

Decreasing copyright enforcement costs : the scope of a graduated response.

Olivier Bomsel, Chair of Media and Brand Economics ParisTech, Senior Researcher Cerna,
Mines ParisTech, bomsel@ensmp.fr

Heritiana Ranaivoson, Post-doctoral researcher Cerna, Mines ParisTech, hranaivo@ensmp.fr

Abstract

While copyright is a key institution of the creative industries, the digitisation of copyrighted goods and their dematerialised distribution over the Internet have caused its weakening. Among the reasons is the fact that, during the broadband roll-out, copyright enforcement costs have become superior to its estimated benefits. The paper analyses the causes of this situation and how a graduated response to infringers can durably decrease copyright enforcement costs. It starts by a review of the economic literature on copyright that focuses on its industrial aspects. It then analyses how the consumer's impunity provides incentives all along the distribution vertical chain to free ride on copyright, which rapidly increases copyright enforcement costs. It finally depicts the graduated response mechanism and the voluntary agreement that initiated this system in France. It then concludes that increasing the cost of free-riding for the final consumer is the key to the decrease of copyright enforcement costs and to enhanced incentives for innovation in the creative industries.

Key words:

Copyright – Creative industries – Regulation enforcement costs – Digitisation – Graduated response.

1. Introduction

In all capitalist economies, copyright is an institution that has been historically more and more important for the development of creative industries. It consists in the granting of an exclusive right to the exploitation of reproductions (and representations) of an artistic or literary work. As such it has contributed to the accumulation of large copyright portfolios that allow to handle the risks of financing and marketing new creations (Caves, 2000). From an economic standpoint, the copyright institution appears as an internalisation means whose social benefits should remain superior to social costs. Among these are the enforcement costs, which include the costs linked to the exclusion of unauthorised consumers and users.

In the physical economy, those enforcement costs are bundled with the packaging of the copyrighted information on a physical support, or with a specific decryption device in the broadcast distribution system. Here the main copyright infringers are commercial intermediaries that take the responsibility to produce and distribute counterfeited packaged goods (books, CDs, DVDs) or set-top-box decryption devices.

Therefore, in the physical world, copyright enforcement is based upon legal deterrence targeting those intermediaries. The threat of a strong penalty for convicted infringers is enough to keep the expected cost of infringing largely above the anticipated benefits for the

infringers, at least in most developed countries (that stand as the main markets from an economic point of view). And the restricted number of infringers keeps the variance of the penalty, in other words the cost of being caught, socially acceptable. As a result, this philosophy was largely integrated into the digital copyright laws voted in the late 1990's or the early 2000's such as the DMCA (1998) in the USA and the EUCD (2001) in the EU.

While the physical economy is far from having disappeared or even become negligible, the dematerialisation of copyrighted goods is deeply affecting the creative industries. It notably enables digital storage of content and its circulation and exchange over the Internet. As soon as an exchange technology is available (peer-to-peer for instance), any consumer can almost without enduring any cost become an active counterfeiter. It then changes the scope of copyright infringement and of course the structure of copyright enforcement costs. In other words, heavy sanctions applying to marginal intermediaries cannot deter massive copyright infringers: not only does the expected value of the sanction diminish with the number of infringers, but since the variance of the sanction increases and since there is no longer a commercial intent on the behalf of these infringers, the misfortune of being caught appears more and more unfair for the society.

This weakness in the copyright institution and the corresponding legal loopholes have been exploited by the digital industries that provide consumers with technologies allowing free content access. As a result, in most countries, the number of copyright infringers has increased in recent years. Simultaneously, copyright in its current form is being debated notably since its enforcement costs have somewhat overwhelmed its estimated benefits. In December 2005, the legal implementation of the EUCD in the French parliament has brought an amendment proposing a levy system (*licence globale*), a form of compulsory license applying to all the audiovisual contents exchanged over the Internet. While this amendment was finally rejected, the debate illustrated the weakness of the of exclusive IP rights in the digital era.

The paper examines to what extent the French scheme of a graduated response may restore incentives to enforce copyright. The next section provides a review of the literature on copyright that focuses on its industrial aspects. The paper then examines in Section 3 how the final consumer impunity provides incentives all along the distribution vertical chain to free ride on copyright, which increases the copyright enforcement costs. Section 4 depicts the voluntary agreement that initiated the French graduated response system and shows how it aims at decreasing copyright enforcement costs. Section 5 brings some conclusions regarding the impact of the graduated response as a means to internalise copyright enforcement within the content and network industries.

2. The costs and benefits of copyright: a review of the literature

Since the 1960's and increasingly through the 1980's, the concept of Intellectual Property has gradually included legal instruments as various as patents, trademarks and copyright (Blaug, 2005). There is now a well-established economic analysis of the latter. One of the main points of the analysis has for a long time been whether or not there should be a copyright at all. Merges however notes that somehow the question "seems at one level hopelessly irrelevant in today's world of ever-expanding IPRs" (1995, p.107). Arguments evoked in favour or against copyright (and more generally intellectual property) remain however important to characterise how this property should be designed, notably in the context of the spreading of the Internet

and its new uses. That is why we remind here the main arguments that are to be taken into account when assessing the economic effects of copyright. We conclude this review with those that are directly linked to the industrial organisation of the creative industries.

Hurt and Schuchman (1966) distinguish two categories of justifications for copyright. The first set of justifications has its roots in scholastic jurisprudence, it includes arguments in terms of “the natural property right of a person to the fruits of his creation”; “the moral right to have his creation protected as an extension of his personality” and a “right to a reward for [one’s] contribution to society” (p.422). The second set gathers economic justifications that consider to what extent the copyright may contribute to “the promotion of the general well-being of society” (p.421).

Another important distinction is the one between two categories of rights holders: the creators and the intermediaries in production and distribution. Actually both may have different incentives to produce and distribute cultural goods. Plant (1934) first made a clear distinction between these two categories when studying the case of copyrights in the book industry. The main point is that all creators do not necessarily work for money, rather for recognition, and may even be ready to pay to have their works published and distributed (Plant, 1934; Hurt and Schuchman, 1966). When money may stand as an incentive it does not necessarily take the form of the granting of a copyright. Contrarily to this, the huge majority of intermediaries in production and distribution are looking for profit (p.426). For these actors there is a clear and direct interest in having the contents protected by copyright. As a result, economists have generally investigated the benefits of copyright in terms of incentives for these intermediaries (Benhamou and Farchy, 2007, p.11).

In the same way, our analysis focuses on economic arguments and rather on the intermediaries than on the creators themselves. To conduct this analysis, we rely on the usual comparison between the costs and the benefits of copyright.

The benefits of copyright

The main benefit of copyright is its capacity to favour the production and distribution of content. Actually, cultural goods (like information goods in general) are public goods and copyright makes them tend to become private ones.

The distinction between private and public goods was first made by Samuelson (1954, p.387). Public goods share the properties of non-rivalry and non-excludability. Non-rivalry means that when one consumes such a good it does not reduce consumption for the others. Non-excludability means that it is impossible (*i.e.* too costly) to prevent one to consume the good. Information goods are clearly characterised by non-rivalry at least as far as the informational content is concerned, *e.g.* to watch a movie on the television does not prevent other viewers to watch it too. Non-excludability is linked to the fact that it may be difficult to prevent consumption.

A common dilemma for public goods is how to get them funded. Actually, potential consumers of these goods are incited to *free ride*, *i.e.* not to pay for them and use them freely. In the absence of copyright, this is true not only for the consumers but also and most of all for the competitors of the creators of cultural goods. Actually these goods, just like any information good, have high fixed costs of production (including the creation) and low variable costs of reproduction and/or distribution (Arrow, 1962).

Therefore from an economic point of view copyright is designed to turn cultural goods into private ones by making it possible for rights holders to exclude other users, potential competitors as well as final consumers (Demsetz, 1970). In other words, copyright is above all a property right and more precisely a form of private ownership. Actually, “[p]rivate ownership implies that the community recognises the right of the owner to exclude others from exercising the owner’s private rights” (Demsetz, 1967, p.354). As such, it allows the internalisation of costs and benefits.

As Demsetz (1967) shows, property rights develop when it becomes interesting to internalise effects that were until then mere externalities: “*property rights develop to internalise externalities when the gains of internalisation become larger than the cost of internalisation. (...) [T]he emergence of new (...) property rights will be in response to changes in technology and relative prices.*” (p.350). Demsetz considers property rights in general but this is true for copyright too: with the development of printing, it (slowly) became more detrimental (in terms of opportunity costs) to have one’s creations copied by competitors. So publishers and, to a lesser extent, writers had a clear opportunity to get exclusive rights over the writings.

As a consequence of copyrighting a cultural good, the right holder may keep all benefits (with limits, notably in terms of fair use and the duration of the right) linked to the exploitation of the work, either directly or indirectly (e.g. through licences). Moreover, the market power given by copyright enables the implementation of price discrimination to maximise one’s profit. Plant (1934) thus recalls that “[i]n the nineteenth century (...) [b]y issuing first an expensive and later a cheaper edition, the [US] publishers practised a very profitable form of price discrimination in the home market” (p.188). This can be seen as a strong incentive to produce or distribute such goods.

Moreover, cultural goods are subject to strong market uncertainty, which means that it is not possible to know in advance which goods are going to be successful. Therefore, would there not be any copyright, successful goods would likely be reproduced by competitors that would on the one hand avoid betting on innovative and thus risky products, and on the other hand enduring high fixed costs. Such a situation would all the more be penalising for investors that entry is rather easy in the creative industries, as Hurt and Schuchman (1966) show in the case of publishing. More generally distribution and marketing of cultural goods are costly activities: in many creative industries, the costs linked to these activities are superior to the ones linked to production and creation.

Copyright then stands as the incentive to invest in such activities of distribution and marketing. While the benefits of copyright are direct for the right holders (especially the intermediaries in production and distribution), they are indirect for the society as a whole: the society benefits from having more works created, distributed and marketed.

The costs of copyright

In spite of all its benefits, copyright is also costly, for the right holder as well as for the society.

The right holder itself first endures costs. They are linked to the fact that “*intellectual property is very easy to expropriate*” (Watt, 2000, p.1) since it is a public good. Therefore, “*administrative and enforcement costs*” are important. They “*include the costs of setting up boundaries or erecting imaginary fences that separate protected and unprotected elements of*

a work. They also include the costs of excluding trespassers, proving infringement and sanctioning copyright violators.” (Landes, 2003, p.134) Moreover such costs depend on the technological context as our analysis of the influence of the roll-out of the Internet shows in the next section.

Also as a consequence of being a legal monopoly on a work of art, copyright has an immediate downside on society as a whole: it restrains the diffusion of protected goods. Copyright actually consists in the granting of an exclusive right to authorise the reproduction or the representation of a creative work, *i.e.* in the granting of a monopoly. Watts (2000) reminds us that copyright, like monopolies in general, implies dead-weight losses to society: successful monopolists are able to restrict supply and most of all to keep prices that are higher than in the case of competition.

In other words, costs linked to copyright also include “[a]ccess costs [that] fall on both consumers and creators of subsequent works”. All these constitute “*a social loss.*” (Landes, 2003, p.133) – and a direct one – since it may reduce consumption as well as future creation, without even mentioning the fact that current consumers may be tomorrow’s creators. Actually artistic creation is a cumulative process (Landes and Posner, 2003). This does not prevent copyright to be only rarely contested by economists in comparison to the monopolies in general as noticed by O’Hare (1985).

Balancing costs and benefits at the level of society

Economists all insist on the necessity, when evaluating the copyright or its applications to particular markets, of taking into account its effects on the society as a whole and not only on the creators and the intermediaries (Watt, 2000). Thus Merges (1995) insists upon differentiating the fact that intellectual property rights are costless measures for the government and the cost of these rights for the society: “*intellectual property is (...) far from [being] costless from a societal point of view*” (p.111). Following the same idea, the benefits of copyright should not be evaluated only at the right holder’s level.

This evaluation of copyright can first be done by comparing it to property rights in general. The point of departure of the reasoning here is the so-called Coase theorem that states that when trade in an externality is possible and there are no transaction costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights (Coase, 1960), notably compared to a centralised redistribution. In the absence of a property right, communally owned goods are likely to be overexploited; in the same way “*works would presumably be undersupplied in a market without copyright, since society would have no mechanism with which to signal creators of the true collective value placed on their work.*” (O’Hare, 1985, p.410)

However the Coase theorem assumes that there is no transaction cost, which is never the case, and maybe even less in our case than in general. Watt (2000) derives the implication “*that the initial copyrights should be allocated to those members of society that are able to transact them at the least possible transaction costs.*” (p.17). These members are usually intermediaries who own or manage large portfolios of rights. Actually such portfolios enable them to manage both the investment in creation and the marketing of the rights in an efficient way. On the other hand, the copyrighted work would not exist “*without the knowing participation of an artist or author*” (O’Hare, 1985, p.410). For this reason, according to O’Hare claimants other than the creator cannot appropriate the benefits.

The Coase theorem and Demsetz's approach do not fully apply also because this is not a choice between copyright and no copyright. Rather, economists tend to search for a solution that would lie between these two extremes since neither an "*absolute protection*" nor "*a entire lack of protection*" would be optimal (Watt, 2000, p.3-4). Whereas few economists now advise to abandon the copyright system, they generally agree upon the fact that copyright should certainly be weaker than property rights in general because of their costs. Thus, for Landes, "[b]ecause copyright tends to be a costly system of property, economics predicts that property rights in copyrighted works will be more limited than for tangible or physical property. (Landes, 2003, p.135)

As a consequence, "[V]arious copyright doctrines that limit protection can be best explained as rough efforts to achieve the optimal balance between incentive benefits and access and other costs in order to promote economic efficiency." (Landes, 2003, p.135) These limitations can take numerous forms in practice. First of all, a common way of counterbalancing too much high enforcement costs of copyright is to supplement the copyright with specific levy systems. Those levies are then collected and redistributed to right holders by collecting societies. Fair use – or exceptions to the author's right – is another common device that can be interpreted as a way to reduce transaction costs by allowing some uses whose enforcement costs would be superior to the eventual related profit for the right holder (Gordon, 1982).

From a normative point of view, the traditional analysis of the optimal copyright can be described as a balance between its positive impact on production and its negative one on utilisation (Plant, 1934; Besen, 1987; Cooter and Ulen, 1988). In other words, it is possible, following Nordhaus (1969) to oppose the ex-post inefficiencies with the efficient ex-ante incentives to invest: competition in the short run is disturbed in order to provide a better situation in the long run – which is why competition law may oppose intellectual property (Eagles, 2000). This problem is common for information goods (Arrow, 1962). As Landes and Posner state, "[c]opyright protection (...) trades off the costs of limiting access to a work against the benefits of providing incentives to create the work in the first place. Striking the correct balance between access and incentives is the central problem in copyright law." (1989, p.326)

However our analysis focuses on such a balance at the industry level. It relies mainly on the transaction costs analysis as long as it is related to Coase and Demsetz's approaches described above. Such a view is also more concerned by the industrial organisation of the sector, notably compared to the traditional approach in terms of balancing underproduction and underutilisation. Finally our approach is somehow echoed by the current reinforcement of copyright legislation all over the World that Eagles (2000) already could observe. For example the limitation of the duration of the copyright is usually seen as a way to balance the incentives to production and distribution and the allowance of the access by the public once the investment is repaid. However, the extension of that duration observable through the US and European recent laws (e.g. the Sonny Bono Copyright Term Extension Act in 1998 in the USA) shows that copyright is more and more considered by the governments as playing a role in the global competition by allowing innovation in the creative industries. This trend shows that the welfare approach of copyright, based on the spreading out of useful information in a given community, is now challenged by the taking into account of copyright as an industrial asset.

In a nutshell, copyright is a legal institution that enables a partial internalisation of the costs and the benefits linked to the production and distribution of cultural goods. The traditional approach of copyright insists upon the importance of considering its influence on society as a whole: while copyright is favourable for intermediaries of production and distribution and, to a lesser extent, to creators, it may threaten utilisations of the content by consumers and other creators. Our approach however will focus on the industrial organisation of copyright, *i.e.* on the benefits and costs from the industry's point of view. More precisely we are going to analyse how the advent of the digital era did and should influence these costs, and notably the enforcement costs.

3. The Internet roll-out: new benefits and new costs

Digitisation and the development of online piracy

One of the most visible effects of the digitisation of copyrighted contents and the advent of the Internet is the surge of massive infringement practices that rely on peer-to-peer software. Massive piracy has led to a wide questioning of the economic relevance of copyright under a digital environment (Varian, 2005). This questioning can be analysed by using Demsetz's approach of property rights. Actually Demsetz states that « [i]f the main allocative function of property rights is the internalisation of beneficial and harmful effects, then the emergence of property rights can be understood best by their association with the emergence of new beneficial or harmful effects » (1967, p.350). This applies to our case by assessing that “the massive infringement of property rights can be understood best by their association with the emergence of new harmful or beneficial effects”.

We will therefore suppose in this section that there are new benefits and new costs for the industry linked to the digitisation of copyrighted goods and the dematerialisation of their distribution and try to point out how they might have impacted the previous consensus on copyright.

The benefits are clearly associated with new versioning possibilities and better discrimination of the consumers' preferences through digital distribution. Thus digitisation was first perceived as an opportunity for the major actors of the entertainment industry. For example, the advent of the compact-disc put an end to the crisis endured by the recording industry and allowed the beginning of a prosperous era for the industry (Burnett, 1996). Initially, the Internet was considered as an additional outlet for music (Ranaivoson, 2003). Moreover, digital distribution allows new modes of signalling and selecting contents, individualised access and the possibility for each consumer to store large content libraries or play-lists on portable personal devices. It then enlarges the addressable markets of all copyrighted goods. However, these benefits can be obtained only once an extensive digital distribution system is rolled-out.

The costs are associated with copyright enforcement. While the material support provides *rivalness* and *excludability*, the full digitisation of copyrighted goods requires specific software to achieve exclusion. Such technical means are legally recognised and strongly protected by the digital copyright laws (Bomsel and Geffroy, 2006). However, the key point regarding copyright enforcement concerns the ability of the final consumer to exchange unprotected files with other consumers. This ability which has sometimes been considered as *fair use* has created a legal loophole favouring the roll-out of several generations of peer-to-

peer software (Bomsel, 2007). As a consequence, not only did it take six years for the US Supreme Court to issue a decision regarding the legality of peer-to-peer applications but the loophole also created a breach in copyright enforcement allowing millions of Internet users around the world to free ride copyright. Such a situation was not anticipated by digital copyright laws which had kept a heavy sanction system targeting the marginal infringer. Therefore, in spite of many attempts to sue infringers, right holders have proved quite inefficient in enforcing copyright through the legal sanction mechanism.

The Internet roll-out game and the role of network effects

The online piracy phenomenon is linked to the roll-out of the Internet. This roll-out is actually characterised by the importance of network effects. There are network effects or externalities as soon as the utility linked to one's consumption is influenced by the number of other consumers (Varian, 2000, p.659). In our case, network effects correspond to the fact that the more consumers use a network, the more every consumer gets satisfied. They may be direct or indirect (Katz and Shapiro, 1994). Network effects are direct when the number of users has a direct impact on the utility derived from a product and indirect when they are mediated by another market (Liebowitz and Margolis, 2002). An example of direct network effects is the e-mail: the more people have an e-mail address, the more useful is the e-mail to each user. Indirect effects generally correspond to the development of complementary products. For example, DVD players are as more useful as DVDs catalogues are extensive and vice-versa.

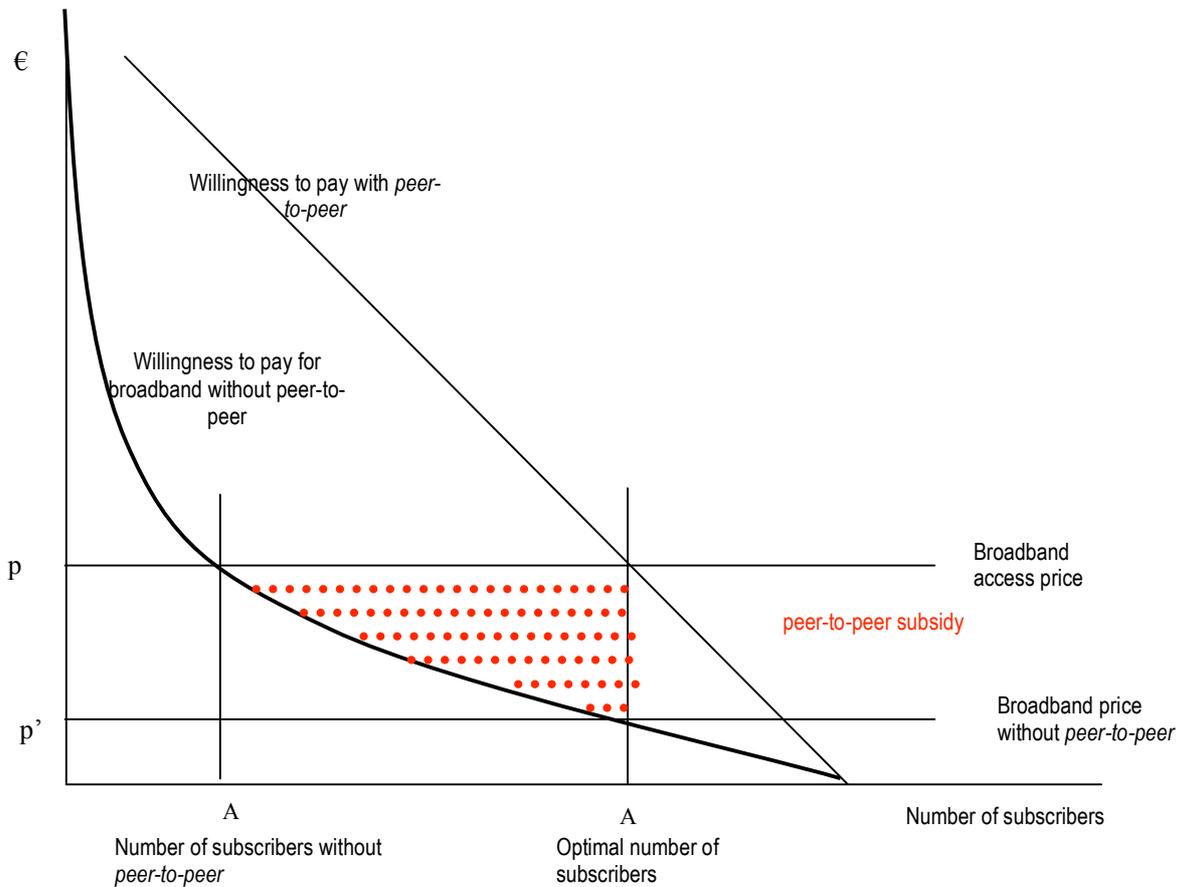
Since digitisation allows packet switching across communication networks, Internet has been able to expand both as a one-to-one communication system, as well as a media, e.g a means flowing information from one source to many anonymous individuals. E-mail, web browsing and e-commerce services have shaped the network effects pulling the roll-out of dial-up services. However, for those specific uses, the gain in utility associated with wider band services might have been too small to justify a fast roll-out of the Internet infrastructure.

The possible access to free copyrighted content here played the role of a subsidy. The availability of such content on the Internet has thus allowed not only the ISPs, but also all the equipment contributing to access, to get a bigger share of what the consumers would have spent for content. The breach in copyright enforcement has helped the Internet industry to roll-out broadband infrastructure and terminal equipment by rising at nearly no cost the consumer's utility thanks to free content access.

The situation is summarised by the following graph. The existence of peer-to-peer increased the willingness to pay of consumers as a whole, and especially of those having the smaller willingness-to-pay for legal communication uses.¹ As a result, the broadband access price and the number of subscribers have been higher than it would have in the absence of peer-to-peer. The discriminated subsidy constituted by the availability of unauthorised content is represented by the coloured area. It enabled all the Internet industries — from the chip manufacturer to the web search engine — to boost their roll-out.

¹ The access to content through the Internet was a commercial argument of the ISP even though there was almost no content legally available.

Figure 1: Peer-to-peer as a discriminated subsidy of Internet services

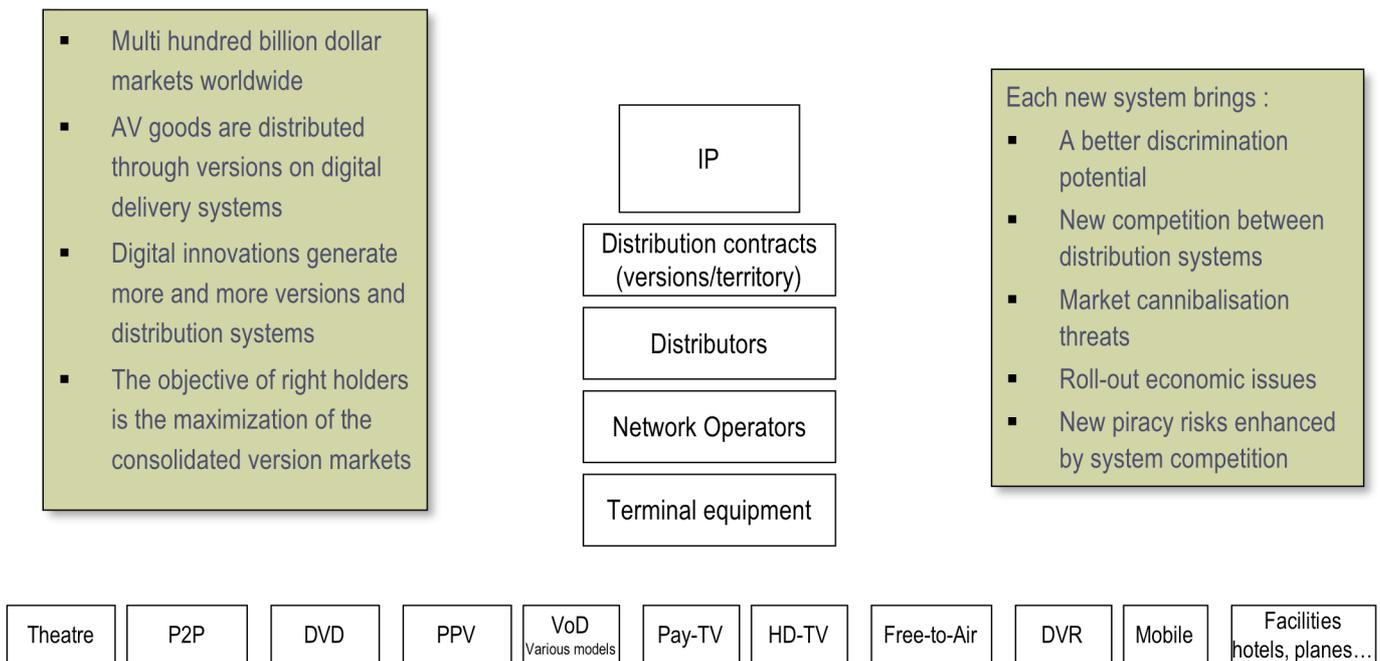


Moral hazard in the copyright vertical chain

By allowing transactions between the owner and market intermediaries, the copyright shapes a vertical chain linking the right holder to the final consumer. If the final consumer is allowed to free-ride on copyright, then all intermediaries providing access means will get incentives in helping him doing so. This situation amplifies moral hazard² arising in all the vertical relations downstream the right holder.

Figure 2 below depicts the organisation of the audiovisual industry and the consequences that result from the advent of the Internet, notably how it created a moral hazard that incited the actors of the Internet industries to free ride on copyright.

² Moral hazard is the common term of the theory of contracts describing the behaviour of an agent escaping from doing his best efforts to fulfil the fair realisation of the contract.

Figure 2: The audiovisual versioning matrix

Source: Bomsel *et al.*, 2006, p.45

Like television years before, the Internet can be considered as a new distribution system that has to get inserted between existing others. The left side of the figure gives the fundamental features of these systems. Most of all, audiovisual goods, and more generally contents, are versioned, which means that the same information good can be found with different qualities that sell at different prices (Varian, 1997, p.1). Such a versioning is allowed by the sheer existence of intellectual property: the right holder can choose on which version the content should be released and at what price. The more the versions, the more it is theoretically possible to discriminate among the consumers. That is why digitisation was at first perceived as an opportunity by the major actors of the entertainment industries.

The right side of the figure shows the opportunities and threats linked to the advent of a new distribution system. First each new system brings a better discrimination since it allows to reach consumers who were until then not interested. It is particularly true in the case of Internet which brings new selection and access means. However, a new system may also cannibalise existing markets: consumers may switch from one version to another. For example, the advent of television led to a reduction in theatrical revenues. For this reason, the level of competition changes and generally increases when a new distribution system appears.

The key point here is that as long as the consumer meets no obstacle to free ride, the players in the vertical chain have also interest in free-riding. In other words, if the final consumer cannot be enforced to respect copyright, most players in the access and equipment industries have interest to offer him free-riding means. Moreover the distributors that keep enforcing copyright get disadvantaged by the unfair competition of the free-riders. This situation has been exploited by the new entrants to roll-out the Internet distribution system.

This situation challenges the cost-benefit analysis of copyright. On the one hand, it allows the roll-out of a new system bringing substantial potential benefits, and on the other, it raises sharply and possibly durably the enforcement cost of the copyright. During the roll-out phase,

politicians are more sensitive to the positive externalities of the Internet than to the negative of massive copyright infringement. And right holders embark in law suits against infringers which may prove more symbolic than effective to enforce the institution.

However, once the new system is rolled-out, the industry enters another phase. The positive externalities of the new network tend to saturate. The negative externalities of massive infringement are peaking. The Internet access suppliers can hardly get new subscribers and refocus towards raising their average revenue per user. The enforcement of the copyright, whose costs have strongly risen during the former phase, becomes then the key condition to reap the benefits from the institution.

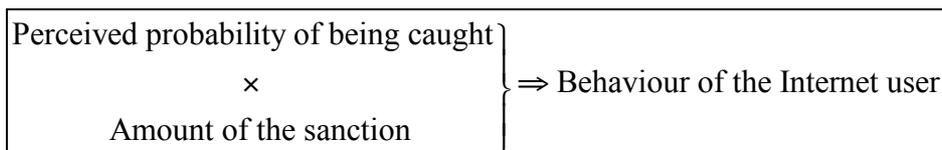
4. Copyright enforcement in a digital environment : the scope of a graduated response.

We assume in this section that the roll-out of broadband access is over. In such a context, right holders have stronger arguments to defend their views on copyright. However the Internet players are still not incited to prevent piracy while right holders lack means to get copyright enforced.

A critical view on the existing legislation against online piracy

The adoption of a new set of laws shows that the environment for copyright has changed with the digitisation and the spreading of the Internet. The Digital Millennium Copyright Act in the USA in 1998 and the European Union Copyright Directive in the EU in 2001 have been both introduced as the implementation of the 1996 World Intellectual Property Organisation (WIPO) Copyright Treaty. Both notably led to higher sanctions for counterfeiters and prohibited circumvention of technological measures for the protection of works (Article 11 of the WIPO Treaty; Section 103 (17 U.S.C Sec. 1201(a) (1)) of the DMCA; European Directive 2001/29/EC). In 2006, France adopted the law on authors' rights and related rights in the information society³, which stands as the implementation of the EU Copyright Directive.

Although these laws are more repressive than the existing ones, they have not succeeded in preventing piracy, especially in France where the piracy figures are among the highest in the world. The main reason is that the increases of the sanctions are insufficient to deter Internet users from illegally downloading content. In fact, this increase did not raise the perceived cost of infringing for the user. This cost depends on the probability to get caught and the sanction associated to being caught. The laws focused on the second aspect. As a result only a few cases were brought to courts.⁴ Not only has it not been profitable for the claimants but while the content industries wanted these cases to be threatening, they mostly appeared as unfair and pointless. And piracy in general did not decrease.



³ *Droit d'Auteur et Droits Voisins dans la Société d'Information.*

⁴ For example in the USA 30 000 Internet users have been prosecuted. Most cases have led to out-of-court settlements for a few thousands dollars. One case ended in front of a jury for 220 000 dollars penalty but the judgment runs for appeal.

In fact, such sanctions may prove deterrent only if they apply in last resort against a few habitual infringers. The more are the infringers, the less efficient is the sanction. Therefore, a solution is for the right holders to find a way to threaten a greater number of people, possibly to deter infringers before they get sanctioned.

This can be achieved through two means, either directly by the ISP or indirectly through the application of the law.

In the USA, the concentration of the studios and the dominance of the cable in supplying broadband services have allowed right holders to oblige their distributors to cooperate in tracking and annoying infringers (by sending warnings and suspending the service). This can be achieved through incentives written into distribution private contracts. Some loopholes still remain like the coverage of University campus where infringing students are difficult to track, or the competition with DSL providers who are less dependent than cable operators on distribution contracts. But by and large, the Coase theorem can apply, meaning that right holders and distributors can agree together on ways to master the piracy externalities.

In countries like France (as in Canada, New Zealand and in many European countries), the right holders are highly scattered and the telecom industry leads the broadband roll-out. As a result, the players of the Internet sector (notably the ISPs) cannot be forced to cooperate with right holders to fight against piracy. First, they do not want to annoy their customers who they have implicitly encouraged to free ride. Second, they do not want to lose markets to the benefit of their free riding competitors. And third, the law grants them safe harbours making them non liable for how the consumer uses their service. While it may be that the major ISPs would be ready to operate in a piracy free environment, they do not want to cooperate spontaneously with right holders. We show how the French voluntary agreement aims at getting their cooperation.

Analysis of the French voluntary agreement

The French voluntary agreement aims at enforcing copyright law in the digital environment. We first briefly describe the agreement before analysing its economic aspects. In the end, we show that the agreement aims at having intellectual property rights enforced at the consumers' level while avoiding free-riding on the ISP market.

In November 2007, an agreement was signed at the Elysée Palace by the five major Internet access providers and thirty-five institutions representing the music and audiovisual industries. The voluntary agreement has two main aspects. First it insists on the need to promote a legal offer. Among the proposals are a change of the regulated release windows for movies or a reduction of the value added tax for all cultural goods and services. The second aspect is a scheme of graduated response to piracy over the Internet. The economic goal of the agreement is explicitly to raise the cost of piracy for the Internet user.

According to that scheme, the infringers will be tracked by the right holders over the Internet. Then a watchdog will relay their warnings through the ISPs to the suspected infringers. The watchdog is named HADOPI (High Authority for the diffusion of content and protection of rights on the Internet)⁵ and has to be empowered by a law. After two strikes, the ISPs will be

⁵ *Haute autorité pour la diffusion des œuvres et la protection des droits sur Internet.*

requested by the watchdog to suspend and blacklist the detected infringers. An official indicator of piracy will be published every month to assess the efficiency of the scheme. In this framework the watchdog is needed, on the one hand, to enforce ISPs to cooperate with right holders, and on the other, to avoid free riding on the ISP market. The law was voted unanimously by the French Senate in November 2008 and tumultuously by the Parliament in April 2009. However, on June 10th, the Constitutional Court (the French Supreme Court) invalidated the sanction mechanism of the law by ruling that only a court decision could suspend the Internet access of a French citizen⁶.

While alternative solutions are being explored, it is worth to come back on the mechanism of the law. The graduated response would have had an impact on the cost and therefore the efficiency of copyright enforcement. In a first phase, it would have generated a cost linked to the setting up of the watchdog and the relay of the warnings emitted by the right holders. But at the same time, it would have become more costly for the Internet user to pirate content since every infringer would have been more likely to be suspended and blacklisted. This should have deterred the large majority of infringers from pirating. While the credibility of the sanction stands as the core of the mechanism, the decision of the Constitutional Court condemns the spirit of the law.

In effect, the advantage of the graduated response is to generate administrative costs to the ISPs through the relaying of the warnings and the implementation of the suspension. Those costs would create a market for technical solutions (such as watermarking, filtering or monitoring) to better enforce copyright on broadband networks. As a consequence, the restoring of a credible infringing cost for the consumer would pass the copyright enforcement costs onto the industry. Those costs should then be progressively reduced thanks to piracy proof incentives. In other words, the graduated response mechanism operates like an internalisation of the piracy externalities, in a way close to the ‘polluter pays’ principle.

5. Conclusion

Copyright is a property right institution that shapes the organisation of all creative industries. The digitisation of copyrighted goods and their dematerialised distribution should bring new benefits thanks to a more efficient distribution, but also new costs in enforcing copyright laws. Actually digitisation and dematerialisation have made it very difficult to exclude consumers from the consumption of content. As such they have led to the development of massive online piracy, so massive that the traditional means of heavily sanctioning copyright infringement appears insufficient : it is too costly and gradually seen as unfair by the society.

As we showed, such a situation is made possible by the behaviour of the actors of the broadband industries. On the one hand, piracy promotes the roll-out of their infrastructure, equipment and services; on the other hand, every player of the chain fears losing market shares by punishing its consumers when they are infringing. As a consequence, incentives arise all along the vertical chain to let the consumer free ride on copyright. Innovation signals

⁶ The Government has defended the law by putting forward the artists beneficiaries of the right of author. By doing so, it has explicitly taken the defence of some notorious owners instead of defending the property institution. This might have influenced the Constitutional Court in its decision to protect the average citizen against the owners’ greed.

can be then distorted in the sense that copyright infringement may drive industrial research and development. With the consequence of increasing more and more copyright enforcement costs. In other words, as long as the consumer can free-ride on copyright at no cost, the whole copyright institution and the growing benefits it can bring to creative industries are endangered by incentives given to new infringing means.

Graduated response mechanisms are fitted to increase progressively the cost of infringing for the final user. Such mechanisms help to internalise copyright enforcement within the industry. The cost of piracy at the consumer level should create new signals for innovation within the network architecture. The Internet players in charge of implementing the graduated response will invest in technical solutions — tracking, filtering, monitoring copyrighted files — so to decrease its administrative costs. Such solutions might challenge the network neutrality doctrine which advocates innovation to be more driven by capacity increase than by usage valuation (Shelanski 2007).

Graduated response can be implemented through private contracts when the market power of the right holders is strong enough to prevent all distributors to free ride. When it is not possible a voluntary agreement between major industrial players, possibly constrained by law, may stand as a solution. The French voluntary agreement on copyright will stand as an application of this approach. It is all the more interesting as an object of research that it is now examined by other European countries.

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