

## Is There a Future for Digital Rights Management?

#### Krisztián Tivadar

University of Pécs, Faculty of Law E-mail: drtivadar@drtivadar.hu

Abstract. Although Digital Rights Management (hereinafter: 'DRM') does not have a legal definition in Hungarian law, it is undoubtedly part of the complex regulating system including not only legal, but also business, political and cultural elements. DRM seems to impose restrictions on the users of copyright works well exceeding those provided by 'traditional' copyright law. There has been surprisingly little debate in Hungary regarding the manner and extent of implementing the relevant international and European provisions. It still seems to be an open question whether DRM is a solution to the underlying issues and whether or not the advantages of DRM (for its beneficiaries) outweighs the hindrances caused to the users and to the original aim of copyright.

At the same time, the world (of Intellectual Property) is flooded by the arguments for and against DRM. The various stakeholders wish to be heard and fiercely battle each other. Much can be learned from them in order to fine-tune the local system.

This paper attempts to give an overview of the Hungarian legal provisions regarding DRM and their environment. It also wishes to show the advantages and disadvantages of the DRM-system based on the arguments of various parties. Furthermore, it looks at the current alternatives offered beside DRM, as well as the potential directions of development.

Keywords: Digital Rights Management, copyright law, intellectual property

## I. DRM is not a Sole Regulator

DRM, as a technical measure, is just one element of a complex regulating system, the so-called 'trusted system'.¹ This system also includes legal, business, political and cultural elements. Clearly, the business interest of corporate right-holders (e.g. the media-industry) is to maintain the profitability of their investment in creating copyright works also in the digital era. It is the politicians' right and duty

to determine the cultural policy, which also includes a balancing act between the public good (e.g. the freedom of expression) and the monopoly provided to copyright holders.<sup>2</sup> Further, it is not disputable that the computer and the Internet are essential instruments of participation in culture.<sup>3</sup>

This trusted system constitutes a sociotechnical ensemble that achieves the aimed effects through the joint impact of its elements. If any of these elements falls out, the whole system loses its effectiveness. Gillespie calls this a 'regime of alignment'.<sup>4</sup> According to him, the law does not create this regime, but rather it is a means of achieving certain political, social and business goals.

Apparently, these general statements are valid also in respect of Hungary. The legal protection of DRM was introduced by the Hungarian Copyright Act<sup>5</sup> already at its adoption, and has been amended having an effect from Hungary's accession to the EU.<sup>6</sup> The author is not aware of any public consultation prior to the introduction or to the amendment of the Hungarian Copyright Act and, in particular, whether the users were asked.

Clearly, the relevant Hungarian legal regulation was introduced in accordance with Hungary's international undertakings<sup>7</sup> (Articles 11 and 12 of the WIPO Copyright Treaty<sup>8</sup>) and European Community obligations (the implementation of the InfoSoc Directive<sup>9</sup>). However, no one seems to have debated about why Hungary undertook these obligations in the first place. Irrespectively of the reasons, the result is that the Hungarian legal regime regarding DRM fits perfectly into the international and the European system.

## II. DRM under Hungarian Law

Similarly to the InfoSoc Directive, the Hungarian Copyright Act provides for no single definition of DRM. Instead, the protection provided to DRM devices is based

<sup>2</sup> Gillespie 2007. 27.

<sup>3</sup> Gillespie 2007. 10.

<sup>4</sup> Gillespie 2007, 100,

<sup>5</sup> Act LXXVI of 1999 on copyright protection ('Hungarian Copyright Act'). On the historical background of this act see Nótári 2010. passim.

<sup>6</sup> Section 106 (1) of Act CII of 2003 on the amendment of some acts on industrial property and copyright. The accession date was 1 May 2004.

<sup>7</sup> Samuelson 1999. Samuelson argues that the WIPO Copyright Treaty adopted only a general norm on circumvention, allowing the member states to implement it in their own way. Based on this, no obligations seem to have arisen from the treaty for Hungary to formulate its anticircumvention provisions in the manner it did.

<sup>8</sup> Adopted in Geneva on 20 December 1996 and entered into force in respect of Hungary on 6 March 2002.

<sup>9</sup> 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 ('InfoSoc Directive').

on the function of the device. While Section 95 of the Hungarian Copyright Act protects effective technological measures ('ETMs'; e.g.: encryption standards), Section 96 protects rights management information ('RMI'; e.g.: Rights Expression Languages). The regulation of ETMs and RMI differs in so far as the protection of ETMs is independent from the infringer's knowledge of copyright infringement, while the protection of RMI is connected with it. Further, the protection of ETMs includes 'anti-device' and 'anti-service' provisions, declaring that the trafficking in devices and provision of services having as the main purpose the enabling or facilitating the circumvention is illegal.

Unsurprisingly, the Hungarian Copyright Act prohibits the circumvention of DRM in accordance with the InfoSoc Directive. The Hungarian Copyright Act complies with the 'appropriate legal protection' requirement of the InfoSoc Directive<sup>14</sup> by declaring that the consequences of copyright infringement shall be applied in case of the circumvention of DRM measures.<sup>15</sup>

## III. DRM versus 'Traditional' Copyright Law

Both the legal protection of DRM and traditional copyright protection are based on the presumption that copyright and business incentive are necessary for creativity, even though this presumption has been debated. <sup>16</sup> Considering the common grounds with copyright, what novelties did DRM and its legal protection introduce?

Some<sup>17</sup> reckon that DRM is one of the solutions to the challenges to copyright posed by the digital age. They argue that new possibilities arose to infringe one's copyright in the digital world that render collective rights management insufficient. Consequently, they are of the view that DRM fulfills a need for protection.

 $<sup>10\,</sup>$   $\,$  See Mazziotti 2008. 180 as to lack of single definition in the InfoSoc Directive.

<sup>11</sup> See also Article 6(3) of the InfoSoc Directive.

<sup>12</sup> See also Article 7(2) of the InfoSoc Directive.

<sup>13</sup> References to DRM herein include both ETMs and RMI.

<sup>14</sup> Articles 6 (1) and 7 (1) of the InfoSoc Directive.

<sup>15</sup> Sections 95 (1) and 96 (1) of the Hungarian Copyright Act.

Gibson 2007. 127. Gibson argues that the western idea of genuine author and the paradigm of copyrightbeing the motor of creativity are used to turn the collaborative development of innovation into the creative accountability of individuals. In respect of software, this transformation may be achieved by naming corporate identities as creators through branding. As a result of such 'individual' efforts, software becomes 'valuable' and, therefore, marketable. She claims that open source and free software reveal that the corporate models of creativity in respect of software development are artificially construed. She seems to state that the idea of individual copyright is based on an economic model while the essence of open source and free software communities is to develop knowledge for the community, under community governance.

<sup>7</sup> Cserba–Munkácsi 2008. 155.

Notwithstanding this, it is hereby submitted that DRM came to existence due to an opportunity to protect copyright works in a digital manner. <sup>18</sup> The rightholders have always committed everything to protect their copyrights as much as they could. One may assume that the rightholders would have used DRM also earlier, in the analogue era, if they had had the opportunity to do so. They did not use DRM because they did not have the relevant technical means. In this sense, DRM is an electronic fence around the garden of copyright.

Further, while copyright law provides for a pure legal protection, DRM includes both a technological control and, on a legal level, an anti-circumvention regulation.

In contrast with copyright law's ex post protection, DRM provides for an ex ante regulation.<sup>19</sup> This means that DRM-measures foreclose any illegal use of the protected copyright work, while a judge has the opportunity to consider the illegal nature of use under copyright law only after the actual use, if the rightholder turns to the court at all.

Furthermore, some are of the view that DRM may replace collective administration of rights, as a traditional copyright management tool, in the digital age. This is because the co-existence of the collective administration of rights and DRM may force users to pay royalties for the same content twice. <sup>20</sup> According to a document prepared by the BBC, <sup>21</sup> 'there are indications that implementation of DRM may also usher in a move from collective to individual administration of rights' and, in order to avoid this, the BBC suggested key principles to the implementation of DRM. This change seems less threatening to Cserba and Munkácsi, <sup>22</sup> who observed that DRM may replace the collective administration of rights if (i) all works are provided with DRM; (ii) the permeability among the various technical solutions is ensured; and (iii) end users can acquire these works at a price not exceeding that of the royalty to be paid for the work's use. <sup>23</sup> They also envisaged that collective societies may include DRM services into their fields of activity.

<sup>18</sup> MacQueen 2009. 216.

Mazziotti 2008. 181. Notwithstanding this, Mazziotti notes that the InfoSoc Directive blurs the common law (open ended list of exceptions, ex post assessment) and the continental droit d'auteur (strict, ex ante list of exceptions) by introducing a three step test in Article 5 (5) and, at the same time, providing for a strict, ex ante list of exceptions in Article 5 (1)-(4). This is also true of the Hungarian Copyright Act (Chapter 4).

As part of the price of the blank carrier or medium (e.g. photocopier, CD) and for the content protected by DRM. This is not true if no blank media levy is to be paid (e.g. computers in Hungary).

It is assumed that 'royalty' here means the royalty to be paid to the collective society.

<sup>21</sup> BBC 2004.

<sup>22</sup> Cserba-Munkácsi 2008. 160.

<sup>23</sup> It is assumed that 'royalty' here means the royalty to be paid to the collective society.

### IV. The Advantages and Disadvantages of the DRM-System

#### IV.1. DRM has advantages both for the rightholder and the user.

Through using DRM, the rightholder may retain influence over the work even after marketing it, because it is easy to bar any illegal use.<sup>24</sup> Further, the rightholder can control the use of the work by determining the territory, duration, scope and extent of use. Furthermore, the rightholder may develop various contract terms for various users. DRM also helps the rightholder to reduce the transaction cost of content distribution and increases the cost of illegal use.<sup>25</sup>

These advantages allow the rightholder to make business in a more flexible manner, adjusting the terms of use and the prices to the laws in the various countries, as well as to any individual need of the users. Thereby, the rightholder may avoid any illegal use. If someone illegally breaks the DRM code, the rightholder may still turn to the anti-circum vention provisions referred to above.

Theoretically, it is a development for both the rightholders and the users that it is easier to conclude and fulfil license contracts due to the digital environment and the opportunity to communicate swiftly. DRM also allows for new forms of marketing and business models (e.g. pay-per-download services, online lending, interactive TV services).<sup>26</sup>

The question remains whether or not the rightholders wish to negotiate the various contract terms with individual users and, if not, what negotiating power the users have regarding these terms.

# IV.2. Notwithstanding the above, it seems that the disadvantages caused to the legitimate users of DRM works might outweigh the above-specified advantages.

DRM systems do not respect the traditional copyright exceptions and limitations.<sup>27</sup> DRM limits or excludes the possibility to fair use (e.g. private copying). According to Tian, the prerequisite of free use is legal access.<sup>28</sup> He refers to the Universal City Studios v Corley case in the USA,<sup>29</sup> in which the court held that the circumvented DRM device provided access control, and not copy control. He claims that the implication of the decision is that free use cannot be applied without 'free access'. Further, if a legitimate user may access a work by circumventing a DRM device,

<sup>24</sup> Cserba–Munkácsi 2008. 161.

<sup>25</sup> Barczewski 2007. XI.

<sup>26</sup> Cserba-Munkácsi 2008. 156-157.

<sup>27</sup> Barczewski 2007. XII.

<sup>28</sup> Tian 2009. 230.

<sup>29 273</sup> F.3d 429 (2d Cir. 2001) – a Norwegian teenager broke the CSS code used on DVDs (by using DeCSS programme) and Corley published this programme on the website of his newspaper.

this is not possible in practice, unless the user has sufficient knowledge to break the encryption code. This is because the anti-circumvention laws forbid trafficking in devices capable of circumventing DRM devices.<sup>30</sup>

Thanks to DRM, the transformative uses of copyright works become subject to licensing.<sup>31</sup> This is because the user needs the rightholder's consent to use the DRM protected work, even if the use is legitimate and serves productive, and not mere entertainment purposes. Assuming that private copying stimulates the production of new works (inspiration in both private study and scientific research), it is unambiguous that DRM restricts or preempts the creation of such works. DRM may constitute a bar to creative free use, even though traditional copyright law would allow for this.

The narrow exceptions provided by anti-circumvention regulation result in an overbroad protection not sought by traditional copyright law. As already mentioned above, the circumvention of DRM is a per se tort. As a consequence of this, users are barred not only from the use of copyright works, but also from the use of non-copyrightable material (e.g.: facts, data, information, functionalities). Further, DRM protects works even if the copyright protection has expired.<sup>32</sup> Preposterously, even copyright holders may breach DRM regulations if they circumvent the code in order to ascertain that their rights have been infringed.<sup>33</sup>

Tian refers to anti-circumvention regulation as 'para-copyright' because these are independent from traditional copyright. He argues that, in the United States, this separation allowed also for actors outside the copyright industry to claim DRM-breach (e.g. in connection with a garage-door opener software). According to him, this carries within the danger of abuse of anti-circumvention provisions and may even be contrary to competition law. It is hereby submitted that copyright and anti-circumvention regulation do not apply to the copyright industry, but rather to copyright works. Therefore, the abuse of DRM should be evaluated irrespective of the industry. Nevertheless, it would be clearly abusive if the rightholder used DRM in order to maintain its monopoly for information other than copyright works.

Mazziotti 2008. 201. Mazziotti refers to the French Mulholland Drive case (the plaintiff could not copy a film for private use from DVD to VHS due to the DRM device used on the DVD), where the Paris Court of Appeal held that there is no subjective right to make a private copy of a protected work, but rather the private copying exception is a mere defense against infringement claims. However, the court established that this exception prevails over the DRM measure applied by the rightholder in order to protect his copyright. The French Supreme Court overturned this decision in its own. Mazziotti argued that the latter court's decision was unclear. This case became less relevant because French law has changed afterwards. Private copying was defined as an enforceable use against technical devices.

<sup>31</sup> Mazziotti 2008. 217.

<sup>32</sup> MacQueen 2009. 217.

<sup>33</sup> Tian 2009. 232.

<sup>34</sup> Tian 2009. 234.

Mazziotti observed that the possible lack of interoperability between two DRM-systems may result in the user not being able to use a DRM-protected work on a medium using another DRM system — despite acquiring both lawfully.<sup>35</sup> There is no single standard for DRM. However, according to him, it is crucial to avoid that any of the market stakeholders forces upon the others the use of its DRM system, thereby creating a de facto standard.<sup>36</sup> The Commission of the European Communities also held the interoperability of DRM systems of major importance for the internal market.<sup>37</sup> The Commission set up the aims that a global and interoperable DRM infrastructure be established through the supporting of open standards of communication and encoding simultaneously with the enforcement of copyright exceptions.<sup>38</sup>

A further argument against DRM is that it might rob judges of their ex post freedom to evaluate and opportunity to decide. As the circumvention of DRM measures is a per se tort, judges may not be in a position to consider whether or not the user breached copyright, but rather they may have to automatically establish that the anti-circumvention provisions have been breached. Therefore, the rightholders, as private actors, can determine the actual scope of the users' use rights prior to the use of the work.<sup>39</sup>

The use of DRM allows for the monitoring of the user's conduct and habits. However, this may injure the user's right to privacy. In connection with this, Mazziotti refers to Lessig and claims that DRM does not automatically cause the injury of the right to privacy, only if the user's identity and habits cannot be hidden from the rightholders. Onsequently, the protection of privacy greatly depends on the set-up and the management of the DRM system. Unless the legislators require the providers of DRM technology to create their devices in a manner that protects privacy, this threat remains.

## V. Possible Future Developments, Suggestions

Theoretically, one may envisage the future of DRM on a wide scale from total DRM-control to a pirates' paradise, where DRM measures have no dissuasive power whatsoever. However, it is more likely that such 'end of history for IP' will

<sup>35</sup> Mazziotti 2008. 189.

<sup>36</sup> Mazziotti 2008, 187.

<sup>37</sup> Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee, The Management of Copyright and Related Rights in the Internal Market, COM/2004/0261 final, §1.2.5 (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004DC0261:EN:NOT)

<sup>38</sup> The author is not aware of any European level legislation in connection with these aims.

<sup>39</sup> Mazziotti 2008. 181.

<sup>40</sup> Mazziotti 2008. 34.

not come to existence. There are various suggestions for solving the issues raised by DRM and specified above. However, none of these offers a perfect solution.

- V.1. As to the duration of DRM protection, MacQueen suggests that laws should prescribe that DRM control shall cease upon the expiry of the subsisting copyright.<sup>41</sup> Nevertheless, the expiry date may be hardly specified in case of authors who are still alive.
- V.2. In order to deal with the potential threat that DRM causes to privacy, the law should forbid DRM protection that extends to monitoring personal conduct.<sup>42</sup>
- V.3. There are numerous suggestions concerned with the extent of DRM-control.
- V.3.1. One of these is to connect the protection of ETMs to copyright infringement (similarly to the protection of RMIs). However, it is not clear how DRM systems could distinguish based on user's intent (e.g. based on user's own declaration).<sup>43</sup> Further, DRM technology may be useful only for the purpose of accommodating the simplest transformative uses (e.g. quotation), but not more complex uses (e.g. parody).<sup>44</sup>
- V.3.2. Samuelson suggested that all legitimate purposes should be exempted from the anti-circumvention provisions.<sup>45</sup>

Similarly, Tian put forward that the scope of exceptions should be broadened based on the so-called fair circumvention doctrine. According to this doctrine, users should be allowed to circumvent the technical measures serving not only rights control but also access control aims. In connection with this, the manufacturing and marketing of devices used for circumvention should also be exempted in order to involve also those users who do not have the necessary technical skills.<sup>47</sup> These exemptions should only be applied if certain requirements were met (e.g. the copyright holder does not publish how the users can use the DRM protected content without additional costs and effort).

Tian also proposed that the rights of rightholders and users should be balanced through the following means.<sup>48</sup> First, judges should be provided with a right to

<sup>41</sup> MacQueen 2009. 219

<sup>42</sup> Mazziotti 2008. 34. Mazziotti concludes that the InfoSoc Directive is not capable of achieving this.

<sup>43</sup> MacQueen 2009. 219.

<sup>44</sup> Mazziotti 2008. 217.

<sup>45</sup> Samuelson 1999.

<sup>46</sup> Tian 2009. 238.

<sup>47</sup> Tian 2009. 243.

<sup>48</sup> Tian 2009. 241.

deliberate as to the righteousness of the applied DRM system in light of copyright and its limitations and exceptions. Secondly, specific legal mechanisms should be used to enforce such right. For example, independent bodies should be established that (i) control the technical measures; (ii) assist users in exercising their fair circumvention right; (iii) avoid any abuses of the fair circumvention exception by users; and (iv) assists courts in issues regarding technical measures. Thirdly, the involvement of users and the working of market mechanisms should be strengthened. For example, rightholders should be obliged to display on their products if they applied any DRM system. This would allow users to choose between similar products based on whether or not DRM is applied or to choose between products offered under different DRM terms.

However, these proposals seem to render DRM protection superfluous, because the infringers could acquire information and devices to break encryption codes from the market. The only difference to traditional copyright protection would, therefore, be that infringers would also be liable for breaching the anticircumvention provisions. This way, DRM would not ensure a stronger protection or easier enforceability to traditional copyright law. Neither is it clear how the independence of the 'independent bodies' could be ensured.

V.3.3. According to Cohen,<sup>49</sup> users should have a right of self-help based on which they may lawfully circumvent DRM protection as far as it restricts fair use. This is based on the US Constitution's intellectual property clause, which specifies an originality requirement in respect of copyright and on the US Constitution's First Amendment, which establishes a right to free speech. According to Cohen, the contractual terms contrary to the US Constitution and DRM systems that implement such contracts should be invalid. Consequently, users may always claim that they legally circumvented a DRM measure if the measure was over-restrictive.<sup>50</sup>

Nevertheless, Cohen's argumentation may only be applied in countries where the constitution recognises the limited nature of copyright protection. For example, there is no such requirement at the constitutional level in Hungary; and the parties to an agreement may generally contract out of the Hungarian Copyright Act.

V.3.4. Mazziotti considers, as an optional solution, the provision of a narrow exception from anti-circumvention.<sup>51</sup> He suggests that distinction should be made between productive (e.g. scientific works) and unproductive uses (mere entertainment) of copyright works. He suggests the creation of an independent, external decision maker (e.g. a public agency) to ascertain the identity of the user

<sup>49</sup> Cohen 1998, 1089,

<sup>50</sup> See also Mazziotti 2008. 220.

<sup>51</sup> Mazziotti 2008. 224.

and the purpose of the request. Further, this authority would provide the user (in person or electronically) with a personal cryptographic key or code in order to enable access to a technically unrestricted copy of the requested works.

The weakness of this solution seems to be that the introduction of the third party authority slows down the process of acquiring the work. If the user sought to exercise his free use right in respect of more DRM protected works, the delay may be multiplied. This method would, therefore, not dissolve the chilling effect of DRM on transformative uses. Further, the independence and trustworthiness of the independent third party would be a prerequisite of a working system.

V.3.5. Theoretically, it would be possible, to use alternative compensation systems, where the payment would be paid as a part of, for example, the Internet subscription fee, price of software and/or hardware, tax or blank media levy.<sup>52</sup> This would mean a return to collective administration of rights.<sup>53</sup>

However, it would be hard in this case to (i) follow the downloading of works without monitoring users' conduct and, thereby breaching the users' right to privacy; (ii) ascertain rate of royalties; (iii) ensure that the rightholders receive a proper percentage of the collected royalties; and to (iv) distinguish users who do not download copyright works.

#### **Conclusions**

Although DRM protection may have advantages for both rightholders and for users, it has the potential of disabling the limitations and exceptions available in traditional copyright law and exceptions of traditional copyright law, in particular of trespassing on traditionally legitimate private uses. Anti-circumvention laws were created because DRM codes proved to be ineffective once they have been decrypted. These laws protect DRM measures irrespectively of the underlying copyright, if any. Therefore, anti-circumvention provisions are not legitimised by the need to protect copyright.

It is submitted that anti-circumvention laws are not adding to traditional copyright law protection. The author is not aware of any reasons why additional legal protection should be provided to DRM measures, where these are broader than traditional copyright law would allow for. Nor, in the author's opinion, is additional legal protection necessary where DRM protection and traditional copyright law overlap with each other.

Notwithstanding the above, it seems that there is no perfect solution for the synchronising of DRM control with the exercising of copyright exceptions, such

<sup>52</sup> Cserba–Munkácsi 2008. 163-165.

<sup>53</sup> E.g. 'Ernesto' 2010.

as private copying or even transformative uses, and information not protected by copyright. The proposed solutions often do not allow for unrestricted legitimate private use of copyright works and information not protected by copyright. Alternatively, the solutions render the DRM protection complex but easily circumventable and, therefore, superfluous. None of these proposals considered that it could lead to society declining the whole system if it is harder to respect the law than to break it. If it generally takes legitimate users more time and effort to exercise their free use right than to find grey market alternatives, users will not be incentivised to obey the trusted system.

In view of the above, one may argue that there is no need for DRM at all and that, therefore, legislators should remove the anti-circumvention provisions (e.g. from the Hungarian Copyright Act). However, the business interest of corporate copyright holders is to protect their valuables in every possible way. The legislators seem to support this crusade or, at least, they do not seem to be eager to restrain DRM to the scope of traditional copyright law.

Consequently, DRM might remain a long-lasting element of the trusted system and of the struggle to safeguard power and profit from the pirates (all users?) of the digital age. One can only hope that the DRM paradox will be solved through the introduction of new business models that fit the new economy better.

#### Literature

- 'ERNESTO'. 2010. Dutch Artist Unions Call Government to Legalize File-Sharing. http://torrentfreak.com/dutch-artist-unions-call-government-to-legalize-file-sharing-101124/
- BARCZEWSKI, M. 2007. The Consequences of DRM for Information Access and Copyright, In *Medien und Recht International*, 1817–8456. 2007/3. Supplement
- BBC 2004. Submission on the Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee 'The management of copyright and related rights in the internal market'. (http://ec.europa.eu/internal\_market/copyright/docs/management/consultation-rights-management/bbc\_en.pdf).
- COHEN, J. E. 1998. Copyright and the Jurisprudence of Self-Help. *Berkeley Technology Law Journal*, 1998/24, also at http://cyber.law.harvard.edu/property00/alternatives/self-help.html
- CSERBA, V.–MUNKÁCSI, P. 2008. Lehetőség az Önszabályozásra? A DRM-megoldások hatása a nemzetközi szerzői jogi közös jogkezelés gyakorlatára. In Penyigey, K.–Kiss, M. (eds): Fehér könyv a szellemi tulajdon védelméről. Budapest.
- GIBSON, J. 2007. Open Access, Open Source and Free Software: Is There a Copy Left?, In McMillan, F. (ed.): *New Directions in Copyright Law, IV*. Northampton.

- GILLESPIE, T. 2007. Wired Shut: Copyright and the Shape of Digital Culture. London.
- MACQUEEN, H. L. 2009. 'Appropriate for the Digital Age'? Copyright and the Internet: 2. Exceptions and Licensing. In Edwards, L.–Waelde, Ch. (eds): *Law and the Internet*. Oxford.
- MAZZIOTTI, G. 2008. EU Digital Copyright Law and the End-User. Berlin.
- NÓTÁRI, T. 2010. A magyar szerzői jog fejlődése. Szeged.
- SAMUELSON, P. 1999. Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised http://www.law.berkeley.edu/journals/btlj/articles/vol14/Samuelson/html/reader.html
- TIAN, Y. 2009. Re-thinking Intellectual Property: the Political Economy of Copyright Protection in the Digital Era. New York.