1 Introduction: Conditional Access

For not many years ago, broadcasting in Europe was based on state monopolies, producing the content and maintaining communication networks for making the programs available to the public. The states was not in control of what programs were provided, but the program policy was an issue in the public debate, and political pressure could be brought to bear on this policy without necessarily adopting acts of parliament or other formal legal instruments. Financing the public broadcasts was also a state responsibility, and many countries solved this by license fees, the fee to be paid by those owning a radio, a television set or other types of equipment. There was therefore no direct link between the revenue of the broadcaster and the types or popularity of the programs offered, though there certainly would be several vague and indirect links – for instance, the political will to continue a scheme of licensing fee would rely on a large fraction of the populating finding the programs of interest, providing useful information etc.

Some twenty years ago, this started to change. The monopolies were abolished, there emerged commercial radio- and television station. A licensing system was still maintained, and has to be maintained as long as there is a scarcity of radio frequencies, and there is a need to administer these frequencies to avoid interference. These newcomers could not, or were not allowed, to finance their activity by license fees. There were in general only two other options available.

(1) The broadcasters could finance their programs by inserting advertisements, paid by those whose products or services were promoted in this way. This is hardly a recent solution, it may be claimed that though broadcasts originally were produced by the manufacturers of radio receivers, justifying the
purchase of such sets, advertisements soon become the driving force in the expanding broadcasting networks.\(^1\)

(2) The broadcasters could finance their services by end-user payment. This may either take the form of a subscription to a scheduled program, typically known as a “channel” (or a repertoire of channels), or specific payment for an individual program, typically a feature film, a scheme generally known as “pay-per-view”.

This latter strategy poses an obvious problem for the broadcaster. Radio signals by air, including direct satellite broadcasting, will be received by anyone having the right equipment. For transmission by cable, one may be able to address the individual end user (as in a telephony network), but this presumes an architecture of the network permitting such switching, and this technical prerequisite is typically not implemented in traditional cable television network. If one wants to reserve reception for subscribers, one obviously has to find some technical solution for this.

The more simple solution is scrambling: Introducing a foreign signal as noise in the broadcasting signal, and equipping subscribers with a descrambling device, which make it possible for them to remove the noise and view a clear picture. This rather straightforward solution soon was found to be insufficient, as it was rather easy for unauthorised persons to develop unscrambling devices. Therefore more elaborate schemes of encryption was developed, in which the lines of a television picture was cut, rotated, re-sequenced or otherwise. The subscribers were given devices – de-coders or set-top boxes – which had unique identifiers, a broadcast signal could therefore use the identifier to access a specific set-top box, though in principle being received by anyone. In this way, the set-top box could be loaded with the appropriate decoding scheme, allowing that individual end user to view all and only of those channels to which he or she had subscribed. To make unauthorised de-coding even more difficult, the encryption scheme may be periodically changed, the new algorithm being distributed to the appropriate set-top boxes as indicated above.

This was a solution adopted by both satellite broadcasters and cable television networks. For pay-by-view services, however, one in addition had to introduce a return channel in order to communicate the individual choices of the user to the broadcaster. This is typically enabled by linking the set-top box to a telephone line. The selected service is then sent to the set-top box using the unique identifier as an address in the way suggested above.

Though this was a solution, it was not perfect. It turned out that unauthorised third parties also in this respect were ingenious in breaking algorithms, furnishing pirate set-top boxes (or smart cards slotting into the set-top box), and maintaining them in such a way that a considerable number of unauthorised users were able to enjoy the services without paying the subscription fee or payment for the individual programs ordered.

The problem was made even more serious as the broadcaster often has to pay the right holder, for instance to a feature movie, based on the number of

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subscribers. This may be based on the number of subscription contracts, but as there is considerable sub-licensing in the market through secondary broadcasters like cable network operators, the right holders may measure the seize of the audience by independent means, as one does when rating television programs. In this way, the fee to the right holder may be increased due to unauthorised viewers, which in turn will lead to the rightful users paying a higher subscription fee or payment per view that otherwise would be the case.

In traditional copyright terms, one may note that the viewer using an unauthorised set-top box (often called a “pirate decoder”) do not infringe the copyright in the programs being broadcast. Viewing will typically take place in the privacy of the home of the user, and is not a “public performance”. It is therefore outside the exclusive copyright right or any of the neighbouring rights of the right holders.

In order to address this problem, a solution was sought in criminal law. A major example of this is the Directive 98/84/EC of the European Parliament and of the Council of 20 November 1998 on the legal protection of services based on, or consisting of, conditional access. This directive Art 4 qualifies as “infringing 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 device

One will see, that the directive is oriented towards the “pirate”, the third party manufacturing, importing or in any way distributing illicit devices like pirate set-top boxes or smart cards, installing them at the end user and related promotion like advertisements.

Legislation in some countries, like in Norway, extends the protection even further. According to the criminal code Sect 262(2), it is also prohibited to use an illicit device which lead to an economic loss for the broadcaster, or which make a profit for the user or others in accessing a protected service. The “profit” will typically be implied by not having to pay the normal subscription fee to access the service. Therefore, though an end user viewing an encrypted broadcast in his or her own home will not infringe the copyright (or neighbouring rights) of the right holders, it will nevertheless be a criminal act.

Traditionally, the law applied to the viewing of an encrypted broadcast is then seen as a combination of two regimes of protection. There is one regime based on intellectual property law, protecting the copyright holder of the broadcasted works, the performing artists of their contribution, and the “signal right” of the broadcaster. Then there is another regime based on criminal law, protecting the

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2 There will be differences in national law in the construction of copyright terms, and this paper has not the ambition to include such variety – it will be based on Norwegian law, which in general is in accordance with European law.
The contractual relationship between the broadcaster (or provider of the service) and the subscriber, making those who attempt to hitch a free ride through illicit devices subject to criminal sanctions.

The latter regime is often related to similar criminal provisions which make it illegal to gain access to a football match or a show without paying for admission, or riding a train or bus without a valid ticket. It is auxiliary to the contractual relationship, ensuring that normal business practices are followed. According to this traditional view, the fact that the protection of conditional access to broadcasts has a service subject to intellectual property protection, is rather incidental.

There may be another way of looking at the combined set of provisions. According to this, one should not take a formalistic approach to the legal analysis, but rather look at the reality of the situation created by the law. The reality is that there both is a certain exclusive right related to the broadcast and its content, and that it is illegal to access the broadcast without the consent of the right holder. In consequence, there is created a right of access for the right holder.

It is further suggested that the examples discussed in some detail above of conditional access to broadcasts, is just one special case of the more general case of an exclusive right of access in digital environments. The generalisation is provided by the emerging legal protection of technological protection devices.

2 The Basis of an Access Right

2.1 The “Case of the Invisible Copies”

The argument for an access right, as I understand this, is not solely based on the view that combining the protection of technical protection devices, but also on the role of copying in the digital environment.

An early analysis from 1970 of the impact of information technology on copyright by Michael Keplinger is entitled “The case of the invisible copies”. This actually addressed an issue which has been resolved long ago, whether conversion of a traditional copy of a work in paper form into a computerised version of the same work in machine readable form represented a reproduction of that work. While this is generally confirmed internationally, the problem still was – or perhaps, is – with us in the discussion of whether the transient

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3 One will appreciate that this is rather different from the tradition droit d’accès in copyright law, which is used for the right an original copyright holder retains to access the original copy of his or her work, even after this copy has been sold, for instance the droit d’accès of a painter to access the original for reproduction. – “Access right” is also a term also used with respect to freedom of information legislation, especially with respect to the right of members or representatives of the public to access government files, or a data subject under data protection law to access his or her own file. This represents little risk of confusion in the current context.

reproductions made in utilising a work within a digital environment, are to be qualified as “copies” with respect to the exclusive right of the right holder. This also would seem to be confirmed – it is well established under US law that entering a work into the random access memory of a computer, constitutes making a copy of that work.\textsuperscript{5} Several European directives also make reference to “temporary copies”.\textsuperscript{6} It must therefore be seen as the prevailing international view that such transient reproductions are qualified as “copies”.

There are, however, a couple of aspects still to be fully explored. The first is the issue of \textit{duration}. The term “temporary copy” is nearly paradoxical, as the concept of a “copy” presumes some durability. If a work is communicated using, for instance, a flashlight and Morse code, the signals are too transient to qualify as a “copy”, in the same way, the current surging through a wire is not a “copy”. Even when recognising the representations in random access memory or when caching as “copies”, there still has to be applied – at least in theory – a criterion of durability of the representation. This is, perhaps, both obvious and trivial, one would otherwise be guilty of massive infringement if visiting a gallery wearing mirror sunglasses. And it may be that this reservation is only of pedantic nature.

Also, there is the issue of \textit{partitioning}. When communicating through a packet-switched network, the work will be chopped up in packets of bits. While one packet representing a literary work may contain sufficient text to be considered on itself an infringement of the work as a whole, the packets representing an image may contain in itself insufficient data to recognise the work as a whole. In the latter case, several packets will have to be stored at the same time on a server for them to constitute a temporary copy of the work. Similarly, an operating system may page a work out and in of primary storage outside the control of the user, and strictly speaking the problem of partitioning is also present here. To some extent, the description in legal terms may not correspond exactly to the underlying technical situation.

Information technology makes copying a trivial and necessary act in utilising copyrighted works. This certainly has represented a challenge to copyright law. There has been no lack of commentators, who in the case by which the technology make copying simple and widespread have seen a decline of the regime of copyright law. But this really is not an observation with respect to copyright law. As the term “intellectual property” indicated, the notion of a “work” is different from the notion of a “copy of the work”, the work itself is of intangible nature, retaining its identity through derivations and adaptations, as a wide range of conventional examples of translations, dramatisations and other forms of adaptations will illustrate. However, in spite of this being a basic feature of copyright law, the \textit{administration of rights} has to a large extent relied on the control of the copying. The simplest example may be the publishing contract, where the printer traditionally confirms the number of copies of an


\textsuperscript{6} The Directive on the protection of computer programs art 4(a), The Directive on the protection of data bases Art 5(a), and the harmonisation directive Art 2.
edition, the publisher then tracks the copies sold or destroyed, and the author typically audits his or her remuneration by periodical reports on the sale of copies. But corresponding management systems have been established for fine arts, cinematographic film, videocassettes, phonograms etc.7

Information technology made it trivial for the user himself or herself to have copies produced for experiencing the works. This started before computers became a household appliance, already the photocopying machine liberated the work from its paper copy as the trade name Xerox become the verb “to xerox”.8 The problem first made itself evident with respect to computer programs,9 the European Union responded by prohibiting “private copying” of computer programs, while private copying of other types of literary works are generally deemed outside the exclusive right of the copyright holder in the European tradition.

But the strategies adopted for the more conventional challenge of the photocopier, or the prohibition for private copying of computer programs, have failed with respect to electronic market of “sign based services”.10 A strategy for rights management based on the control of copies obviously will fail when the technology itself presumes the constant reproduction of copies, and with the copies becoming so trivial they are hardly noticeable – and certainly secondary to the experience of the work itself. The commentators arguing the failure of copyright law is really addressing the failure of the conventional system for rights management based on the control of copies.

In the electronic market, we are seeing emerging segments for certain types of right management regimes corresponding to types of works. The introduction of this paper has to some detailed sketched the rights management regime for television. The “electronic book” has some limited commercial success. For music, the more discussed systems have had a lack of right administration as a characteristic feature (Napster, Gnutella), while streaming at low cost per track has been suggested as a solution for 3rd generation mobile phones.

Assessing these developments, it has been suggested that the situation calls for a re-assessment of the basic structures of copyright law. The “copy” fails as the basis, it has been argued, being only a rather trivial means for experiencing

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7 But there are exceptions, three major and conventional exceptions are rights to the performance of a play (where a contractual strategy is applied), the rights for broadcasting (in the European tradition, there were a sufficient small number of broadcasters for also – at least in principle – applying the contractual strategy, often supplemented by some sort of statutory license), and the public performance of music, where composers and other copyright holders have organised themselves in collecting societies, creating an international network for clearing rights, collecting and distributing the appropriate remuneration.

8 And there have been legal responses to this situation within copyright law, in some countries systems for blanket licensing have been established, but there are also other solutions.


10 “Sign based services” include all services, which can be produced for the purchaser by the communication of signs (bits), typically text, images and sound, which all typically are copyrighted works (and often protected by neighbouring rights).
the work. The argument, perhaps, is set out in its clearest terms by Jane Ginsburg:11

“Now, however, the moment of the material copy may be passing … Every act of perception or of materialization of a digital copy requires a prior act of access. And if the copyright owner can control access, she can condition how a user apprehends the work, and whether a user may make any further copy. Access control can at the same time thus vastly increase the availability of copyrighted works in de-materialized form, yet constrain their susceptibility to conversion to physical copies. In the impending era of digital access, we will be able to download anything, whenever, and wherever we want. As a result, we will no longer need hard copies to enjoy the work … we will be able to summon up the work at any time, but we may not be able to have our own copy.”

2.2 Legal Protection of Technological Protection Devices

The 1996 World Intellectual Property Copyright Treaty (WCT) includes in Art 11 a clause on the protection of technological protection devices:12

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 authorized by the authors concerned or permitted by law.

This provision was implemented first in the US by the Digital Millennium Copyright Act, incorporated in the Copyright Law as section 1201. Its may principle is rather simple:

(a) VIOLATIONS REGARDING CIRCUMVENTION OF TECHNOLOGICAL MEASURES.—(1)(A)No person shall circumvent a technological measure that effectively controls access to a work protected under this title.

However, the full legislation is rather more complex. The provision restricts both the act of obtaining unauthorised access by circumvention13 and the manufacture or making available devices assisting in unauthorised access (Sect 1201(a)(2)).


12 These are occasionally referred to as TPD, but this abbreviation is not used in the paper.

13 Sect 1201(a)(1), from which the central provision is cited above.
The principles are subject to a rather long and detailed list of exceptions, including

- Reverse engineering of computer programs
- Security testing
- Encryption research
- Non-profit libraries and educational institution for determining whether a work should be acquired
- Discovering and disclosing an undisclosed feature collecting personal data
- Preventing access by minors to inappropriate material on the Internet.

Each exception has its own requirements, some quite detailed.

As access control technology still is not widespread, one has been careful not to make any general conclusions of the effects of the legislation. But there is permission for the Librarian of Congress on the recommendation of the US Copyright Office, and after an administrative regulatory procedure, to make further exemptions for “classes of works whose users are or are likely to be adversely affected by virtue of the prohibition in their ability to make non-infringing uses of such work”. The initial decision of 28 October 2000 has lifted the prohibition against circumvention with respect to two classes of works:14

- Compilations consisting of lists of websites blocked by filtering software applications
- Literary works, including computer programs and databases protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolesce.

Likewise, the WCT Art 11 has been implemented by the directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.15

1. Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

Art 6(1) contains the same main provisions as the WCT Art 11 and the DCMA, and like the DCMA, there are further provisions for prohibiting import, distribution etc of circumventing solutions for such technological protection devices.

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14 Cf “http://www.loc.gov/copyright/1201/anticirc.html”.
15 OJ L 167/10.
Within the context of this paper, the details of these rather controversial provisions will not be discussed. This paper is rather concerned with the general principles which are introduced, and which follow the lines of the introductory discussion of the protection of conditional access of broadcasting. There is introduced in parallel with the intellectual property regime, a regime protecting the technological devices which control access to the works. Seen as a whole, it may be argued, this extends the exclusive control of the right holder over the work, indeed it may be interpreted as an exclusive right to access or experience the work.16

2.3 The Notion of an “Access Right”

The notion of the access right has been introduced above. In order to discuss it further, one might find it appropriate to offer a characterisation of access right in legal terms. As we are not so much talking about a right specified in the legislation, but rather a possibly emerging right, the characterisation will have to be somewhat vague or general.

Perhaps it may be helpful in very simple and basic terms set out the communication process of which a work is part:

In these simple terms, the work is communicated to the user from a service provider. For clearing the rights associated to the work, there are at least two possible stages when this may take place, when (or prior to) the service provider

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17 This term may not be wholly appropriate, as in conventional communication processes, the work will be represented by a copy, which generally is classified as a type of “goods” rather than a type of “service”; but this is of little importance for the discussion.
takes the initial step for making the work available, or when the user accesses the work.

Taking a conventional example of a publisher distributing a novel through traditional booksellers, the publisher will clear the distribution rights through the publishing agreement with the author. The user just purchases the copy, and there is no right to be cleared at this stage. One of the reasons for this is that the right holder cannot in the context of conventional technology, control access by the user.

Another conventional example may be that of broadcasting. If national copyright legislation includes among the exclusive rights the right to make the work available to the public, rights must be cleared before the broadcast of the work. In this example, no copy will be present, the representation by wireless signals or signals transmitted through a network will not constitute a “copy”.

Neither will the streaming of the work through the loudspeaker of the receiver of a radio or on the screen of a television set. Though the broadcaster makes the work available to the public, the experience of the work by the user is outside the scope of the exclusive rights of the right holder, as mentioned above. Also, the streaming of the signal through the receiving terminal may be converted to a copy by the user, connecting a tape recorder for sound, video or both, to the set for capture and storage of the work. Therefore, the broadcasting represent a situation where information technology quite early changes the possibilities of user to experience the work, and may be a situation to be considered with respect to access right.

The lack of control by right holders of the streaming through broadcasting has been addressed by development of the technology. Even before introducing digital audio broadcasting or television, broadcasters introduced an “encryption” of the signal, in its simple form only through introducing a noise in the broadcasting signal. This could then only be filtered away by some device through which the signal has to pass before reaching the loudspeaker or screen. Such devices (set-top boxes) became common for cable television networks and satellite broadcasts, and introduced as simple form for access control – the user had to pay for the device in order to experience the transmitted works. The devices have grown in sophistication, they may be addressed individually and programmed by the providers of the service, in this way making systems for subscription, pay-per-view etc possible.

The initial example has been developed with respect to the traditional conditional access to broadcasting, where the directive already has implemented the double track system. But the World Intellectual Property Organization Copyright Treaty art 11 requires a similar system to be introduced in member countries – and several have already introduced this, the European Union having included this requirement in the harmonisation directive (adopted 9 April 2001).

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18 Not even a “temporary copy”, see above.
19 The increased possibility for making private copies, which in most jurisdiction is seen as falling outside the scope of the exclusive rights, has justified schemes of levying a tax on the sale of recording equipment, blank tapes or other types of goods, the funds aggregated in this way is used for the benefit of right holders in general. This will be commented below.
Through these schemes, the copyright system is supplemented by the criminal protection of technical measures enabling right holders to control access, and there will be a more general double tracked system.

This double tracked system may then be considered as an unnecessary complication. Seen together, the legal system has created a protection against unauthorised access when the work is protected by technical measures. Also, under criminal law the party being offended, with the consequences this status would have before a criminal court according to the law of criminal procedure, are the right holders. It may be difficult to see any functional difference between what above has been called the “double tracked regime” combining copyright and criminal law, to an access right under copyright law.

It has been pointed out that “access right” more or less in the meaning sketched above, has one rather traditional counterpart, the original copyright owner’s control of the unpublished work, or the right to first publication. There are indicated that there may be differences between different jurisdictions. But many jurisdictions would recognise that the first disclosure of the work to the public has to be made with the consent of the copyright owner. When such disclosure has taken place, there may be clauses in the copyright legislation which delimits the exclusive rights of the copyright owner, in the Continental European tradition typically those casuistic provisions which, seen as a whole, corresponds to the doctrines of “fair use” or “fair dealings”, like the right of quotation, the right to make private copies, etc. But such freedom to utilise the work presumes that it has been disclosed with the consent of the copyright holder – otherwise they do not (generally) apply. For instance, a letter found in a private drawer may not be quoted, as the copyright holder has not divulged it. This jokingly has been referred to as the “umbilical cord principle”.

This principle relies to some extent on the observation that the creator has control of the work through the material on which it is represented – an author traditionally has control of the paper on which he or she sets out the words, today the control of storage media for the word processor replaces and parallels such control. Similarly other creators will have a control of the physical media on which the work is represented, or the situation in which the work is contained. Some jurisdictions recognise copyright in works created without fixation, like the improvisations of a musician.


21 In some cases, it may be argued that this would be contrary to the principles of freedom of expression, but this is an issue not to be pursued here.

22 Some jurisdictions recognise copyright in works created without fixation, like the improvisations of a musician.

23 Thomas Heide (“Copyright in the EU and U.S.: What ‘Access-Right’?“ ms, Cambridge 2001) argues that according to the classic Hofeldian analysis, access right is best understood as a “power” rather than as a “right”. According to Hofeld, a “right” always corresponds to a “duty”, and there certainly is a “right against the gaining of unauthorised access”, where the
But the access right as introduced above, is not limited to situations where there are technical protection devices to enforce access control. A broad reproduction right gives an access control also when not enforced by technical devices. Accessing a work by a computer will presume temporary reproductions, which must either rely of a license from the right holder or a statutory authorisation (within the limits of the Berne convention). Therefore, the notion of access right is not limited to situations in which there is implemented an actual technical protection device, though the argument above rely on this line of reasoning.

Also, mechanisms for controlling access are not limited to situations where copyright (or related rights) is the justification for control. Indeed, the conditional access right mentioned above does not rely on the broadcast containing copyrighted material, it is this evasion of the normal contractual situation, which is addressed by these provisions. Obviously, there may be other reasons for protecting content than intellectual property rights, in this respect the prohibition for circumventing protection mechanisms may be seen as related to the more general provisions for gaining access to a computerised systems by misappropriation of user identification, passwords, or other types of hacking.

3 Balancing Exclusive Rights

The justification for granting exclusive rights to creators of works, is traditionally based on the argument that this strategy will promote the creative efforts of members of society: When creators are secured the possibility to reap the economic and ideal fruits of their work, in the form or remuneration and reputation, they will be stimulated to make works available to the society at large.

In this sense, copyright (and related rights) may be seen as a solution to a problem which would arise if no protection was offered. One may, for instance, take an author who is not offered any protection for his literary work. The author still has the physical control of the medium on which the work is represented. And this has then to be exploited to derive full remuneration for the effort, measured in time, strain and ingenuity, going into the work. It would make the author reluctant to part with the manuscript without there being negotiated a contract; perhaps the author would only let the publisher read the manuscript in a situation where the author could make sure no copies were made, and only after the publisher signing a letter of intent warranting that the publisher would not try to reproduce the work from memory. The remuneration from the publisher would have to be rather high, and perhaps the publishing contract also would include an obligation to make copies of the work available to third parties only on the basis of a contract restricting the use that third party could make of

"authorisation" flows from the principles of copyright law. This gives the copyright holder the power to control access to a work when the user seeks to engage in any use reserved to the copyright holder, also if the user already has “access” to the work (for instance in reproducing a copy of the work). Obviously, “power” in the Hofeldian sense does not necessarily imply that it in practice are possibilities to enforce this – also the helpless author has “power” to control unlawful copying.
the copy. Without taking such a mental experiment into ridiculous consequences, one will realise that the protection offered by copyright actually is a solution to the problems posed by managing the exploitation of the work by contractual terms and physical control alone.

Similarly, it is often suggested that property rights in land, for instance, can be seen as growing out of the possibility of the owner to fence in a piece of real estate, and police that fence. From this control based on brute force has grown the legal notion of property. It may be argued that this is a bottom-up argument: Property rights actually is a solution for making away with fences, permitting more flexible solutions. Again one should not stretch the argument too far, but in this perspective there is not a necessary relation between access control and intellectual property: The fact that a right holder may exercise access control through some technical protection device does not have to imply a legal right paralleling this control, it may be that the intellectual property right reduces the need for such control.

In the traditional argument, the exclusive right is justified in its promotion of the creative effort within the jurisdiction. But also, it is realised that the creator does not work in a vacuum, he or she is part of a culture, and though the work is original, it is nevertheless indebted to the cultural heritage. Therefore, there should be delimitations of the exclusive rights. These delimitations are in Norwegian law not seen as exceptions to the exclusive right, but rather a demarcation line for how far its justification carries the argument before meeting the counter-arguments of the creator having benefited from the general cultural heritage. Therefore, the provisions in copyright law granting access for the public or third parties to the works are as soundly based on legal policy as the exclusive right itself. The legal policies justifying the exclusive right and public access are of equal stature – with implications, for instance, in the way the statutory provisions should be interpreted.

There is, however, a balance to be struck. And this principle is generally seen expressed by the Berne Convention Art 9(2):

> It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.

This is often called the “three step test”, as the delimitations of the exclusive reproduction right may only be permitted in (1) certain special cases which (2) do not conflict with a normal exploitation of the work, and (3) do not unreasonably prejudice the legitimate interests of the author.

The Berne Convention applies the three step test to the exclusive reproduction right. The World Trade Organisation Final Act Annexe 1C on the Trade Related Intellectual Property Services, Art 13, however, does extend this principle. It requires Members to “confine limitations or exceptions to exclusive
rights” to be contained within the principles of the Berne Convention Art 9(2), repeating the wording of that article.

Likewise, the EU Directive on the harmonisation of certain aspects of copyright and related rights in the information society24 does in Art 5 give an exhaustive list of exceptions and limitations permitted by the member countries to include in their national copyright legislation. These lists (given in Art 5(2) and (3)) include provisions that are not related to the exclusive right of reproduction. And again, Art 5(5) stipulates that such exceptions or limitations are not permitted if they violate the criteria in the three-step test of the Berne Convention Art 9(2) – which implies, that even though an exception or a limitation may be included in the list, it cannot be implemented if found not to meet the requirements of the three step test. An important point is that the inclusion in the directive gives the European Court of Justice jurisdiction to decide whether national legislation comply with this test.

The three step test has references to “normal exploitation” and the “legitimate interests” of authors. It is rather obvious that these are references to the situation in society. What is “normal exploitation” may obviously change over time. This is rather clearly illustrated within the area of reproduction. When the current Norwegian legislation was developed at the end of the 1950s, reprography was still a cumbersome technology. Apart from copying by hand, the most efficient technology was represented by typing the text to be reproduced on a stencil, which then was used as the original in a cycostyle or a stencil duplicator. The effort involved justified the traditional delimitation of the exclusive right, permitting limited reproduction for private use.

Then the minor technological revolution associated with photocopying occurred (as alluded to above), and over a few years, reproduction of conventional text by photocopying become very easy, inviting an increased use of reprographies, not least in educational institutions, public administration and private enterprises. These were outside the traditional delimitation, but the pressure from the technological possibilities was much stronger than the possibility or political will to enforce the limitations. The revenue for copying in Norway collected by the Norwegian society for reprography was in 2000 NOK 179.6 millions, which obviously cannot be contained within the three step test discussed above (and is not, but is subject to a regime based on extended collective licensing, mentioned below). This also indicates the potential in copying within the personal private sector as information technology makes available possibilities far more efficient and more simple to use than the technology for photocopying. Especially the issue of “serial copying” is important within this area, one person copying and forwarding to a good friend (permitted by the conventional delimitation of reproduction for private use), the friend copying to another friend and so on, as digital copying does not imply generation loss of quality, the chain may be as long as there are friends of other friends interested in a popular work.

It is therefore easy to argue that the three step test requires something to be done with respect to the delimitation of private reproduction – the same may be true with respect to private performance (which does not fall within the three step test of the Berne Convention, but does fall within the scope of the test in the WTO treaty and those delimitation relevant for performance in the EU directive). In this paper, the outcome of this argument is taken as granted: There technological development has resulted in changes which require legal action to be taken with respect to private copying.

The access right discussed in this paper, may be seen as a legal policy for restoring the balance. By extending the exclusive right to accessing the work, a private user will have to obtain a license from the right holder (and paying for the license) before enjoying the work. In actual fact, it may be argued that this solution already has been adopted with respect to computer programs, as private copying has been prohibited. In practice, all reproduction of permanent copies has to be based on licenses with the right holder to the program, with the exception of copying for back-up or for reverse engineering or de-compilation (when the conditions for this is met). On the other hand, the license generally and typically gives the user the right to execute the program, creating the temporary copies (typically in the cache memory of the work station of the user) without further consent from the right holder.

Access right therefore may be seen as a solution for re-balancing the relationship between the right holder and the public according to the three step test. But there are other possibilities, and they have been explored with respect to the more conventional reproduction by photocopy.

One example is to levy some tax on the trade in some goods or service that (1) is seen as related in practice in a relevant way to the exploitation of intellectual property right in question, and (2) guide the resulting influx of money into some sort of fund, which (3) is divided among right holders, primarily with the object that the share to each right holder corresponds with the share of the exploitation of the intellectual property of that right holder.

This solution has been chosen in many countries to remunerate right-holders for photocopying of their works within certain sectors. In Norway, this solution was originally adopted for levying a tax on blank tapes for remuneration of right holders due to the more intense private copying of music and audiovisual works under the delimitation of the exclusive rights of reproduction for private use. The positive correlation between sale of copying devices or blank media and the volume of private copying, is thought to be present – though obviously such devices or media is are also used for other purposes. The old Norwegian scheme did not automatically generate a fund from the tax being levied.

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25 This is mentioned above.
26 One example is Greece where a tax is levied on the trade in photocopying machine and paper.
27 The same is true for several other countries, for instance Belgium, Canada, France, Holland, and Switzerland.
28 Currently, a proposal is pending (cf letter inviting comments from the Ministry of Culture of 21 February 2001) for a tax levied on electronic storage medium etc, to be incorporated in the Copyright Act.
paid, the tax was included in the general income of the state, and a budgetary decision was made how much should be placed at disposal of a special Board\textsuperscript{29} for distribution. The Board has representatives of the types of right holders concerned. Applications are made to the Board, and the Board awards money to applicants based on some rough initial division between the different types of right holders. There is no real warranty that those being copied most also are those being given the highest benefits from the scheme, but as the representatives of the right holders make up the members of the Board, there is some consensus that the money is distributed in a way which satisfies legal and cultural policies.

There are several weaknesses with such a scheme. There is the obvious weakness in the correlation between what is taxed, and the relevant use in terms of intellectual property. There is the weakness that the distribution is based on rather vague notions with a lack of automatic pay-back to those whose works \textit{etc} are being exploited. And there is the drawback that the remuneration is based on a decision by the government, there is no negotiation or bargaining in which the right holders may argue for the remuneration being reasonable for the more intense use. But the result is that considerable sums are made available for right holders of different categories, and this does contribute to re-balance the relation between the right holders and the public, easing the pressure originating from the technological development and the three step test.

Another solution is the Nordic extended collective license scheme. This scheme rests to some extent on the existence of organisations of right holders, and gives such organisations the right to negotiate for a remuneration. The other party has also to be rather well organised. In Norway (as well as the other Nordic countries) the right holders have organisations for reprography, secondary transmission of broadcasting through cable networks, \textit{etc}. The negotiations are conducted with the state or municipalities for use in the educational sector, with the state for use in public administration and the courts, the church for use at religious services, the federation of industries for use in private business \textit{etc}. Extensive statistical sampling takes place to determine the volume of copying or re-transmission of protected works, and the types of works and other protected material being subject to such use. These data is then used both to calculate the total remuneration due from each user organisation, and for distribution among the different primary organisations of right holders. The primary organisations again have different schemes for distributing their share to the original right holders themselves, there being required a non-discrimination policy towards non-members of the organisations. Remuneration originating from foreign material is made available to organisations for right holders in the relevant countries.

The extended collective license is therefore based on a conventional negotiated agreement, licensing end users to exploit the material according to the terms in the agreement.\textsuperscript{30} The strength of the scheme is that when a contract

\textsuperscript{29} Originaly “Norsk kassettavgiftsfond”, currently “Fond for lyd og bilde”.

\textsuperscript{30} There are provisions for a system akin to arbitration securing that there will be a contractual instrument also in situations where negotiations fail.
has been negotiated, then the contract also applies to the right holders not represented through the system of organisations. In this way, one may offer blanket licenses.

This solution has therefore less “weak” elements that the solution based on a tax, especially as the remuneration is based on negotiations. But still the distribution is not made directly to the right holder whose works or material has been exploited, but through the primary organisations which decide on how the proceedings should be used for the benefit of the group of right holders they represent. With increasingly detailed information on the use, the distribution on an individual level may be realised.

A specialised tax or the extended collective license are therefore two policy solutions addressing the same issue as the access right. The access right has one major advantage over the schemes indicated, at least in the form these are known today, it ensures that the remuneration is made to the right holder whose work or material is exploited. As indicated, the other schemes may also be developed for individual distribution of funds – this is a matter of information on the exploitation of end users, and such detailed information may also be obtained for this purpose.

A major drawback of many such schemes of collection of data, including the access right, is that data is not only collected on which work or other material is being exploited, but also on who is the user. This would imply a massive collection of personal data in the form of electronic traces, data which would describe the inclination, preferences etc of the user. In the data protection legislation of many countries, there are provisions which, for instance, require libraries to delete the name of the lender when the book is returned, ensuring that for instance authorities cannot use such data to identify the political or other beliefs or inclinations of users. Many see in the data protection policy a strong argument against collecting data on the user.

There may still be the possibility to collect sufficient data for individual distribution. A rather old fashioned example illustrates this: It has been suggested, for instance, that a bar code be printed on every page, and that devices for reprography should be required to be able to read such codes, for generating a detailed and individual statistics of what is being copied. In this way, it would be possible to remunerate the individual right holder without identifying the user making the copy. Though the example is dated, it can be realised more efficiently by more modern solutions based on information technology, both within schemes based on tax or extended collective license.

Also, there is a argument against access rights and the use of technological protection devices based on the observation that such devices may protect material that is not protected by intellectual property rights. Therefore, the result may be that the right holders is given too strong control of the exploitation of their works and other materials by the public. The basic balance struck by the provisions delimiting exclusive rights is therefore also under this policy at stake, and the rather complex and sophisticated detailed provisions of the US Digital Copyright Millennium Act bear evidence of the problems in ensuring that protection does not extend too far.
4 Final Remarks

The purpose of this paper has been an attempt to explain the background for the discussion of extending exclusive rights into an access right. In the last section, a further attempt has been made to relate this to the well known three step test of the Berne Convention, which was created as a barrier towards legislators making delimitation of the exclusive rights in such a way that the normal exploitation of the work was eroded.

It is acknowledged that technological development today creates a policy issue for re-balancing the interests of right holders and the public on the basis of the three step test. But it is argued that there are other solutions than introducing an access right. Though no attempt has been made to explain them in detail, two such strategies have been introduced: One, based on a tax levied on a goods or service, the trade in which is positively correlated with the exploitation of works or protected material. Second, a system of extended collective licenses. It is argued that the latter two solutions lack two problems associated with the access right, one related to data protection, the second on over-extending the protection. Regrettably, the alternatives also have their drawbacks.

Therefore one may observe that there is still work to be done in the future for turning the possibilities of the information technology for a solution for the management of intellectual property rights in the digital environment.

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31 In the Berne Convention, only the right of reproduction, but the test has been given extended scope by the WTO Convention and the EU directive, as discussed above.