/techpro.html>>

¹⁰ P. SAMUELSON, *ibidem*, p. 6-8

¹¹ OLG Muenchen, 07.12.1989, AZ 29 U 5482/89 ("Firma Teleclub") mentioned in LEHMANN, *op. cit.*, p. 366

¹² M. LEHMANN, *op. cit.*, 1997, p. 367; W. GROSHEIDE, Dutch Report, *ibidem*, p. 403

¹³ N.A. SMITH, US Report, *ibidem*, p. 422, W. GROSHEIDE, *op. cit.*, p. 408

Regarding the provisions on the protection of anti-circumvention devices, the discussion was extremely controversial. The basic proposal for the substantive provisions to be included in the treaty was very detailed, as follows :

"(1) Contracting Parties shall make unlawful the importation, manufacture or distribution of protection-defeating devices, or the offer or performance of any service having the same effect, by any person knowing or having reasonable grounds to know that the device or service will be used for, or in the course of, the exercise of rights provided under this treaty that is not authorized by the rightholder or the law.

(2) Contracting Parties shall provide for appropriate and effective remedies against the unlawful acts referred to in paragraph (1).

(3) As used in this article, "protection-defeating device" means any device, product or component incorporated into a device or product, the primary purpose or effect of which is to circumvent any process, treatment, mechanism or system that prevents or inhibits any of the acts covered by the rights under this Treaty".

Some countries¹⁶ and interest groups have expressed such a strong opposition to these proposals at the last meeting in Geneva¹⁷ that the text finally adopted simply states :

"Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works which are not authorised by the authors concerned or permitted by the law". (article 11 of the WCT).

A similar text appears in the WPPT.

This formulation is very large and does not specify the type of protection Contracting Parties shall provide, neither the definition of protected devices. Therefore, it will be a matter for national laws to implement a detailed protection. Consequently, the protection might not be harmonised.

c. European Regulatory framework

i. Green Paper and Follow-Up

The Green Paper on Copyright and Related Rights in the Information Society¹⁸ (referred to below as the Green Paper) stressed the need to develop technical systems of protection and identification if the information society is not to operate to the detriment of right holders¹⁹.

This view was reiterated numerous times during the hearing which was organised by the Commission on 8th and 9th of January of 1996 on technical systems of identification and protection and on the acquisition and management of rights. A majority of participants also indicated that

¹⁴ Referred to below as the diplomatic conference

¹⁵ available at <<http://www.wipo.org>>, referred below as WIPO Treaties.

¹⁶ Such as Norway and some African States.

¹⁷ Committee of experts on a possible protocol to the Berne Convention, seventh session and Committee of experts on a possible instrument for the protection of the rights of performers and producers of phonograms, sixth session, Geneva, May 22 to 24, 1996.

¹⁸ Brussels, 19.07.1995, COM (95) final.

¹⁹ Green paper, page 79.

although such systems should not be made compulsory, some felt that legislation should be put in place so as to ensure effective application of the systems. The acts of circumventing, violating or manipulating these systems should be made subject to sanctions, whether civil and/or administrative or even criminal. Harmonisation at an international level was requested.

Namely based on this consultation process, the European Commission issued a so-called Follow-up to the Green Paper on Copyright and Related Rights on 20 November 1996²⁰, in order to set out the Commission's policy in this area which stresses, among others, the intents of the Commission in the field of the technical identification and protection schemes, considered as a priority issue. With a view to arriving at interoperable systems, the Commission seeks further pursuing of the standardisation work in this area.

In the Follow-Up, the Commission indicated that the envisaged protection should take a due account of a precise definition of the scope of protection and the nature of the appropriate sanctions, the properties of the protecting device, the nature of the act to be covered (such as manufacture, possession in the course of business, putting into circulation, distribution, importation), the way or process of circumventing / deactivating, users' rights, the scope of the infringer's liability and possible legitimate defences, etc. It should also be ensured that systems are designed in a way which respects the right to privacy with regard to the processing of personal data.

ii. Proposed Directive on Copyright

Following the intention of the Follow-Up, The Commission has addressed in its recent Proposal for a Directive on certain aspects of copyright and related rights in the Information Society²¹ the matter of the legal protection of electronic management and protection systems as follows :

Art. 6 : "1. Member States shall provide adequate legal protection against any activities, including the manufacture or distribution of devices or the performance of services, which have only limited commercially significant purpose or use other than circumvention, and which the person concerned carries out in the knowledge or with reasonable grounds to know, that they will enable or facilitate without authority the circumvention of any effective technological measures designed to protect any copyright or any related rights

2. The expression 'technological measures', as used in this Article, means any device, product or component incorporated into a process, device or product designed to prevent or inhibit the infringement of any copyright or any rights related to copyright as provided by law or the sui generis right provided for in Chapter III of Directive 96/9/EC. Technological measures shall only be deemed 'effective' where the work or other subject matter is rendered accessible to the user only through application of an access code or process, including by decryption, descrambling or other transformation of the work or other subject matter, with the authority of the rightholders."

This text aims explicitly at transposing the WIPO Treaties of 20 December 1996²².

The European Parliament has voted large amendments to this provision at the beginning of 1999 to the effect of a stronger protection of TM²³. The amended text is the following :

²⁰ Communication of the Commission on the Follow-Up to the Green Paper on Copyright and Related Rights in the Information Society, COM(96) 568 final, 20/11/96.

²¹ COM(97)628 final, 10.12.1997, referred to below as "the Proposed Directive on Copyright".

²² Explanatory Memorandum, n°10; Background to the Proposal, <<http://europa.eu.int/comm/dg15/en/intprop/1100.htm>>

²³ Proposal for a European Parliament and Council Directive on the harmonisation of certain aspects of copyright and related rights in the Information Society (COM(97)0628 - C4-0079/98 - 97/0359(COD)), referred to below as "amended Proposed Directive"

"1. Member States shall provide adequate legal protection against the circumvention without authority of any effective technological measures designed to protect any copyright or any rights related to copyright as provided by law or the sui generis right provided for in Chapter III of European Parliament and Council Directive 96/9/EC.

2. Member States shall provide adequate legal protection against any activities, including the manufacture or distribution of devices, products or components or the provision of services, which:

(a) are promoted, advertised or marketed for the purpose of circumvention, or

(b) have circumvention as their sole or principal purpose or as their commercial purpose, or

(c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of any technological measures designed to protect any copyright or any right related to copyright as provided by law or the sui generis right provided for in Chapter III of European Parliament and Council Directive 96/9/EC.

2a. The expression 'effective technological measures', as used in this Article, means any technology, device or component that, in the ordinary course of its operation, is designed to protect any copyright or any rights related to copyright as provided by law or the sui generis right provided for in Chapter III of Directive 96/9/EC.

Technological measures shall be deemed 'effective' where the work or other subject matter is rendered accessible to the user only through application of an access code or any other type of process, including by decryption, descrambling or other transformation of the work or other subject matter, with the authority of the rightholders."

European Commissioner Mario Monti has already informed the Parliament that the Commission would not accept all amendments voted on the Draft Directive. Therefore, the Common Position on this text will probably be a combination of both proposals.

iii. Directive on conditional access

The directive on the legal protection of services based on, or consisting of, conditional access²⁴ might constitute a basis for preventing the circumvention of technical devices blocking the access to information services, since the scope of this proposed piece of legislation covers pay-TV, video-on-demand, electronic publishing as well as a wide range of on-line services.

The explanatory memorandum and recitals for this directive initially excluded the circumvention of rights management information and the technological measures used by the authors in connection with the exercise of their rights²⁵. The protection granted by both Proposed directives could easily overlap and particularly for the services protected by an ECMS. Indeed, such a system is generally designed both to control the access to an information service as a whole and to monitor the usage of the IPR-protected content. A clear distinction between these main features of an ECMS would be difficult to draw and this will be particularly true in the future since the convergence between the broadcasting services and the telecommunications brings a greater confusion between services and content as well

²⁴ Directive 98/84/EC of the European Parliament and Council on the Legal Protection of Services based on, or consisting of, Conditional Access, O.J. L 320, 28/11/98, p. 54.

²⁵ Recital 15 of the Proposal.

as between the actors and the roles they play in the Information Society. Therefore, the recital 21 of the Directive provides that its application is without prejudice to the application of Community rules concerning intellectual property rights. Nevertheless, this precision does not lift all uncertainties on the possible overlapping of both regulations.

We will deal with this contradiction later on. For now, suffice it to say that the directive provides that "*Member States shall prohibit on their territory, all of the following activities:*

- *the manufacture, import, distribution, sale, rental or possession for commercial purposes of illicit devices;*
- *the installation, maintenance or replacement for commercial purposes of an illicit device;*
- *the use of commercial communications to promote illicit devices*²⁶

whereas the illicit devices are defined as any equipment or software designed or adapted to give access to a protected service in an intelligible form without the authorisation of the service provider²⁷.

c. US POSITION

A few years ago, the US White Paper²⁸ had already recognised that "the ease of infringement and the difficulty of detection and enforcement will cause copyright owners to look to technology, as well as the law, for protection of their works"²⁹. It was also emphasised that technological protection will not be effective unless the law provides some protection for systems used to prevent or restrict unauthorised uses of works protected by copyright.

The Working Group recommended that the US Copyright Act should be amended so as to include a new chapter containing a provision to "prohibit the importation, manufacture or distribution of any device, product or component incorporated into a device or product, or the provision of any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights under section 106".

Such a protection was not unprecedented in the US legislative framework that contains the Audio Home Recording Act (17 USC §1002c) and section 605 of the US Communications Act (47 USC §605) which regulates devices enabling the decryption of television programmes transmitted by satellite. The Audio Home Recording Act provides for an obligation to integrate in any digital audio recording device a Serial Copy Management System, while prohibiting the circumvention of such systems. Nevertheless, the scope of this prohibition was limited to a specific and precisely defined technology³⁰ and the technology itself was not aimed at blocking access to a work nor preventing the making of one copy³¹.

After a strong influence on that point during the adoption of the WIPO Treaties, new Bills for implementing the WCT and the WPPT have been recently proposed. The Bill 2281, so-called the

²⁶ Article 4 of the Directive

²⁷ Article 2 (e) of the Directive

²⁸ Report of the Working Group on Intellectual Property Rights on Intellectual Property and the national Information Infrastructure, Referred to below as the "White Paper".

²⁹ See White Paper, p. 230.

³⁰ T. VINJE, "A brave new world of technical protection systems : Will there still be room for copyright ?", EIPR 1996, n°8, p. 431.

³¹ SAMUELSON, op. cit.

'Digital Millennium Copyright Act of 1998'³², considered as being the closest Bill to the US Administration views has been adopted in October 1998. This text will be the new chapter 12 of the US Copyright Act. This long and sometimes intricate text provides a twofold protection, one for the access to protected works and the other for the protection of the copyright owner's rights, as follows:

(a) *VIOLATIONS REGARDING CIRCUMVENTION OF TECHNOLOGICAL MEASURES-*

(1) No person shall circumvent a technological measure that effectively controls access to a work protected under this title. The prohibition contained in the preceding sentence shall take effect at the end of the 2-year period beginning on the date of the enactment of this chapter.(...)

(2) No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that--

(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title;

(B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title; or

(C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.

(b) *ADDITIONAL VIOLATIONS-*

(1) No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof that

(A) is primarily designed or produced for the purpose of circumventing protection afforded by a technological protection measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof;

(B) has only limited commercially significant purpose or use other than to circumvent protection afforded by a technological protection measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof; or

(C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing protection afforded by a technological protection measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof

5. The scope of the legal protection of technological measures

It appears from the different legal provisions mentioned above that the envisaged protections are often pretty various, even contradictory in some cases. The main differences are exposed below in

³²referred to below as DMCA

terms of the object of protection, the definition of prohibited acts and of illicit devices or services, the requirements for such a prohibition, the type of sanctions and the consideration of copyright exemptions and limitations.

a. Object of the protection and definition of technical measures

The scope of the protection of all these existent or to-be legislations is pretty similar, albeit a large range of definitions applying the relevant provisions of the WIPO Treaties.

The WIPO Treaties address the "*effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works which are not authorised by the authors concerned or permitted by the law*". The precise definition of the technological measures to be protected has been left to the national laws.

The Proposal for a Copyright Directive aims at protecting the "*effective technological measures designed to protect any copyright or any related rights defined as: means any device, product or component incorporated into a process, device or product designed to prevent or inhibit the infringement of any copyright or any rights related to (...)*"³³. The technological measures shall only be deemed effective -and as a consequence covered by the protection- "*where the work or other subject matter is rendered accessible to the user only through application of an access code or process, including by decryption, descrambling or other transformation of the work or other subject matter, with the authority of the rightholder*" (emphasis added).

According to the Explanatory Memorandum, this definition of the 'effectiveness' of the measure entails that the rightholders have a duty to demonstrate the effectiveness of the technology chosen in order to obtain protection³⁴. But we are still puzzled as regards the presumption stated by this provision which states that the effectiveness shall only be deemed upon the condition that the object of the technical protection is the access. Does it mean that the rightholder escapes to the burden of the proof in all cases where the technical measure relates to the access to works or other subject matters? As a consequence, the protection against its circumvention shall be automatically granted, whilst in all other cases (for instance, where the access is free, but the reproduction, printing or further communication is inhibited by the technological measure), the rightholder has to prove the effectiveness of the chosen measure. Another way to put it is that the effectiveness of the measure shall only be met where it relates to the access. In this case, how will be protected the technical devices granting a free access while monitoring the usage of the protected content? Given the word 'only' in this sentence, we would be inclined to consider that the second meaning prevails. Should it be true, some technical measures would not be protected by this Directive. For instance the Serial Copy Management Systems, or the mere anti-copy devices, or even some ECMS which would be designed or programmed only for usage-tracking purposes. This is not only a theoretical case. The flexibility of ECMS enables various scenarios in terms of access and protection of works. For instance, a library or a school could give access to a collection of works with the authorisation of rightholders upon the condition, subject to a technological protection, that its pupils or its visitors are not allowed to copy, print or communicate the work to other people. In this case where the access is not the main objective of the technological measure, would it be still entitled to enjoy from the protection?

Such a consequence of this text would not be of course appropriate. Therefore, the wording of this definition of the effectiveness of the technical measure should be properly reviewed. A proper definition should define the technical measure as enabling or monitoring the exercise of the rights of the rightholder rather than stressing the 'access' element.

³³ The Parliament has slightly modified this text by adding that the device should be designed to protect copyright in the ordinary course of its operation

³⁴ Comment on article 6.

As regards the Directive on Conditional Access, it covers "*the 'protected services'*", that could be television and radiobroadcasting services as well as Information Society Services, e.g. video or audio-on-demand, electronic publishing, on-line access to a database and a wide range of other on-line services, where provided against remuneration and on the basis of conditional access, whereas "Conditional Access" means *any technical measure and/or arrangement whereby access to the service in an intelligible form is made conditional upon prior individual*³⁵. The provision of conditional access to the above services is considered as a service in its own right.

The key element is thus that the access to the service is made conditional upon a prior authorisation aiming at ensuring the remuneration of the service. The remuneration does not need to be prior to the access nor a lump sum. This means that systems which both enable the access and send an invoice related to the actual usage, such as ECMS, are entitled to this protection. The provision of such ECMS would be considered as a service in its own right, as mentioned in the Proposal. The main difference with the Proposed Copyright Directive is that it refers to the access to a service whilst the latter refers to the access to works or other subjects matters. The only case where both protections are entirely overlapping is the on-line access to a database where the service is itself the protected matter.

Another key difference has to be highlighted: in the Conditional Access, the remuneration of service providers is the protected interest while the Copyright Directive aims at protecting the rights of the authors. Anyway, in most cases of on-line exploitation of IPR-protected content, the service provider might be the rightholder, for instance the database rightholder, the producer or the publisher. Moreover in the case of ECMS, the service provider protects its service by this system for his own interest and monitor usage of works on behalf of rightholders.

The criteria of remuneration is not either sufficient to draw a clear distinction between conditional access and technological measures since the remuneration managed by the ECMS can consist of payment both for access and for copyright licences or royalties. Besides, for taxation reasons, the remuneration can be deemed by the service provider as a royalty only which in many cases benefit from a lower rate of taxation.

Only to mention it, the scope covered by the art. 7, 1 (c) of the Software Directive was the *technical device which may have been applied to protect a computer program*. The 'protection' was not further defined.

Finally, the US DMCA aims at ensuring the protection of technological protection measure which either "*effectively controls access to a work protected*" , either "*effectively protects a right of a copyright owner or a portion thereof*".

It is said further that on one hand, the technological protection measure effectively controls access to a work if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the rightholder, to gain access to the work; on the other hand the measure effectively protects a right if the measure, in the ordinary course of its operation, prevents, restricts or otherwise limits the exercise of a right of a copyright owner. (emphasis added)

This twofold protection appears pretty complicated, more especially as the violations regarding the circumvention are very similar. The only key difference is that the circumvention itself is only prohibited as regards the technological measures granting access to works. This difference has no evident justification. Moreover the wording used to characterize the effectiveness of the second type of measure (protection of a right) is somewhat confusing. Indeed, the purpose and effect of technical protection measure is not to prevent, restrict or limit the exercise of the copyright but rather to enhance it. What is limited or prevented is the exercise of acts of exploitation restricted by the copyright law.

³⁵ Article 1(a) , (b) of the Access Directive.

Whatsoever, since many technological measures can both control the access and protect the rights, a separated protection seems not justified.

In our opinion, the protection of technical measures controlling access to works might lead to grant a new right to copyright holders, i.e. the right to control access to works. This new 'de facto' right goes beyond the criteria of *exercise of their rights* which justified the protection of TM enacted by the WIPO Treaties. This extension should deserve more attention since it could entail that the utilisation of a work will be liable to the exclusive right of the author.

b. Object of the sanctions :

Illicit devices or services :

The software Directive refers to any means the sole intended purpose of which is to facilitate the unauthorised removal or circumvention of any technical device. As regards the protection of conditional access, the prohibition covers the illicit devices which are defined as any equipment or software designed or adapted to give access to a protected service in an intelligible form without the authorisation of the service provider. (emphasis added)

The Proposed Copyright Directive aims at prohibiting the devices which have only limited commercially significant purpose or use other than circumvention (emphasis added)

The Parliament would like to make more intricate the definition of illicit devices that are defined, in the amended text, as devices, products or components or the provision of services, (a) which are promoted, advertised or marketed for the purpose of circumvention, (b) have circumvention as their sole or principal purpose or as their commercial purpose, or (c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of any technological measures designed to protect any copyright or any right related to. (emphasis added)

Using the same criteria than the European Commission's Proposal, the US DMCA refers to any technology, product, service, device component, or part thereof that (A) is primarily designed or produced for the purpose of circumventing a technological protection measure or (B) has only limited commercially significant purpose or use other than to circumvent a technological protection measure. (emphasis added)

These standards for the illegitimacy of the device or service vary largely from a text to another. The concern was to draw a clear line amongst the electronic and technological devices between those whose circumvention is one of their explicit or envisaged purpose and those which can incidentally circumvent a technical protection measure. The electronic consumer manufacture industry is particularly concerned and wish to prevent their products from being outlawed only because they can be used by their users for circumvention purposes. The level of circumvention features as regards other main features of the product is also relevant. For instance, if a video recorder can be used to bypass an anti-copy device, while its main objective is to play and record videotapes, does it mean that the videorecorder has to be considered as illicit ?

The first criteria used in the US White Paper was the 'primary purpose or effect' , which could prohibit devices used beyond the intention of the manufacturer for circumvention purposes. The White Paper faced a strong opposition on that point³⁶. As a consequence, the current legal initiatives limit the forbidden devices whose purpose is mainly the circumvention.

³⁶ P. SAMUELSON, op. cit.; T. VINJE, op. cit.

This criteria of the 'limited commercially significant purpose or use other than the circumvention' appears both in the Draft Directive on Copyright and in DMCA. However, this criteria has been left out by the European Parliament and replaced by sole or principal purpose or as their commercial purpose. This notion appears more precise even if we think that it makes the illicit devices more numerous. Indeed, what is 'commercially significant' ? To what extent is the commercial purpose or use is limited to all features, but circumvention ?

The same uncertainties remain attached to the criteria proposed by the Parliament. How would they be construed? What is commercial purpose ? What is principal purpose? Is it 51 % of licit use, 75 %, 30 %? Will a device primarily designed and sold to accomplish a legitimate purpose but being eventually largely acquired because of a circumvention use, be considered as illicit?

Moreover, since all criteria are pretty different from a country to another, a device might be outlawed in one country while being licit in another, which could puzzle electronic consumer manufacture industry.

Illicit Activities :

A number of activities shall be considered illicit as regards the circumvention of technical protection measures. According to the Proposed Copyright Directive, any activities, including the manufacture or distribution of devices or the performance of services, that facilitate or enable the circumvention shall be prohibited. As regards the conditional access, the installation, maintenance or replacement for commercial purposes of an illicit device; the use of commercial communications to promote illicit devices; and the manufacture, import, distribution, sale , rental or possession for commercial purposes of illicit devices.

The Software Directive refers to any act of putting into circulation, or the possession for commercial purposes.

The US DMCA prohibits the circumvention, the manufacturing, importation, the offer to the public, the providing or any other traffic, as well as the marketing.

All these lists are very large and aim at preventing any commercial exploitation of an illicit device. As the Memorandum of the Proposed Copyright Directive stated, the real danger for IPR will not be the single act of circumvention by individuals, but the preparatory acts carried out by commercial companies that could produce, sell, rent or advertise circumventing devices. Yet the act of circumvention in its own could be outlawed by the envisaged legal provisions as well. For instance, the US text considers explicitly the circumvention itself as an infringement to which an individual user could be held liable, albeit only in the case where the measure controls the access to a protected work. This restriction to the first type of protection granted by this text has no explicit justification. The European Parliament has also decide to prohibit the mere act of circumvention even if the initial draft from the Commission was not clear on that point. From our point of view the mere act of circumvention could be prohibited under the wording 'any activities' used in the Draft. The definitive text of the Directive should make it clear whether the circumvention itself is covered by the prohibition or not.

Nevertheless, the rationale of all these texts should be to prevent preparatory activities, such as the manufacture, distribution, promotion, rather than the mere act of circumvention. This seems justified since the act of circumvention will lead to a copyright infringement (except in the case of the exercise of an exception) which will be in itself prohibited. As a consequence, the sanction of the copyright infringement should suffice. No other sanction should be applied. At the contrary, providing means on a commercial scale to bypass the technical protections is still not covered by the scope of copyright

protection. This justifies the envisaged prohibition. Criminalising the act of circumvention in itself would go beyond the necessity of TM protection.

The Proposed Copyright Directive and the US Copyright Act explicitly state that the performance of services may be considered as illicit. However, since the software Directive refers to 'any means' , the services are covered by all the texts, but the Proposed Conditional Access Directive. It is particularly relevant to cover the prestations of services, since in a near future, the on-line provision of software or any other circumvention devices might be considered as services, namely for VAT purposes³⁷.

Liability requirements

As we have seen earlier, a number of criticisms have raised in the first attempts to prohibit the manufacture of circumvention devices or at least of devices which can be used for circumvention, even if it was not their primary purpose³⁸. The idea then developed was to hold liable the manufacturer or distributor of infringing products or devices only if he had a knowledge of the possible circumventing utilisation.

This element could be found in the initial text of Proposed Copyright Directive that limited the liability to the acts that the person concerned carries out in the knowledge or with reasonable grounds to know, that they will enable or facilitate without authority the circumvention of any effective technological measures. Such a limitation of liability does not appear in the Software and Conditional Access Directives. At the contrary, the knowledge element appears in the US legislation although it is only required for the marketing activity.

The amended text of the Copyright Directive has erased this knowledge requirement which makes of the circumvention prohibition a strict liability norm. We think that this element of knowledge should subsist in the Directive.

c. Exceptions and public domain

In a digital world wrapped by technological devices, the user won't be able to exercise the exemptions to copyright in the same way than in the physical world. In this last case, the copyright exemption is primarily used as a defence in litigation for copyright infringement. The user who had made an unauthorised reproduction or communication to the public of a protected work is allowed to argue that such an act is covered by a copyright exemption. Whatever his success will be, the user can enjoy from the exemptions system in a reasonable extent. A proper balance between the interests of the copyright holder and that of users or that of the society as a whole is maintained. In the digital world, the function of exemptions system will be completely different. If any act of reproduction or communication of a copyrighted work is inhibited by a technological protection, the user will have either to sue the rightholder for enabling him to exercise his exemption (for instance for research, education, criticism purpose); either to deploy some skill for circumventing the technical measure. In both cases, the burden imposed on the user is rather heavy. The exemption will resume its function of defence only in the case of an action brought against the user for having circumvented the system.

³⁷ See Communication of the Commission

³⁸ VINJE, op. cit., p. 432

This is why we can reasonably fear, as some commentators³⁹, that the balance embedded in most copyright regimes is threatened.

All these exceptions necessarily imply carrying out a restricted act, whether it is an act of reproduction or an act of communication. Such act is precisely that inhibited or prevented by the technological measure.

At present, this question has been considered in a twofold way. On one hand, the legislative bodies can state that some exceptions are of binding nature⁴⁰ and are not to be contracted around or denied by technical protection.

On the other hand, one can consider that the protection of technical measures has to take into account the exercise of copyright exemptions by not outlawing the circumvention measures which are made or designed in order to exercise such exemptions. This has been unclearly done in the WIPO Treaties that states that the protection of technological measures will be limited to the measures that restrict acts which are not authorised by the authors concerned or permitted by the law. This has been understood as providing that the exercise of exceptions should be taken in due account by the national legislators. But does it mean that the circumvention itself or the devices which enables the exercise of a copyright exemption should not be prohibited ?

Two cases should be distinguished here. Firstly, we have to consider if the circumvention of technological measures carried out by the user himself in order to exercise a legitimate copyright exemption or to get access to public domain material has to be prohibited.

We have seen above to what extent the Information Society might represent a threat for the balance of rights. A number of authors and users fear that a free access to public domain and a reasonable exercise of the copyright exemptions will not be maintained.

Facing a strong criticism on that point, most proposals we addressed here have considered this issue, albeit generally in a unsatisfactory manner.

The US DMCA has a strong concern in this regards, even if the outcome is not really convincing. On one hand, the prohibition of the circumvention of technological measures controlling access to works is delayed at the end of a period of two years. During this time, the Librarian of Congress and the Register of Copyright shall conduct a rule-making so as to determine the effects of the prohibition on users of copyrighted works. This rule-making will consider "whether users of copyrighted works have been, or are likely to be adversely affected by the implementation of technological protection measures that effectively control access to copyrighted works". In conducting the rule-making, the Secretary shall examine several factors including the availability for use of copyrighted works; their availability for archival, preservation and educational purposes; the impact of technological protection measures on traditional fair uses such as criticism, comment, news reporting, scholarship, teaching, and research; the effects of circumvention of technological measures on the market for or value of copyrighted works; and such as factors as the Librarian and others consider appropriate. If the Librarian finds that an adverse impact is demonstrated or is "likely" on any particular class of copyrighted works such as journal articles, this class would be exempt from the prohibition on circumvention for the following two years to permit "lawful uses."

The Librarian in consultation with the Register and others shall renew this rule-making every two years and evaluate the waivers of certain classes of works, if applicable.

³⁹ SAMUELSON, The Copyright Grab, Wired 4.01

GUIBAULT, Contracts and Copyright Exemptions, Institute For Information Law, 1997;

HUGENHOLTZ, Keynote Speech, Limitations and exceptions to copyright, Imprimatur Forum, october 1997, Amsterdam.

⁴⁰ This has been done in the Belgian Law when transposing the database directive. All the exceptions are now considered as imperative.

The rationale behind this provision is clearly to enforce the prohibition on the act of circumvention itself only if it does not adversely affect the exercise of users' rights and copyright exemptions. The adopted solution appears to be somewhat questionable since a possible outcome of the rule-making will be to exempt from the prohibition the circumvention to get access to certain class of works. Indeed, in most cases, the circumvention will be accomplished to get access to the information services as a whole and not to a particular type of works. Moreover, this delay of the effectiveness will only apply to 'access' type of technological measures.

On the other hand, in its section 1201 (c) (1), the US text states , as a matter of principle, that "*nothing in this section shall affect rights, remedies, limitations, or defences to copyright infringement, including fair use*". This article appears at first sight, exempt from the prohibition the circumvention accomplished in the sole purpose to exercise a fair use. Actually, what is concerned is the defence to copyright and not to the circumvention act. It means that in the case where a circumvention took place with a view at getting access to works in the framework of fair use, the infringement of copyright might be argued and removed while the offence of the circumvention still subsists and can be prosecuted. This means that an user may sustain a sanction only for the circumvention act even if he has committed no copyright infringement. This raises the question of the actual rationale of the protection of technological measures: is it really the threat to copyright or is it rather a protection of the investment devoted to the development or the utilisation of a technological protection ? We will resume that point later on.

Finally, a number of effective exemptions of the circumvention prohibition are provided in the US Copyright Act for instance for non-profit libraries and that solely in order to make a good faith determination of whether to acquire a copy of that work and for reverse engineering purpose. The same possibility for decompilation exception appears in the Proposed Copyright Directive in its Recital 31. Other exceptions are the possibility to circumvent for encryption research, for the use of technological means for research activities, for devices whose sole purpose is to prevent the access of minors to material on the Internet, and –a rather strange exception- for allowing an user to disable the collect of personally identifying information. The provisions on the TM form therefore a whole regulatory system with its own range of exemptions.

The EU Proposal is not so clear. Nothing in the initial wording of the article 6 could be construed , in our view, to consider the protection not to cover the exercise of exemptions. However, the Explanatory Memorandum in its comment on this article, clearly provides that only the circumvention of technical means of protection which constitute an infringement of a right are covered, leaving aside the circumvention "*which are not authorised by the law or by the author*". Does it mean that circumventing a technical measure to carry out an act of reproduction or communication covered by an exception would be allowed ? If no, as we said earlier, a heavy burden is placed upon the users to exercise the exemptions they legitimately enjoy from the law. And they will be prosecuted for circumvention even if they will be considered non liable for copyright infringement.

If yes, the text itself of the Proposal should then make it clear . The wording used in the Explanatory Memorandum is neither clear as it considers whether the circumvention can be authorised by the law or not. If it aims at ensuring the exercise of exceptions, it should have referred to whether the act of exploitation upon the protected work or other subject matter enabled by the circumvention is authorised by the law or by the author. We find here the same confusion than in the DMCA.

The Parliament has gone a step further by clearly stating that "*the exceptions and limitations must not prevent the use of technical means to protect works with the aim of safeguarding the interests of the rightholders, nor prejudice the protection of these means as referred to in Article 6⁴¹*".

This amendment would mean the death of copyright exemptions in a digital world. Therefore, this point should be properly addressed in the definitive text of the Directive.

⁴¹ Article 5 al. 4.

A second point is to take into consideration the exercise of exceptions when contemplating the prohibition of what is called preparatory activities, such as the manufacture and commercial distribution of circumvention devices. It is generally considered that making available technical devices enabling circumvention of protective technical measures can help the user to exercise the copyright exemptions in a digital environment. Therefore, the prohibition of such devices should not cover the devices aiming at a proper exercise of exemptions. This limitation seems a bit inappropriate. The technological devices, and therefore the devices enabling their circumvention, prevent or inhibit the making of a reproduction act or a communication act. These acts are technology-linked, i.e. they can be identified as such by a technology. Beyond this, such technology is blind, i.e. it is not capable to distinguish amongst the accomplished acts, which are done for legitimate purposes covered by an exemption to copyright. The technology can not state whether the act of reproduction it inhibits is done for research purposes or criticism. Therefore, it seems rather unlikely that circumvention devices will be primarily designed for copyright exemptions.

Moreover, such a limitation of the envisaged protection could reduce the effectiveness of the legal protection granted for technological measures since a manufacturer of circumvention devices could easily argue that its product has a legitimate purpose, i.e. the circumvention for ensuring the exercise of an exception.

All these reasons are more justified as regards public domain material which can be wrapped by technical devices at the same time than protected content. Technology will not be specifically designed for providing access to this type of material without enabling access to other content.

However, for the same reasons mentioned above for the act of circumvention itself, it is not clear whether the EU Proposal and the US Copyright Act outlaw or not the circumvention devices granting the access to public domain or exercise of fair use or copyright limitations. As regards the EU Proposal, could it be argued that a device enabling the exercise of a legitimate exception *has a non limited commercially significant purpose or use other than circumvention*? We don't think so. The circumvention for a legitimate purpose is still a circumvention. Should the amendments of the Parliament accepted in the definitive text, this controversy would be settled so as to outlaw all circumvention devices, whether they grant access to protected material or not and whether they enable the exercise of an exception or not.

Anyway, even if we conclude that the EU Proposal exempts from its scope the distribution of devices enabling it for legitimate purposes such as the access to public domain material or exercise of fair use, such devices could be outlawed by virtue of the Proposed Directive on Conditional Access. It will suffice that the illicit device aims at granting access to Information Society Services. Any technological measures which is used to protect Information Services containing IPR content will be covered by both Directives, more especially as the definition of technological measures to be protected focuses on their 'access' feature. This is namely the case for ECMS systems. Therefore, any concern for sheltering copyright limitations in the Proposed Directive on Copyright seems pretty useless.

d. Conclusion

This question of exceptions highlights the complexity of the legal protection of technological measure and its boundaries. Either the protection does not cover the circumvention carried out for the purpose of the exercise of an exception nor the manufacture and commercialisation of circumventing devices enabling such exercise. In this case, the protection might be fragile since its prohibition can be defeated by a fair use argument and the illicit device would be easily modified so as to be considered as licit.

Either, the circumvention is always prohibited regardless the purpose for which it is carried out. In this case, the legal protection, in our view, covers rather the investment devoted to the development of the technological measure or to its use by the rightholder. It does not seem necessary then to link this protection to intellectual property regulatory framework. As W. GROSHEIDE states, "*according to their very nature, technical devices operate indiscriminately of the legal environment in which they are introduced*". The same technology will be used to protect IPR content, personal data, confidential information, broadcasts⁴², etc...

As a conclusion, we would support the view of other commentators⁴³ and recommend that a proper protection of technological measures against their circumvention, whatever they enable access to services as a whole, to protected content, or they monitor and manage the utilisation of protected works by registered users, should be found elsewhere than in IPR legislation. It could be done for instance by a computer crime regulation which would prohibit any unauthorised access to no free services regardless these services are copyright-based or not.

The illicit acts should be the preparatory activities such as the manufacture and commercial distribution of circumventing devices. The level of knowledge of the possible use of devices could determine the nature, either criminal either civil, of the offences. The act of circumvention carried out by an individual should be outlawed only upon strict requirements, e.g. if it has been done maliciously. In other cases, the copyright infringement which has been enabled by the circumvention should be the only basis for suing the individual.

The beneficiary of this protection should be both the service provider or rightholders if the system is used to protect copyrighted works, as well as the maker of the technological measure. The proposed provisions don't envisage clearly that he could bring an action against circumvention devices. Yet if his system can be easily defeated by a piracy device, he has a strong interest to ask for the prohibition of such device.

The technological measure for protecting copyright and related rights should find a proper protection in such legislations, namely in the case where such systems might protect and manage copyrighted content and not-copyrighted material as well. In a near future, some TM, particularly as regards the ECMS-based technology, could be developed in order to tackle a broader market than the IPR management and might not be entitled to the protection as foreseen by the Proposals we addressed.

Of course, in this solution, the problem of copyright limitations and public domain still subsists. But, this issue should not be dealt with at the stage of the protection of technological measures. It is too late then. The compliance of these devices with the exceptions should be ensured at an earlier stage, as early as their design and development. This could be done namely by granting to copyright exemptions a binding nature.

6. RIGHTS MANAGEMENT INFORMATION

a. Introduction

The WIPO Treaties have enacted the first protection of rights management information aimed at protecting the new technical methods for identification of the work.

⁴² D. GERVAIS, Electronic Copyright Management Systems in a Network Environment, <http://www.copyright.com/stuff/ERMS_network.htm>

⁴³ LEDGER M. & TRIAILLE J.P., Belgian Report, ALAI Study Days. W. GROSHEIDE, op. cit., p. 403

The article 12 WCT and WPPT provides :

"(1) Contracting Parties shall provide adequate and effective legal remedies against any person knowingly performing any of the following acts knowing, or with respect to civil remedies having reasonable grounds to know, that it will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty or the Berne Convention:

(i) to remove or alter any electronic rights management information without authority;

(ii) to distribute, import for distribution, broadcast or communicate to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority.

(2) As used in this Article, "rights management information" means information which identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public. "

b. Legal Initiatives

The European Commission as well the US Copyright Act seek to transpose the WIPO Treaties on that respect.

The Proposed Copyright Directive requires from Member States *"to provide for adequate legal protection against any person performing without authority any of the following acts :*

(a) the removal or alteration of any electronic rights management information

(b) the distribution, importation for distribution, broadcasting, communication or making available to the public of copies of works or other subject matter protected (...) from which electronic rights management information has been removed or altered without authority,

if such persons knows, or has reasonable grounds to know, that by so doing he is inducing, enabling or facilitating an infringement of any copyright or any rights related to copyright as provided by the law, or of the sui generis right."

This text is very similar to the WIPO provision. It is worth mentioning that the definition of 'rights management information' covers the terms and conditions to use the works as well, which entails that the licence, that might be a mouse-click contract, or notice attached to the work are protected. In the case of an ECMS, it means that all digital information related to content and processed by the system can not be removed or altered without authority. It could be the digital identifiers, such as CIS or DOI, the Licence Contract or the conditions of each transactions.

This is not the case of the US Copyright Act which restricts the definition of such information to the identification of the work and of the rightholder , unless the wording 'the information set forth on a notice of copyright' which appears in the US definition of copyright management information might be broadly construed as including the terms and conditions to use the work and the licence contract attached to the notice.

The recital 34 of the EU Proposal requires the compliance of such systems with the Data Protection Directive when such rights management information allow for tracing of on-line behaviour and consumption patterns by individuals. Such an assertion seems inaccurate given the definition of 'rights management information'. The subject matter of protection is defined as *"any information provided by rightholders which identifies the work or other subject matter, the author or any other rightholder, or*

information about the terms and conditions of use of the work or other subject matter, and any numbers or codes that represent such information". The information related to the consumption patterns collected from individuals is neither provided by the rightholders, but rather automatically collected by the technical system, nor an information about the terms and conditions of use. Actually, the technical features which enable such a tracing exceed the mere function of rights management information. They belong rather to the features of a technical protection measure. Of course, some measures might enshrine both functionalities, the identification and rights management by tracing the works usages. This is namely the case of an ECMS. Nevertheless, it appears somewhat confusing to mention here such a tracing and data collecting. The compliance with the data protection has to be ensured at the stage of the setting-up of technical measures and at the stage of the effective tracing. The Proposal should provide such compliance by both rights management information and technological measures, contrary to this recital 34 limited to rights management information.

Maybe this confusion results from the access-based definition given to the technical measures. Such a definition can not easily be understood as enabling a usage-tracing. Therefore, the prohibition of article 6 of the Proposal to be applied to technological measures might be considered as providing no protection to the data collected from end-users and tracing the usage of works they carried. Their removal by the end-user might not be protected as such, while the preparatory activities and the manufacture of devices enabling such a removal will be covered by the prohibition enacted in article 6 of the Proposed Directive. Of course, it is important that the end-user is not allowed to defeat the technological protection so as to remove or modify the flow of data enabling the making of its account and requesting a due payment. However, we have seen to what extent the vague wording of the protection could cover the act of circumvention itself, and thus the act of removal of such digital information. As a conclusion, we would recommend that the definition given to the technological measures should be rewritten so as to cover the systems or devices enabling to trace usage operations and hence to process personal data.

The forbidden activity, in order to benefit from protection, should lead, or be preparatory to, an infringement of an intellectual property right provided by law. This requirement could not be easy to work in practice.

The US DMCA⁴⁴ adds to the prohibition of removal and alteration of copyright management information, the providing, distribution and importation of false information. Maybe in Europe, such activity might be covered by the criminal offence of forgery. It should be useful anyway to explicitly stress in the Proposed Copyright Directive that the provision of false information is also prohibited.

CONCLUSION

Certainly, the present regulatory framework can only provide unsatisfactory solutions for protecting Technological Measures for protecting Copyright against circumvention. An appropriate remedy against the manufacture and commercial distribution of circumvention devices does not exist in most countries. Yet, a proper legal protection of any technological measures or devices aiming at protecting and managing IPR in the Information Society would be a strong incitement for their development and their utilisation by rightholders. The protection envisaged in the WIPO Treaties and in the Proposed Directive on Copyright is to be welcomed.

⁴⁴ sec. 1202

Nevertheless, in some aspects, such a protection appears somewhat inappropriate. Firstly, as regards the Proposed Directive, some technical systems, such as ECMS, seems to be covered by the scope of application as envisaged for the rights management information while not being in all cases protected as a technological measure, namely where the system merely manages the rights without restricting the access to the copyrighted application. Moreover, the technical systems protecting or managing IPR content could be covered by the Proposed Directive on the protection of conditional access services. This threefold protection is largely different as regards their scope of application, the prohibited circumvention or defeat devices, the prohibited acts and the level of knowledge of a possible copyright infringement to be required.

Finally, the boundaries of the protection versus a legitimate exercise of copyright exceptions is only stressed in the Proposed Directive on Copyright, even if its consequence remains uncertain. This could entail that a exception defence could take place according to the enabling text. It would be easy for the ECMS to invoke rather the conditional access protection or rights management information protection which do not address the copyright exemptions, than the technological measures protection. At the contrary, the opinion of the Parliament, which applies the protection of TM regardless the exercise of a copyright exemption, threatens the balance enshrined in copyright legislation. This matter should then be in-depth considered.

On the other hand, the rationale behind these protections is somewhat puzzling. Some of the consequences of the envisaged protection let think that what is actually protected is rather the investment devoted to the development of the technology.

This is why we would be inclined to the adoption of a consistent computer crime regulatory framework which would prohibit any manufacture and commercial exploitation of circumvention or hacking technology whatever its purpose, any unauthorised access to a remunerated services or any removal or modification of a technological information or identification attached to a digital content. As regards the act of circumvention carried out by an individual, it should be prosecuted only upon strict requirements such as maliciousness.

Such a regulation should be horizontal and cover a large field of application, whether IPR content, on-line services, etc... This should not prevent the legislator from considering the specific problems that each technology raises in each particular field of law. This is true for instance for the balance of rights which could be threatened by a blind application of a protecting technology. Nevertheless, such attention should be made before dealing with the protection of the technology itself. Otherwise, there is a risk that either the protection would be fragile, either the exercise of the exceptions would impose a too heavy burden on the user.