The Levitation of Copyright: An Economic View of Digital Home Copying, Levies and DRM

Draft
The final version appeared in
Entertainment Law Review 4/2005, p. 75-81.

Kamiel J. Koelman[*]

Many European countries introduced a levy scheme in order to compensate rightholders for the losses suffered through home copying. The Copyright Directive of 2001, however, appears to require them to abolish levy schemes as regards private copying that can technologically be controlled by way of DRM systems. This contribution assesses the merits of this approach, mainly from an economic point of view. Is direct control over private copying preferable to a levy scheme? It is concluded that economic theory cannot provide a clear-cut answer to this question. Arguments can be made both in favor and against maintaining the levy system.

Levies and the Law: Part I

Copyright concerns copying. However, when a printing press was still needed for large scale copying, private copying – by hand – generally was not considered to constitute an infringement. In some countries, the activity was explicitly exempted.[1] One reason for exempting small scale home copying was that a person making a reproduction for private usage would not compete with the rightholder. Home copying would not have a measurable impact on the rightholders' earnings. But when, in the 1950s and 1960s, new technology, *i.e.*, the tape recorder, allowed individuals to make their own copy easily, the perception of private copying changed. In 1955, the German Federal Supreme Court held that, in view of the large profits lost through home taping, the activity could not be covered by the exemption allowing private copying of the German Copyright Act of 1901.[2]

In 1964, the Court added that, even though home copying does infringe the right of reproduction, right owners cannot prohibit private copying, because the enforcement of a right to prohibit such copying would necessarily violate the right to the inviolability of the home, and because it would, in practice, be unfeasible to police home copying anyway.[3] The Court recommended that the legislature insert a remuneration right. Indeed, a year later the German legislature introduced a statutory right to equitable remuneration. The remuneration

[*] Vrije Universiteit, Amsterdam, The Netherlands. This article is based on a paper presented at the 2004 ATRIP Conference in Utrecht, July 27, 2004.

[1] See *e.g.* Art. 15(2) of the German Copyright Act of 1901 (superceded by the Copyright Act of 1965), which stated that to make "a copy for personal use [was] no infringement, if it [did] not have the purpose to derive any profit from the work".

[2] BGH, 18 May 1955, *GRUR* 1955/10, p. 492 (*Tonband*).

[3] BGH, 25 May 1964, *GRUR* 1965/2, p. 104 (*Personalausweise*).

is paid through a levy on the sale of copying equipment and blank recording media and distributed to authors by collecting societies. Many countries followed the German example.[4]

Technological developments changed the view on private copying. Currently, technology is advancing again. Whereas an "analogue" home copy usually was of poorer quality than the original, a digital copy is an exact clone. Anyone who owns a computer can now readily make perfect copies in the privacy of their own home. Additionally, new technologies may facilitate the automated and low-cost enforcement of a right to prohibit private copying. So-called "Digital Rights Management" (DRM) systems may facilitate the extraction of payment for the activity directly from the person performing it.

These developments caused another shift in the approach towards home copying that is expressed in the EU Copyright Directive of 2001. The Directive permits the EU Member States to exempt for private copying in their national copyright acts, but requires that rightholders receive "fair compensation."[5] It goes on to state that in determining the amount of compensation, account must be taken of the application or non-application of DRM systems. This seems to imply that rightholders who technologically control private copying cannot apply for compensation through the levy-scheme. Additionally, it may mean that the levy should become lower as more copying is technologically controlled. According to some commentators, all levies must even be abolished when reliable and standardized technologies exist that allow for direct billing for, or control of, private copying. Right owners must then fend for themselves.[6] The Copyright Directive requires that Member States protect DRM technologies and to declare unlawful their circumvention if it is not authorized by the rightholder.[7] Thus, if a rightholder hinders home copying technologically, in effect, he has a statutory right to prohibit the activity. A license is then needed to lawfully make a private copy and the remuneration right – *i.e.*, the exemption to the right to prohibit the making of reproductions – no longer applies.

Levies and Losses

In 1955, the German Court felt that home copying could no longer be exempted, because new copying technology would increase the losses that right owners would suffer. From an

---

[4] In 1983, the Federal Supreme Court handed down a similar decision as regards photocopying. BGH, 9 June 1983, *GRUR* 1984/1, p. 54 (*Kopierläden*). In 1985 a remuneration right in respect of such copying was introduced in the German Copyright Act. A levy was imposed on photocopiers. Again, the German solution was duplicated by many European countries.

[5] Art. 5(2)(b) of 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, *OJ* L 167/10 (hereinafter "Copyright Directive"). "Fair compensation" is new concept, different from the notion of "equitable remuneration" that was previously used to express that a remuneration right is granted. The new phrasing reflects a political compromise. Some countries, notably the UK, did not yet introduce a levy scheme as regards home copying. As Recital 35 of the Copyright Directive states that it may under certain circumstances be "fair" not to compensate rightholders, these countries are free not to change their laws in this respect. Of course, ultimately it is up to the European Court of Justice to determine to what extent the Directive leaves the EU Member States the freedom not to compensate rightholders.

[6] See Institute for Information Law (P.B. Hugenholtz, L. Guibault & S. van Geffen), 'The Future of Levies in a Digital Environment', March 2003, p. 42-43, available at: http://www.ivir.nl/publications/other/DRM&levies-report.pdf.

[7] Art. 6 of the Copyright Directive.

economic viewpoint, the main purpose of copyright is to allow creators to recoup their investments in making new works in order to provide them with an incentive to create. If widespread home copying were to undermine that incentive, there may be a valid reason to restore it by compensating right owners for private copying.

Of course, a rightholder's earnings would only be affected, if a person would have bought a copy had he not been able to make one himself. Clearly, if he would not have acquired a copy if private copying were not possible, the home copy does not displace a sale. Since making a copy for private use generally is cheaper than acquiring one in a store, it is assumed that many people who copy for private use do not value the product enough to buy it. Thus, not every private copy made supplants a sale. The actual losses to rightholders must therefore be calculated by assessing the number of people who, in principle, would have been willing to pay the rightholders' price, but who revert to making their own copy because it is cheaper.[8] The resulting number should not be multiplied by the wholesale price, but by the profit per unit sold. Several studies investigated to what extent the home taping of music substituted for the purchase of recordings. Depending on who funded the survey, they found that between twenty and forty percent of the respondents would have bought the record, if they could not have copied it.[9] These findings may explain why the price paid through the levy – and, thus, the remuneration – per (home) copy generally is much lower than the profit per unit sold; after all, rightholders need only be compensated for the harm they actually suffer.[10]

The higher the price of a product is, the fewer consumers will value it enough to buy it. Consequently – and perhaps contra-intuitively – the losses suffered from home copying may become lower, if prices become higher. Conversely, if the costs of private copying come down, more copies will be made, but if the price of acquiring a work remains the same, the losses to rightholders may not increase.[11] On these grounds, the Copyright Directive's claim that digital private copying is likely to have a greater economic impact than "analogue" copying had, may be disputable.[12] Additionally, if one assumes that digital technology does not reduce the costs of copying only for people who copy for private purposes, but also for rightholders, the latter could offer their products at a lower price, while maintaining the same margin of profit per unit sold. The relative attractiveness of home copying and of buying a work could then remain unchanged. Therefore, the decreasing costs of copying may not

---

[8] See S.M. Besen & S.N. Kirby, 'Private Copying, Appropriability, and Optimal Copying Royalties', *Journal of Law and Economics* 1989, p. 255-280.

[9] See US Congress, Office of Technology Assessment, *Copyright and Home Copying: Technology Challenges the Law,* OTA-CIT-422 (Washington, DC: U.S. Government Printing Office, October 1989), available at: http://www.wws.princeton.edu/cgi-bin/byteserv.prl/~ota/disk1/1989/8910_n.html; see also R. Watt, *Copyright and Economic Theory, Friends or Foes?*, Cheltenham, UK/Northhamton, MA, USA: Edward Elgar Publishing 2000, p. 34-35.

[10] Another reason for the levy being lower than the profit per unit could be that not all buyers of blank media or copying equipment use them for copying without a license. Buyers may, for instance, use them for storing their own works. Additionally, according to some, it is not self-evident that copyright owners always lose income through home copying. See *infra* nt 18 and accompanying text.

[11] If prices become higher, the profit per unit sold may increase which could induce the actual loss per home copy. However, this effect may be offset by the reduced number of customers who are prepared to pay the higher price. Which effect dominates depends on the price elasticity of demand, on which, to my knowledge, no empirical data are available.

[12] Recital 38 of the Copyright Directive.

necessarily result in rightholders losing more customers to digital home copying than they did to "analogue" private copying.[13]

Apart from making copying cheaper, digital technology allows more perfect copies to be made. Photocopies and home tapes were of lesser quality than the original, while a digital copy is an exact reproduction. Thus, consumers who previously did not switch to home copying, because they preferred the higher quality of purchased copies, may now revert to making their own copy. In order to assess to what extent this development increases the losses, one would need to know how many customers did not turn to private copying, because they did not consider home made copies to be good enough substitutes. No data are available on this subject. Nevertheless, it is likely that the increasing perfection of home copies will have a negative impact on sales. Note, however, that currently many digital copies – of works distributed over the internet – are made in lower quality compressed formats, like the MP3 format. Perhaps, therefore, the increasing perfection of home copies does not (yet?) have a large impact on consumer behavior and, thus, on right owners' revenues.

Levies, Liability Rules and DRM

One reason for the German Federal Supreme Court to deny a right to prohibit private copying, in 1964, was that it would be unfeasible to enforce such a right. This reasoning may be rationalized by a theory first put forward by Calabresi and Melamed.[14] Their theory could also explain why the Copyright Directive, now that DRM systems may facilitate low-cost enforcement, in effect grants a right to prohibit home copying. Calabresi and Melamed argue that a property right can be conferred either by a so-called "property rule" or by a "liability rule." Under a property rule, the owner is entitled to prevent all attempts to acquire the good, except by bargaining. Under a liability rule, the owner cannot prevent involuntary transactions, but merely has a right to compensation for the loss of the good. Typically, the owner can demand an injunction under a property rule, whereas he may only apply for damages under a liability rule. In the first instance, the price is established by the bargaining parties, in the second, a public institution, often a judge, determines the value of (the loss of) a good.

Economists feel that a property rule is generally preferable to a liability rule. It is considered best that prices are established by bargaining parties, because it is assumed that government institutions can never set the price as efficiently as the market mechanism can.[15] Economists believe that "maximum social welfare" is the policy goal that a legislator should pursue and that a perfect free market results in such maximum welfare. Government interference in the market should therefore be avoided as much as possible. Nonetheless, if transaction costs,

---

[13] In fact, if a work is distributed online, one could say that the costs of copying are borne by the user, as well as are part of the costs of distribution, since the user pays for his internet access and his computer. See R.S. Ku, 'The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology', 2001, p. 32, available at http://law.shu.edu/faculty/fulltime_faculty/kuraymon/publications.html.

[14] G. Calabresi & A.D. Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral', *Harvard Law Review* April 1972, p. 1089-1128.

[15] See, however, S.G. Medema & R.O. Zerbe, 'The Coase Theorem', in: B. Bouckaert & G. De Geest (red.), *Encyclopedia of Law and Economics, Volume I, The History and Methodology of Law and Economics*, Cheltenham: Edward Elgar 2000, p. 877: "If coordination is costless, markets function perfectly; but so does government. If coordination is costly, markets function imperfectly, but so does government."

which are all costs involved in concluding and enforcing contracts, are high enough to inhibit market formation, a liability rule may be the better option. If those costs, which are, of course, passed on to end-users, exceed the buyers' reservation price, the good will never be traded. A property rule – *i.e.*, the market mechanism – then cannot result in the good ending up with the party who values it the most and with whom it will therefore contribute the most to social welfare. Under such circumstances, a liability rule may be commendable, albeit that the price may often not reflect the "true" (market) value of the good.

Obviously, in the "brick-and-mortar" world, the enforcement of a right to prohibit home copying would be rather costly. In order to enforce such a right, rightholders would have to monitor everyone who owns copying equipment. Additionally, for the right to be traded, a vast number of licenses would have to be concluded. Clearly, the transaction costs could be very high. Therefore, the introduction of a remuneration right – a liability rule – may be economically justifiable by the high costs of enforcement and of contracting.

New technologies, notably DRM systems, may alter the equation. If these systems bring down the costs of contracting and enforcement, the liability rule may no longer be justified. One could then argue that it would be better to allow the "invisible hand" of the free market to achieve an optimal allocation of resources. The "rough justice" – or rather: "rough accounting" – that the levy scheme provides should be abolished in order to ensure that the sum paid by users and received by rightholders is related to actual value, which is the case if it is established by negotiating stakeholders. The inefficiencies of all purchasers of recording equipment and blank recording media paying the same sum, while some copy more than others, and of the repartition to rightholders being based on rough estimates, should be avoided.[16] Because DRM systems would facilitate to directly experience the value of usage, supply and demand would be better matched, which would, in turn, bring maximum social welfare somewhat closer. This reasoning appears to lay at the root of the Copyright Directive's treatment of private copying. The Directive seems to express the idea that government should now withdraw and leave all to the market.[17]

Levies and Copying Equipment

The above reasoning mainly focuses on the relationship between users and rightholders. But other parties may also be included in the analysis, *i.e.*, manufacturers and sellers of copying equipment and blank recording media. One could argue that it may be economically justifiable if sellers of such goods pay a sum to rightholders, regardless of whether it becomes feasible to control home copying. Economic efficiency requires that so-called "external effects" are "internalized." That is to say, all benefits and costs to others of an activity should be expressed in the price. Clearly, the markets for copying equipment and blank media would be much smaller if there were no material to copy. Additionally, the availability of copying machines may have a negative impact on the sale of content. Thus, manufacturers of such equipment may benefit from the activity of producing content, while

[16] Hugenholtz *et al.*, *supra* nt 6, p. 41.
[17] *Cf.* F.H. Easterbrook, 'Cyberspace and the Law of the Horse', *University of Chicago Legal Forum* 1996, p. 216. Easterbrook argued that legislators should "create property rights where now there are none; and facilitate the formation of bargaining institutions. Then [they should] let the world of cyberspace evolve as it will, and enjoy the benefits."

content producers may lose income due to the availability of copying attributes. Absent a levy, prices would not reflect those mutual effects – *i.e.*, recording equipment would be too cheap and the reward for developing content would not be high enough. It could therefore be justifiable to impose a levy the yields of which flow to rightholders in order to internalize the effect that the offering of content has on the demand for – and, thus, the price of – copying equipment, and vice versa.

Some economists, however, find that the mutual effects are not that straightforward.[18] They assert that copyright owners may also benefit from the availability of copying technology, because buyers would be willing to pay higher prices for content if they know that they can copy it. Information products may become more valuable if they are reproducible. If information producers can appropriate the added value, they are better off if copying gear is available. The added value may be seized by raising prices, but also by using price discrimination.[19] To the extent that the selling of copying apparatus actually adds value to content and that this value can be appropriated, the argument can be made that copyright owners should compensate equipment manufacturers, instead of the other way around. Perhaps, the losses that right owners suffer from the availability of recording equipment are, in fact, offset by its benefits. However, as with many economic assertions in the field of copyright law, there are no empirical data either supporting or contradicting the thesis. In any case, the emergence of DRM systems which may allow extensive price discrimination and to thereby grab the added value of the feature that information products can be copied, may reduce the probability that compensation for copyright owners is required.[20] From this perspective, the Copyright Directive's abolishing of levy schemes for private copying may be economically justifiable.

With regard to equipment that cannot be applied only for copying content, but also for playing it, it is even harder to make a case for compensation to rightholders. VCRs, for instance, can be used for the purpose of time shifting, but are in practice mostly used for playing lawfully rented and purchased movies. Thus, they opened up new, lucrative markets for the film studios.[21] It is not easy to assess who gained the most, the manufacturers of VCRs or the content industries, and which party should therefore compensate the other in order to internalize external effects. In some countries, the imposition of a levy on computers or on essential components of computers, like hard drives, is being discussed. Also, the idea surfaced of introducing a levy on broadband internet access.[22] But, like VCRs, these are multi-purpose machines and services and therefore the above mentioned "internalization rationale" for imposing a levy may not apply. For instance, the availability of free, infringing

---

[18] See extensively U.S. Congress, Office of Technology Assessment, *supra* nt 9.
[19] See S.J. Liebowitz, 'Copying and Indirect Appropriability: Photocopying of Journals', *Journal of Political Economy* 1985, p. 945-957. Liebowitz convincingly demonstrates that publishers of academic and scientific journals actually benefited from the invention of the photocopier, because they were able to appropriate the added value by raising the subscription fees for libraries; see also W.R. Johnson, 'The Economics of Copying', *Journal of Political Economics* 1985, p. 158-174.
[20] See K.J. Koelman, 'Copyright Law and Economics in the Copyright Directive: Is the Driot d'Auteur Passé?', *International Review of Intellectual Property and Competition Law* (IIC) 2004, p. 629-633.
[21] See C. Shapiro & H.R. Varian, *Information Rules*, Boston: Harvard Business School Press 1999, p. 94-97.
[22] N.W. Netanel, 'Impose a Noncommercial Use Levy to Allow Free P2P File-Swapping and Remixing' *Harvard Journal of Law & Technology,* Vol. 17, December 2003, p. 1-84, also available at: http://ssrn.com/abstract=468180.

content may add value to the service of providing internet access, but, at the same time, internet service providers provide the content industries with a new, cheap and potentially lucrative means of distribution.[23] Another consideration to take into account is that if the prices of multi-purpose goods and services, like computer hardware and internet access, were to rise due to a levy, they would be used less for purposes unrelated to copying as well, which could reduce society's productivity and may therefore be unwanted.

Levies and Privacy

The above may suggest that the Copyright Directive's approach to levies and private copying is basically in accordance with economic theory. However, arguments can be made against the abolishing of levy schemes as well. Apart from the unfeasibility of the enforcement of a right to prohibit home copying, a reason for the German Federal Supreme Court to deny a right to prohibit home taping was that the enforcement of such a right would necessarily conflict with the right to the inviolability of the home, which is related to the right to privacy. This rationale for applying a levy scheme may remain valid, whatever strides technology may make. It is likely that the enforcement of the right to prohibit (technologically controlled) digital private copying that the Copyright Directive confers will still require invasion of the user's private sphere. Clearly, a person violating a prohibition on digital home copying – or on the unauthorized circumvention of a DRM system that hinders such copying – can only be caught if his activities are monitored.[24]

Some argue that privacy concerns are sufficiently dealt with by privacy law. In Europe, reference is made to the EU Data Protection Directive of 1995 which regulates the gathering and processing of personal data.[25] But probably this Directive will not often hinder the policing of private information usage. First, because the Directive allows the gathering and processing of data if the user consents and information transactions could be designed in a way which implies that the user agreed to being monitored. Second, it is permitted to collect personal data if it is necessary for the performance of a contract. Thus, if a contract is concluded – *e.g.*, by way of a "click wrap" license – between a rightholder and a user which stipulates that payment is due for home copying, policing private copying may be allowed. Third, the Directive contains an open-ended provision which permits the processing of personal data if it is in the legitimate interest of the party who uses the data. This provision could also cover monitoring private copying. Finally, data on a person's information usage

---

[23] See G.S. Lunney, 'The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act', *Virginia Law Review* 2001, p. 900: "[T]he law allows copyright owners to claim a share of the value added to preexisting works by improvements in distribution technology."

[24] See extensively on privacy issues related to DRM L.A. Bygrave & K.J. Koelman, 'Privacy, Data Protection and Copyright: Their Interaction in the Context of Electronic Copyright Management Systems', in: P.B. Hugenholtz (ed.), *Copyright and Electronic Commerce, Legal Aspects of Electronic Copyright Management*, The Hague/London/Boston: Kluwer 2000, p. 59-124.

[25] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, *OJ* L 281/31. From Recital 57 of the Copyright Directive it can be deduced that the European Legislator feels this Directive sufficiently deals with privacy concerns. The Recital reads: "Any such rights-management information systems referred to above may, depending on their design, at the same time process personal data about the consumption patterns of protected subject-matter by individuals and allow for tracing of on-line behaviour. These technical means, in their technical functions, should incorporate privacy safeguards in accordance with [the Data Protection Directive of 1995]."

could – or should – perhaps be regarded as "sensitive data" for the purpose of the Data Protection Directive, which are protected to a further extent. However, the Directive permits gathering such data, if it is necessary for the establishment of a legal claim. The claim that a prohibition on (circumvention for the purpose of) unauthorized home copying is violated could be covered.[26]

The Data Protection Directive appears not to hinder the policing of private information usage. Nevertheless, one may question whether it is desirable in a democratic society that one party monitors the information another party uses. In the US, for instance, there is a large body of case law indicating that people should be free to use anonymously information products. The "right to use information anonymously" is considered to be related not only to the right to privacy, but also to the freedom of expression.[27] Arguably, if public discourse were indeed unduly hindered by the enforcement of a right to prohibit home copying, because people would feel watched and therefore would be constrained in their information usage, the hard-to-estimate social costs of this development should be included in the policy matrix. It could then be (economically) justifiable to maintain the levy scheme, even though it may, from other viewpoints, cause significant inefficiencies that could be tempered by encouraging the usage of DRM systems.

It has been asserted that so-called "privacy enhancing technologies" (PETs) could be applied to anonymize users and thereby to mitigate the loss of privacy.[28] However, for a statutory right to prohibit (circumvention for the purpose of) private copying to be enforced in court, ultimately the users' identity has to be known. Therefore, it may be unlikely that technology can completely remedy the privacy issue. Moreover, it remains to be seen whether PETs will be incorporated in DRM systems. Particularly, because there may not be a legal requirement to do so. As it stands, information sellers have the incentive to collect as much user data as they can, because there are many commercial advantages to knowing one's customers' habits and preferences.

Levies and Taxes

Copyright – *i.e.* the right to prohibit certain information usage – has other social costs as well, which, according to some commentators, could be alleviated by extending liability rules, instead of abolishing them. Copyright is assumed to, on the one hand, promote social welfare by providing an incentive to create, but to, on the other, reduce it, because copyright prevents next-generation creators from freely using (elements of) protected works. Since creation is presumed to be a cumulative process – *i.e.*, next-generation creators necessarily have to build upon the works of their predecessors, copyright decreases welfare to the extent that it hinders the productive re-use of information.[29] Also, it is assumed that there are

---

[26] Bygrave & Koelman*, supra* nt 24, p. 75-81.
[27] J.E. Cohen, 'A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace', *Connecticut Law Review* 1996, p. 981 ff., also available at http://www.law.georgetown.edu/faculty/jec/read_anonymously.pdf.
[28] Hugenholtz *et al.*, *supra* nt 6, p. 33-34; see on such technologies H. Burkert, 'Privacy Enhancing Technologies – Typology, Critique, Vision', in: U. Gasser (ed.), *Information Law in eEnvironments*, Baden-Baden: Nomos 2002, p. 71-90; Bygrave & Koelman, *supra* nt 24, p. 95-97.
[29] See W.M. Landes & R.A. Posner, 'An Economic Analyses of Copyright Law', *The Journal of Legal Studies* 1989, p. 348.

inefficiencies involved in excluding mere consumptive information usage, because additional usage of information products is without additional costs. According to mainstream economic theory, it should be avoided that people are excluded from using goods the usage of which costs nothing, because such exclusion hinders a (potential) gain in social welfare.[30] Thus, the legislator faces a dilemma: efficiency requires that right-holders are allowed to exclude some information usage in order for them to recoup their investments, but conferring a right to exclude usage also causes inefficiencies.[31]

Some scholars argue that levy schemes provide an easy way out of the dilemma. If creators are rewarded through a levy which is charged, for instance, on media players, computers and/or internet access, the financial incentive remains while the social loss of hindering information usage by consumers and next-generation creators would be mitigated, because anyone who sees fit to do so, can freely use the product.[32] Therefore, a liability rule would even be economically superior to a property rule.[33] If taken to its extreme, this reasoning implies that "copyright" – as we know it – should be abolished and replaced by some sort of "copytax." Rather than phasing out liability rule entitlements, the legislator should prohibit the technological exclusion of usage by way of DRM systems, since the disadvantages of control based on copyright equally apply to exclusivity based on technology.[34]

It has been debated for decades whether a government-run reward scheme is preferable to a statutory right to exclude information usage.[35] The issue has not yet been settled. Many of the arguments against a "copytax" are mentioned above. It is considered inefficient, because

---

[30] See e.g. H.R. Varian, 'Markets for Information Goods' (version of 1998), p. 16: "As it costs nothing to share [information], it is efficient to do so." Available at: http://www.sims.berkeley.edu/~hal/people/hal/papers.html.

[31] See e.g. Koelman, *supra* nt 20, p. 616-622.

[32] Note that the social loss can only be mitigated if the levy is not charged on actual information usage. If the levy is due on, for example, computer hardware or if a fixed "copytax" were imposed on internet access, additional information usage would not cost the user more. If, however, the levy were imposed on actual information usage – e.g. by way of a "bit tax" the amount of which would depend on the amount of internet traffic generated – additional information usage would cost more. Therefore, even though the rightholder could then not prohibit usage, non-rivalrous information usage would still be hampered.

[33] See *e.g.* S. Shavell & T. van Ypersele, 'Rewards versus Intellectual Property Rights', (December 1998) Harvard Law School, Olin Center for Law, Economics & Business, Discussion Paper No. 246, available at: http://ssrn.com/abstract=145292; S.P. Calandrillo, 'An Economic Analysis of Property Rights in Information: Justifications and Problems of Exclusive Rights, Incentives to Generate Information, and the Alternative of a Government-Run Reward System', *Fordham Intellectual Property, Media and Entertainment Law Journal* 1998, p. 301-359; W.W. Fischer III, (Draft) Chapter 6 of *Promises to Keep Technology, Law, and the Future of Entertainment* (2003), available at: http://cyber.law.harvard.edu/people/tfisher/PTKChapter6.pdf; Netanel, *supra* nt 22.

[34] Some argue that DRM could mitigate the social loss of excluding information usage as well, because it facilitates price discrimination. For reasons of brevity and clarity and because it is debatable whether price discrimination can really remedy the welfare loss, the issue is not dealt with here. See on the topic Koelman, *supra* nt 20, p. 629-633; see extensively on copyright and price discrimination M.J. Meurer, 'Copyright Law and Price Discrimination', *Cardozo Law Review* 2001, p. 57-148; J. Boyle, 'Cruel, Mean, or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property', *Vanderbilt Law Review* 2000, p. 2007-2039; J.E. Cohen, 'Copyright and the Perfect Curve', *Vanderbilt Law Review* 2000, p. 1799-1819.

[35] The archetype of the ongoing debate on the desirability of property rule entitlements in information products may be found in the discussion between Arrow and Demsetz. See K.J. Arrow, 'Economic Welfare and the Allocation of Resources for Invention', in: R. Nelson (ed.), *The Rate and Direction of Incentive Activity*, Princeton, NJ: Princeton University Press 1962, p. 609-625; H. Demsetz, 'Information and Efficiency: Another Viewpoint', *The Journal of Law and Economics* 1969, p. 1-22.

it provides rough justice, it requires government institutions to set prices and it prevents the parties involved from directly experiencing demand and value. If the "tax" is charged on multi-purpose equipment or services, like PCs or internet access, it could cause distortions in the market for such equipment or services. Of course, if the alternative were to impose an obligation on equipment manufacturers to build into their goods anti-copying technology, as is the case under US law, that could cause distortions in such markets as well.[36]

A levy scheme could also cripple the market mechanism in the content market and hinder the forces of competition in doing their presumably socially beneficial work there. A counter argument could be that, by conferring the right to prevent others from offering (near) perfect substitutes for a work, copyright also hinders competition in that market. Additionally, it may be unlikely that government will set the price at the efficient level, but it could be equally improbable that government will grant the appropriate level of exclusivity under copyright law. As stated above, introducing copyright enhances social welfare by providing an incentive to create, but excluding usage at the same time reduces welfare. In drafting copyright laws, therefore, legislators have to balance both aspects. Many commentators believe that it cannot possibly be known which equilibrium is the optimal one. Consequently, it cannot be expected that the right balance will be struck.[37] In other words, similar objections as can be made against government setting prices, can be made against government setting the level of copyright protection in the first place. Furthermore, some scholars argue that, even if it is assumed that the price will be set less efficiently under a levy system, it remains to be seen whether the welfare loss of such inefficient pricing will be higher than the loss resulting from the exclusion of information usage.[38]

Another drawback of a "copytax" system may be that it increases transaction costs, since a huge administrative body will be needed to collect the "tax" and redistribute it to creators. However, compared to existing copyright, the costs of concluding and enforcing licenses would be saved. Moreover, the same technologies that may bring down the (transaction) costs of licensing and enforcement, could also reduce the costs of running a levy scheme. Therefore, it is not self-evident that transaction costs are higher under a liability rule system.[39] Finally, it is argued that the danger of censorship exists if some government institution distributes the collected monies to authors. Government could then determine who gets funding and, concomitantly, which information products are created and published.[40] But, again, one may disagree. Government interference in the "marketplace of

---

[36] In the US, apparatus suitable for making digital copies of sound recordings has to contain a technological "serial copy management system." See Articles 1001-1010 of the US Copyright Act. Also, equipment that can play or record high definition television programs must be designed to read and obey a "broadcast flag" embedded in the television signal. The "flag" signals whether the content may be copied or redistributed. See Federal Communications Commission 4 November 2003, Report and Order and Further Notice of Proposed Rulemaking, nr. MB02-230, 73 C.F.R. § 9000 ff.

[37] See *e.g.* See F.H. Easterbrook, 'Who Decides the Extent of Rights in Intellectual Property?', in: R. Dreyfuss et al. (eds.), *Expanding the Boundaries of Intellectual Property*, Oxford: University Press 2001, p. 405-414; F. Machlup, *The Economics of Information and Human Capital*, Princeton: Princeton University Press 1984, p. 160.

[38] Y. Benkler, 'An Unhurried View of Private Ordering in Information Transactions', *Vanderbilt Law Review* 2000, p. 2067 ff.

[39] See Fisher, *supra* nt 33, p. 6; Netanel *supra* nt 22, p. 25, 53-55.

[40] See *e.g.* S. Breyer, 'The Uneasy Case for Copyright: A Study of Copyright in Books Photocopies, and Computer Programs', *Harvard Law Review* 1970, p. 316-317.

ideas" could be avoided by designing the system of repartition in a way that prevents censorship, *e.g.*, by ensuring that it is based on actual usage, rather than prior approval.[41]

Levies and the Law: Part II

One can philosophize about the advantages and disadvantages of liability and property rules, but if international copyright law hinders the introduction of liability rule entitlements, this is a mere academic discussion. Indeed, as is explained above, some scholars are of the opinion that the Copyright Directive prohibits statutory levy schemes as regards private copying when reliable DRM systems are available and widely used. Additionally, the Directive appears to stand in the way of introducing a remuneration right in respect of the right of making a work available on-demand online. As there are no exemptions allowing curtailment of the right concerned, a remuneration right – a statutory levy scheme – may not be introduced.[42] Also, the WIPO Treaties, the TRIPS Agreement and the Berne Convention may block the introduction or maintenance of liability rules, because, in a world where DRM exists, they would not be compatible with the "three-step-test" which, of course, determines whether exemptions to the exclusive rights may be inserted in national copyright law.[43]

The prospects do not look good for levy schemes. However, according to some commentators, there could still be room for inserting mere liability rule entitlements. Von Lewinsky asserts that the above-mentioned international instruments do not hinder the introduction of mandatory collective administration of copyrights, because provisions prescribing such administration should not be regarded as exemptions to the exclusive rights. Briefly put, she argues that under such provisions right owners are still in a position to prohibit usage, albeit that they cannot do it individually, but only collectively.[44] In practice, however, collecting societies always grant permission, if the user pays the set sum.[45] Therefore, a right that statutorily has to be exercised by a collecting society may well be viewed as a liability rule entitlement.[46] Conversely, the remuneration right in respect of home copying may be analyzed to constitute a form of mandatory collective rights management: right owners cannot prohibit the making of private copies, but instead, the right has to be exercised by a collecting society which levies copying equipment or blank recording media.

---

[41] Netanel, *supra* nt 22, p. 29.

[42] Article 3 of the Copyright Directive confers an exclusive right of making a work available online on-demand. As the exhaustive list of exemptions that the EU Member States may introduce, of Article 5 of the Directive, does not contain an exemption permitting to insert a general limitation – or: a remuneration right – in national law in respect of the right granted by Article 3, the Directive may be interpreted to stand in the way of replacing the property rule of Article 3 by a liability rule entitlement.

[43] See A. Peukert, 'International Copyright Law and Proposals for Non-Voluntary Licenses Regarding P2P File Sharing', paper presented at the 2004 ATRIP Conference, Utrecht, July 2004, forthcoming in ATRIP Conference book (2005).

[44] S. Von Lewinsky, 'Mandatory Collective Administration of Exclusive Rights – A Case Study on its Compatibility with International and EC Copyright Law', *Copyright Bulletin* March 2004, available at: http://portal.unesco.org/culture/admin/ev.php?URL_ID=5130&URL_DO=DO_TOPIC.

[45] One reason for this may be that antitrust law prohibits collecting societies, which often have a monopoly position, to discriminate between users. If they license rights to one party, they have to license the same rights for the same price to any other party who asks for it.

[46] See Koelman, *supra* nt 20, p. 610-612.

If Von Lewinsky's thesis is correct, international legislation may not prohibit the introduction or maintenance of statutory liability rules at the national level, as long as they take the shape of provisions prescribing mandatory collective management.[47] A national legislator could then decide that not only the right to prohibit home copying must be exercised by a collecting society, but also the right of making works available to the public on-demand. Perhaps he could even stipulate that the monies must be collected by "taxing" parties who do not themselves infringe copyrights, like internet access providers and manufacturers of copying equipment. If the thesis is incorrect, however, levy schemes would probably require a change of international copyright law, which, needless to say, is a hard and time-consuming process, if it is feasible at all.

Conclusion

To be sure, this article is not a plea for the "levitation" of copyright.[48] It merely intends to show that both a levy scheme and a system based on (either statutory or technological) exclusivity may have social costs and benefits. Economic arguments can be made both in favor and against either approach. At this stage, it cannot be determined which approach is the most desirable from an economic point of view. Nevertheless, the legislative tendency appears to be to replace levy schemes, or liability rules, with property rule entitlements where transaction costs are expected to decline. From the Copyright Directive's approach to private copying it can be deduced that the European legislature has a great faith that new technologies will reduce transaction costs and that a desirable result will therefore be reached if property rule entitlements are granted and if, subsequently, all is left to market.

* * *

[47] Recital 18 of the Copyright Directive could support the thesis. It reads: "This Directive is without prejudice to the arrangements in the Member States concerning the management of rights such as extended collective licences." An "extended collective license" exists if the law stipulates that rightholders are bound by a license granted by a collecting society, even if they are not a member of that society, and that they have to turn to the collecting society for compensation, i.e., they cannot individually hold the licensee liable for copyright infringement.

[48] The (Dutch equivalent of the) term was introduced by D. Visser at a meeting of the Dutch Copyright Society.