COPYRIGHT INFRINGEMENT IN DIGITAL ENVIRONMENT

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Abstract

The digitalization of copyrighted works including text, music and video has dramatically increased the efficiency of unauthorized copying. Nowadays it is easier to copy and share digital information, to copy and paste from a web page, to share files. Even common tasks such as sending email and browsing the web involve the creation of copies. The Internet allows the infringers to produce thousands of copyrighted work at little cost. Providing legal protection against the copyright infringement has been the subject of an international treaty (the World Intellectual Property Organization Copyright Treaty), a European Community Directive (the Information Society Directive) and major copyright legislation in the USA (the Digital Millennium Copyright Act). Although there are consistencies among nations’ intellectual property laws, each jurisdiction has separate and distinct laws and regulations about copyright.

Overprotection of copyright could threaten democratic traditions and impact on social justice principles by unreasonably restricting access to information and knowledge. If copyright protection is too strong, competition, innovation and creativity is restricted. A balance between the interests of copyright owners in receiving fair reward for their efforts and the interests of copyright users in receiving reasonable access to copyright materials should be maintained. The paper discusses and compares different solutions and approaches to the issue of reducing the digital copyright infringement without restricting the innovation and creativity.

Keywords: copyright infringement, copyright legislation, liability, digitalization, criminalization

JEL Codes: K14, K24

Introduction:

The new digital world has changed many sides of our everyday life. Computers and Internet brought us new opportunities and new unknown difficulties and duties along. Since electronic relations became popular and available for most people all over the world, governmental and jurisdiction forces try to find the correct and effective way to regulate the new cyberspace. The greatest problem in connection with electronic data processing is its regulation and control. Unfortunately, the means of controlling the information stream are very poor, as well as it is simply impossible to supervise the global on-line world (Dong Elaine and Wang Bob, 2002).

New technologies have always influenced copyright law. Digitization is simply the latest novel technology and it will obviously have and already has had a significant impact. Digital technology permits the easy, inexpensive, and perfect duplication of copyrighted works, it allows for the quick, global, “one-to-many” distribution of that content through digital networks.

1. Copyright legislation. Exceptions to liability for copyright infringement.

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Copyright legislation is part of the body of law known as “intellectual property,” which protects the interests of creators by giving them property rights over their creations. These rights of property are recognized under the laws of most countries in order to stimulate human intellectual creativity and to make the fruits of such creativity available to the public. Copyright law protects literary and artistic works as well as creations in the field of so-called “related rights.” Literary and artistic works include books, music, works of fine arts such as paintings and sculptures, and technology-based works such as computer programs and electronic databases. These works can be in analogue or in digital form. Certain copyright works can only exist in digital form. For example the computer programs, which are truly ‘digital copyright’ works. Other copyright works can exist in both analogue and digital form like computer-generated literary, dramatic, musical or artistic works, musical works, sound recordings, movie broadcasts, etc. Copyright law protects only the form of expression of ideas, not the ideas themselves.

Copyright law protects the owner of property rights in literary and artistic works against those who “copy” or otherwise take and use the form in which the original work was expressed by the author. Copyright infringement is the unauthorized use of works covered by copyright law, in a way that violates the copyright owner’s exclusive rights. However nowadays it is easier to copy and share digital information, to copy and paste from a web page, to share files. In most cases, the sharing of files involves the creation of copies. Even common tasks such as sending email and browsing the web involve the creation of copies.

Copyright law is rapidly changing. The digitization of content and the growth of the Internet put many challenges to the way copyright-protected material is protected, licensed and managed. The first major international convention to establish the principle of national treatment was the Berne Convention, which dates back to 1886. It has been revised on a number of occasions but remains the leading international treaty. The USA agreed to the Berne Convention in 1989. Later the challenges of digitization resulted in the two latest international copyright treaties: the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty, both of December 1996 (Stokes, 2005).

Cyberspace produced also new intellectual property items as computer graphics, electronic literature, and software, databases with a great amount of useful information and even such notion as domains that are acknowledged as an intellectual property and are protected by the World Intellectual Property Organization. The two World Intellectual Property Organization (WIPO) Treaties of 1996 dealing with copyright, related rights and new technology gave fresh legislative impetus to efforts in Europe to adapt and harmonize copyright law to the challenges of the information society. In confirming that existing exceptions and limitations can be carried forward and extended in the digital environment, WIPO countries rejected the claim that “digital is different”. Contracting parties are allowed to carry forward and extend such limitations in the digital environment, and create new exceptions where appropriate. The result was the 2001 Copyright Directive (the Information Society Directive). By early 2003 all EU member states should have implemented the new copyright directive. Other nations such as Canada, New Zealand and South Africa are in the process of updating their copyright legislation. The way in which these treaties are implemented will, in large measure, determine the future of the balance that has been so important to the copyright system and to information users in the past (Legal, 2011).

In 1998 the US Congress enacted the controversial Digital Millennium Copyright Act (DMCA). The DMCA was the largest change to the Copyright Act that attempted to address copyright in the digital environment. It was and remains controversial in its provisions and its effects. Some of the important things the DMCA does are: to provide some protection to Internet Service Providers (ISPs); to make it a crime to circumvent copyright access except in narrow circumstances; to give copyright owners the right to control access to works in which
they own copyright. Passed in part to comply with international treaty obligations, the DMCA prohibits the circumvention of copyright protection systems. These systems are technologies that control access to copyrighted works. People may violate the DMCA simply by unlocking an “electronic lock” to gain access to a work even if they do not subsequently infringe the copyright in that work – for example, by copying for the purposes of “fair use.” These provisions may be enforced by both civil and criminal sanctions. Criminal penalties are limited to persons acting “willfully and for purposes of commercial advantage or private financial gain.” (Law Commission of Canada. Defining Criminal Conduct in in contemporary society, 2004).

The DMCA includes protection for online service providers (OPPs) and creates limited immunity to the computer repair services.

One of the differences between the European and US copyright legislation is that the moral rights of the author have always been part of the European copyright tradition, since the first Berne convention in 1886 but have never been part of the American law. Through the WIPO Performances and Phonograms Treaty in 1996 the US copyright law for the first time adopts a codification of composer’s moral rights. Moral rights represent a position in copyright theory, by which the author, composer or director has almost complete control over the ways of which his or her work shall be presented or manipulated. Moral rights in copyright law are an expression of viewing creator rights as natural rights.

The actual rights of author differ from country to country, but the Berne Convention recognizes the right of integrity and the right of attribution. The right of integrity protects an author’s work from mutilation or distortion and protects the work from association with something that would harm the creator’s reputation. The right of attribution refers to the author’s right to be associated with his or her work (and the work not attributed to someone else). Thus European law has for the last hundred years served the interests of artists and publishers, while the American law has purported to serve the interests of the public at large (Marke, 1997).

The international copyright system is very complex. Nevertheless when faced with a digital copyright problem with an international dimension it is worth bearing in mind the following very rough rules: (Stokes, ‘Digital Copyright: Law and Practice’, 2005).

- the law where the work is created (ie, its country of origin) is likely to be relevant when determining who owns the copyright in the work or who the author is;
- the law where the infringing acts are taking place is likely to be relevant to the questions of the subsistence and infringement of copyright in the work;

Which courts will hear and resolve any international copyright dispute is likely to be addressed by reference to a number of international conventions dealing with jurisdiction and the enforcement of judgments including the Brussels Regulation (44/2001/EC) on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters.

For example a work created outside US has the same protection in the US as a US work would have. The reverse is also true. The conclusion is that the domestic law where the potentially infringing action takes place is usually the law that applies to that action. This situation gets more complicated when dealing with activities on the Internet.

There are some exceptions to liability for copyright infringement in common law countries like the “fair use” doctrine in USA. Other jurisdictions such as the United Kingdom, Canada, South Africa, Australia and New Zealand and some other Commonwealth countries have similar provisions, which are tied to specific purposes (such as ‘fair dealing for research or private study’). These countries typically have a wide set of relatively narrow exceptions for the benefit of individuals, educational institutions, libraries or other cultural institutions and Governments.
The United States became the 80th signatory of the treaty with the Berne Convention Implementation Act of 1988. The US signed the treaty with one important exception: it did not accept the recognition of moral rights in article 6 of the Berne Convention, which rights enable a copyright holder to "object to any distortion, mutilation, or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation." In US an exception to liability for copyright infringement is made under the ‘fair use’ doctrine. The doctrine only existed in the U.S. as common law until it was incorporated into the Copyright Act of 1976. It allows limited use of copyrighted material without requiring permission from the rights holders, such as for commentary, criticism, news reporting, research, teaching or scholarship. The US courts determine whether a particular use is fair on case-by-case basis, depending on the circumstances of each case. The law offers four factors to evaluate: (1) the purpose of the use, including a non-profit educational purpose; (2) the nature of the copyrighted work; (3) the amount of the copying; and (4) the effect of the copying on the potential market for, or value of, the original work (Crews, 2011).

UK copyright law has a set of exceptions to copyright known as fair dealing. Database right has a similar set of exceptions. Fair dealing is much more restricted than the American concept of fair use. It only applies in tightly defined situations, and outside those situations it is no defence at all against a lawsuit for copyright infringement. According to section 29 of the UK Copyright, Designs and Patents Act 1988 “fair dealing with a literary, dramatic, musical, etc, work, for the purpose of research or for a non-commercial purpose, does not infringe any copyright in the work, provided it is accompanied by a sufficient acknowledgement of the source”. Section 30 of the same act provides that “fair dealing with a work for the purpose of criticism or review, of that or another work, or of a performance of a work, does not infringe copyright in the work, provided it is accompanied by a sufficient acknowledgement, and provided the work has actually been made available to the public”. Educational establishments, libraries and archives in UK have many exceptions that are applicable only to them, which enable them to do their work.

According to Paul Goldstein there is no specific provision for fair dealing in civil law practice, but copyright legislation in most civil law countries contains exemptions comparable to those provided under the fair dealing defense. For example the French legislation, provides narrow exceptions in the case of published works for private copies and as well as short quotations for critical, educational, polemic, or scientific purposes. The German Copyright Act provides a long list of limited exceptions in addition to those for quotation and private use.

2. Copyright infringement in digital environment.

Information is increasingly being produced in digital format. New communications technologies bring unprecedented opportunities for improving access to information and technology has the potential to improve communication and access. Sometimes technological change is so profound that it rocks the foundations of an entire body of law. Peer-to-peer (P2P) file sharing systems—Napster, Gnutella, KaZaA, Grokster, and Freenet—are just the symptoms of a set of technological innovations that have set in motion an ongoing process of fundamental changes in the nature of copyright law. In a very real sense, we are in the midst of an intellectual, moral, and legal struggle over the future of copyright—the struggle over the future of the rights to duplicate and transform information (Lawrance, 2005).

Copyright law, although dealing with intangible products of thought, requires fixation. In the past, the fixed copies of the original object could be examined, given away, traded, etc. But the digital objects are different. However they can be given away or otherwise shared without losing access to the "original." The digital copies are identical. This is different from physical objects. A book, for example, can be given away, and the giver loses access to the book. A digital book, on the other hand, can be given away while the owner keeps an identical
copy. This idea has greatly affected the arguments about the original work and its relationship to copies and the first sale in the digital environment. In determining whether a creation can receive copyright protection, digital media such as CDs or software programs on a drive are considered a fixed format. The characteristics of digital works and the network environment, particularly the nature of the identical copy and the ease of copying works, gives users the ability to create, modify, distribute, and present information on a scale that has not been possible before. These abilities, however, include the manipulation of information that is copyrighted. Any type of information can be transmitted. The distribution of copyrighted material without the copyright holder's permission (in cases that are not exemptions or fair use) is illegal. For example, the people who are sharing copyrighted music and movies are very likely infringing, since it’s difficult to see how fair use or an exemption could possibly apply.

One must seek the permission of the copyright owner if he wants to make, distribute, rent or loan out copies of the author's work, or to adapt, perform, show or broadcast it. This applies to work on the internet too. However, the copyright owner is under no obligation to give such permission. Some examples of copyright infringement in digital environment are duplication of a CD or other recorded media containing copyright material without permission of the copyright holder; unauthorized downloading of copyrighted material and sharing of recorded music over the Internet, often in the form of MP3 files; unauthorized use of text content on the world wide web by copying from one site to another without consent of the author, etc.

If a person performs one of the activities that is the exclusive right of the author, then the person is potentially infringing on the author's copyright. Besides this type of direct copyright infringement, one can be liable for helping another person infringe. First, there is contributory infringement, when someone has "materially contributed" to another person's direct infringement (they've helped the infringer in some way). Another is vicarious liability, when someone benefits financially from another person's infringement, and could have stopped that infringement from occurring in the first place.

Copyright is intended to encourage creativity, progress and innovation by protecting certain economic and moral rights of the authors and, at the same time, by rendering copyrighted works accessible to the rest of society. A balance between the interests of copyright owners in receiving fair reward for their efforts and the interests of copyright users in receiving reasonable access to copyright materials has been maintained in a number of ways. The balancing of these two conflicting interests is of crucial importance, therefore the authors are granted specific rights while the public is entitled to the privilege of using the work, provided that these activities are subjected to a number of restrictions. These restrictions relate to the copyright ability of the subject matter, the duration of the period of protection, the availability of the work to the public and the conditions of its use. Normally, the use for educational and information purposes, criticism or review and scientific research is regarded as fair and does not constitute a violation of copyright.

The relevant statutes, conventions and case law take different approaches on how to regulate and balance the interests of the authors and the privileges of the users, nevertheless they provide relatively similar catalogues of non-infringing uses and the pertinent factors to be considered in the process of evaluation. IFLA (International Federation of Library Associations and Institutions) represents the interests of the world's libraries and their users. According to this organization if reasonable access to copyright works is not maintained in the digital environment, a further barrier will be erected which will deny access to those who cannot afford to pay. In order to maintain a balance between the interests of rights holders and users, IFLA has developed a statement of principles. Some of the basic IFLA principles are: national copyright laws should aim for a balance between the rights of copyright owners to protect their interests through technical means and the rights of users to circumvent such measures for
legitimate, non-infringing purposes; copyright law should enunciate clear limitations on liability of third parties in circumstances where compliance cannot practically or reasonably be enforced; providing access to a digital format of a protected work to a user for a legitimate purpose such as research or study should be permitted under copyright law. According to IFLA in national copyright legislation, exceptions to copyright and related rights, allowed in the Berne Convention and endorsed by the WIPO treaties should be revised if necessary to ensure that permitted uses apply equally to information in electronic form and information in print.

3. Effective solutions. The future of copyright.

The digital moment has collapsed the distinctions among the three formerly distinct processes: gaining access to a work; using (reading) a work; and copying a work. One cannot gain access to a news story without making several copies of it by clicking on the website that contains the news story and making a copy attached to an email. Copyright was designed to regulate only copying and not supposed to regulate ones right on read and share. Nowadays copyright policy makers have found themselves faced with the challenge to expand copyright to regulate access and use, despite the effect this might have on creativity, community, and democracy (Vaidhyanathan, 2001).

The copyright owners see themselves as under threat from a flood of cheap, easy copies and a dramatic increase in the number of people who can make those copies. Because of the high volume of illegal uses, and the low return to suing any one individual, the copyright owners tend not to sue those who trade software, video, or music files over the Internet. Instead, copyright owners sue direct facilitators like Napster; makers of software that can be used to share files; those who provide tools to crack encryption that protects copyrighted works; search engines that help people find infringing material; eBay, and Yahoo Auction; and even credit card companies that help individuals pay for infringing activity. It is not cost-effective for copyright owners to sue individual infringers, because there are millions of them, because lawsuits are expensive, and because many infringers would only be liable for or able to pay minimal damages. Copyright owners are happy to sue facilitators instead, because there are fewer of them and both damages and the benefits of injunctive relief are substantial. From the perspective of the music industry, it was easier and more effective to shut down Napster than to sue the millions of people who illegally traded files on Napster. Most of these suits rely on theories of secondary liability, focusing on those who provide services or write software that can be used in an act of infringement.

As a result the copyright owners have no incentive to permit optimal innovation by facilitators, because they do not benefit from that innovation except indirectly. Individual infringers in turn have no incentive to change their behavior or to subscribe to fee-based services, because they suffer none of the costs of infringement. In their paper ‘‘Reducing Digital Copyright Infringement without Restricting Innovation’’, Mark Lemley and Anthony Reese suggest that optimal digital copyright policy would do two things: stop deterring innovators, and permit cost-effective enforcement of copyright in the digital environment. Both alternatives derive from the basic economics of copyright enforcement. One solution is to change the incentives of individuals. Because individual users of peer-to-peer (p2p) networks know that it is extremely unlikely they will be sued, economic theory suggests that the only way to effectively deter infringement is to increase the effective sanction substantially for those who are caught. This has other advantages as well - the government could target the relatively few keystone providers of illegal files on p2p sites. Although illegal file trading cannot be stopped and all the piracy cannot be prevented, in this way the copyright owners can reduce piracy enough that they can make a return on their investment.

Another solution suggested by the two authors is to change the incentives of copyright owners to sue individual infringers by reducing the cost of such a suit. One such approach
would be a levy system. Levies on equipment or services permit automatic collection of royalties, reducing the enforcement cost dramatically, but at the cost of taxing legal as well as illegal uses. Under a levy system the copyright owner is protected by a compulsory license rather than a property rule. An alternative proposal to reduce the cost of enforcement is to create some sort of quick, cheap arbitration system that enables copyright owners to get some limited relief against abusers of p2p systems. It would be more acceptable than selective criminal prosecution, because the burden would fall more evenly on each wrongdoer, rather than imposing punishment on a few in order to serve society's interest in deterring the rest. (Lemley, Mark and Reese, R., 2004). The Hong Kong Government consultation document "Copyright protection in the digital environment" sets out the main issues relating to whether and if so how the copyright protection regime should be enhanced to provide for effective protection in the digital environment.

As more and more copyright owners are demanding heavier sanctions against unauthorized file sharing of copyright works using P2P technology, the paper suggests introducing new criminal liability with different extent of criminalization. There are several possible options: to criminalize all downloading activities done without the authorization of the concerned copyright owners. Thus a person who uses a P2P software to download a song or movie or who downloads an article or a photograph or graphics on the Internet without authorization will be a subject to criminal sanction. The other option is to criminalize only those unauthorized downloading and file sharing activities which result in direct commercial advantage or are significant in scale. It should be noted that if criminal sanctions are to be introduced, a number of activities that may only attract civil liability could become criminalized. For instance, a person who, without the authorization of the copyright owner, makes available an article on a personal homepage without inviting others to download it, or a person who uses a peer to peer streaming software to relay a live television broadcast program for the public’s viewing might be caught.

Another solution, suggested by the consultation paper is the assistance from the online service providers - OSPs in the fight against Internet piracy. OSPs may be encouraged to develop, together with copyright owners, appropriate guidelines on good industry practices or codes of practice binding on all operators to combat online piracy activities. This may include tightening up their service contracts with subscribers to put in place measures against repeated infringers. A liability for the online piracy activities undertaken by their clients may arise for the OSPs if an OSP fails to take steps to remove or disable access to the infringing materials identified on their service platforms. It should be considered under what circumstances the liability would arise (e.g. the role played by them in relation to the infringing activities, the type of services they provide, whether knowledge of infringement is required, etc.) and what remedies or sanctions should be imposed.

Finally the paper examines the issue with the statutory damages. Copyright owners claim that it is not easy to find evidence as to the causation and extent of loss. According to them the actual amount of damages awarded by the court in civil infringement proceedings is usually too small to deter infringers. Various possible formulations may be considered. Relevant issues, which should be taken into account include what range of statutory damages would be appropriate, whether there should be exceptions to the award of statutory damages, whether statutory damages should be available for all types of copyright infringement or those occurring in the digital environment only, whether the court should be given the discretion to put a cap on the aggregate amount of statutory damages to be awarded having regard to the circumstances of individual cases etc.

For some, a strong digital copyright protection puts in danger the free expression and democratic participation. Others suggest that “fair use rights” should be strengthened in the digital environment by “fair access” rights. Still others maintain that digitization eliminates the
need for copyright as an incentive for distribution and that for at least some types of works, copyright is not required to induce production. However there are two major trends—minimalists and maximalists. Minimalists argue that innovation, economic growth, and creativity will flourish only if copyright protection is thin (Lessing, 1996).

Maximalists like Paul Goldstein, in contrast, argue that these same objectives can be achieved only by strengthening and extending copyright protection to “every corner where consumers derive value from literary and artistic works.” This position assumes that current copyright limitations exist only because it is too costly to enforce property rights against marginal users. Rights management systems give producers control over the uses of content, enabling more perfect price discrimination and increasing production and overall efficiency.

A lot of people wrote about the future of copyright in the digital age. Ben Depoorter argues that technology, by creating an environment of rapid and unpredictable change, establishes two major conditions that have a profound effect on copyright law: legal delay and legal uncertainty. In copyright law, breakthrough technologies make it more difficult to apply existing rules by analogy. Even when courts seek to apply the relatively bright line rules of copyright doctrine, the exact entitlement of rights may be surprisingly uncertain when applied to a novel technology.

The American author John Perry Barlow wrote that the application of traditional copyright laws to the digital environment was a fundamental misunderstanding and mistake. According to him copyright was designed to protect ideas as expressed in fixed form, but not the ideas or bits of information themselves. Barlow did not prescribe a solution to the digital dilemma; he only outlined the problems that the global economy can experience the next years.

The Stanford law professor Paul Goldstein in his book “Copyright highway” -1994 outlined an optimistic view of the digital moment and its potential for both producers and consumers. Goldstein saw on the horizon a day when all cultural content –text, music, video, software, and video games could be streamed into our homes through one wire and out of one box. Each consumer would have instant access to huge and substantive private libraries of culture and information.

But no “copywarrior” is more prominent and influential than Larry Lessig. His book ‘Free Culture’ aims to win hearts and minds for a great cause—a radical paradigm shift from corporate culture to free culture, from selling to sharing, and from intellectual property to intellectual commons. Just when it looked like our “copyfuture” would be dominated by a few giant media conglomerates—vast integrated empires of publishing, music distribution, and motion picture production. Lessing announces a future modeled on the open-source software movement, a future in which small-scale enterprises and individuals build a vast intellectual commons dedicated to the propositions that information shall be free and ideas shall not be owned (Solum, 2005).

The law has never granted copyright owners an absolute monopoly. Instead, the laws strike a balance between granting a certain level of protection and guaranteeing a certain level of access and use. [26] Copyright enforcement is, and always has been, imperfect. Despite copyright law’s historic tendency to respond to new technological developments by adjusting the scope of copyright law our theoretical understanding of the effects of technological changes on copyright law remains relatively undeveloped.

**Conclusion:**

Copyright protection in the digital age should remain as extensive as it was in the analog era. However it should respond to the challenges of digital copyright with increased criminalization. The scope of copyright protection depends on the availability and effectiveness of enforcement mechanisms. Copyright crime is as much about criminal law as copyright law. This does not mean that increased criminalization is always a bad idea or that the criminal law
should remain immutable in the digital era. It does mean, however, that proposals to protect digital copyright through criminal sanctions should be scrutinized through the lens of criminal law as well as copyright law (Law Commission of Canada, 2004).

In many respects, the criminalization of copyright infringement is necessary. The effectiveness of traditional civil-enforcement mechanisms is truly threatened by digitization. Peer-to-peer file-sharing networks, broadband connections, file compression formats, circumvention applications, and other technologies have dramatically expanded the scope of copyright infringement. Whether this represents a net benefit or loss to the public interest is not clear. However, it tends to be skeptical whether criminal sanctions have the capacity to solve complex social problems, especially those lying outside the traditional core of the criminal category. This leaves policy makers with two alternatives. They can attempt to live with the effects of digitization, or they can attempt to bring into action noncriminal mechanisms to prevent infringement (Law Commission of Canada, 2004).

Copyright ensures the quality of information while preventing from piracy, as well to bring order to the electronic publishing market. Copyright provides people with a financial incentive to create copyrightable materials. During last 200 years no one has thought any better way to compensate or provide incentives for creative persons. Copyright is much more needed than ever by the society in the new digital environment. Just as Laura Gasaway believes, “Neither users of copyrighted works nor copyright holders would benefit from the death of copyright” (Gasaway, Laura, 2001).

The copyright will not disappear in the new digital environment. At the same time, copyright law should often be revised, and continue to adjust to the new digital era.

**References**


