Freedom to Innovate and Copyright Protection A Role of Social Norms in the Regulation of New Technologies

BRANISLAV HAZUCHA*

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INTRODUCTION

Reducing costs of production and dissemination of goods and services embodying copyrighted content, new technologies enable innovative business models for supporting and encouraging human intellectual creativity. However, the same technologies also often bring new ways and possibilities of how their end-users—individuals employing them for private non-commercial purposes—may use copyrighted content in a broader scale than they could ever before. In this way, digitisation and networking technologies restrain traditional obstacles to mass copying of copyrighted works by, and to their distribution among, their consumers. A solution of this problem is often seen by copyright holders in restricting availability and functions of such enabling technologies. If these technologies were not available to the public, protection of copyright holders' interests would be much easier. Copyright holders thus focus their tactics of enforcing their exclusive rights on suing entities providing new technologies which do not sufficiently take into account their interests in protecting their proprietary interests in results of human intellectual creative labour.¹ If they

^{*} LL.M. 1999 (Commenius University); Dr. jur. 2002 (Trnava University); LL.D. 2005 (Kyshu University); Assistant Professor of Law, Hokkaido University. Note that this is a work in progress. Please, do not refer or cite without the author's permission. The author expresses his gratitude for understanding.

¹ See, e.g., A&M Records, Inc. v. Napster, Inc., 114 F. Supp. 2d 896, 2000 U.S. Dist. LEXIS 11862 (N.D. Cal. Aug. 10, 2000) (Napster I); MGM Studios v. Grokster, Ltd., 2005 U.S. LEXIS 5212 (Jun. 27, 2005) (Grokster III).

fail, they move their focus on lobbying legislatures for regulation of such reproduction and distribution technologies by law.

In this endeavour, content providers claim that something must be done in order to ensure that creation of new protected works continues. They argue that the producers of reproduction and distribution technologies are in a good position to discourage mass copyright infringements either by monitoring direct infringers or by redesigning their technologies to make copyright infringement more difficult, especially when technology providers benefit from unauthorised exploitation of copyrighted content. The imposition of numerous affirmative duties on technology providers and limitation of their freedom are then supposedly justified by several reasons. First, the number of such technology providers is lower and more limited than the number of end-users and individual providers of unauthorised copyrighted content. Second, when copyright holders are successful in suing a technology provider, it has actual impact on consumers and users of concerned technology. Third, although the end-users can just move from one provider to another, the conviction has also deterring effect on other providers. It is a warning sign that this kind of technology or service provision is illegal business with respective legal consequences.

All these consequentialist arguments are attractive and persuasive but they are built upon a premise that there is fear of destructing production of copyrighted content and it is necessary to use coercion to guarantee stable supply of copyrighted works. The higher the fear perception is, the more powerful and persuasive arguments about the need to take preventive protective measures are towards legislatures and courts. However, the role of law is not only to coerce misconduct, but also to regulate particular society and to give its members the reasons for their actions. The dictates of law are general and embodies values, which are important for entire society. They are seen as common understanding of socially desirable standards for human behaviour.

Accordingly, this paper argues that the flaw of approaches focusing only on coercion is that they disregard the role of social norms² in regulation of new technologies. A law disregarding this aspect is often hard to be enforced because of lacking sufficient expressive power.³ This can be seen on mass disregard of copyright law by many Internet users. To change this undesirable situation, policy makers must take into account social norms recognised and maintained by targeted entities in the drafting process of any regulation. The by-product of such regulation is also that it can build and maintain mutual trust within society between affected stakeholders and thus achieve sufficient power of persuasion towards regulated entities.⁴

Law does not only act as an enforcer, but it gives confirming person a special place.⁵ Responsible persons are not merely persons who do the right thing, but they are "the persons

² See generally, e.g., Robert C. Ellikson, Order Without Law: How Neighbors Settle Disputes (Cambridge, MA: Harvard University Press, 1991); Lawrence Lessig, The Regulation of Social Meaning, 62 U. Chi. L. Rev. 943 (1995); Cass R. Sunstein, Social Norms and Social Roles, 96 Colum. L. Rev. 903 (1996); Richard H. McAdams, The Origin, Development and Regulation of Norms, 96 Mich. L. Rev. 338 (1997); Eric A. Posner, Law and Social Norms (Cambridge, MA: Harvard University Press, 2000).

³ See generally, e.g., Alex Geisinger, A Belief Change Theory of Expressive Law, 88 Iowa L. Rev. 35 (2002); Richard H. McAdams, An Attitudinal Theory of Expressive Law, 79 Or. L. Rev. 339 (2000); Robert E. Scott, The Limits of Behavioral Theories of Law and Social Norms, 86 Va. L. Rev. 1603 (2000).

⁴ See, e.g., Mark Van Hoecke, *Law as Communication*, 207 (Oxford: Hart Publishing, 2002) ("When enacting law as a public body, deciding a case as a judge, or using legal rules as a citizen or a public or private institution, this may be part of a strategic action with the view of realising some specific goal and furthering some interest, but, by definition it is also always a communication action, aimed at convincing others of the *truth* of one's statement and/or its underlying reasons, of the *normative correctness* of the rule, decision or claim, and that the *intention* of its author is meant as it is expressed.").

⁵ See Tamar Frankel and Wendy J. Gordon, *Introduction*, 81 B. U. L. Rev. 321, 323 (2001).

who do the right thing without a policeman around."⁶ Ignoring an individual as a "responsible being" and taking one only as an "instrument" of public policy brings additional costs of protection, *i.e.* need of more severe punishment and more vigilant monitoring. An easier and less expensive solution might be to take an individual as an equal and responsible person, who bears positive or negative consequences of her agency. This paper thus examine limits of imposing indirect liability on technology providers by stressing on persuasion of regulated entities by a law and on importance of building and maintaining trust within society.

Part One outlines the tensions between contravening interests of content providers and technology providers over properties of dual-use technologies which can enable mass copyright infringements by their users. This conundrum has considerable impact on the efficiency of regulation in relation to new reproduction and dissemination technologies, since the targeted entities—technology users and providers—do not always find regulation, which do not adequately take into account their interests, as too persuasive.

Part Two then maps the way how courts in different jurisdictions, namely, the US, UK and German courts, coped with striking a just and fair balance between contravening public interests when they faced an introduction of analogue reproduction technologies.

As reaction on huge scale of unauthorised use of copyrighted content by end-users on the Internet, content providers successfully lobbied adjustment of copyright laws on international⁷ and national levels⁸ in the late 1990s and early 2000s. To enforce their copyrights on the Internet, content providers filed a number of lawsuits against individual users, technology providers and Internet service providers all around the world. However, actions from side of content providers usually bring counteractions from targeted entities in order to avoid severe enforcement of copyright law. Several copyright scholars named this vicious circle as "copyright wars".⁹ Part Three examines limits of coercion in relation to enforcement of copyright in relation to "dual-use" technologies.¹⁰ The reason of difficulties with enforcement of copyright law in relation to new technologies is that the traditional concept of liability has been stretched in order to cover activities in digital environment. But broadening of liability concepts has brought an opposite effect to the expected one. This Part thus traces how threatening imposition of liability for copyright infringement and broadening its scope in relation to technology users and providers shaped the design of current peer-to-peer networks. This shows that targeted entities respond to strict enforcement of copyright law by searching ways how to avoid such enforcement. The behaviour of targeted entities can be expressed by the fact that such regulation looses its expressive power against new targeted entities—technology users and providers—in digital environment. Simply, they do not find it as sufficiently persuasive. This Part thus concludes with inquiry into the intrinsic value of obeying a law and identifying the limits of strong enforcing copyright law by stressing on coercion against targeted entities.

Applying the understanding of the intrinsic value of obeying a law, Part Four then examines limits of regulation of new technologies. It enquires into normative considerations

⁶ See *id.* at 324. See also Tamar Frankel, Fiduciary Law, 71 Cal. L. Rev. 795 (1983).

⁷ WIPO Copyright Treaty, 6 March 2002, 36 I.L.M. 65; WIPO Performances and Phonograms Treaty, 20 May 2002, 36 I.L.M. 76.

⁸ For instance, Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2860, enacted 28 October 1998; 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, O.J. L 167, p. 10. ⁹ See, e.g., Peter K. Yu, *The Escalating Copyright Wars*, 32 Hofstra L. Rev. 907 (2004).

¹⁰ See Mark A. Lemley and R. Anthony Reese, *Reducing Digital Copyright Infringement without Restricting Innovation*, 56 Stan. L. Rev. 1345, 1355 (2004) (using this term by analogy to the technologies which have two different uses, *e.g.* civilian and military uses). *Cf.*, *e.g.*, "*Tokimeki memorial*" case, 55(1) Minshu 87 (Supreme Court, 13 February 2001).

behind imposition of liability on technology providers by stretching boundaries of the concept of enablement. It identifies strong and week points in the cost-benefit analysis of "efficient cost allocation" advocated by law and economics approach. As a way to avoid its inherent shortcomings, this Part stresses on the importance to take into account also an internal perspective of human behaviour.

1. TENSIONS BETWEEN FREEDOM TO INNOVATE AND COPYRIGHT PROTECTION

A developer, manufacturer or seller of reproduction or distribution technology can be found in different situations, where one might claim that it induces, aids, abets, supports or otherwise materially contributes to an act of direct copyright infringement committed by another person-technology user. For example, a third party may provide a decoder box enabling its user to unscramble premium or pay-per-view cable programs without paying for them; a photocopier permitting to make a copy of a letter, journal article or book; a music or video cassette recorder allowing to record a voice, radio or television broadcast, or to make a copy of pre-recorded music or video cassettes respectively; or a decentralised peer-to-peer network technology, such as FastTrack or Gnutella, allowing sharing files among the users of the networking application. As might be seen on these examples, we may distinguish two types of "enabling" technology. On the one side are devices, which can be used only in a copyright infringing way, such as a decoder box. On the other are so-called dual-use technologies, which can be used for infringing and also non-infringing uses. While the former cases are often clear-cut cases of copyright infringement, the "dual-use" utility in the latter raises contentious issue whether such technologies should be free, regulated or completely banned because of harm caused by their end-users to legitimate interests of copyright holders.

The issue of enabling others to commit copyright infringement was brought before courts in many jurisdictions all around the world several times. Recently, it has reappeared with the introduction of digital and networking technologies. Amongst them, the most outrageously questioned by content providers are peer-to-peer networks. The users of such networks are able to provide whatever file they want for sharing with other users, to search for files located on others' computers and to download the files as they wish. The only thing the users of peer-to-peer networks need to do is to visit a website offering an application empowered by this technology, to download and to install it on their computers. Although it can hardly be said that many of these dual-use technologies allow their providers to exercise control either over direct copyright infringers or facilities used for commission of direct copyright infringements, the technology developers exercise control over technology design. Technology users could not infringe anyone's copyright without any assistance, abetment or support provided by these technologies in the way how they do. If there was no such technology, its users could not share any files infringing another person's copyright amongst themselves. If a provider did not provide technology facilitating commission of wrongdoing, no copyright infringement could occur with her material contribution. One may thus claim that a technology provider is in a closer and more active position toward acts of direct copyright infringement committed by technology users than a complete stranger or passer-by. This is one of reasons why copyright holders argue that direct copyright infringements committed by technology users are basically the outcome of technology providers' activities and that technology providers facilitate, abet, aid, assist, encourage or otherwise support technology users in their wrongdoings.

Modern societies recognise that an individual should be responsible for consequences of her own actions. But they concede at the same time that not each outcome triggers the individual's liability such as in cases of consequences which are too remote or which could not be foreseen by a reasonable person. The question is then, when one should be held liable for the wrongful impacts of one's agency on another person's interests or assets recognised and protected by law. As the provision of enabling technology can seriously encroach on copyright holders' legitimate interests through aggravating aggregate negative effects of individual copyright infringements and its usage cannot be controlled by its suppliers, there are two contending views on the way how technology of this kind should be regulated by law. The copyright holders' view and their interest in security against copyright infringements in on the one side and the view of developers, producers and sellers of enabling technology and their interest in freedom and autonomy can be found on the other.

Copyright holders complain that if something is not done, authors will not have enough incentive to create new literary, artistic, musical or other kinds of works which are protected by copyright law. Why would anybody write a book, compose a song, produce a movie, knowing that her investment of time, labour, money and other resources will not return when anybody can freely download it from the Internet? Why would anybody behave irrationally and act without any incentive to create? The authors and creators are also people, who need to live and pay bills for their living. If technology was at least modified, improved or otherwise enhanced in order to prevent direct copyright infringements committed by its consumers, no copyright infringement assisted by its provider could occur or at least its commission could be limited to a sustainable number. Each person should care what her actions bring to another person. Nobody lives alone somewhere on a remote island, where she could do anything she wants without any interference with her neighbours. Human beings live in communities and neighbourhoods, where they interact with their fellow residents every day. Can anybody just bury one's head in the sand not to see consequences of one's action? Can a technology provider deliberately close or even shield her eyes not to see reality, when she does nothing in order to prevent the usage of her technology for commission of wrongdoing by its user?

Conversely, providers of enabling technology argue back that dual-use technologies can be used for copyright infringing and non-infringing purposes. Furthermore, while natural events are predetermined by laws of nature, man is "total sovereign over his actions".¹¹ Except in special circumstances such as mental illness, impulse, duress, compulsion and so forth, human acts are regarded as results of person's choice. Everybody is free to choose her action. How can anybody else then "cause" the principal's wrongdoing? How can anybody be responsible for another person's wrongs when she does not intentionally participate in the concerned wrongdoing? In addition, direct copyright infringers could find someone else or even commit a wrongdoing without anyone's assistance or abetment, if the technology was not available. When does anybody then facilitate, abet, aid, assist, encourage or otherwise support another person's wrongdoing? Furthermore, technology users often find their own ways how to avoid or disallow any technological preventive measures used by content or technology providers. Why should technology providers then make any considerable effort in order to prevent harm caused by technology users to copyright holders, when the wrong could occur anyway? Should technology providers be Samaritans and take all the necessary efforts to protect the content providers' interests? How should they prevent wrongdoings committed by other persons and can they efficiently prevent such wrongdoings in reality in any way? In addition, if a technology provider adopts any technological preventive measure, she exposes herself to a possibility to held liability that such a measure was easily circumvented by technology users. Why should technology providers then do so?

¹¹ See Sanford H. Kadish, Complicity, Cause and Blame: A Study in the Interpretation of Doctrine, 73 Cal. L. Rev. 323, 330 (1985), reprinted in an abridged and unrevised version as Sanford H. Kadish, A Theory of Complicity, in Ruth Gavison (ed.), Issues in Contemporary Legal Philosophy: The Influence of H. L. A. Hart, 287, 288 (Oxford: Clarendon Press, 1987).

2. REGULATION OF "DUAL-USE" ANALOGUE TECHNOLOGIES

The issue how to regulate dual-use technologies which allow individuals to make private copies of copyrighted works emerged with the introduction of analogue reproduction technologies. In several jurisdictions, analogue reproduction technologies and their functions were challenged before courts. To strike just and fair balance between contravening public interests—interests in copyright protection on the one side and interests in developing new technologies on the other—courts first searched for a closer connection between the technology providers and technology users. When the link was found, they took into account other public interests in order to avoid harming or even chilling future technological progress.

2.1. Enablement of Copyright Infringements Committed by Technology Users

As response to the introduction of analogue reproduction technologies, courts and legislators in jurisdictions under comparison developed three ways how to determine liability of technology providers for copyright infringements committed by technology end-users. In Germany, a provider of means which can be used for committing copyright infringement can be found liable if an "adequate causal" connection is found between provision of enabling technology and its users' copyright infringements.¹² On the other hand, common law countries approach the issue of indirect copyright infringement from two different directions. While the U.S. courts apply the doctrine of "contributory infringement", originally developed in the field of U.S. patent law, the English courts have not explicitly taken that approach and base their reasoning upon the concept of "authorisation". In the latter case, courts asses the relationship between an authorising person and principal, such as "common design" of their behaviour and degree of control the manufacturer can reasonably be expected to be able to exert in respect of after-sales uses of product by consumers.¹³

(a) Adequate Causation

Civil law jurisdictions have not developed special doctrines in the field of copyright law and apply doctrines applicable for the entire private law and generally regulated by particular tort law provisions of civil codes. It brings a question how these general provisions are applicable for specific problems brought by copyright protection, when somebody produces a product which can be used for lawful and unlawful purposes. In 1950s, the German company Grundig introduced on the German market a new product, a tape recorder which dismantled the then barriers between radio broadcasting, phonograms and tape recordings. In its advertisements Grundig promoted the possibility of recording music from a radio and gramophone, what drew an immediate attention of German collecting society (*Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte*, abbr. GEMA). GEMA brought an action to enjoin the producer from selling recorders, unless Grundig made its customers aware of their obligations under the then German copyright law. They also claimed that Grundig's promotion could significantly affect the legitimate interests of music copyright holders.

¹² See Andreas Dustmann, Die privilegierten Provider: Haftungseinschränkungen im Internet aus urheberrechtlicher Sicht, 52 (Baden-Baden: Nomos Verlagsgesseschaft, 2001).

¹³ See Andrew McRobert, *Digital Music & Copyright: Third Party Liability & Home Taping*, 3 Digital Tech. L. J. 1, §86 (2001), *available at* http://wwwlaw.murdoch.edu.au/dtlj/2001/vol3_1/mcrobert.pdf (*last visited* 24 June 2003).

This case, known as the *Grundig Reporter* case,¹⁴ brought a number of divergent questions concerning the extent of copyright law application and its interference with private sphere of individuals.¹⁵ Does an individual infringe the copyright holder's right when she makes a copy for private purposes at home? Can copyright protection interfere with the right to inviolability of home (*Unverletzlichkeit der Wohnung*), the basic right guaranteed and protected by Article 13 of the German Constitution (*Grundgesetz für die Bundesrepublik Deutschland*)? Is there a causal nexus between the provision of tape recorders and the alleged copyright infringement committed by their user? At that time, the German Supreme Court (*Bundesgerichtshof*) recognised the authors' exclusive right to prohibit private recordings. It held that the creator's interest had to prevail against consumers' interests, because "there is no general principle in copyright law that maintains that the claims of the copyright holder should stop short of the private sphere of the individual."¹⁶ Although the basic right to inviolability of home hampered copyright enforcement against individual users of tape recorders, the Supreme Court clearly expressed that possible unenforceability of copyright holders' rights was irrelevant to their legal recognition.

In addition to enforceability dilemma, the case also brought a controversy concerning causal nexus between the actions of tape recorder manufactures and its users. The Supreme Court unravelled it in the way that the intended use of equipment would normally infringe someone's copyright. Put otherwise, "adequate causal connection" was found between the manufacturer's conduct and the user's copyright infringement.¹⁷ The manufactures thus *had knowledge* or *had to know* that the means they manufactured or sold was to be normally used for copyright infringement. Whoever in the course of one's business enables others to make reproductions by providing them with necessary means is therefore an accomplice and fully liable. The Supreme Court dealt with a comparable situation five weeks later, when it delivered another similar judgment in a case concerning photocopying for personal use.¹⁸

As the measures ordered in the *Grundig Reporter* case later proved to be ineffective because of the lack of attention paid by customers to copyright warnings, GEMA brought a new action against producers of recording equipments. In the *Personalausweise* case,¹⁹ the Supreme Court again approved the approach taken in the *Grundig Report* case pointing out that producers of recording equipments took expressed advantage of the popularity of private home taping.²⁰ Consequently, in case where a producer and retailer of recording equipment only provides individuals with necessary means for committing copyright infringement, there is an adequate causal link between provision of enabling technology and copyright infringement committed by technology users.

(b) Authorisation

Contrary to the German model, where courts apply the German tort law doctrine of adequate causation, the English courts has specifically developed under copyright law the concept of authorisation. A similar approach can also be found in other countries closely akin to the

¹⁴ The Grundig Reporter case, 1956 GRUR 492 (BGH, 18 May 1955).

¹⁵ See Jaap H.Spoor, William Cornish and Peter F. Nolan, *Copies in Copyright*, 24-26 (Alphen aan den Rijn: Sijthoff & Noordhoff, 1980).

¹⁶ See the Grundig Reporter case, 1956 GRUR 492 [translation by Dirk J.G. Visser]. See also Dirk J.G. Visser, Copyright Exemptions Old and New, in P. Bernt Hugenholtz (ed.), The Future of Copyright in a Digital Environment, 49, 50 (The Hague: Kluwer Law International, 1996)

¹⁷ See, e.g., the Grundig Reporter case, 1956 GRUR 492; the Personalausweise case, 1965 GRUR 104 (BGH, 29 May 1964). See also Dustmann, supra note 7, at 52.

¹⁸ See the Mikrokopien case, 1955 GRUR 546 (BGH, 24 June 1955).

¹⁹ The *Personalausweise* case, 1965 GRUR 104.

²⁰ See the Personalausweise case, 1965 GRUR 104.

English common law traditions, such as Australia, Canada and others. The English courts applied it to a case of copying device manufacturer in CBS Songs Ltd. v. Amstrad Consumer *Electronics Plc.* (hereinafter "Amstrad case").²¹ Amstrad manufactured a twin-deck tape-recording machine with a tape-to-tape facility allowing reproduction of one tape directly onto another. The British Phonographic Industry Ltd. (BPI) wrote to Amstrad asserting that the sale of such a device encouraged, incited or otherwise facilitated unauthorised copying of pre-recorded and other cassettes containing copyrighted content.²² Further, Amstrad's advertisement was perceived by BPI as being likely to encourage home taping and copying of copyrighted material, *i.e.* as an "encouragement to break the law".²³ To resolve this controversy both sides initiated court proceedings. While Amstrad sought to obtain a declaratory judgement that its actions were lawful, BPI asked for an injunction and damages. In both proceedings in the first instance, Whitford J. found in favour of BPI on the grounds of authorising a copyright infringement, joint tort and possibility of negligence and inciting, procuring, aiding or abetting an infringement contrary to law or equity.²⁴ Although the Court of Appeal declined to make a declaration in favour of Amstrad on the grounds that Amstrad's advertisement might amount to an incitement to a home copier to commit a criminal offence,²⁵ it struck out BPI's action.²⁶ BPI then appealed contending that the decision of Whitford J. in both actions should be upheld.

Lord Templeman in his speech for the House of Lords expressed that copyright law grants a copyright holder with the exclusive rights to reproduce and to authorise others to reproduce a copyrighted work. Their infringement by a person who reproduces or authorises another person to reproduce a copyrighted work can be remedied through an injunction to restrain such a harmful act. But, he stressed that "there is nothing express or implied in the Act which inhibits the invention, manufacture, sale or advertisement of electronic equipment capable of lawful or unlawful reproduction."²⁷ To "authorise" means to expressly or impliedly "grant or purport to grant" to another person the right to do an act complained of, regardless of the fact on whose account the act will be performed. Although Amstrad conferred on purchasers of its products the "power to copy", Lord Templeman expressly pointed out that Amstrad did not grant or purport to grant any right to copy. The reason was that Amstrad did not "sanctioned, approved or countenanced" an infringing use of its model and had no "control" over its use once the equipment was sold. A different situation would be, if Amstrad defendant provided a recording together with a recording machine and blank tape. In such a case, Amstrad's act would be considered as placing in other person's hands materials which by their nature were almost inevitably to be used for the purpose of an infringement.²⁸ However, lenders and sellers did not authorise infringing use per se.

²¹ Amstrad Consumer Electronics Plc. v. British Phonographic Industry Ltd. [1986] F.S.R. 159, [1986] 1 F.T.L.R. 73 (Amstrad I); CBS Songs Ltd. v. Amstrad Consumer Electronics Plc. [1988] 1 Ch. 61, [1987] 3 All E.R. 151, [1987] 3 WLR 144, [1987] R.P.C. 429 (Amstrad II); CBS Songs Ltd. v. Amstrad Consumer Electronics Plc. [1988] A.C. 1013, [1988] R.P.C. 567, [1988] 2 All E.R. 484 (Amstrad III).

²² See Amstrad III [1988] A.C. 1013 ("A Remote Control operated hi-fi system (supplied with speakers) comprising ... TWO functional cassette machines with HI-SPEED DUBBING facility, BSR belt-driven turntable, stereo amplifier ... and tuner sections. This elegant flush-look system is internally connected and fitted in its own rack and comes with a smoked glass door and lid for dust protection and castors for manoeuvrability.").

²³ See Amstrad I [1986] FSR 159.

²⁴ See Amstrad III [1988] A.C. 1013.

²⁵ See Amstrad I [1986] FSR at 201.

²⁶ See Amstrad II [1988] 1 Ch. 61.

²⁷ See Amstrad III [1988] A.C. 1013.

²⁸ Cf. RCA Corp v. John Fairfax & Sons Ltd [1982] R.P.C. 91, 100 (referring to Hugh Laddie, Peter Prescott and Mary Vitoria, *The Modern Law of Copyright*, 403 (London: Butterworths, 1980)).

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In addition to the authorisation claim, BPI alleged that Amstrad was a joint infringer as soon as a purchaser decided to copy a record in which copyright subsisted, and thus committed several common law torts, such as an incitement to commit a tort, incitement to commit a criminal offence and negligence. The House of Lords struck out all these claims. Contrary to the German approach, the U.K. law does not recognise pure knowledge, be it actual or constructive, of the fact that equipment may be used for copyright infringement by its user as a sufficient standard for holding a dual-use technology provider liable for copyright infringements committed by technology users. The English courts require, in addition to such knowledge, a certain "common design" between conducts of technology provider and users. The former must have knowledge of a particular copyright infringement committed by the latter. Since Amstrad only sold a machine and the person who decided the way of its usage was a purchaser or operator of machine, the House of Lords found no common design between the two activities. All recording and many other machines are capable of being used for unlawful purposes, but manufacturers and retailers are not joint infringers if purchasers choose to break the law. Since Amstrad did not make or authorise other persons to make an infringing recording, it was not found in breach of any duties imposed by copyright law. Besides, there was no "ongoing relationship" between Amstrad and its consumers. The fact that Amstrad had no control over after-sale usage of its equipment was the decisive point in Lord Templeman's speech.²⁹ Furthermore, Amstrad never asked anyone to use its model in a way which would amount to copyright infringement. Since "[f]acilitating the doing of an act is obviously different from procuring the doing of an act",³⁰ the sales and advertisements of such machine do not procure breaches committed by persons who use it. An act of inducement, incitement or persuasion to infringe must be made towards an individual infringer and must procure a particular act of infringement. Accordingly, although the recording device was capable of being used for unlawful purposes, all those facilities were lawful.

In addition to the concept of authorisation as a primary copyright infringement, Sections 24 and 26 of the U.K. *Copyright, Designs and Patents Act* recognise as a secondary infringement a provision of means for making infringing copies or for infringing performance. Both provisions require knowledge or reason to believe that means are to be used to make infringing uses.³¹ In case of apparatus whose normal use involves a public performance, playing or showing, a person, in order to avoid secondary copyright liability, must believe on reasonable grounds that it would not be so used as to infringe copyright.³² It is a clear expression of "common design" approach applied in case of joint torts.

(c) Contribution

The U.S. courts resolve the problem concerning enabling technology by the application of contributory liability doctrine, which has been originally developed under the U.S. patent law.³³ Traditionally, indirect liability occurs in cases where a defendant engages in "personal

²⁹ Cf., e.g., Moorhouse v University of New South Wales [1976] R.P.C. 151.

³⁰ See Belegging-en Exploitatiemaatschappij Lavender B.V. v. Witten Industrial Diamonds Ltd. [1979] F.S.R. 59, 65 (CA, per Buckley LJ).

³¹ See §24(1) and §26(2)(b) or the U.K. Copyright, Designs and Patents Act of 1988.

³² See §26(2)(b) or the U.K. Copyright, Designs and Patents Act of 1988.

³³ See Wallace v. Holmes, 29 F. Cas. 74 (C.C.D. Conn. 1871) (No. 17,100) (the defendant manufactured only the lamp base and the glass chimneys were readily available to the consumer purchaser who merely had to insert them into the defendant's lamp bases). See also Donald S. Chisum, Chisum on Patents, §17 (Matthew Bender & Company, 2004), available at http://lexis.com (last visited 30 June 2005).

conduct that encourages or assists the [direct copyright] infringement."³⁴ Put differently, "one who, with *knowledge* of the infringing activity, *induces, causes or materially contributes* to the infringing conduct of another, may be held liable as a 'contributory' infringer."³⁵ When a technology allows the public to use it for committing an act of copyright infringement, a question arises whether such technology producer is not a contributory copyright infringer. The issue of this kind was brought before the U.S. courts with the introduction of home videocassette recorders by Sony in *Sony Corp. of America v. Universal City Studios, Inc.* (hereinafter "*Sony* case"),³⁶ where the main question was whether the sale of the copying equipment to the general public violated any of the rights conferred upon copyright holders by the U.S. Copyright Act.³⁷

As history shows, the *Sony* case was a rollercoaster case for the U.S. judiciary. The decision was twice reversed, firstly by the Ninth Circuit and then again by the Supreme Court. The trial court found, *inter alia*, that Sony could not be held liable as a contributory infringer even if the home use of videocassette recorder was considered as an infringing use, since Sony had no direct involvement with any Betamax purchaser recording copyrighted content off the air. Although Sony's advertising was silent on the subject of possible copyright infringement, its instruction booklet contained a copyright warning.³⁸ The Ninth Circuit, however, found that reproduction of copyrighted materials was either "the most conspicuous use" or "the major use" of the Betamax product.³⁹ Its decision is very close to the approach adopted by the German Supreme Court. The crucial point in the appellate court's deliberation was that the cumulative effect of mass reproduction would diminish the potential market for the copyright holders' works.⁴⁰ None the less, the Supreme Court once more reversed the decision and concluded that Sony was in no ongoing relationship with any costumer, since the only contact, it had, occurred at the moment of sale.⁴¹

The assessment of contributory liability is based upon the two-prong test: *material contribution* and *knowledge requirements*. As to material contribution to the direct copyright infringement, the district court did not find any "direct involvement" of any of defendant's employee with the allegedly infringing activity or any "direct contact" with purchasers of Betamax who recorded copyrighted works off the air.⁴² In addition, there was no evidence of any influence or encouragement caused by the defendant's advertisement.⁴³ Finally, the provision of Betamax did not fall in the category, where a "contributory" infringer was in a position to control the use of copyrighted works by others and to authorise their use without permission from concerned copyright holders. The Supreme Court therefore rejected the plaintiffs' argument that supplying the "means" to accomplish an infringing activity and encouraging such activity through advertisement were sufficient to establish liability for copyright infringement.

³⁴ See Matthew Bender & Co. v. West Publ'g Co., 158 F. 3d 693, 706 (2d Cir. 1998).

³⁵ See Gershwin Publishing Co. v. Columbia Artists Management, Inc., 443 F.2d 1159, 1162 (2d Cir. 1971); see also Fonovisa, Inc. v. Cherry Auction, Inc., 76 F. 3d 259 (9th Cir. Jan. 25, 1996) [emphasis added].

³⁶ Universal City Studios, Inc. v. Sony Corp. of America, 480 F. Supp. 429 (C.D. Cal. Oct. 2, 1979); Universal City Studios, Inc. v. Sony Corp. of America, 659 F.2d. 963 (9th Cir. Oct. 19, 1981); Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 78 L. Ed. 2d 574, 104 S. Ct. 774 (Jan. 17, 1984) (Sonny III).

³⁷ See Sony III, 464 U.S. 417.

³⁸ The instruction booklet contained the following statement:

[&]quot;Television programs, films, videotapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the United States copyright laws." *See Amstrad III* [1988] A.C. 1013.

³⁹ See Sony II, 659 F.2d. at 975.

⁴⁰ See id. at 974.

⁴¹ See Sony III, 464 U.S. at 438.

⁴² See Sony I, 480 F. Supp. at 460.

⁴³ *See id.* at 460.

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As to the knowledge requirement, the district court assumed that Sony had constructive knowledge of probability that Betamax machines would be used to record copyrighted programs. But it found that Sony merely sold a "product capable of a variety of uses, some of them allegedly infringing."⁴⁴ The reliance on Sony's lack of knowledge that home use constituted infringement was, nevertheless, rejected by the Ninth Circuit, which noted that the defendant's good faith would merely reduce one's damages liability, but it would not excuse the infringing conduct. Thus, as the reproduction of copyrighted materials was either "the most conspicuous use" or "the major use" of the Betamax product, Sony had knowledge of homeowners' infringing activities.⁴⁵ This reasoning was rejected by the Supreme Court, which found that the sale of copying equipment would not constitute contributory infringement if the product was widely used for legitimate, unobjectionable purposes, or was merely capable of substantial non-infringing uses.⁴⁶

2.2. Enablement and Public Interests

The *Grundig Reporter* and *Sony* cases illustrate that it is hard to say that there is no link between a producer of recording devices and their end-users who decide to use them in infringing way. Such producer either causes or materially contributes to direct copyright infringements committed by technology users. But there are also public interests other than the copyright holders' interests in security of their proprietary interests in the results of human intellectual creative labour. The decision whether a producer of enabling technology should be held liable for copyright infringements committed by technology users then represents an interception of two contradictory public interests; the interest to protect authors and results of their intellectual creative work, on the one hand, and the interest in technological progress, on the other.

These public interests are taken into account by courts in various ways, either by narrow construction of legal concepts and doctrines when they are applied to a relationship between technology producers' actions and its users' wrongdoings, or by a broader interpretation combined with exceptions embodying particular public interests. The former can be found in the English approach, where the courts assess the issue as a whole and examine whether there is *common design* in the conducts of technology providers and its users whose acts directly infringe someone's copyright. The latter is evident in the German and U.S. approaches, where the courts have to find that there is *adequate causation* between the manufacturer's conduct and copyright infringement committed by its customers, or that the producer satisfies all requirements for *contributory copyright infringement*. Then, they consider public interests and social costs of enjoining equipment production. While the German approach is based on the general concept of "reasonableness", the U.S. courts apply a more specific and concrete concept based upon the "substantial non-infringing use" of an article of commerce as a way of defence and exemption available for producers and manufactures of technological devices which can be used by their users to infringe someone's copyright.

Another issue in relation to public interests arises when the developer of new technology has a choice to design her product in certain way, *i.e.* more or less susceptible to its infringing uses. There may be distinguished two approaches. The German courts recognise that the technology provider has a duty of care and should take "technically and economically feasible" precautions against potential misuses of product. On the other hand, common law

⁴⁴ *See id*. at 461.

⁴⁵ See Sony II, 659 F.2d. at 975.

⁴⁶ See Sony III, 464 U.S. at 434-42.

jurisdictions see an impenetrable line between common law torts and statutory torts. This leads to inapplicability of negligence rules in cases of copyright infringements as statutory torts. Accordingly, courts reject to extend the third party's duties beyond the scope of copyright regulations.

(a) Substantial Non-Infringing Use

The "dual-use" technologies can be used for infringing someone's copyright but, at the same time, for other types of uses which do not even remotely raise any copyright problems. But this is not a problem specific only for copyright law. We can find other areas of law where a particular technology, device or equipment can be used for several purposes which are differently regulated by the law. The question is how such technologies should be approached. Should the entire technology or only particular uses be banned? In some situations, it is enough to regulate only particular uses and to let the remaining ones free, unrestricted and lawful. Even non-regulation of any use might be a solution. Policymakers and courts have then several options how to deal with situations where technology under consideration can be used for lawful and unlawful purposes.

Although courts have the power to order reasonable measures to stop infringing activities, the question is to what extent society would benefit from such measures. The German Supreme Court held in the *Grundig Reporter* case that it would be unreasonable to order Grundig to completely stop production and sale of tapes and recorders. The reason was that the equipment could be used for non-infringing purposes as well. The court considered that it would be more appropriate to order the producer to refrain from selling the equipment without making any reference to possible copyright infringements. In addition, although it recognised the authors' right to remuneration for exploitation of their works even without any direct economic profit, it denied GEMA's claim for damages.⁴⁷

The same issue also caused similar tensions under the U.S. copyright law in the *Sony* case. It was the first time in the history of U.S. copyright law, when a technology provider was sued for providing an instrument which enabled copyright infringements. The district court found that Sony merely sold a "product capable of a variety of uses, some of them allegedly infringing". ⁴⁸ However, any possible harm to respondents was found to be outweighed by the fact that the Betamax machine could be used for non-infringing purposes. The injunction would deprive the public of ability to lawfully use it and would then be wholly inappropriate. ⁴⁹ As the U.S. patent law had then already well established solution in form of "staple article of commerce" doctrine, the district court applied it by analogy to copyright law. This approach was rejected by the Ninth Circuit. Tape recorders or photocopying machines might have "substantial benefit for some purposes" because of their capability to be used for other types of recording or photocopying, which do not "even remotely raise copyright problems". ⁵⁰ But the Ninth Circuit saw the sale of Betamax only "for the primary purpose of

⁴⁷ See the Grundig Reporter case, 1956 GRUR 492. See also Visser, supra note 11, at 49; Hugo Wistrand, Les exceptions apportées aux droits de l'auteur sur ses oeuvres, 368 (Paris: Editions Montchrestien, 1968).

⁴⁸ See Sony III, 464 U.S. at 461.

 $^{^{49}}$ See *id.* at 461 ("Selling a staple article of commerce – *e. g.*, a typewriter, a recorder, a camera, a photocopying machine – technically contributes to any infringing use subsequently made thereof, but this kind of 'contribution,' if deemed sufficient as a basis for liability, would expand the theory beyond precedent and arguably beyond judicial management. ... Commerce would indeed be hampered if manufacturers of staple items were held liable as contributory infringers whenever they 'constructively' knew that some purchasers on some occasions would use their product for a purpose which a court later deemed, as a matter of first impression, to be an infringement.").

⁵⁰ See Sony II, 659 F.2d. at 975.

reproducing television programming" and majority of them were copyrighted.⁵¹ It therefore concluded that the Betamax was not suitable for any substantial non-infringing use even if some copyright holders decided not to enforce their exclusive rights. The Supreme Court disagreed and found that there was a significant likelihood that substantial numbers of copyright holders would not object to time-shifting⁵² by private viewers.⁵³ Furthermore, it was seen as unlikely that time-shifting would cause non-minimal harm to potential market or value of concerned copyrighted content.⁵⁴ The Supreme Court came to the conclusion that private and non-commercial time-shifting at home satisfied the standard of non-infringing uses, because plaintiffs had no right to prevent other copyright holders from authorising such time-shifting for their programs.⁵⁵ Since the trial court's findings revealed that even the unauthorised home time-shifting of respondents' programs was legitimate fair use,⁵⁶ the video recorders were found to be capable of substantial non-infringing uses.⁵⁷

(b) Technically and Economically Feasible Precautions

The plaintiffs in all three mentioned cases complained that the producers of copying devices could have done something in order to prevent copyright infringement committed by their would-be users. Technology producers could avoid incorporation of facilities enabling their customers to infringe someone's copyright at all, or they could apply technological measures allowing copying with worse quality. It brings a question whether developers and producers of "dual-use" technologies have any duty to care that such technologies can be more or less susceptible for technology users' copyright infringements. Since civil law countries apply to such cases the provisions regulating torts in civil codes, their courts recognise that technology providers have a duty of care. Accordingly, dual-use technology providers are required to take "technically and economically feasible" precautions against potential misuse of such technologies. In the *Grundig Reporter* case, the German Supreme Court found that the defendant could not take any precautions, which would be technically and economically feasible.

On the other hand, common law jurisdictions distinguish between statutory torts and common law torts. This draws a line between the doctrines of copyright infringement as statutory torts and negligence as common law tort. In the *Amstrad* case, the plaintiffs claimed that Amstrad purportedly committed the tort of negligence for the reason that it owed to all copyright owners a duty to take care not to cause or permit purchasers to infringe copyright. Lord Templeman in his speech stressed that Amstrad owed a duty not to infringe any copyright and not to authorise any infringement of copyright.⁵⁸ But at the same time he put firmly that it never owed any duty to prevent, discourage or warn against an infringement.⁵⁹ Amstrad then had no duty to take care not to facilitate copyright infringements by the sale of its models or by their advertisement.

⁵¹ See id.

 $^{^{52}}$ The notion "time-shifting" is used to describe the situation, when a VCR owner records the broadcast in order to watch it at a later time.

⁵³ See Sony III, 464 U.S. at 456.

⁵⁴ See id.

⁵⁵ *See id*. at 443-47.

⁵⁶ See id. at 442.

⁵⁷ See id. at 498-99.

⁵⁸ See Amstrad III [1988] A.C. 1013.

⁵⁹ See id.

3. DUAL-USE TECHNOLOGIES AND COPYRIGHT WARS: COERCION AND ITS LIMITS

Digitisation has brought new possibilities and ways of enabling technology users to commit copyright infringements. For instance, a provider of Internet services or technologies allowing digital reproduction or dissemination of copyrighted content can induce, cause or materially contribute to infringing conduct of another person in different ways: by providing access to the net, software, search engine, servers, means of establishing connection between the users' computers or any other kind of support. In addition, it is hard to believe that technology or service providers have no actual or constructive knowledge of massive unauthorised reproduction, sharing and dissemination of copyrighted works on digital networks. One may argue that the same argument applies to producers of photocopier, MCR or VCR. None the less, digital technology allows new opportunities of scanning, monitoring and watching how end-users employ provided services and technologies.⁶⁰ Hence, technology providers can play a more active role in monitoring activities of technology users. They can play a role of "private cops" or "gatekeepers" for content providers in digital environment.

3.1. Responses to Exposure to Liability: Redesigning of Technology

To use advantages provided by digital technologies for their benefits, content providers attempted, in several different ways, to affect design of new reproduction and dissemination technologies so that technologies would be designed in a copyright friendly way. So far, they have failed and the final result is even worse than before. Technologies which were designed in cooperation between technology and content providers, which considerably restrict possibilities of technology users, are usually unpopular or technology users find a way to circumvent the restrictions. These kinds of end-users' responses usually affect the fate of technologies which raise problems of privacy protection against unwanted intrusions into their consumers' private sphere.⁶¹

Another way how to influence the design of new reproduction and dissemination technologies is to sue uncooperative technology providers for copyright infringement or its enabling in some way. As shown above, although national doctrines for imposing liability for copyright infringements committed by technology users on technology providers diverge in subtle details, their common point is that they require some "ongoing relationship" between technology providers and users. In this way, courts attempted, as response to the introduction of analogue reproduction technologies, to limit would-be overextensions of liability for copyright infringement based upon the concept of enablement. The relationship between a direct and indirect infringer has an "ongoing" character, when the latter can exercise an actual control or a right to control over the former. Only the technology or service provider, who carries out ongoing control over provided technologies or services, can be held liable for wrongdoings committed by its consumer.

However, one of main features characteristic for digital reproduction and dissemination technologies is that they allow new opportunities of scanning, monitoring and watching over their uses by end-users. Contrary to producers of analogue reproduction equipment who just manufactures and sells goods, the digital technology provider's participation on copyright infringements does not need to end at the point of sale. Technology

⁶⁰ See, e.g., Jack L. Goldsmith, Against Cyberanarchy, 65 U. Chi. L. Rev. 1199, 1224-30 (1998) (discussing filtering).

⁶¹ See, e.g., Bruce P. Smith, Legal Regulation of New Technologies: Reflections on Liberty, Control, and the Limits of Law, 2002 U. Ill. J.L. Tech. & Pol'y 281 (2002); Sonia K. Katyal, Privacy vs. Piracy, 7 Yale J. Law & Tech. 221 (2004); Paul M. Schwartz, Property, Privacy, and Personal Data, 117 Harv. L. Rev. 2055 (2004).

or Internet service providers may then be found in an "ongoing relationship" with their customers. The fact that the technology providers are able to control how their customers can use provided technologies or services, can expose the former to liability for copyright infringing use of provided technologies or services by the latter.

Broadening the scope of liability and severe enforcing their rights by copyright holders have considerable impact on design of new reproduction and dissemination technologies. Many technology providers attempt to avoid possibility of being held liable for copyright infringements committed by their technology users. One way of doing so is to avoid a position, where technology providers would be able to monitor or control technology users' activities. This trend in designing technologies can be seen on the way how different methods of networking have developed over time partially as reaction to the imposition of indirect copyright liability on Internet and other online services providers.

In this regard, the four main types of networks can be distinguished according the degree of control exercised by technology providers. The conventional type, so-called "server-client" model, can be characterised by an important role of Internet service providers in communication between individual end-users. Contrary to telephone communication, which occurs simultaneously, the Internet communication is based upon sending packages of data. The packaged data are temporarily copied, cached and stored on servers through which they pass. Servers usually operated by Internet service providers thus perform numerous functions for end-users and connect them to the outside world. These services are essential for correct and smooth operation of Internet communication, such as Internet access, caching, search engines and linking various websites one to another. They enable the Internet users to access the net, to search for information, to browse through numerous websites and databases, to post their own websites and to link them to other websites. Most of these functions are performed by the Internet service providers passively and automatically.

As the provision of Internet communication related services is inseparably connected with making transient or incidental copies of processed digital data, each Internet service provider can be potentially held liable for the copyright infringement committed due to the provision of such services. This exposure to liability overextension led to the recent developments in copyright regulations allowing certain temporary copies, which are transient or incidental during communication on the Internet. None the less, the exemption of transient or incidental copies during communication on the Internet does not cover all functions, which are performed by an Internet service provider and are necessary for a proper and smooth operation of the Internet. Accordingly, all legal systems under comparison exempt certain intermediary service providers from copyright liability, when they are in a *passive* and *non-interfering* position.

However, these so-called "safe harbours" are narrowly drafted and do not apply to all providers of services through digital networks. This causes that technology providers which can be exposed to liability for copyright infringements committed by their technology users attempts to design their technologies and services so that their role of intermediary is reduced partially or completely. The result of their efforts is "peer-to-peer" model of networks⁶² which eliminate some or all of functions performed by the servers in the server-client networks. In peer-to-peer networks, their operators just assist in some way in routing connection between two end-users. But the connection between them always bypasses the operators' systems, what eliminates operators' power to control transferred information. The main problem of such networks is that it is difficult to build a pure peer-to-peer network

⁶² See generally Andrew Oram (ed.), Peer-To-Peer: Harnessing the Benefits of a Disruptive Technology (Beijing: O'Reilly, 2001); Dana Moore and John Hebeler, Peer-To-Peer: Building Secure, Scalable, and Manageable Networks (New York, NY: McGraw-Hill/Osborne, 2002).

which is stable and efficient.⁶³ The first step to a pure peer-to-peer model is a "centralised" peer-to-peer network, where a central server maintains a directory of all users and information available on the network. Although all communication bypasses its operator's system, the operator maintains central directory of all traded information and respective addresses.

Centralised peer-to-peer networking technology providers do not only develop and provide a networking application, which creates a network of peers with each computer functioning independently from their centralised server, but they also still maintain control over the entire system. The end-users could not easily find and download any copyrighted content without the service provider's ongoing support. No peer-to-peer searching and communication could occur in this type of networks without a central search database of all clients and files available for sharing. The maintenance and control over file sharing thus distinguishes a service provider of this sort from a manufacture of analogue reproduction equipment, which only manufactures and sells goods, but can carry out no further control over their particular usage. This exposes their providers to liability for copyright infringing uses of their networks, what can be seen on cases of Napster, Aimster and other organizers of centralised peer-to-peer networks.

In A&M Records, Inc. v. Napster, Inc. (hereinafter "Napster case"),⁶⁴ the district court found that without support services provided by the defendant, the Napster users could not find and download music they wanted. The defendant therefore materially contributed to the infringing activity by supplying proprietary software, search engine, servers and means of establishing a connection between the users' computers.⁶⁵ The district court in *Re: Aimster Copyright Litigation* (hereinafter "Aimster case")⁶⁶ came to a similar finding. Although the hottest issue contested by both parties was, whether Aimster catalogued all available files for download in a single centralised database of files available for sharing, what was a critical aspect of the Napster decision, the court reached the conclusion that its decision could be, and was, based upon considerations independent of this issue.⁶⁷ It found that the defendants materially contributed to infringing activities by providing the software and support services necessary for individual Aimster users to connect with each other. Without Aimster's services, Aimster's infringing users would need to find some other way to connect. Furthermore, Aimster provided its customers with additional services, such as Aimster Top 40 cataloguing and presenting for the Aimster users the top copyrighted music they might wish to download.⁶⁸

In addition to the material contribution element, contributory liability also requires that an indirect copyright infringer "know or have reason to know" of direct infringement.⁶⁹ Courts do not require actual knowledge. Rather, a defendant incurs contributory copyright

⁶³ See, e.g., Lior Jacob Strahilevitz, Charismatic Code, Social Norms and the Emergence of Cooperation on the File-Swapping Networks, 89 Va. L. Rev. 505, 516 (2003); Timothy Wu, When Code Isn't Law, 89 Va. L. Rev. 679, 719 (2003).

⁶⁴ A&M Records, Inc. v. Napster, Inc., 114 F. Supp. 2d 896, 2000 U.S. Dist. LEXIS 11862 (N.D. Cal. Aug. 10, 2000) (Napster I).

⁶⁵ See Napster I, 114 F. Supp. 2d at 919-20 ("Napster is an integrated service designed to enable users to locate and download MP3 music files.").

⁶⁶ In Re: Aimster Copyright Litigation, 2002 U.S. Dist. LEXIS 17054 (N.D. Ill Sept. 4, 2002), aff'd, 334 F.3d 643 (8th Cir. 2004).

⁶⁷ See Aimster, 2002 U.S. Dist. LEXIS 17054, at *10 n5.

⁶⁸ See id. at *41-42.

⁶⁹ See Cable/Home Communication Corp. v. Network Productions, Inc., 902 F.2d 829, 845 & 846 n29 (11th Cir. 1990); Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc., 907 F. Supp. 1361, 1373-74 (N. D. Cal. 1995) (framing issue as "whether Netcom knew or should have known of" the infringing activities)

liability if she has reason to know of another person's direct infringement.⁷⁰ In the *Napster* case, the district court found that Napster had both "actual" and "constructive" knowledge of exchanging unauthorised copyrighted music among its users,⁷¹ since the Napster executives actually knew about, and sought to protect, the use of its service to transfer illegal MP3 files.⁷² Alternatively, the court came to the conclusion that the defendant also had to have constructive knowledge of its users' illegal conduct,⁷³ because the Napster executives, despite their sophisticated mastery of copyright law, downloaded infringing material to their own computers by using the Napster service and even promoted the website with screen shots listing infringing files. As copyright law does not require knowledge of "specific acts of infringement", the district court rejected Napster's contention that since the company could not distinguish infringing from non-infringing files, it did not "know" of direct infringements.⁷⁴

The *Aimster* court also found that there was no doubt that the defendants either knew or should have known of direct infringements occurring on the Aimster system. The defendants' actual knowledge of users' infringing activities was demonstrated by several circumstances, such as letters by the Recording Industry Association of America (RIAA) informing the defendants of obviously infringing activities on Aimster;⁷⁵ existence of Guardian Tutorial available on the Aimster web site and methodically demonstrating how to infringe the plaintiffs' copyrights by using specific copyrighted titles as pedagogical examples;⁷⁶ activities on Aimster's chat rooms and bulletin boards revealing that a frequent discussion among the users was the exchange of music files;⁷⁷ and, last but not least, operation of Club Aimster with the "Aimster Top 40" not only providing the users with an easy way to locate and download copyrighted material, but even making reference to where each particular song was ranked on the Aimster list *vis-a-vis* the music labels' lists.⁷⁸

Another question concerning knowledge requirement arises in relation to an application of encryption by a file-sharing organiser. Can the application of encryption technology prevent the provider from having either knowledge of files' contents or ability to police for infringing material? In the *Aimster* case, the encryption argument did not convince the district court that the defendants lacked actual knowledge of infringement. The court clearly expressed that the encryption scheme would not prevent defendants from having constructive knowledge, because they were not unaware of which users were using its system and what files those users were offering up for other users to download. Accordingly, the defendants maintaining centralised peer-to-peer networks should have been clearly aware of file swappers' infringing activities.⁷⁹

Although it may seem at the first glance that there is no difference between centralised peer-to-peer networks and decentralised ones, such as FastTrack or Gnutella,

⁷⁰ See Cable/Home Communication v. Network Productions, 902 F.2d at 846.

⁷¹ See Napster I, 114 F. Supp. 2d at 920.

⁷² See id. at 918.

⁷³ See id. at 919.

⁷⁴ See id. at 917.

⁷⁵ Plaintiffs have sent repeated notices to Defendants. On 3 April 2000, Frank Creighton of the RIAA sent a cease-and-desist letter to Defendants. On 9 May 2001, Mr. Creighton sent a second cease-and-desist letter to Defendants, including screen shots showing approximately 2900 sound recordings owned or controlled by RIAA members available for download through Aimster. On 26 November 2001, Mr. Creighton sent a third letter to Defendants also specifically mentioning Club Aimster. *See Aimster*, 2002 U.S. Dist. LEXIS 17054, at *35-36.

⁷⁶ See id. at *15, 16 and 36.

⁷⁷ See id. at *17-18.

⁷⁸ See id. at *37.

⁷⁹ See id. at *37-40.

except of a minor external distinction that their usage is not curbed on music files, here, any similarities between both types of peer-to-peer networks start and also end. Looking behind the external akin appearance of both technologies, decentralised peer-to-peer networks use no more any central directory of files available in the system. The next step towards a pure peer-to-peer structure is the one, which uses several directories automatically switching from one computer to another according the need of network.⁸⁰ For instance, the FastTrack technology employs several so-called "supernodes"⁸¹, which perform the functions of a server in a traditional server-client network. Another characteristic is that the supernodes are dynamic. They self-determine their status and change it according to the resource needs and availability of the network. As the networks of this type still use some kind of intermediary, they are called "hybrid" peer-to-peer networks.

If only a limited number of persons can host the directories, those persons are in the same position as an operator of centralised peer-to-peer network. None the less, if each end-user can host it, the legal characteristic of such a hybrid peer-to-peer network is similar to the one of a pure peer-to-peer network, where a file swapping organiser provides an application enabling end-users to communicate directly, peer-to-peer, but does not maintain any directory of users or traded files. Although the service provider may have knowledge that some or even many users employ its network in order to upload and download copyrighted content, one's contact with a user terminates when downloading of the networking application is finished.

Another rising star after Napster's extinguishment is the "open"⁸² Gnutella technology.⁸³ Although there is also no major distinction from FastTrack technology which can be perceived by the user, the difference is considerable from a technological point of view. The Gnutella technology uses no intermediary, which would perform any function for end-users. Each node has an equal position in the network hierarchy, the design of which is "flat" and non-hierarchical. The Gnutella technology uses so-called pure peer-to-peer structure. All its members are equal and none of them is a proxy specialised in a particular function.

Contrary to centralised peer-to-peer networks, organiser of decentralised file-sharing network is in no ongoing relationship with users, unless he provides them with additional services allowing him to know or control their activities. In MGM Studios v. Grokster, Ltd. (hereinafter "Grokster case"),⁸⁴ the district court assessed contributory infringement claims through the criteria whether actual knowledge of specific infringement accrued at the time when the defendants materially contributed to the alleged infringements and could therefore do something about it.⁸⁵ It compared the position of Grokster and StreamCast to the one of companies selling home video recorders or copy machines and found that liability for contributory infringement does not lie "merely because peer-to-peer file-sharing technology may be used to infringe plaintiffs' copyrights."⁸⁶ Hence, although the defendants might know that their products would be used illegally by some or even many users and might provide

⁸⁰ See, e.g., Wu, supra note 63, at 721-22.

⁸¹ While a "node" is the end computer on the network, a "supernode" is a computer which is on a higher place in the network hierarchy and exercises functions for several nodes, end-users.

⁸² The notion of "open" has a connotation that something is "not proprietary". For the detailed definition of Open Source Initiative, see http://www.opensource.org (last visited 13 July 2004).

 ⁸³ See <http://www.gnutella.com> (*last visited* 13 July 2004).
⁸⁴ MGM Studios v. Grokster, Ltd., 259 F. Supp.2d 1029, 2003 U.S. Dist. LEXIS 6994 (C.D. Cal. Apr. 25, 2003) (Grokster I).

See Grokster I, 2003 U.S. Dist. LEXIS 6994, at *24-25.

⁸⁶ See A&M Records, Inc. v. Napster, Inc., 239 F. 3d. 1004, 1020-21, 2001 U.S. Dist. LEXIS 5446 (9th Cir. Feb. 12, 2001).

support services indirectly supporting such a use, the court found no evidence of active and substantial contribution to acts of direct infringements.⁸⁷

None the less, the U.S. Supreme Court vacated and remanded the Ninth Circuit's affirming decision⁸⁸ upon the grounds that the lower courts disregarded indicia of inducement. When someone induces another party to commit a copyright infringement, one cannot hide behind the doctrine of contributory liability. Justice David H. Souter puts it succinctly:

"one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, going beyond mere distribution with knowledge of third-party action, is liable for the resulting acts of infringement by third parties using the device, regardless of the device's lawful uses."⁸⁹

At the same time, the court stressed that a technology provider cannot be held liable, when there is no closer relationship between the technology provision and its unlawful usage. Put it more bluntly in Justice Souter's words, "in the absence of other evidence of intent, a court would be unable to find contributory infringement liability merely based on a failure to take affirmative steps to prevent infringement."⁹⁰

Similarly, in Universal Music Australia Pty. Ltd. v. Shaman License Holdings Ltd. (hereinafter "KaZaA" case),⁹¹ Justice Wilcox emphasised that there must be "something more" than a mere provision of facilities used to copyright infringement by their users.⁹² Presented evidence proved beyond reasonable doubts KaZaA's active involvement in inducing individual file swappers to infringe the plaintiff's copyrights.

As changes in the design of peer-to-peer networks made enforcement of copyright law against their organisers more difficult and complicated, content providers have switched their focus to individuals who upload considerable amount of copyright content without any proper authorisation. In this way, content providers attempt to deter other users from providing copyrighted content on peer-to-peer networks. The rational of this approach is based upon well-known situation on peer-to-peer networks where only limited amount of users uploads majority of unauthorised copyrighted content and the rest just freerides on them by downloading it. If this limited group was deterred enough to restrain from uploading new unauthorised copyright content, the power of norm to share unauthorised copyrighted content on peer-to-peer networks would be weakened or would even disappear. It would be a strong message to other users that such activity is not tolerated by law.

To do so, content providers sued thousands of individuals in several countries. As response to this enforcement tactics, recent versions of peer-to-peer networks are adjusted in the way attempting to protect individual users against being sued for copyright infringements. There are two main changes in their design. Firstly, some networks do not store uploaded files on computers of individuals who upload them. Actually, the uploaded files can be stored in their pieces on different computers according to the needs of network. In this way, the members provide just space on their computers but they do not actually know the content of stored pieces. Second, early peer-to-peer networks such as Napster were open. It was easy to find out identity of individual uploading particular files. Contrarily, new types of peer-to-peer networks provide their users with higher degree of anonymity and protection of their privacy.

⁸⁷ See Grokster I, 259 F. Supp.2d 1029, at *41.

⁸⁸ See MGM Studios v. Grokster, Ltd., 380 F.3d 1154, 2004 U.S. App. LEXIS 17471, 72 U.S.P.Q.2D (BNA) 1244 (9th Cir. Aug. 19, 2004) (Grokster II).

⁸⁹ See Grokster III, 2005 U.S. LEXIS 5212, at *41.

⁹⁰ See id. at *46 n.12.

⁹¹ Universal Music Australia Pty. Ltd. v. Shaman License Holdings Ltd. [2005] F.C.A. 1242 (KaZaA).

⁹² KaZaA, [2005] F.C.A. 1242 at [401].

They make much harder to trace IP addresses of individual members. There is no doubt that both developments in technology design of peer-to-networks make suing individuals sharing copyrighted content without proper authorisation even more difficult.

As shown above, attempts in strong enforcing of copyright law on digital networks either against technology providers or users heavily influenced the design of current peer-to-peer networks. It is a vicious circle where actions of content providers lead to counteractions from targeted entities and story repeats again and again. To avoid copyright liability, their organisers abstain from making any copies of copyrighted content and from having any control over the use of their networks by their users. Furthermore, recent versions of peer-to-peer networks attempt to protect identity of their members and privacy of their communications. This makes the enforcement of conventional copyright law against this kind of technology providers more difficult and complicated.

Although copyright law works quite well against entities which use copyrighted content directly for commercial purposes, its expressive power towards consumers of copyrighted content weakens in certain way. Many of them consider sharing copyrighted content without any authorisation as normal. It is not seen as something wrong. The individuals prosecuted for uploading of copyrighted content on peer-to-peer networks used as defence that they did not know that they were doing something illegal. Although ignorance does not excuse, there is another difference between traditional copyright infringers who directly used copyrighted content for commercial purposes and the new types of copyright infringers such as technology providers and general public. The latter group is composed from mainstream part of society. These wrongdoers are neither deviants nor members of marginal groups anymore. While in relation to majority of traditional copyright infringements, copyright law has its expressive power, broadening the scope of exclusive rights granted to copyright holders causes that copyright law looses its expressive power against a considerable part of mainstream part of society. Accordingly, it is essential to scrutinize why individuals obey a law and how efficiency of legal regulation depends on social norms accepted or recognised by regulated entities.

3.2. Crowding Out and Intrinsic Value of Obeying a Law

A person's behaviour is significantly influenced by his preferences as well as the constraints that limit such behaviour. Putting it more bluntly, each person uses available scarce resources in order to satisfy his own desires, but is limited in doing so by various constraints.⁹³ Preferences are an intrinsic part of human behaviour and vary from one person to another. They contain values, expectations, desires, wishes, attitudes, goals, objectives and ends. The constraints, conversely, have more of an extrinsic character in relation to human behaviour, and limit the possibilities of how a person may achieve and satisfy his preferences. They include mental and physical capabilities, powers and other resources such as money, technology and instruments.

Population is composed of three types of persons. On one side of the spectrum are people who will never obey the law. They are completely indifferent towards obeying or disobeying it. They comply with a completely different set of norms, which often contravene interests of the rest of society and the laws it adopts. No threat of any punishment can persuade them to comply with law. On the other side of the spectrum are people who will always obey the law. They intrinsically feel obliged to follow orders imposed by law, and

⁹³ See Robert Cooter, The Intrinsic Value of Obeying a Law: Economic Analysis of the Internal Viewpoint, 75 Fordham L. Rev. 1275 (2006).

completely embrace and internalise legal norms. They would obey a law even if there was no penalty or other type of social sanction for non-compliance.

As both groups are the exception rather than rule and they are irresponsive to external factors, such as punishment or other social sanctions, the following enquiry focuses on the group of people found between the two extremes. This group can be characterised by the feature that their decision of whether to obey a law essentially depends on whether others also conform to the law. What matters is not the actual law and its antecedents, but rather the individuals' perception of the law's status according to others. This is one of the factors upon which individuals make their decisions to obey or disobey individual orders imposed by law.

From the beginning, it should, however, be stated that this group of people is not homogeneous. As people differ in their preferences, they differ in their responses to constraints on their preference satisfaction in the form of legal norms. The more we go towards the extreme represented by people who always obey a law, the bigger role the internal aspects such as embracement and internalisation of legal norms, as well as the less persuasive power of punishment or other social sanctions, play in inducing people to obey a law. Going in this direction, the law is more and more internalised with personal preferences. The law has then more expressive power. Less external impetuses to conform to legal norms are necessary. Going to the opposite end of the spectrum, the law becomes less a part of individual's preferences. Rather, it becomes a restraint on a person's behaviour. Accordingly, the law looses its expressive power and more external impetuses in form of social sanctions and other penalties are necessary to achieve compliance with legal norms, until the point where the sanctions play no role anymore.

From this group of people, we can abstract two main subgroups. The first one consists of people who usually obey the law because they have internal reasons for doing so. This subgroup is the target of Herbert L.A. Hart's analysis. He argues that it is important to understand how the members of a group regard their own behaviour, and how the law is believed by at least some participants to give them reasons for action.⁹⁴ The second subgroup is composed of people who are detached participants. They obey law because they are deterred by punishment. They fit into Oliver W. Holmes's construction of the *bad man*, characterised by him in the following way: "If you want to know the law and nothing else, you must look at it as a bad man, who cares only for the material consequences which such knowledge enables him to predict, not as a good one, who finds his reasons for conduct, whether inside the law or outside of it, in the vaguer sanctions of conscience."⁹⁵

Consequently, there is no doubt that punishment and external incentives to comply with law impact human behaviour, but it should be categorically pointed out that this occurs only to a certain degree. A law that has no intrinsic expressive and persuasive power without repressive measures is too costly for society, because it is inefficient with respect to people who would otherwise obey the law if they internalise its norm. The reason is that the effect of the implementation of such law is often opposite. It leads to crowding out.⁹⁶ It induces people who would otherwise follow the law to disobey it, since they are not trusted enough.

Consequently, to reduce high social costs of enforcing a law, the law should be drafted with the intent to persuade majority of regulated subjects without any immanent need to use repressive measures in form of punishment or other types of legal sanction. The more expressive power a law has, the more easily and the less costly its implementation for society.

⁹⁴ See Herbert L.A. Hart, The Concept of Law, 2nd edn., 56, 57, 88 (Oxford: Clarendon Press, 1994).

⁹⁵ See Oliver W. Holmes, *The Path of the Law*, 10 Harv. L. Rev. 457 (1897), *reprinted* in Oliver W. Holmes, *Collected Legal Papers*, 165, 171 (London: Constable and Company, 1920).

⁹⁶ See Donald C. Langevoort, *Monitoring: The Behavioural Economics of Corporate Compliance with Law*, 2002 Colum. Bus. L. Rev. 71, 94-100 (2002).

Such a law will be considered by a considerable part of regulated entities as giving them reason to act, since they will embrace and internalise its norms.

The positive by-product of such laws is that their compliance is not as fragile as it is in case of compliance via repressive measures. When people obey a law only because of repressive measures perceive that others do not comply with the legal standards, punishment becomes of less concern or importance. It leads to an epidemic of legal disobedience as shown above on the situation on peer-to-peer networks. The regulated entities then often take disobeying such a law in the following way: Everyone else is doing it, why shouldn't I do so? And, when individuals deviating from legal norms are caught and severely punished to communicate message to others, they question such solutions in the following way: Why am I punished, when the others are not? Why am I sanctioned so severely, when the others were only moderately fined for much more outrageous and wrongful acts?

3.3. Social Norms and Law

Obeying a law can be considerably affected by social norms. Social norms are "powerful and important determinants" of human behaviour.⁹⁷ They develop naturally and people adhere to them even without any apparent sanction. While social norms can strengthen expressiveness of a law, they can also be a cause of disobeying a law when the law conflict with the concerned social norm. At the same time, a law can change social norms to a certain degree.

The relationship between social norms accepted or recognised by targeted entities and law attempting to regulate their behaviour can be seen as continuum between two extremes. On the one side, a law can embrace a social norm and strengthen its force by providing stronger enforcement against individuals who do not obey such a norm. In this case, law have strong expressive power, since it is completely or partially internalised by a considerable part of regulated entities. On the other side, a law can attempt to entirely or partly reject a social norm by its banning and establishing a new rule of behaviour. In such a case, the law often lacks sufficient expressive power in relation to regulated entities. The reason is that they do not internalise such a norm and obey it only because of external pressure in form of punishment. Somewhere in between is a situation where a law can modify a social norm without missing its expressive power, since majority of regulated subjects internalize the modified norm.

Consequently, while a law can gain by embracing social norms, it looses when it considerably or completely disregards important social norms accepted or recognised by targeted entities and attempts to change them at any cost. Copyright law embraces important social norms, such as those providing that each should "reap the fruits of her labour" and nobody should "reap where one has not sown". Accordingly, its legal norms should have strong expressive power. They work to some types of copyright infringement very efficiently but fail in relation to others. We can take as an example the situation at peer-to-peer networks, where the targeted entities often search for a way how to avoid application of law which they consider as excessively strong. This may be explained by the fact that each norm has limits of its expressive power. Reviewing literature on social psychology, Jeffrey J. Rachlinski identifies three main limits: (a) social influence; (b) social situation; and (c) tensions between different social norms.

The first limit is that "people actively interpret the social circumstances in which they find themselves, making subject reality as important a determinant of behavior as objective reality."⁹⁸ He refers to empirical research conducted by Solomon Asch which shows that in

 ⁹⁷ Jeffrey J. Rachlinski, *The Limits of Social Norms*, 74 Chi.-Kent L. Rev. 1537, 1564 (2000).
⁹⁸ Id.

an odd situation, "objective reality ... did not dissuade subjects from conforming to the group norm as they struggled to make sense of [it]."⁹⁹ The second limit is that "situation often overwhelm individual personalities and preferences and norms."¹⁰⁰ Applying both limits to the situation on peer-to-peer networks, it is clear that its members conform to the norm presented by other members: Share with others! The code of sharing in file swapping communities is very persuasive, since watching their members to provide and share copyrighted works induces others. It gives their members perception that sharing is the norm and obeying copyright laws is an exception. Although the reality may the opposite, *i.e.* that only a limited number of persons upload considerable amount of copyrighted works on peer-to-peer networks and those others just download them. However, perception of social norm attracts others to participate. It gives them incentive to be a member of this society.

Another important norm shared by some members of peer-to-peer networks is the revolt against established copyright industries. Many young people consider it as revolution to fight against them. Big companies are seen in eyes of many as evil and big profit-making entities. And many of their acts just support this view in eyes of concerned individuals.

The way how right holders exercise their granted or protected rights has substantial impact on expressive power of law. The obliged entities follow a law only to a certain degree of exercising rights by their holders. The more the exercise of rights by their holders is considered as unjust and unfair by the obliged persons, the more the latter search how to avoid the fulfilment of their obligations. In relation to enforcing copyright law against the public, it should be noted that the consumers of copyrighted works buy authorized copies only up to the level where they consider such copies worth to pay the price asked by copyright holders. The higher the price is, the less people will find worthy to pay it. At the same time, the more people will look for a way to find an access to copyrighted work in other way or to substitute it by something else. This is the main problem with digital copyrighted works which are often sold for the price of their hard copies without considering the fact that in case of immaterialised digital files the value for their potential buyers is lowered. In addition, strong stance of biggest content providers in relation to enforcement of their proprietary right on digital networks through suing individual file swappers may further alienate their own customers.

The third limit of norms on peer-to-peer networks is that there are tensions between different social norms. As Rachlinski puts forward, "multiple social forces push social behavior in opposite directions."¹⁰¹ Nobody should be allowed to reap any benefit from her labour without any restriction. Accordingly, in case of copyrighted works, the norms in favour of copyright holders' interests have strong expressive power in relation to commercial exploitation of copyrighted works. But its expressive power weakens or even completely disappears when copyrighted works are used for other than commercial purposes by the public. Here, it conflicts with other social norms such as sharing of items within certain communities.

The lower expressive power of copyright law on peer-to-peer networks is even magnified by frictions and tensions between conflicting interests of affected stakeholders, *i.e.* copyright holders, technology providers and the public. As mentioned above, copyright holders often complain that a technology provider is in a good position to prevent mass copyright infringements by technology users and should not close her eyes when technology users commit wrongdoings and cause considerable harm to their interests. What kind of society would we be if anybody could tell that it was not her business and turned her head

⁹⁹ Id.

 $^{^{100}}$ Id.

 $^{^{101}}$ *Id*.

away? Further, copyright holders suggest that a technology provider intentionally participates on a wrongdoing or even more that she exploits and parasitizes upon their legitimate proprietary interests.

But it clashes with technology providers' interests and expectations that they can do anything which is not prohibited a law. They perceive that they should be able to choose whether they can exercise control over technology users. There are many questions which can be raised by them against their more active involvement in copyright enforcement. When does anybody actually participate indirectly on a wrongdoing and what does it mean to exploit someone's copyright indirectly? If one sees another person to make a copy of a book, record or movie, can she be held liable for her non-interference, for closing her eyes or even turning her head? Can one be held responsible that she has done nothing in order to prevent the completion of a direct copyright infringement committed by another person? What should one do? Should one do anything or should one say anything? What should one do and to whom should one go and tell that one's friend is making a copy of copyrighted content without the copyright holder's authorisation? How should one know that the other person has no authorisation? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one prevent a wrongdoing committed by another person? Why should one play a role of a "private cop" or "cop on the beat"¹⁰² in the relationship of this kind?

Finally, individuals can contend that they have the right to privacy and that a third party cannot interfere with it. Now, the entire string of contravening claims and arguments bridges the gap and creates a circle which can go on and on and so on and so forth. This explains the vicious circle presented in Part Two, where activities of copyright holder affected the design of peer-to-peer networks.

To sum up, a three-party relationship raises numerous tensions between contravening norms on extent, forms and possibilities of exploitation of incorporeal things, the ways of victim's protection, the third party's responsibility and freedom, and privacy of individuals. To solve these tensions, it is necessary to search for a just and fair balance between the contradicting public interests for the entire society and to take into consideration the fact that a law should have expressive power towards regulated entities, otherwise its enforcement would be too costly for society.

4. REGULATION OF NEW TECHNOLOGIES AND ITS LIMITS

As cases dealing with new developments in the structure of peer-to-peer networks show,¹⁰³ legislators and judges face a controversy concerning the fact that a developer of new digital technologies has a choice to design her product in certain way, *i.e.* more or less susceptible to its infringing uses. Common law approaches towards analogue reproduction technologies clearly reject any imposition of duty of care upon a technology provider. The German approach goes a bit further but the imposed duty of care is limited by economic and technological feasibility of precautions available to be taken by a technology provider. Facing the scale of mass copyright infringements occurring on peer-to-peer networks, copyright holders press on courts and legislators to expand traditional approaches towards regulation of dual-use technologies by putting a technology provider into a more active position in

¹⁰² According to Reiner Kraakman, the "cop-on-the-beat" metaphor can be traced to Jeremy Bentham, who described the common law doctrine of *respondeat superior* as a device for transforming the master (employer) into "an inspector of police, a domestic magistrate" for servant (employee) delicts. *Cf.* Reiner Kraakman, *Gatekeepers: The Anatomy of a Third Party Enforcement Strategy*, 2 J. L. Econ. & Org. 53, 53 n.1 (1986).

¹⁰³ See Vereniging Buma and Stichting Stemra v. KaZaA B.V. (Supreme Court, 19 December 2003); Grokster II, 380 F.3d 1154; Grokster III, 2005 U.S. LEXIS 5212.

copyright protection. As technology providers control the design of new reproduction and distribution technologies, it is claimed that they should be induced to take into account the copyright holders' interests in security in this way. Accordingly, a question arises whether a technology provider should be obliged to undertake any preventive measures, and if so, what precautions she should be obliged to take.

The three-party relationships in cases of new reproduction and dissemination technology provision present a "hard case",¹⁰⁴ where the contemporary national laws under consideration do not always provide us with a clear answer. To cut the Gordian knot, legislators and courts must strike a just and fair balance between protecting interests of copyright industries and technology providers while maintaining the consumers' rights, freedom of information and privacy concerns. To ameliorate tensions between contravening interests and norms of affected stakeholders, it is essential to justify any changes and adjustments of copyright to the current situation by underlying rationales and normative considerations which would support and guarantee sufficient expressiveness of such law.

Although some may argue that justificatory arguments have no practical use,¹⁰⁵ it is undoubted that they have some prescriptive power. They can foster valuable conversations among a variety of participants in the lawmaking process.¹⁰⁶ In addition, while they have failed to make good on their promises to provide comprehensive prescriptions concerning an ideal shape of intellectual property law, they can help to identify unobviously attractive resolutions of particular problems and to bridge difficulties with statutory interpretation and application of law in hard cases.¹⁰⁷ When a court faces such case, it has two options: to dismiss a case because of *lacunae* in legislation, or to proceed and indulge in assessment and balancing of normative considerations in order to serve justice and to strike a just and fair balance between involved parties. The underlying rationales and normative considerations are often employed as support by courts when technological changes render provisions of copyright regulations ambiguous in order to construe them in light of the basic purpose of copyright law.¹⁰⁸ Finally, they can assist internalisation of such norms by regulated entities, since regulated entities would consider such norms as justified and persuasive.

The leading normative considerations and reasoning in the present copyright scholarship stem from the "law and economics" movement. Its proponents employ a cost-benefit analysis¹⁰⁹ in order to evaluate the level of copyright protection. The power of this approach is even magnified by the fact that in drafting of many national laws, cost-benefit analysis is often used by policymakers. The goal of this approach is to achieve an efficient regulation which provides authors and other creators with sufficient economic incentives to create new literary, artistic and other works at low social costs. The ongoing enquiry questions consequentialist arguments whether they are individually or cumulatively

¹⁰⁴ See Ronald Dworkin, Is There Really No Right Answer in Hard Cases?, 53 N.Y.U. L. Rev. 1 (1978), reprinted in Ronald Dworkin, A Matter of Principle, 119 (Cambridge, MA: Harvard University Press, 1985) (arguing that the courts should apply underlying normative considerations in hard cases).

¹⁰⁵ See Lloyd L. Weinreb, Copyright for Functional Expression, 111 Harv. L. Rev. 1149, 1252-54 (1998) (suggesting that courts should cease trying to resolve complex copyright questions through efforts to ascertain and then apply underlying policies and should instead rely upon the traditional common law interpretive techniques of "analogy and metaphor").

¹⁰⁶ See William W. Fisher III, Theories of Intellectual Property, in Stephen R. Munzer (ed.), New Essays in the Legal and Political Theory of Property, 168, 194 (Cambridge: Cambridge University Press, 2001).

See Fisher, supra note 106, at 194.

¹⁰⁸ See, e.g., Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975).

¹⁰⁹ See generally Matthew D. Adler and Eric A. Posner, Rethinking Cost-Benefit Analysis, 109 Yale L. J. 165 (1999). See also the Conference on Cost-Benefit Analysis: Legal, Economic, and Philosophical Perspective published in 29 J. Legal Stud. 873 (2000).

as compelling as commonly supposed and whether they plausibly justify changes and solutions proposed by particular scholars or concerned stakeholders.

The main flaw of consequentialism is that it may disregard important social costs, since it often looks on the problem from an external perspective. As internal view of obeying a law is essential for expressive power of law, this Paper takes into account also an internal perspective based upon the technology provider's responsible agency and corrective justice. A technology provider's conduct is then characterised as a wrongdoing, when it is inconsistent with social conventions. This view can be fruitful to smooth down the tensions between the concerned stakeholders and to guarantee the sufficient expressiveness of law.

4.1. Cost-Benefit Analysis of Lowest Cost Avoiding of the Harm

The utilitarian efficiency theory is based upon the premise that one should be deemed responsible for an injury when "making him liable for the consequences of the injury will promote an efficient allocation of resources to safety and care."¹¹⁰ Applying this principle to the concept of "enablement", one may argue that if a developer, producer or seller of enabling technology is the "lower-cost avoider of the harm", she must be deemed the "cause" of an injury¹¹¹ and therefore should be held liable for its infliction.¹¹² Douglas Lichtman and William Landes use two borderline arguments to determine when indirect liability should be used to increase compliance with copyright law. The argument in favour of the imposition of indirect liability is that a third party is "*in a good position to discourage* copyright infringement either by monitoring direct infringers or by redesigning their technologies to make infringement more difficult."¹¹³ The counterargument is that it is necessary to consider whether legal liability does not *interfere with the legitimate use* of implicated tools, services, and venues.¹¹⁴ Based upon these two axioms, they attempts to delineate the key issues where contributory liability is more attractive to achieve a cost-benefit efficient model. Their analysis shows that:

a) the greater the harm from direct copyright infringement; b) the less the benefit from lawful use of the indirect infringer's product; c) the lower the costs of modifying the product in ways that cut down infringing activities without substantially interfering with legal ones; and d) the greater the extent to which indirect liability reduces the costs of copyright enforcement as compared to a system that allows only direct liability.¹¹⁵

The cost-benefit analysis leads them to rethinking indirect liability standard based upon combination of negligence liability with safe harbours and specifically tailored tax as supplement to negligence liability. An efficient approach to indirect liability proposed by them starts by applying negligence rule to any activity that can lead to copyright infringement.¹¹⁶ The drawback of this solution is that modern negligence rule is characteristic

¹¹⁰ See William M. Landes and Richard A. Posner, *The Economic Structure of Tort Law*, 229 (Cambridge, MA: Harvard University Press, 1987).

¹¹¹ See William M. Landes and Richard A. Posner, *Causation in Tort Law: An Economic Approach*, 12 J. Legal Stud. 109 (1983); Landes and Posner, *supra* note 110, at 229; Richard A. Posner, *Economic Analysis of Law*, 5th edn., 199-204 (New York, NY: Aspen Law & Business, 1998).

¹¹² See William M. Landes and Richard A. Posner, *Joint and Multiple Tortfeasors: An Economic Analysis*, 9 J. Legal Stud. 517 (1980); Landes and Posner, *supra* note 110, at 222-25; Posner, *supra* note 78, at 204-7.

¹¹³ See Douglas Lichtman and William Landes, *Indirect Liability for Copyright Infringement: An Economic Perspective*, 16 Harv. J. Law & Tech. 395, 396 (2003) [emphasis added].

¹¹⁴ See Lichtman and Landes, *supra* note 113, at 396.

¹¹⁵ See id. at 398.

¹¹⁶ See id. at 405.

by its uncertainty. Developers or producers of new technologies often find it as an obstacle because of difficulty to predict what courts will require under changing social conditions. As response to this criticism, Lichtman and Landes see an introduction of safe harbours which have been adopted in all three major economies.¹¹⁷ In addition, if "a price increase [caused by the imposition of tax on a particular technology] would reduce the harm caused by illegal behavior more than it would interfere with the social benefits that derive from legal interactions",¹¹⁸ they suggest as appropriate to impose a tailored tax on particular tools, services or venues associated with copyright infringements.¹¹⁹

The decisive criteria for an adoption of particular solution in their approach is whether social benefit of increased incentives for authors to create and disseminate their works can outweigh private costs of would-be *gatekeepers* and any minor inconvenience it can impose on other members of society. Where it would be relatively easy to identify and prevent copyright infringements, the law should force a third party to "do his part in enforcing the law". Lichtman and Landes use an example of the proprietor of a flea market, who can be coerced at low cost wander the market and spot vendors evidently selling pirated goods.¹²⁰ But they disregard certain social costs. The question is why one should play a role of "private cop" without any personal benefit. It is difficult to coerce someone to affirmatively act in favour of another person without any gain or advantage for the person in question. Suppose a huge flea market or trade show on several hundreds or thousands square meters, where a buyer can find almost anything she wants. What should the proprietor do? Should one check whether none of offered products violate anyone's copyright? Why should one check only compliance with copyright law? Why should one not check compliance with any law, whether the goods do not infringe copyright, trademark or patent; whether they satisfy safety requirements; whether they were legally imported; or even whether the seller pays taxes? What everything should the proprietor of flea market or organizer of trade show monitor? Why should she play a role of "private cop"? Where is the limit what a gatekeeper should do and what should not?

Lichtman and Landes proposes, as limitation, a situation where it would be "prohibitively expensive" to distinguish legal from illegal copyright activity. They see two variants. First, in some cases, it is efficient to impose liability on a third party what would function like tax or can be transformed to "tailored tax" applicable to particular tools, services or venues associated with copyright infringements.¹²¹ One may criticise that such tax can be welfare-reducing in instances where higher prices discourage both legal and illegal uses. But discouraging both types of activities would yield net welfare gain under certain circumstances. Lichtman and Landes identify three possible situations: (1) "illegal behavior is sufficiently more harmful than legal behavior is beneficial";¹²² (2) although the harms and benefits are comparable, illegal behaviour is more sensitive to price;¹²³ and (3) "the benefits in terms of increased copyright incentives outweigh the harms associated with discouraging legitimate use."¹²⁴ Furthermore, negligence rule may function as criterion for determination

¹¹⁷ See id. at 406.

¹¹⁸ See id.

¹¹⁹ See id. at 406-7. For a detailed discussion on substitution of copyright law by a levy system, see Neil W. Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 Harv. J. Law & Tech. 1 (2003), William W. Fisher III, *Promises to Keep: Technology, Law and the Future of Entertainment* (Stanford, CA: Stanford University Press, 2004).

¹²⁰ See Lichtman and Landes, *supra* note 113, at 404.

¹²¹ See id. at 405-6.

¹²² See id. at 405.

¹²³ See id.

¹²⁴ See id.

whether developers and manufacturers adopted a reasonable design for their technology given its possible legal and illegal uses. 125

None the less, the perspective presented by Lichtman and Landes depends on determination of benefits and costs, whether we take into consideration only factors which are easily able to be evaluated in money, or also factors which are difficult and thus may be sometimes overviewed. Another problem is whether we should apply this methodology to the technology *per se* or to its particular applications. As to the former solution, it is very difficult and hardly realisable enterprise. We can take as example decentralised peer-to-peer technology. How can we evaluate this technology *per se*? We have some networks which are used in majority for unauthorised file-swapping and we also have other networks which are used in majority for mostly lawful purposes. Currently, the scale would be tilted in favour of banning peer-to-peer technology *per se*. But the ban of peer-to-peer technology would have significant normative consequences. We do not need to go too far and we can use the same evaluation to the Internet. The Internet is also build upon peer-to-peer technology among servers combined with a "server-client" model between servers and end user's computers. In addition, the Internet is used for numerous and various cyberwrongs. Should we ban even the Internet?

As to the latter, we would evaluate case-by-case each application of certain technology. For instance, we may take as an example application called Winny allowing its users to trade files anonymously. The majority of its users use it in order to swap copyrighted content without the concerned copyright holders' authorisation. It is evident that "illegal behavior is sufficiently more harmful than legal behavior is beneficial". It means that this technology creating an anonymous decentralised peer-to-peer network should be banned. Another similar anonymous decentralised peer-to-peer network called Freenet is used as a censorship-proof network and thus legal conduct is sufficiently more beneficial than illegal conduct is harmful. But if the decentralised peer-to-peer networks currently used for unauthorised file-sharing were banned and shut-down, the normal behaviour of its user would be to switch for an available platform, which might be also Freenet. Should Freenet then be also banned when the majority of its users would be formed by persons sharing copyrighted content without any proper authorisation?

Consequently, the application of evaluative criteria such as "efficient cost allocation" and "public wealth maximisation" may lead in some cases to a situation, where an individual is a pure instrument for the achievement of public wealth maximisation. Nevertheless, our society is not only built upon the idea of wealth maximisation in its purely economic expression, but also upon other ideas such as autonomy and equality. The gatekeeper and copyright holder are equal in their position before the law. Their mutual relationship is that gatekeepers should not participate on harming copyright holders, and copyright holders should not force gatekeepers to affirmatively act in favour of copyright holders. It is therefore difficult to justify why gatekeepers should fulfil their part in enforcing the law without any kind of compensation, especially in cases where there is no close and direct connection between them and particular law violations.

4.2. Knowing Participation

It is conventionally accepted that each individual should bear consequences of its activities. When a third party induces or otherwise materially contributes to the infringing conduct of another person, she *knowingly participates* in that act through an encouragement, assistance, abetment or other sort of material contribution. Life brings numerous situations in which a

¹²⁵ See id.

third party can find herself. On the one side, the technology provider's act can lead only to copyright infringements committed by technology users, such as in case of advertising counterfeited products or selling a decoder box which enables any purchaser to unscramble cable programs without payment. On the other side, a technology provider can have *actual* or constructive knowledge that her activity can lead to direct copyright infringements committed by technology users, but there is also substantial possibility that it will not, such as in case of manufacturing, advertising and selling so-called "dual-use" technologies, which can be used for infringing and also non-infringing purposes. These situations usually represent cases where a third party is a developer or producer of certain technological devices such as photocopiers, tape recorders, VCRs and the like, which can induce or otherwise materially contribute to their users' infringements of another person's copyright but can be used also for non-infringing purposes. As the former group of situations is straightforward, we mainly focus on the latter in following analysis. The latter group of cases represents hard cases, which usually bring a conflict between various normative considerations whether related to causation, or knowledge and predictability of consequences caused by the third party's actions.

(a) Causal nexus

In comparison with cases of control over persons or premises, the act of inducement, aid, abetment or other sorts of material contribution to the principal's tortious activity represent situations, where a third party plays a more active role in the act of wrongdoing. Nevertheless, although a third party can affect the principal's conduct, *i.e.* can influence one's decision to commit the wrongdoing or can help one to do so, the facilitator does not commit a wrongdoing itself. The principal does it. The direct copyright infringer freely chooses to act. The primary tortfeasor decides and proceeds with tortious conduct. This causes problems to the concept of causation. A wrongdoing, wrongful act (*actus reus*),¹²⁶ is formed by a chain of events that leads to wrongful consequences through cause and effect relationships governed by laws of nature.¹²⁷

The generally recognised rule is that a person may be held accountable for a wrongful result on the basis of any action that satisfies *sine qua non* ("but-for" test)¹²⁸ and proximate cause requirements.¹²⁹ Put more bluntly, an event X causes an event Y if, *but for* X, Y would

¹²⁶ See, e.g., Alan R. White, Grounds of Liability: An Introduction to the Philosophy of Law, 35-43 (Oxford: Clarendon Press, 1985); Leo Katz, Bad Acts and Guilty Minds: Conundrums of the Criminal Law, 82-164 (Chicago, IL: University of Chicago Press, 1987).

¹²⁷ See, e.g., James McLaughlin, Proximate Cause, 39 Harv. L. Rev. 149, 153-54 (1925).

¹²⁸ See generally Herbert L.A. Hart and Tony Honoré, *Causation in the Law*, 2nd edn. (New York, NY: Clarendon Press, 1985) (developing the thesis based upon a "necessary element in a set of conditions jointly sufficient to produce the result"); Tony Honoré, *Necessary and Sufficient Conditions in Tort Law*, in David G. Owen (ed.), *Philosophical Foundations of Tort Law*, reprint edn., 363 (Oxford: Oxford University Press, 2001); John L. Mackie, *The Cement of the Universe: A Study of Causation* (Oxford: Clarendon Press, 1974) (focussing on causal "regularities", Mackie uses a INUS condition – "insufficient but necessary part of an unnecessary but sufficient" condition); Richard W. Wright, *Causation in Tort Law*, 73 Cal. L. Rev. 1735 (1985) (propounding the NESS test – "necessary element of sufficient set" test – based upon the Hart and Honoré's work); Richard W. Wright, *Causation, Responsibility, Risk, Probability, Naked Statistics, and Proof: Pruning the Bramble Bush by Clarifying the Concepts*, 73 Iowa L. Rev. 1001 (1988); Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution and the Extent of Legal Responsibility*, 54 Vand. L. Rev. 1071 (2001); Jane C. Stapleton, *Law, Causation and Common Sense*, 8 Ox. J. Legal Stud. 111 (1988); Jane C. Stapleton, *Legal cause: Cause-in-Fact and the Scope of Liability for Consequences*, 54 Vand. L. Rev. 941 (2001).

¹²⁹ See, e.g., McLaughlin, *supra* note 127; Leon Green, *Rationale of Proximate Cause* (Kansas City, MO: Vernon Law Book Co., 1927); Flemming James, Jr. and Roger F. Perry, *Legal Cause*, 60 Yale L. J. 761 (1951); Robert E. Keeton, *Legal Cause in the Law of Torts* (Columbus, OH: Ohio State University Press, 1963); Steven

not have occurred. When someone lights a match in an area containing explosive vapours which ignite and start a fire, she causes that the building burns down. When a hunter fires so unfortunately that she fatally wounds a passer-by, she is responsible for the latter's death. When someone absorbed in thoughts bumps to her colleague who falls down the stairs breaking the leg, the bemused causes the injury. The match striking and burning down the building; the gun firing and death of the person passing by; the bumping and breaking of the colleague's leg are happenings which are interrelated. There is a connection between the harming action and its outcome, between the cause and consequence. All those stories can be retold as a chain of events, where the subsequent events depend on the previous ones and the dependence is governed by the laws of nature. There is a causal nexus between agency and its outcome, the wrongdoer's action and its consequences.

Nevertheless, not every condition for committing a wrongdoing can be considered as a cause. It is therefore necessary to distinguish between necessary conditions and causes. Otherwise, we might say that even an innocent victim can cause the harmful outcome. For instance, if a victim did not take the concerned way to work or even stayed at home, she would not be stricken by a car. If an injured person walked the sidewalk on the other side of the road, the brick dropped by a construction worker from the top of the building under construction would not fall on her head when she passed by. We can all the time say that victims could also avoid accidents, if we disregard or underestimate certain social costs in form of liberty's restraints. In its extremes, it leads to causal nihilism presented by the consequentialist analysis of law.¹³⁰ In order to avoid it, the "cause" should be the condition that makes the *difference* under respective circumstances.¹³¹

Another problem with a pure causal nexus is that we can always go backwards in a chain of events. One event is caused by another event and that one by another one. For example, if Adolf Hitler had not been born, World War II would not have been initiated and millions and millions of innocent people would not have had to die. If Lee Harvey Oswald had not been born, he would not have been able to assassinate John F. Kennedy. One may then argue that if Hitler's or Oswald's mothers had not given a birth to them, World War II or J.F.K.'s assassination would not have occurred. Such approach might lead to blaming their mothers for the son's harmful acts. Since a causal link can be limitless, some concept must be devised to eliminate remote consequences of human agency. Such concept must express that a person is only accountable for events over which she has *control* and occurrence of which she can prevent.¹³² While common law speaks about "proximate cause" and shifts the problem of far-flung effects to the domain of policy,¹³³ many civil law countries have developed the theory of "adequate causation" as a way to reach many of the same results.¹³⁴ One may thus construct a special concept of causation applicable only in the law.¹³⁵ As

Shavell, An Analysis of Causation and the Scope of Liability in the Law of Torts, 9 J. Legal Stud. 463 (1980); Mark F. Grady, Proximate Cause and the Law of Negligence, 69 Iowa L. Rev. 363 (1984); Kenneth Vinson, Proximate Cause Should Be Barred from Wandering Outside Negligence Law, 13 Fla. St. U. L. Rev. 215 (1985); Stapleton, supra note 128. ¹³⁰ See Landes and Posner, supra note 111; Landes and Posner, supra note 110, at 228-55; Posner, supra note

¹⁵⁰ See Landes and Posner, *supra* note 111; Landes and Posner, *supra* note 110, at 228-55; Posner, *supra* note 111, at 199-204.

 ¹³¹ See, e.g., Jane C. Stapleton, Perspective on Causation, in Jeremy Horder (ed.), Oxford Essays in Jurisprudence: Fourth Series, 61, 61-72 (Oxford: Oxford University Press, 2000); Christopher Kutz, Complicity: Ethics and Law for a Collective Age, 3, 116-22 (Cambridge: Cambridge University Press, 2000).
¹³² See Kutz, supra note 131, at 3, 116-22.

¹³³ See, e.g., McLaughlin, *supra* note 127; Green, *supra* note 129. More recently, *see* Stapleton, *supra* note 128.

¹³⁴ See Aleksander Peczenik, Causes and Damages (Lund: Juridiska fören., 1979); Jaap Spier (ed.), Unification of Tort Law: Causation (The Hague: Kluwer Law International, 2000); Christiam von Bar, The Common European Law of Torts: Damage and Damages, Liability for and without Personal Misconduct, Causality, and Defences, Vol. 2 (Oxford: Clarendon Press, 2000).

¹³⁵ See, e.g., McLaughlin, supra note 127; Green, supra note 129.

criticism against such approach, Hart and Honoré have proposed their "common sense" theory of causation¹³⁶ based upon linguistics and "ordinary" language. They argued that to be a cause of an event, a prior event must be shown to be a "causally relevant condition" of that event, *i.e.* "a necessary element in a set of conditions that is together sufficient to produce the consequence."¹³⁷

None the less, inducement, aid, abetment, support or other sort of material contribution as a cause slightly differ from previously mentioned cases. The act of causing another person's conduct appears to be an abnormal and unexpected factor in some relevant way.¹³⁸ The act of inducement and contribution is distinct and separate from the harming action done by another person. For instance, one gives another person a match for the purpose to light the match; an owner gives, or a retailer sells, a gun to a reckless person; or one disturbs the person absorbed in thoughts and she bumps to her colleague. These examples consist of the interacting conducts of two persons. The owner of the match has not burned down the building; the owner or seller of the gun has not shot the passer-by; and the disturber has not tumbled the colleague down the stairs, but the bemused one did it. However, the first action—provision of the match or gun, and distraction—persuaded or helped the primary wrongdoer to achieve the harmful result.

Everywhere around us, there are a lot of impulses, which can influence a principal to commit a wrongdoing. It is just enough to read newspapers, to turn on radio or television. We are bombarded by numerous stories of violence which can induce certain persons to follow those examples.¹³⁹ Newspapers, journals or scholarly literature are sources of information which can facilitate, aid or abet a commission of wrongdoings. Various manufactures offer devices or other means which can be used by their users in order to cause harm to victims. It is therefore hard to say that a third party's conduct had no influence on normal behaviour of ordinary people who would otherwise conduct prudently and diligently. Even more, the third party's action can be the reason why the harm was caused and why the injurer's deed was negligent or even reckless. Imagine a radio station conducting a contest to reach a disc jockey travelling on the freeway through periodic broadcast of clues. As to win the prize, two teenage drivers engage in a high speed pursuit during which the driver of another vehicle is killed when is forced off the highway.¹⁴⁰ Suppose a company which publishes a detailed instruction manual on various methods for killing victims and covering up crimes. The provision of such information allows a malevolent person, following the instruction, to harm or otherwise injure innocent victims.¹⁴¹

In all these cases, the third party's action provides another person either with an *opportunity* or *reason* for committing a wrongdoing. But the question is how to explain the

¹³⁶ See Hart and Honoré, supra note 128.

¹³⁷ See Honoré, supra note 128, at 364. See also Hart and Honoré, supra note 128, at 106 ("A condition may be necessary just in the sense that it is one of a set of conditions jointly sufficient for the production of the consequence. It is necessary because it is required to complete this set").

¹³⁸ See, e.g., Tony Honoré, *Medical Non-Disclosure, Causation and Risk:* Chappel v. Hart, 7 Torts L. J. 1, 5 (1999) ("a cause is an intervention in the existing or expected course of events"); Stapleton, *supra* note 131, at 67; George P. Fletcher, *Rethinking Criminal Law*, 596 (Oxford: Oxford University Press, 2000).

¹³⁹ See, e.g., Olivia N. v. NBC, 126 Cal. App. 3d 488 (1981) (involving a claim against defendant broadcaster alleging that the boys responsible for sexually assaulting plaintiff had been incited to do so by a particularly vivid rape scene in a program aired by defendant).

¹⁴⁰ See Weirum v. RKO General, Inc., 539 P.2d 36 (Cal. 1975) (a radio station contest leading to the killing caused by two teenage drivers engaged in a high speed pursuit as to win the prize).

¹⁴¹ See Rice v. Paladin Enterprises, Inc., 128 F. 3d 233 (4th Cir. 1997) (the defendant published two detailed instruction manuals on various methods for killing a victim and covering up the crime, what allowed another person, following the instruction, to kill three people). See also Monica L. Schroth, Reckless Aiding and Abetting: Sealing the Cracks that Publishers of Instructional Materials Fall Through, 29 Sw U. L. Rev. 567 (2000).

provision of opportunities or reasons for human action, since "causing" or inducing other persons to act, as a matter of fact, differ from causing the thing to happen. Applying a special interpersonal sense of causality, Hart and Honoré contend that there is no special "legal" meaning of causation and related concepts such as inducement and these cases can be explained in the meaning of causal or quasi-causal connection.¹⁴² Suppose that Jack tells Brian that his girlfriend cheats him with Charles and Brian, as a result, hits Charles. We can say that if Jack was silent and said nothing to Brian, Charles would not be hurt by the latter. One may thus argue that there are some loose generalisations assembled from our experience and that of others, which tell us on what sorts of reasons people act. The third party's conduct is then a "but-for" condition of wrongdoer's harmful behaviour. If a third party's action did not induce the wrongdoer, the wrongdoing would not occur. John L. Mackie thus opines that our attitude to interpersonal transactions favours the "but-for" theory.¹⁴³

On the other hand, the "but-for" theory does not explain plausibly all aspects of connection involved in acting for a reason. A person usually has two or more reasons for reaching a decision and acting on it, and human behaviour is not strictly determined only by external factors. The reactions of human beings are not totally predictable, and they vary and depend upon various internal and external conditions. Take the instance of file-swapping, a file sharer can have various reasons to provide files for sharing. For example, she wants to share them with other aficionados. The shared photos, audio or video recordings could not normally be available on the market such as in case of old, obscure or atypical items. Consumer might not value copyrighted content as much as the prize of authorised copies. And so forth. But, applying a "common sense" view to these cases, Honoré argues that we can intuitively conclude that "certain factors were singly or together sufficient for the decision."¹⁴⁴ The notion of "sufficiency" does not mean that the harming conduct would not occur apart from the conduct of purportedly inducing person. Honoré thus suggests that the meaning of causal or quasi-causal connection is close to "sufficiency" in the sense of what someone regards as an "adequate ground" for the decision taken by the person causing harm to the victim. The wrongdoer could even acknowledge, if truthful, that it was her reason for acting in the circumstances.¹⁴⁵

There are many possibilities how a third party can assist or encourage the principal's wrongful conduct. For instance, one can look out, shout words of encouragement or merely provide the principal with moral support by waiting to assist if necessary. In order to adequately distinguish between the principal's wrongdoing and the third party's conduct, Sanford H. Kadish makes a distinction between two general kinds of consequences of a person's action, "subsequent events" and "subsequent actions". In the former kind, the doctrine of *causation* applies, which deals with fixing blame for natural events. On the other hand, the doctrine of *complicity* deals with fixing blame for the action of another person. Although there are significant contrasts between causation and complicity, there are also important similarities deriving from the common function of both doctrines to fix blame for consequences.¹⁴⁶ Two kinds of actions render a third party liable for wrongdoing and helping the principal commit the wrongdoing.¹⁴⁷ However, there is no strict border line between those two groups of third party's actions, because they commonly overlap. For instance, knowledge that aid will be given can influence the principal's decision to go forward. Further, various

¹⁴² See Hart and Honoré, supra note 128, at 51-61; Honoré, supra note 128, at 382-84.

¹⁴³ See Mackie, supra note 128, at 131-36.

¹⁴⁴ See Honoré, supra note 128, at 384 [emphasis added].

¹⁴⁵ See id.

¹⁴⁶ See Kadish, supra note 11, at 333.

¹⁴⁷ See id. at 342-43.

terms are used to capture both notions, sometimes with overlapping meanings, sometimes with different connotations.¹⁴⁸ Although there is analytic difference between them, the legal consequences are same whichever mode of participation is involved. In addition, the common feature for all these cases is "common design" between the principal's and the indirect wrongdoer's conduct. Accordingly, although the causal nexus is important, it is not the only factor necessary for the attribution of outcome responsibility. In addition to a causal nexus, there must also be a nexus between both conducts at the level of consciousness.

(b) Knowledge and Foresight

Whether the mode of involvement in the wrongful act committed by another person is influence or assistance, it is conventionally required that a secondary actor acts with certain degree of knowledge that her activity can influence the principal's wrongdoing. But what degree of knowledge is necessary in order to hold a third party accountable for a wrongful act committed by another person? Should it be actual intention of secondary actor or possibility to foresee that her activity can induce, aid, abet, support or otherwise contribute to harmful results? If neither of them, what standard should be applied? Suppose that someone gives another person a match in front of gasoline station thinking that it will be lighted up later in a safe distance from the place where it can cause an accidental ignition of flammable vapours; the owner gives, or the retailer sells, the gun to the reckless person expecting that she has become more responsible and will behave diligently and carefully; someone disturbs the person absorbed in thoughts thinking that she will be so conscious, mindful and watchful that will not bump to her colleague. One may argue that she expected that another person would be more diligent and careful.

Since we live in an interactive society and thus enter into a variety of interactions, transactions and relationships every day, the question is whether one can excuse her behaviour by an argument that she thought that her aid or abetment would be used in a different way. May one say that it was not her business? May one burry her head in the sand? May one close or even shield her eyes? May one argue that she should not care what other people do? On the contrary, what should one do? Should one warn others on the possible consequences of their actions? Should one abstain from any action or omission which could induce others to continue in a wrongdoing? Should one affirmatively act in order to prevent wrongful acts committed by others? Take the match case presented above. Someone gives another person a match with a warning that it is dangerous to strike it in front of gasoline station because of combustible vapours. Should she foresee that another person, despite her warning, will strike it so negligently causing the gasoline station's burning-down? An owner or gun retailer, after checking the records of person's conduct, warning and instructing her how she should behave and use a gun, gives or sells respectively it to a client. Can the "enablers" be blamed that despite all their efforts the malevolent person using the gun caused an innocent victim's death? Where is the limit what we should do and foresee?

¹⁴⁸ Sanford H. Kadish defines the following expressions:

[&]quot;Advise, like counsel, imports offering one's opinion in favor of some action. Persuade is stronger, suggesting a greater effort to prevail on a person, or counseling strongly. Command is even stronger, implying an order or direction, commonly by one with some authority over the other. Encourage suggests giving support to a course of action to which another is already inclined. Induce means to persuade, but may suggest influence beyond persuasion. Procure seems to go further, suggesting bringing something about in the sense of producing a result. Instigate as well as incite suggest stirring up and stimulating, spurring another to a course of action. Provoke is roughly equivalent to incite, with the added sense of producing a response by exploiting a person's sensitivities. Solicit is generally equivalent to incite in legal usage, although in common usage it suggests simply asking or proposing." See id. at 343.

Although actual knowledge is not conventionally required, an indirect wrongdoer can be blamed when she had reason to know of the principal's wrongdoing.¹⁴⁹ Consider a case of manufacturer producing a device which can be used by its consumers in order to cause harm to victims. The general rule is that the product is to be manufactured so as to avoid foreseeable risks and in accordance with technological knowledge of that time.¹⁵⁰ If the product is developed under sufficient standard of care concerning its potential harmful effect. may subsequently acquired information revealing the converse lead to an imposition of liability on the product's developer?¹⁵¹ Even if the risk of injury is foreseeable, may the product be introduced into the market when its benefits outweigh their risks? For instance, although matches, cars, pharmaceutical or other similar products are inherently dangerous, their usefulness justifies putting them on the market, if appropriate safety measures have been taken. Holding manufacturers and developers liable for the "product development risks" too broadly and strictly can have negative effects on technological progress.¹⁵² If we make the manufacturers strictly liable for such risks, it can also have an opposite outcome. Developers or manufacturers will have no incentive to avoid those defects, because they will always be held liable regardless any precaution taken to prevent potential harms caused by its product to victims. In addition, the rationale of imposing such a strict liability is that producers have ability to detect and avoid the product's defects.

We can see it on early cases against BBSs and other Internet service providers holding them liable for copyright infringements committed by their customers even when they were only a *conduit* of Internet communication. They led to two types of responses: legal and technological. The former was the enactment of "safe harbours" for the Internet service providers when they are in a passive position and do not interfere with the Internet communication. The later resulted in the development of peer-to-peer technology, where a position of intermediary is partly or completely limited. If one develops a new reproduction and dissemination technology with intent to facilitate an unauthorised usage of copyrighted content, there is no question that she should be held liable for harmful acts committed by technology users. We can take as an example the case of Shawn Fanning, who wrote an application for Napster in order to be able to share music files with his friends. Isamu Kaneko, a creator of Winny, also allegedly expressed publicly his intent to develop an application to allow users to trade files anonymously in order to prevent authorities from tracking file sharers. But the answer to the question whether to hold a technology provider liable for unlawful acts of its users is not so clear in cases where one does not develop dual-use technology directly and expressly with intent to abet or aid unlawful activity, but knowing that the technology may be abused for copyright infringing purposes. For example, Ian Clarke, a father of peer-to-peer networks, created Freenet as a censorship-proof network, features of which are similar to Winny. Both networks allow anonymous sharing of information. Accordingly, the question arises whether dual-use technology should be banned. If so, it would have a broad normative implication in other industrial branches, since there are plenty of products which can be abused for unlawful activities and their producers have, at least, constructive knowledge of such possibility.

¹⁴⁹ See, e.g., Cable/Home Communication v. Network Productions, 902 F.2d at 846.

¹⁵⁰ See, e.g., Basil S. Markesinis, A Comparative Introduction to the German Law of Torts, 2nd edn., 81 (Oxford: Clarendon Press, 1990); Basil S. Markesinis and Simon F. Deakin, Tort Law, 4th edn., 591-93 (Oxford: Clarendon Press, 1999); Walter van Gerven, Jeremy Lever and Pierre Larouche, Cases, Materials and Text on National, Supranational and International Tort Law, 619, 633-34, 642 (Oxford: Hart Publishing, 2000); Hiroshi Oda, Japanese Law, 2nd edn., 215 (Oxford: Oxford University Press, 1999).

¹⁵¹ See, e.g., Markesinis, *supra* note 150, at 81; Markesinis and Deakin, *supra* note 150, at 591-93; van Gerven, Lever and Larouche, *supra* note 150, at 619, 633-34, 642; Oda, *supra* note 150, at 215.

¹⁵² See, e.g., Markesinis, supra note 150, at 81; Markesinis and Deakin, supra note 150, at 591; van Gerven, Lever and Larouche, supra note 150, at 599.

CONCLUSION

The concept of "enablement" has passed long history, where the positions of particular participants in such a three-party legal relationship underwent significant changes, adaptations and adjustments according to technological progress. Although courts in the countries under comparison developed different constructions of "enabling" liability regimes, so far, they came, facing enabling technology, to very similar results. None the less, we may identify two differences, which can influence future developments. First, the English approach applying the idea of "common design", which is inherent in the authorisation concept, seems to be more coherent and predictable than the German and U.S. approaches, which rely, to a certain extent, on policy considerations allowing extension of "enabling" liability. Second, as civil law regimes apply general tort doctrines also under copyright law, they impose the duties of care also on technology providers. Contrarily, both common law approaches are characterised by static concepts rejecting any general duty of care owed by technology providers to copyright holders. But recent developments show that when there is closer relationship between a technology provider and technology users, they require to monitor the latter's activities. The question remains to what extent the technology provider's liability will be extended in this way.

It is undoubted that if no duty of care is imposed on technology providers, they lack enough incentive to act diligently. This may even stimulate technology providers to close their eyes and not to attempt to filter in any way the usage of their products and service such as in *Grokster* or *KaZaA* cases. On the other hand, the imposition of broad duties of care on technology providers puts technology providers to a highly uncertain position, because it is questionable what prevention arrangements satisfy the requirements of "technically and economically feasible" prevention measures. In many cases, it may be difficult to predict and foresee all possible consequences and misuses of new technologies.

To resolve this hard case, courts and legislatures should take into account the reasons why individuals obey a law and how social norms interact with the law. The significant factor in favour of extending technology providers' "enabling" liability is always copyright holders' claims that a third party, which knowingly induces, aids, abets, supports or otherwise materially contributes to direct copyright infringements committed by another person, should play a role of "gate keeper" or "public purse" in order to achieve the lowest cost avoiding of the harm. But not all solutions of this kind can represent practical and effective protection for copyright holders, especially, in cases where a third party is taken only as an instrument for the achievement of higher social goals and her agency has no close connection with any significant aspect of principal's wrongdoing. In such cases, the imposition of "enabling" liability would be perceived by the targeted subjects as unfair and unjust, what would lead to evasion of the law, because such law would miss its expressive power.

Taking into account agency of a third party can enhance regulation of enabling technology for the purposes of copyright protection. As the previous analysis showed, the rationale behind the duties not to induce and not to contribute to the principal's wrongdoing is to prevent instigators and accomplices to encourage or facilitate the principal's wrongful conduct. Although the *actus reus* and *mens rea* of the accomplice are not alone sufficient to constitute the commission of the wrong, they make one derivatively liable for the principal's wrong through the operation of law.¹⁵³ Accordingly, the understanding of "enablement" in

¹⁵³ See Tyler B. Robinson, A Question of Intent: Aiding and Abetting Law and the Rule of Accomplice Liability Under 924(C), 96 Mich. L. Rev. 783, 790 (1997).

terms of knowing participation and taking an individual as a responsible person can limit overextension of indirect liability on technology providers. A third party should play a role of "bouncer", when she participates in some way upon a wrongdoing committed by other person and when the imposition of liability upon her leads to the efficient allocation of resources to safety and care.

None the less, due to the importance of technology progress and avoidance of innovation stifling, the liability regimes based on the notion of enablement are unable to be stretched to cover all cases where a product could be made less susceptible to unlawful uses especially when such product modifications would bring enormous social costs in form of consumers' privacy invasion or technology providers' autonomy in cases where no after-sale control over the product user exists. To find a workable solution, it is essential to focus on reasons and causes of human behaviour and not to attempt to change social norms for any costs. This wisdom was already tersely expressed by Lord Templeman in the *Amstrad* case:

"From the point of view of society the present position is lamentable. Millions of breaches of the law must be committed by home copiers every year. Some home copiers may break the law in ignorance, despite extensive publicity and warning notices on records, tapes and films. Some home copiers may break the law because they estimate that the chances of detection are non-existent. Some home copiers may consider that the entertainment and recording industry already exhibit all the characteristics of undesirable monopoly — lavish expenses, extravagant earnings and exorbitant profits — and that the blank tape is the only restraint on further increases in the prices of records. Whatever the reason for home copying the beat of Sergeant Pepper and the soaring sounds of the Miserere from unlawful copies are more powerful than law-abiding instincts or twinges of conscience. A law which is treated with such contempt should be amended or repealed."¹⁵⁴

¹⁵⁴ Amstrad III [1988] A.C. at 1060.