International Journal of Humanities and Social Science Invention
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org Volume 2 Issue 4 ǁ April. 2013ǁ PP.06-15

Copyright Protection in Digital Environment: Emerging Issues

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ABSTRACT: *The copyright law in historical annals is known to be the legacy of technology. It has undergone systematic changes keeping in view the nature, extent and domain of technology involved to secure the public interest of creativity, innovation and ingenuity. Its main thrust is to provide adequate incentives to authors and creators of diverse copyright works, on the one hand, and make such works accessible to the public on the other hand. The copyright law had to adjust itself between the need to award the creator and the desirability of making such works public. With the ubiquity of the Internet as a unique and wholly new medium of worldwide human communication all over the world, shrunk into a digital global village, the protection of copyright works has become a serious concern for lawyers, as well as, the other stakeholders. The Internet together with P2P computer networks makes it possible for an increasingly larger number of individuals to participate in collaborative information production, thereby enervate the efforts to provide incentives to original creators of intellectual property. The Internet enables the nearly-instantaneous, original quality reproduction of and world-wide, lightening-speed dissemination of copyrighted works. The above arresting features of Internet make itself emerge as "the world's biggest copy machine" The puzzles and paradoxes underlying the digital dilemma, by nature, are connected with the dichotomy between the notion of "information wants to be free" and the demands for stronger proprietary control of information in the digital environment. Against the above background this paper shall examine and critically analyze emerging issues regarding copyright protection in digital environment.*

Keywords: *Copyright, Digital Environment, Berne Convention, TRIPS Agreement, WIPO Treaties, Technological circumvention.*

I. INTRODUCTION

Law is a response to social challenges. Law while responding, answers such challenges and in the process develops itself. Copyright is the finest example one reaches when delving upon the relationship between law and technology. On the one hand technology was the progenitor of copyright and copyright based industries; on the other hand, every new technology has posed a potential threat to the copyright-based industries. The industry consequently has put every new invention to its advantage in terms of creating newer forms of exploitation of art, widening markets and increasing profits [1]. Digital technology is the latest one in the field at the international scale. The digital Age being the hallmark of the present millennium is a witness to yet another epoch unfurled by the Internet and this junction is, in many ways, a defining moment in the long and chequered history of copyright [1]. The digital technology is a phenomenal impact on copyright works- its creation, dissemination, and protection. Digitization has made it much easier to manipulate, reproduce, and distribute protected works. Digital content can be combined, altered, mixed, and manipulated easily. By enabling the making of perfect copies of copyrighted works for little cost, digital technology threatens to undermine the distribution systems and increase unauthorized use of copyright works [2]. The Internet experience demonstrates that traditional actors in the communications process (information producer, provider, publisher, intermediary user) take on new roles in the digital networked environment. The Internet is structured as an 'open platform model' as opposed to the 'broadcasting model' of most existing media. On the Internet authors may freely disseminate their works without the intervention of traditional publishers: authors are becoming 'publishers'. Moreover, digital technology enables users to actively search and manipulate information available on the network: users are becoming 'authors'. Furthermore, traditional intermediaries, such as university libraries, may take on new roles as information providers: intermediaries are becoming publishers as well. This convergence of roles may eventually affect the existing system of rights allocation in copyright and neighbouring rights legislation [3]. Thus, in a way the Internet has scrambled the beautifully arranged, dogmatically duly characterized and justified picture of copy-related and non-copy related rights under the Berne Convention [4]. Digital interactive transmissions produce a certain hybrid form of making available to an unidentified number of individuals and let them consume the content at any time as they desire [5].

II. DIGITAL TECHNOLOGY AND COPYRIGHT ISSUES

The decentralized nature of Internet makes it possible for any user to disseminate a work endlessly in the cyberspace through an end number of outlets, thereby giving rise to global piracy. Estimates of global losses from pirated books, music and entertainment software range into billions of dollars. The Internet in a way presents a troublesome situation for copyright holders as the users become mass disseminators of others copyright material and creates disequilibrium between the authors and users [6]. The advent of digital technology, therefore presents legislators with a choice: either expand or modify existing 'old media notions' or redefine the catalogue of restricted acts, taking into account the peculiarities of the new environment in multiple facets discussed herein under.

1.1. The Right of Reproduction

Since the adoption of the Statute of Anne, the mother of modern copyright law, the reproduction right has been at the heart of copyright law for more than three hundred years. Though recognized as a seminal right accorded to authors [7], the reproduction right *per se* has not been unambiguously delimited by the international instruments for copyright protection [8]. Due to the lack of agreement on the right's scope and content, the original text for the Berne Convention did not include any provision that expressly protected the reproduction right [9]. Under Article 9(1) of the Berne Convention, copyright owners are granted "the exclusive right of authorizing the reproduction of these works, in any manner or form". However, the ambivalence of Article 9(1) of the Berne Convention, particularly the phrase "in any manner or form", has resulted in an international rift over the scope of the reproduction right.

The advent of the Internet makes the delimitation of the reproduction right more problematic in the digital age. Given that any transmission of protected works over the Internet involves the reproductions transitorily stored in the connected computers' RAM, the question of whether right owners should be granted with the control over all temporary reproductions looms large amid the dematerialized and decentralized nature of the Internet.

By contrast, the WIPO Performances and Phonograms Treaty, 1996 contains two articles (Articles 7 and 11) for the protection of the reproduction right enjoyed by Performers and Phonogram Producers respectively. Under the WPPT Performers and Phonogram Producers are vested with "the exclusive right of authorizing the direct or indirect reproduction of their respective protected subjects in any manner or form" (Agreed Statement concerning Articles 7, 11 and 16 of the WPPT).

The Agreed statements attached to the WCT and WPPT make it clear that the Article 9 of the Berne convention shall apply *mutatis mutandis* to the protection of the reproduction right in the digital environment. At first glance, what is clear under these two agreed statements is that permanent digital copies, for example, copies stored in floppy disks or a computer's read only memory (ROM), are protected by the WIPO Treaties 1996. Moreover, members are free to introduce new limitations or exceptions to the re-delimited reproduction right, subject to the three-step test. Yet the ordinary meaning of the second sentence of the agreed statements, in particular the term "storage", still remains largely ambiguous and obscure. Does it cover the making of temporary copies? One would answer in the negative that "in ordinary usage, 'storage' connotes a much higher level of activity than simple 'temporary' conduct" [10]. On the contrary, the counter argument may simply go that the temporarily stored copy does in fact constitute a form of storage of the work. Without the direct reference to the phrase "permanent or temporary", the agreed statements, rather than fulfill the proclaimed ambitious task to provide the clarity, fail to determine the extent to which the reproduction right should be applied in the digital environment. The ambivalence of the treaty language leaves the question as to whether the temporary copies have been covered, potentially unsettled.

1.2. The Right of Communication to the Public

Digital technology blurs the line between different categories of copyrightable works [11] and the means of communication to the public as well. On the other hand, in the midst of fast development in digital technology, the computer networks, in particular the Internet, brings forth a point-to-point way of transmitting works on an on-demand and interactive basis. The interactivity and individuality afforded by this new method of exploiting works, makes it possible for any member of the public to have the full discretion in determining the place and the time one is intended to access and use works in digital form. Against this backdrop, a new form of unitary, technology-neutral right of communication to the public is suggested to be ushered in to replace the fragmentary, technology-specific protection to this right.

Paradoxically, it seems that the Berne Convention has become an incomplete and outdated international instrument for the protection of the right of communication to the public, unable to respond to the challenges posed by the shift in the ways of exploiting works. First and foremost, the Berne Convention has lagged behind the trend in the digital conversions of the telecommunications, media and information technology. The right of communication to the public is regulated in a fragmented manner by the Berne Convention in terms of the means of communication. Second, the scope of the right of communication to the public does not cover all the

categories of copyrightable subject-matter, including computer programs, photographic works, works of pictorial art, graphic works [12]. These works however, have been and are being widely disseminated over the Internet yet are vulnerable to the unauthorized access and use. Further, it remains ambiguous under Berne Convention as to whether the traditional right of communication to the public would regulate interactive, on-demand transmission of works over the computer networks. Concern has been expressed that the Berne Convention may only be able to squarely regulate the point-to-multipoint communication of works, leaving right owners in the grey area where they probably do not have the right to exclude others from communicating their works to the public on a point-to-point basis with the interactive, on-demand nature [12]. The perceived loopholes or ambiguities within the Berne Convention, therefore, make it evident that relevant obligations need to be clarified by providing a unitary, technologically neutral right of communication to the public.

After rigorous debate on the WIPO Diplomatic Conference 1996, a broad right of communication to the public was eventually established by the WIPO Treaties 1996. Article 8 of the WCT provides that:

Without prejudice to the provisions of Articles 11(1) (ii),11^{bis} (1)(i) and (ii), 11^{ter}(1)(ii), 14(1)(ii) and 14^{bis}(i) of the Berne Convention, authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them.

The WPPT contains two similar provisions (Articles 10 and 14) that accord performers and phonogram producers with the right of making available to the public of fixed performances and phonograms respectively.

Under the WIPO Treaties 1996, two categories of the minimum standards for the protection of the right of communication to the public have been set up. First, regarding the point-to-multipoint communication routinely involving an active sender and passive recipients, they usher in a unitary right of communication to the public by wire or wireless means, technologically neutral in terms of copyrightable subject-matter and means of communication as well. This right fills up the lacunae existing in the Berne Convention and is designed to apply all copyrightable subject-matter, including computer programs and databases that are not protected by the fragmented right of communication to the public under the Berne Convention. By supplementing the relevant provisions (e.g., Articles 11(1)(ii), 11^{biss}(1)(i) and (ii), 11^{ter}(1)(ii), 14(1)(ii) and 14^{bis}(1)) in the Berne Convention the new right of communication to the public is able to fully accommodate all communication of copyrighted subject-matter that may be developed in the future.

With respect to point-to-point communication routinely involving an active sender and an active recipient, the new right has been embedded in to the general right of communication to the public. The main objectives to establish this new right are first "to make it clear that interactive on-demand acts of communication are within the scope of copyright protection"; and second "to harmonize the obligations" in order to "avoid any discrepancies that may be caused by different interpretations" of the traditional communication right under the Berne Convention [12]. Excluding the physical distribution of works, fixed performances and phonograms, the right of making available to the public specifically regulates interactive, on-demand online communication that is shiftable both in terms of place and time. Acts of communication subject to this new right, include those that enable members of the public to access protected subject-matter from "a place and at a time individually chosen by them". In this way the control over the interactive means of exploiting copyrightable subject-matter is conferred upon copyright owners under the rubric of the right of making available [13]. However, any other form of "exploitation by way of offering, at specified times, predetermined programs for reception by the general public" [14], fall outside the ambit of this new right.

Although the WIPO Treaties 1996 significantly expand the scope of the right of communication to the public, the following two issues have been left unsettled. First and foremost, the term "the public", has not been given a clear cut definition in the context of new right of communication to the public. The Endeavour's to delimit this term for the protection of the right of public performance have sparked much controversy just because technological developments in digital dissemination of works carry the effect of blurring the public-private distinction [7]. Given the increased difficulty to draw the line between private and public transmissions, it is understandable that the WIPO Treaties 1996 are silent on the benchmark with which the public-private distinction could be decided and leave the discretion to determine the scope of public communication to each contracting party [12].

Moreover, the issue concerning the secondary liability of those who facilitate the infringing communication of works to the public, including Internet Service Providers (ISPs), has not yet been addressed. The Agreed Statement concerning Article 8 of the WCT emphasizes that the mere provision of physical facilities, such as server space, communication connections, or facilities for the carriage and routing of signals, for enabling or making a communication "does not in itself amount to communication within the meaning of this Treaty or the Berne Convention" [12]. What has been made clear by this statement is that ISP should not be held liable as passive conduits that merely offer "physical facilities" to bring the communication of information to fruition [10]. It does not, however, deal with the issue pertaining to the indirect liability of those who

normally act as passive conduits for communication yet in fact actively participate in the infringing transmission of protected works.

1.3. Legal Protection of Technological Measures

In response to the increasing ease of reproduction and disseminating works over the internet, copyright owners and their technology have designed entirely novel and more effective technological measures, to constrain physical access to and use of their copyrighted works. Early in 1991, the E.U. took the lead to provide legal protection against circumvention of technological measures applied to protect computer programs (Council Directive 91/205/EEC of 14 May 1991 on the Legal Protection of Computer Programs). In the wake of this directive, the North America Free Trade Agreement, 1992 provides for criminal and civil remedies against decoding the encrypted program carrying satellite signals and related acts.

The advent of Internet facilitates the manufacture and trafficking of circumvention devices, and the subsequent dissemination of copies of works whose technological protection measures have been circumvented, at a global scale, posing formidable challenges for the effective protection of copyright owner's interests. Therefore, an ambitious agenda to provide an effective and adequate protection for the technological measures deployed by copyright owners was adopted at the WIPO Diplomatic Conference 1996. Article 11 of the WCT provides that:

"Contracting parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law."

Likewise, the WPPT contains a parallel provision (Article 18) for the protection of technological measures employed by performers and phonogram producers.

(a) Circumvention of Digital Copyright Material

Under the WIPO Treaties 1996, contracting parties are duty-bound to provide "adequate and effective" legal protection against the "circumvention" of effective technological measures. At the same time, contracting parties are also obligated to prohibit circumventor's initial act of manufacturing devices primarily for the purpose of circumventing technological measures, as a sequel to pre-empt action leading to any illicit act of direct circumvention. However, it remains disputable as to whether the third party's manufacture and distribution of protection-defeating devices will be subject to the anti-circumvention provisions.

Given that the acts of circumvention are not amenable to detection and control in the digital environment [15], the legal protection of technological measures can hardly be enforced in an effective manner if it focuses exclusively on the act of circumvention [14]. The absence of an effective oversight of the downstream supply of circumvention devices in the market place would result in considerable difficulties to deter the acts of circumvention thereby put the right owners' interests to serious prejudice. The absence of the protection against preparatory activities will arguably disturb the balance of copyright protection as proclaimed in the preambles of the WCT and WPPT. In terms of the required effective and adequate protection of the technological measures, contracting parties are therefore obligated to outlaw preparatory activities in the national anti-circumvention regulations [10].

(b) Eligible Technological Measures for Protection

The WIPO Treaties 1996 mandate that the eligible technological measures for protection should be "effective" in nature, and differentiate the types of such technological measures employed by the right owners. Article 11 of WCT states that technological measures protected should be effective and used by authors in connection with the exercise of their rights under the WCT or Berne Convention. Moreover, the WIPO Treaties 1996 divide the protectable technological measures into two categories: access-control measures (effective technological measures "that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law") and rights-control measures (effective technological measures "that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention") [15].

(c) Knowledge Requirement

Under the WIPO Treaties 1996, there is no explicit knowledge requirement in the anti-circumvention provisions. By contrast, the *Basic Proposal* made it clear that a person would be penalized if he or she knew or had the reasonable grounds to know that the device in question would be used for or in the course of the unauthorized access to and use of works [12]. This knowledge requirement, therefore, focused on the purpose for which the device would be used. However, it was not incorporated in the final texts of the WIPO Treaties 1996.

(d) Effective Remedies

Finally, contracting parties are required to provide effective remedies against the circumvention of the technological measures. The WIPO Treaties 1996, however, are silent on concrete criteria to evaluate the effectiveness of remedies. According to the *Basic Proposal* contracting parties are free to choose appropriate remedies according to their own legal traditions [12]. National enforcement system, under the WCT and WPPT, should be effective and at least include expeditious remedies to prevent infringements and remedies which

constitute deterrence to further infringements. Therefore remedies against circumvention should be effective enough to "constitute a deterrent and a sufficient sanction" against illegal acts of circumvention.

1.4. Legal Protection of Rights Management Information

It is important that whenever a work or an object of related rights is requested and transmitted over the network, the fact of the use is registered together with all the information necessary to ensure that the agreed payment can be transferred to the appropriate right owner(s). Various technologies in this respect are available or being developed which will enable the necessary feedback to the right owners. Such information may also function in conjunction with technological measures, as where a watermark serves to identify a work but may also be a requisite component for enabling the authorized use of a copyrighted work. It can also serve to facilitate online licensing. It is crucial, however, that such information is not removed or distorted, because the remuneration of the right owners would in that case not be paid at all, or it would be diverted. From a practical point of view, this would be as prejudicial to the interests of the right owners as an outright infringement of rights.

The emergence of Rights Management Information (RMI) facilitates the efficient exploitation of works of authorship, and offers a myriad of new opportunities for right owners to protect their moral rights in the digital age [16]. The RMI's vulnerability to unauthorized alteration or removal casts a long shadow on the protection of the integrity of RMI. Aimed to provide right owners with the sufficient protection of RMI attached to their works, the WIPO Treaties 1996 oblige contracting parties to provide effective protection against the manipulation of RMI and other relative acts that unreasonably prejudice right owners' interests.

Contrary to the general and nebulous language used in the anti-circumvention rules, the RMI-related provisions in the WIPO Treaties 1996 usher in a set of new minimum standards for the protection of the integrity of RMI. First, the treaties make it clear that the illegal acts of manipulating RMI include: (1) the removal or alteration of any electronic rights management information without authority; and (2) the non-permissive distribution, importation for distribution, broadcast or communication to the public of works, knowing that electronic rights management information has been removed or altered without authority (Article 12 of WCT and Article 19 of WPPT). Second, the RMI provisions expressly provide for a two-layered knowledge requirement. With respect to the first layer of the knowledge requirement, persons with actual knowledge committing the aforementioned illegal act would be subject to the penalty. The person liable for second layer information of contents, must have the knowledge or have reasonable grounds to know that his act will "induce, enable, facilitate or conceal an infringement of any right" covered by the WCT and WPPT, or the Berne Convention. This, in fact, adds an additional benchmark to determine whether the aforementioned manipulation of RMI shall be penalized. It will exempt those who inadvertently make alteration or removal of RMI, and cause no threat to the legitimate interests of right owners [17]. Third, the scope of protectable RMI is unequivocally delimited. Under the WCT, the RMI eligible for protection includes the information which "identifies the work, the author of the work, the owner of any right in the work", or deal with "the terms and conditions of use of the work, and any numbers or codes that represent such information". Moreover, such information should simultaneously be "attached to a copy of a work or appears in connection with the communication of a work to the public" (Article 19 of WCT).

Additionally, the agreed statement concerning Article 12 of the WCT further makes clear that the rights protected include both exclusive rights and rights of remuneration set forth in the WCT or Berne Convention. Meanwhile, contracting parties are not allowed to rely on Article 12 "to devise or implement rights management systems that would have the effect of imposing formalities", prohibiting the free movement of goods or impeding the enjoyment of rights under the WCT. This agreed statement is applicable *mutatis mutandis* to the RMI provision in the WPPT (Agreed Statement concerning Article 19 of the WPPT).

1.5. Limitations and Exceptions

From earliest times in the history of copyright, it has been recognised that in certain cases limitations or exceptions should be placed on the exercise or scope of established rights and may be termed as "internal restrictions", i.e. they are actual or potential restrictions resulting from the provisions of the instrument itself [18]. The reasons given for imposing such restrictions may be based on considerations of public interest, prevention of monopoly control, etc. The limitations on copyright are necessary to keep the balance between two conflicting public interests: the public interest in rewarding creators and the public interest in the widest dissemination of their works, which is also the interest of the users of such works [19]. The restrictions may appear in the form of compulsory or statutory licenses (often involving procedural requisites, and payment of remuneration to the right owner), or (more frequently) permitted uses, not subject to formal procedures or payment, but in respect of which conditions may apply (e.g. statement of source). The limitations on the author's exclusive rights may be imposed in order to facilitate the work's contribution to intellectual and cultural enrichment of the community. However, the limitations must not be such as to dampen the will to create and disseminate new works.

1.6. Copyright Enforcement in Digital Environment

Global computer-based communications cut across territorial borders, creating a new realm of human activity and undermining the feasibility and legitimacy of laws based on geographical boundaries [20]. Digital technology has made copyright enforcement difficult to achieve [21]. In the online environment, works such as videos, recordings of musical performances, and texts can be posted anywhere in the world, retrieved from databases in foreign countries, or made available by online service providers to subscribers located throughout the globe. Our system of international copyright protection, however, historically has been based on the application of national copyright laws with strict territorial effects and on the application of choice-of-law rules to determine which country's copyright laws would apply [22]. Such a network of national codes may have sufficed in an era when the distribution or performance of works occurred within easily identifiable and discrete geographic boundaries. However, "instant and simultaneous worldwide access to copyrighted works over digital networks fundamentally challenges territorial notions in copyright" [23] and complicates traditional choice-of-law doctrine because it is often difficult to determine where particular acts have occurred in order to determine which copyright law to apply [22]. Thus, as one commentator has asked: "[I]f authors and their works are no longer territorially tethered, can changes in the fundamental legal conceptions of existing regimes for the protection of authors be far behind?" [24] With so many potential locations where unauthorized use of the work may be violative of owner's rights, whose law should determine whether the transmission or reproduction of a protected work constitutes infringement? The site where the work was uploaded? The site where the work was downloaded? The author's country of origin? Each location has a viable claim. Without harmonized standards conflicts will be hard fought and bitterly resolved.

III. COPYRIGHT IN DIGITAL MEDIA---POSITION UNDER INDIAN LAW

The Indian Copyright Law mainly consists of the Copyright Act 1957(The latest amendment being, Act 27 of 2012 that came into force on 21 June, 2012). The amendments in 1994 were a response to technological changes in the means of communication like broadcasting and telecasting and the emergence of new technology like computer software. The 1999 Amendments have made the copyright fully compatible with Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. The Amendments introduced by the Copyright Amendment Act, 2012 are significant in terms of range as they address the challenges posed by the Internet and go beyond these challenges in their scope. The latest Amendment harmonizes the Copyright Act, 1957 with WCT and WPPT. With these amendments, the Indian Copyright Law has become a forward-looking piece of legislation and the general opinion is that, barring a few aspects, the amended Act is capable of facing copyright challenges of digital technologies including those of Internet. According to the Indian Act, 'publication' for purposes of copyright means, "making a work available to the public by issue of copies or by communicating the work to the public". This definition, by virtue of its non-restrictiveness, can be construed as covering electronic publishing and, thereby, 'publication' on the Internet.

Under the 2012 Amendment the definition of the term "communication to the public" has been amended. The erstwhile definition was applicable only to "works". If the work or performance is made available, whether simultaneously or at places and times chosen individually, this would also be considered as communication to 'public'. Thus, on demand services (video on demand, music on demand); will clearly be considered as "communication to public".

Section 57 of the Act recognizes special rights of the author of the work, also known as "moral rights" viz. (i) Right to claim authorship of the work; and (ii) Right to restrain or claim damages in respect of any distortion, mutilation, modification or other act in relation to the said work if such distortion, mutilation, modification or other act would be prejudicial to his honour or reputation ("Right Against Distortion"). The said section also provided that such moral rights (except the right to claim authorship) could be exercised by legal representatives of the author Pursuant to the 2012 Amendment, the exclusion has been removed and the right to claim authorship can now be exercised by legal representatives of the author as well. Therefore, post death of the author, if he is not given credit for his work, then legal representatives, may take necessary action to remedy such breach. As per the Amendment, the right against distortion is available even after the expiry of the term of copyright. Earlier, it was available only against distortion, mutilation etc. one during the term of copyright of the work.

Section 52 of the Copyright Act, 1957 includes in itself the principle of limitation and exception as envisaged under Article 10 of WCT. The acts expressly allowed under Indian law include fair dealing with a literary, dramatic, musical or artistic work (not including a computer program) for the purpose of private and personal use including research, criticism or review, the making of copies or adaptation of a computer programme by the lawful possessor of a copy of such computer programme, from such copy in order to (1) utilize the computer programme for the purposes for which it was supplied; or (2) make back-up copies purely as a temporary protection against loss, destruction or damage in order only to utilize the computer programme for the purpose for which it was supplied.

IV. COPYRIGHT PROTECTION: AN EMERGING TREND

The latest Copyright (Amendment) Act 2012 has introduced the vital changes to prepare ground for copyright protection in the emerging digital environment briefly stated as under:

- Some of the exceptions (such as fair dealing, use for education purpose) which were earlier applicable only in relation to certain types of work (e.g. literary, dramatic and musical works), have been made applicable to all types of work;
- A fair dealing exception has been extended to the reporting of current events, including the reporting of a lecture delivered in public. Earlier, fair dealing exception was limited for (i) private or personal use, including research, and (ii) criticism or review, whether of that work or of any other work. Further, it has been clarified that the storing of any work in any electronic medium for the purposes mentioned in this clause, including the incidental storage of any computer programme which is not an infringing copy, does not constitute infringement.
- The transient and incidental storage of a work or performance purely in the technical process of electronic transmission or communication to the public;
- The transient and incidental storage of a work or performance for the purpose of providing electronic links, access or integration, where such links, access or integration has not been expressly prohibited by the right holder, unless the person responsible is aware or has reasonable grounds for believing that such storage is of an infringing copy: Provided that if the person responsible for the storage of a copy, on a complaint from which any person has been prevented, he may require such person to produce an order within fourteen days from the competent court for the continued prevention of such storage;
- The storing of a work in any medium by electronic means by a non-commercial public library, for preservation if the library already possesses a non-digital copy of the work;
- The making of a three-dimensional object from a two-dimensional artistic work, such as a technical drawing, for the purposes of industrial application of any purely functional part of a useful device;
- The adaptation, reproduction, issue of copies or communication to the public of any work in a format, including sign language, specially designed only for the use of persons suffering from a visual, aural or other disability that prevents their enjoyment of such works in their normal format;
- The importation of copies of any literary or artistic work, such as labels, company logos or promotional or explanatory material, that is purely incidental to other lawfully.

As noted above digital technology has created host of issues which needed an immediate answer. In India a comprehensive process of reformulating copyright law was made recently by way of a major overhaul of copyright law. It provided for punishment for those who in any way circumvent a technological measure applied for the purpose of protecting any of the rights conferred by the Copyright Act. However, few exceptions were carved out to pave for legitimate use of copyright material while encountering technology, which can be summed up as under (Section 65A of the Copyright (Amendment) Act 2012):

- Doing of anything not expressly prohibited by this Act,
- Doing anything necessary to conduct encryption research using a lawfully obtained encrypted copy; or
- Conducting any lawful investigation; or
- Doing anything necessary for the purpose of testing the security of a computer system or a computer network with the authorization of its owner or operator; or
- Doing anything necessary to circumvent technological measures intended for identification or surveillance of a user; or
- Taking measures necessary in the interest of national security.

The scope of the exemption under this section should be restricted to owners or operators who are specially authorized by the owners to perform the task and should not be so wide so as to cover any operator in general. One of the major breakthroughs made by India through these amendments was compliance with WIPO mandate without formally ratifying the WIPO Treaty.

New provisions have been inserted in relation to Right Management Information (RMI). RMI is defined to mean: (a) the title or other information identifying the work or performance; (b) the name of the author or performer; (c) the name and address of owners of rights; (d) terms and conditions regarding the use of rights; and (f) any number or code that represents the information referred to in sub-clauses (a) to (d), but does not include any device or procedure intended to identify the user. Under the Amendment many acts are considered as offences and are punishable with imprisonment which may extend to two years, as well as, fine. The owner of copyright may also avail of civil remedies provided under Chapter XII against the persons indulging in such acts.

When comparing this section with the US Digital Millennium Copyright Act, we find that there are numerous differences. For instance, there is ambiguity as to how the term 'authority' is construed under the amended section. Furthermore, the DMCA makes exceptions for such activities by law enforcement, intelligence or other authorized government personnel, which is not the case in Section 65B. The exemptions as provided under Section 65A (2), should have also been made applicable in relation to Section 65B.

The 2012 Amendment has introduced a new Section 53 which provides a detailed procedure where the owner of the copyright can make an application to the Commissioner of Customs (or any other authorized officer) for seizing of infringing copies of works that are imported into India. This amendment seems to be in line with the Intellectual Property Rights (Imported Goods) Enforcement Rules, 2007. After scrutiny of the evidence furnished by the owner of the right and on being satisfied, the Commissioner may treat infringing copies of the work as prohibited goods that have been imported into India, excluding goods in transit.

When any goods treated as prohibited under the above provision have been detained, the Customs Officer detaining them shall inform the importer as well as the person who gave notice, of the detention of such goods within forty-eight hours of their detention.

The present provision appears to be an aid to the copyright owner to prevent import of infringing copies into India. However, the Customs authorities have limited right to detain the goods till the copyright owner obtains court order.

The right holders will face difficulties to convince the authorities about their ownership of unregistered copyright and therefore, there is a need for guidelines to be issued in respect of unregistered copyright for better implementation of the object of this provision. Further, in the case of the *Gramophone Co. of India Ltd. v. B B Pandey*, (1984 (2) SCC 534. SC), the Supreme Court of India concluded that the word 'import' in Sections 51 and 53 of the Act means 'bringing into India from outside India' and is not limited to importation for commerce only but includes importation for transit across the country. The moment goods enter India, even if it is on transit it is prone to violation of copyright. However, the Amendment has carved out "good in transit" from the "prohibited goods" for the purpose of this Section.

V. NEED FOR INTERNATIONAL HARMONIZATION

Given the borderless nature of the Internet and its ability of transmitting works almost at a lightning speed, copyright protection has become increasingly difficult [25]. The problems created by recent technological developments cannot be solved by the decisions of individual countries. With the Internet, copyrighted works remain vulnerable to outside piracy even if protected in the home country. Therefore, it is necessary to balance between easy infringement and expensive enforcement; it is also important to address the uncertainties involved in international litigation. No doubt, to some extent these uncertainties are common to all law suits, but in most other contexts there is, at least, a greater amount of precedent for successful results. The more uncertainty there is about the procedures of enforcement, applicable laws, or the likely results, the more unwilling copyright holders will be to try to enforce their rights abroad. The problem for a copyright holder is not only the potential loss of earnings due to infringement, but also the additional costs spent in unsuccessful litigation. Enforcing judgments would be easy if all the defendants were residents of the country of the court that rendered the judgment. In the case of foreign defendants, it would also be straightforward if they had assets within that country [26]. However, foreign defendants with no assets in the forum country create a problem. It can be difficult to have national judgments enforced in the foreign country where the defendant resides or has assets, and it is also difficult, costly, and time consuming to need to pursue additional copyright litigation abroad.

The ubiquitous nature of online delivery systems necessitates the consideration of multinational enforcement [27], which will to some degree require the harmonization of domestic laws concerning enforcement measures and facilitate the cross-border protection of copyright in the digital age. Clear rules about the enforcement of preliminary injunctions and monetary judgments will diminish the inconvenience of dealing with the unknowns of how foreign judges apply their own substantive and procedural laws. Even if the cost of international litigation would only be marginally reduced, the increased certainty and probability of success would improve the balance between unfettered infringement and expensive enforcement.

VI. CONCLUSION AND SUGGESTIONS

The evolution of copyright has been closely linked to technological development. Whereas, most of the technologies made copyright protection more difficult, digital computers managed to alter the fundamental concepts behind copyright. These challenges to copyright industry have emerged at a time when the share of copyright in national economies is reaching unprecedented levels. It becomes critical to adjust the legal system to respond to the new technological developments in an effective and appropriate way, keeping in view the speed and pace of these developments. This will maintain balance between the stakeholders be it uses or creators for the public interest. In order to do so the focus of the anti-circumvention regulation should be to target at the technologically sophisticated persons who have the potential to become circumventors, and the

manufacturers and distributors of circumvention-enabling devices. In most circumstances, technologically sophisticated persons, albeit relatively small in number, have the technological know-how to bypass technological measures. On the contrary, ordinary users are by no means equipped with the sufficient technological know-how to make protection-defeating devices in order to circumvent technological measures.
Digital technology has made copyright enforcement difficult to achieve. It is necessary to balance between easy infringement and expensive enforcement, and to address the uncertainties involved in international litigation. As technology allows copyrighted materials to be transmitted easily around the globe without the authorization of the copyright owner, there is an increased need for protection without borders. A procedural mechanism for international litigation would serve to complement already existing substantive provisions. In order to augment enforcement the following measures may be taken:

- The legal framework of Indian copyright law envisage penal and civil provisions to safeguard the interests of the creators, however, it is not free from hassles and hurdles which need to be eliminated.
- The enforcement aspect of the provisions is a matter of great concern and there is an urgent need of building better administrative machinery for the enforcement of the provisions of the legislation which requires well-oiled enforcement machinery.
- There is a need for trained and well-equipped specialized police force for detection and enforcement of provisions relating to violation of copyright and there is also a need for change of the judicial mindset in dealing with copyright violations.
- There are still misconceptions, difficulties of access to courts, slow growth of copyright bar and delay in disposal of whatever cases reach the courts. It is submitted that redress and access to the adjudicatory machinery must be improved and this can be done in a better manner, if copyright or intellectual property tribunals manned by specialists in the areas are set up throughout the country.
- The ubiquitous nature of Internet necessitates the consideration of multinational enforcement, which will to some degree require the harmonization of domestic laws concerning enforcement measures and facilitate the cross-border protection of copyright in the digital age. Diversities in basic theories and in the practice of national systems protecting copyright and related rights create obstacles to effective international and national implementation of protection of authors and other right owners.
- The experience and achievements of the harmonization programme of the European Community demonstrate the possibilities of bringing together important provisions of diverse national systems. The unity of legislative approach will, it is submitted, be the only effective way of dealing with the problems posed for the exercise of copyright and related rights in the borderless environment created by the Internet and other international communication systems.
- The provisions of the Berne Convention taken in conjunction with those of other relevant international instruments and the relevant regional instruments can, it is suggested, provide the basis for a unified global system of copyright, and, to be effective, future planning should be based on moves towards a world copyright regulation which will incorporate harmonized rules on all fundamental issues.
- Last but not the least, since, the pirate is using new technologies in the digital environment to infringe on the copyright and related rights, so in the same vein, the holders of these rights should use the very means to counter such actions of infringer. As renowned novelist Chinua Achebe once said the Engel bird says 'since man has learnt to shoot without missing, I have also learnt to fly without perching'.
- The recent Amendments to the Indian copyright law have certainly given room for using creative lawyering skills to develop and structure innovative business models to help the industries effectively deal with the changes.

REFERENCES

[1] Mittal, R. (2006). From Printing Press to the Internet: The Stride of Copyright along with Technology, *Intellectual Property and Technology Law Journal*, 1, 21-46.
[2] Burgess, J. (1993). Internet Creates a Computer Culture of Remote Intimacy, *The Washington Post*, A1, A8.
[3] Hugenholtz, P.B. (1996). *The Future of Copyright in a Digital Environment*. Hague: Kluwer Law International.
[4] Ficsor, M. (2002). *The Law of Copyright and the Internet*. London, Oxford University Press.
[5] Dmytrenko, O. & Dempsey, J. X. (2004). Copyright and the Internet: Building National Legislative Frameworks Based on the International Copyright Law, Global Internet Policy Initiative Paper (Dec. 2004) available at: http://www.internetpolicy.net/practices/20041200copyright.pdf
[6] Gulla, R. K. (2007). Digital Transformation of Copyright Laws and the Misty Indian Perspective, *Icfai Journal of Intellectual Property Rights*, 6(3), 1-26.
[7] Goldstein, P. (2001). *International Copyright: Principles, Law and Practice*. New York: Oxford University Press.
[8] Spoor, J. H. (1996). The Impact of Copyright in Benelux Design Protection Law. In P. B. Hugenholtz (ed.), *The Future of Copyright in a Digital Environment* (54-86) Hague: Kluwer Law International.
[9] Ricketson, S. (1987). *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986*. London: Centre for Commercial Law Studies, Queen Mary College.
[10] Ginsberg, J. (2003). Achieving Balance in International Copyright Law, *Columbia Journal of Law & Arts*, 26, 201-245.

[11] Boon, D. S. K. (1998). Copyright Norms and the Internet: The Problems of Works Convergence, *Singapore Journal 0f International and Comparative Law*, 2, 76-116.
[12] WIPO. (1996). *Basic Proposal for the Substantive Provisions of the Protection of Literary and Artistic Works to Be Considered by the Diplomatic Conference.* WIPO, Geneva.
[13] IFPI. (2003). The WIPO Treaties: Making Available Right, available at www.ifpi.org.sitecontent/library/wipo_treaties_making_available_right.pdf.
[14] Reinbothe, J. and Lewinski, S. (2002). *The WIPO Treaties 1996:The WIPO Copyright Treaty and The WIPO Performances and Phonograms Treaty: Commentary and Legal Analysis*. London: Butterworths.
[15] Marks, D. S. & Turnball, B. H. (2000). Technical Protection Measures: The Intersection of Technology, Law and Commercial Licences, *European Intellectual Property Review*, 22 at 198-218.
[16] Schlachter, E. (1997).The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet, *Berkeley Technology and Law Journal*, 14, 1-25.
[17] Samuelson, P. (1997). The US Digital Agenda at WIPO, *Virginia Journal of International Law*, 37, 369-440.
[18] Sterling, J. A. L. (2003). *World Copyright Law*. London, Sweet & Maxwell.
[19] Stewart, Stephen M. (1989). *International Copyright and Neighbouring Rights*. London, Butterworths.
[20] Johnson, David R. & Post, D. (1996). Law and Borders: The Rise of Law in Cyberspace, *Stanford Law Review*, 48, 1367-1387.
[21] Austin, Graeme W. (1999). Domestic Laws and Foreign Rights: Choice of Law in Transnational Copyright Infringement Litigation, *Columbia - VLA Journal of Law & the Arts*, 23, 1-46.
[22] Geller, Paul E. (2000). International Intellectual Property, Conflict of Laws and Internet Remedies, *European Intellectual Property Review*, 22 (3), 125 -153.
[23] Reiendl, Andreas P. (1998) Choosing Law in Cyberspace: Copyright Conflicts in Global Networks, *Michigan Journal of International Law*, 19, 799-823.
[24] Ginsburg, Jane C. (1999). The Cyberian Captivity of Copyright: Territoriality and Authors' Rights in a Networked World, *Santa Clara Computer & High Technology Law Journal*, 15(2), 347-361, available at: http://digitalcommons.law.scu.edu/chtlj/vol15/iss2/3
[25] WIPO. (1998). *Intellectual Property Reading Material*, WIPO, Geneva.
[26] Symposium. (2004). Copyright's Long Arm: Enforcing US Copyrights Abroad, *Loyola of Los Angeles Entertainment Law Review*, 24 (1), 36-55.
[27] Ginsburg, J. (1995). Putting Cars on the 'Information Superhighway': Authors, Exploiters, and Copyright in Cyberspace, *Columbia Law Review*, 95, 1466-1485.