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Deciphering the Digital Dilemma: Exploring Copyright Infringements in the Modern Era

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ABSTRACT

The rapid proliferation of internet users backed by technological advancements has facilitated many conveniences and opportunities, however, the same has also gradually developed into a breeding ground for numerous copyright violations. The research highlights that as the technological dynamics continue to leap as the days go by, it comes with the risk of advanced methods of infringing the exclusive rights of content creators.

The issue of ease of access to copyrighted materials through the internet was first addressed by the state-of-the-art, Digital Millennium Copyright Act, 1998 of the United States, which could be regarded as a promising attempt to strike a balance between the exclusive rights of content creators and customers. India has also adopted rules that are on similar lines to the Digital Millennium Copyright Act, however, the same has been sluggish and not very substantial. The study using qualitative data scrutinises the current copyright protection framework of India vis-a-vis the Digital Millennium Copyright Act, 1998.

The research further suggests measures that could be incorporated into the current Indian copyright protection framework to reinforce the framework cut above. The research in the course of establishing the same delves into accessing the effects of the Digital Millennium Copyright Act from an economic, innovation, artistic and technological standpoint while analysing its commendations and criticisms.

In the current state of the rapidly proliferating digital era, protecting the exclusive rights of content creators is paramount. However, the same shall not be provided prejudicially jeopardising the rights of customers. The Digital Millennium Copyright Act came in with a lot of promises but it undermined the rights of customers by providing excessive authority to copyright owners. Therefore, it is a pressing priority to develop a framework that balances the exclusive rights of content creators as well as customers.

Keywords: *Internet, Copyright, DMCA, Technology, Infringement, Anonymity, Jurisdiction and Piracy*

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I. INTRODUCTION

“It has become appallingly obvious that our technology has exceeded our humanity”.² As quoted by one of the notable scientists, since the turn of the century the domain of technology has moved by leaps and bounds. The things that were mere possibilities a decade back have become very well achievable today. Although the rapid proliferation of technology has enabled humanity to avail numerous opportunities, the same has also led to the surfacing of issues that were never witnessed before. Among such unprecedented issues is the issue of copyright violations.

The rapid rise in the technological sector has meant that there has been an upsurge in the number of internet users across the world. The data suggests that there has been a rise of 3,013 million in the number of internet users worldwide from 2,562 million in 2013 to 5,400 million in 2023.³ Today an individual can access any sort of information at the tip of their fingers through a mobile phone and internet. The dawn of this digital era has revolutionised the traditional ways of sharing information. Despite the significant advancements that have been facilitated due to the digital, it has also gradually developed into a breeding ground for advanced methods of copyright violations.

The core of the issue could be associated with the ease of access that the internet enables. The widespread accessibility of the internet has meant that just with a few clicks an individual can access copyrighted material, often anonymously. Although there exist certain technological measures to thwart any attempts to violate the exclusive rights of content creators, the effectiveness of the same has dwindled in the wake of technological advancements. The issue of rising copyright violations in this digital era is aggravated further because most countries lack such legislative framework for copyright protection that exclusively deals with the digital infringement of copyright. The current legislative frameworks of the majority of the countries across the globe were formulated back in the day when one could not have conceptualised the technological dynamics that exist today. Although there have been amendments with an intent to keep up with the technological dynamics, the effects of the same remain sluggish. Such, for instance, the Indian copyright framework was amended in 2012 to take digital infringement of copyright, however, the same has not proved to be a very substantial measure towards preventing such infringements. One such legislation dealing exclusively with this

² Robert J. Szczerba, *20 Great Technology Quotes To Inspire, Amaze, And Amuse*, FORBES (Feb 09, 2015, 11:19 IST), <https://www.forbes.com/sites/robertszczerba/2015/02/09/20-great-technology-quotes-to-inspire-amaze-and-amuse/?sh=25b98d8116a6>.

³ Ani Petrosyan, *Number of internet users worldwide from 2005 to 2023*, STATISTA (Apr. 15, 2024), <https://www.statista.com/statistics/273018/number-of-internet-users-worldwide/>.

issue was brought by the U.S. in 1998, The Digital Millennium Copyright Act. The act, however, has been widely criticised for not being able to strike a balance between the rights of content creators and consumers. The research delves into the pros and cons of the DMCA and suggests potential measures that could be incorporated into the Indian regime as well as worldwide to counter the rise of digital infringement of copyright.

The technology will continue to develop at a rapid rate, it will not happen in a day however the foundations are being set with every passing moment. As the technology develops further, more and more advanced methods of infringing the rights of creators will surface, therefore, it is a pressing priority to formulate a framework that protects the rights of the creators without jeopardising the rights of consumers.

II. THE CHANGING FACE OF TECHNOLOGY

It need not be reiterated how technology has moved leaps and bounds since the turn of the century. Today technological advancements have enabled humanity to achieve things that were beyond imagination at one point. Technological advancements have also been a blessing for content creators in terms of incentives. Such, for instance, in earlier times the only way of accessing a book was by purchasing the same or a library. However, with the rise in the use of the internet and facilities such as e-books and e-libraries, one can access any book from any place in the world at the tip of their finger through their mobile phone.⁴

As a coin has two sides, the same notion is with the rise of the internet. Despite the various facilities that it provides to content creators, the risk of infringement has also been looming like never before. The Internet holds an ocean of information, and such information may have varying degrees of copyright protection. A common notion that prevails due to a lack of awareness is that any information that is available on the internet can be accessed freely and copied. However, the same is not the case unless the right has been surrendered by the owner or author of the work, such information or work has been made available by the government, or the term of copyright with respect to the information or work has expired. Due to the vast magnitude of information available on the internet, it makes it difficult to determine whether a work is original or duplicate. This leads to infringement of the exclusive rights of the content creators and loss in terms of incentives. There are several factors that contribute to making copyright infringement so easy online.

⁴ Sowdhanya Anandhajoithi, *Copyright Infringement On The Internet: A Study Of The Legal And Technological Challenges In Enforcing Copyright Law In India*, 11 IJCRT, (2023), <https://ijcrt.org/papers/IJCRT2304570.pdf>.

The foremost reason that could be associated with the surge in digital copyright infringement is the anonymity that the internet provides. The lenient rules with respect to genuine identification proof enable an individual to create multiple accounts with false credentials in order to access a work. In this scenario even if the copyright owner discovers the infringement, it is almost next to impossible to take any legal action due to the lack of identity. This enables the perpetrator to access the work and share it further without the risk of getting identified.

Another primary reason is the ease of access to the internet. The number of internet users across the world has been on the rise. This has meant that with each passing day, more and more people have access to the things available on the internet. With the plethora of information and work available at the tips of fingers, it becomes tempting to access the work without permission. This coupled with lack of information has meant that the information or work is being further disseminated without permission.

The issue is aggravated further due to the global reach of the internet. Internet is transboundary which means that one could access any particular copyright from anywhere across the world and could disseminate it into any part of the world. The problem further propels the issue of jurisdiction in cases of infringement. The use of technologies such as VPN has further enabled the perpetrators to access work that is not available in a particular region along with aiding in concealing their location.⁵

The types of equipment undertaken by the perpetrators in order to do copyright infringements is another reason that could be associated with the surge in digital infringements. Such, for instance, the cost of a VPN subscription or the cost of a scanner is significantly low.

In order to find a solution to thwart the surge in digital copyright infringements, firstly it is required to be taken into consideration that the content that is digitally available is more vulnerable because it is way easier to make a duplicate of it and distribute the same. Thus. A legislative framework that was enacted to deal with traditional copyrighted works may not prove to be as efficient when dealing with digital copyrighted works.

III. THE DIGITAL MILLENNIUM COPYRIGHT ACT, 1998

The U.S. Congress in the year 1998 enacted the Digital Millennium Copyright Act with the intent to extend the applicability of existing copyright protection framework to digital works. In the wake of technological advancements, the then-existing traditional rules concerning copyright were not deemed sufficient and effective enough to provide protection for the rights

⁵ Shweta & Nikita Tambe, *What Does A VPN Hide? (And What It Doesn't)*, FORBES (Oct. 26, 2023, 18:55 IST), <https://www.forbes.com/advisor/in/business/software/what-does-vpn-hide/>

of the content creators. Although the DMCA has been widely criticised for not being able to strike a balance between the exclusive rights of content creators and consumers, it has some promising aspects.

The act criminalises the circumvention of DRM and TPM which has been incorporated by the copyright holders to protect their works. The provision aids in thwarting unauthorised access to any copyrighted work that is digitally available. The act further provides a roadmap for the takedown mechanism concerning infringing content for the Online Service Providers (OSPs). The act provides that an OSP shall not be personally held liable for any content on its platform that is infringing the copyright if the OSP develops a notice and takedown mechanism along with a policy to terminate such accounts that infringe the copyright. Besides the act also mandates the OSPs to establish the takedown and notice mechanism in a way that the content creators can inform the OSPs in a situation where they observe that an individual is infringing upon their exclusive rights. Furthermore, the act makes it illegal to disclose incorrect copyright management details.

The DMCA has further been criticised for its harsh provisions concerning circumvention. Such, for instance, the act imposes heavy penalties along with imprisonment in case of infringements. Besides, the act also has three additional tortious liabilities entailing severe punishments.⁶

India has also made attempts to formulate rules that are on similar lines to the DMCA, however, the implementation of the same is still in a very nascent stage. India tried to expand the scope of the copyright protection framework to digital media through the 2012 Amendment to the copyright act, however, the execution of the same has been sluggish in wake of the technological advancements. Since the norms governing print media are not as effective with respect to digital media, countries not having specific legislation such as the DMCA might face issues in the interpretation and application of laws. Hence, attempts shall be made towards establishing an exclusive copyright protection framework for digital media taking inspiration from the positives of the DMCA.⁷

Although widely criticised for being stringent, the DMCA could be regarded as a paradigm shift from a traditional copyright protection framework, which by and large faced issues such as the creation of unauthorised physical copies, to a framework that incorporates the current dynamics of technology into consideration. Despite the criticisms, it is to be noted that the DMCA takes

⁶ Jolanda Lapenga, *DMCA: Digital Millennium Copyright Act*, TERMS FEED, <https://www.termsfeed.com/blog/dmca/>.

⁷ Prachi Tyagi, *Social Media and Copyright: An Indian Perspective*, 28 JIPR, (2023), <https://or.nispr.res.in/index.php/JIPR/article/view/5619/1923>.

into account the exclusive rights of content creators to a significant degree. The purpose of the copyright protection framework is primarily to protect the rights of the authors and incentivise them to create a work which as a result encourages the individuals to create more works and make it available to the public to enjoy. The acts of unauthorised infringement and copying thwart the purpose of the copyright framework protection as it denies a content creator incentives and other rights.

IV. BALANCING RIGHTS

The fairness of legislation dealing with the subject of copyright has often been subjected to the test of whether it is able to strike a balance between the excessive rights of content creators and the rights of the consumers. Such, for instance, although DMCA has promising features, it has been widely criticised for keeping the exclusive rights of the content creators on a higher pedestal. The heart of the issue lies in determining the perfect balance.

The threshold of what may be considered as infringement and what may not be considered as infringement has been dynamic depending upon the place. However, attempts shall be made towards a uniform threshold of copyright infringement. In order to create a work, the creator embodies labour, creativity, idea and capital. Thus, the creator shall be entitled to the incentives for at least the term of the copyright and his/her rights shall be safeguarded.

Another prevalent tussle with respect to the topic of balancing rights has been between the exclusive rights of the content creators and access to knowledge. Although principles concerning access to knowledge have been enshrined in various international as well as national frameworks, striking a balance between the two again becomes important. Such, for instance, in the Indian framework, Section 52 lays down various acts that does not amount to copyright infringement. Certain provisions may be termed unjust towards the exclusive rights of the content creators because of the wide ambit of the section. The Delhi High Court's judgement in *The Chancellor, Masters and Scholars of the University of Oxford and Ors. v. Rameshwari Photocopy Services* has further widened the scope of fair use. However, the judgement poses a significant question with respect to balancing rights. The judgement has meant that an author or owner of a copyrighted work cannot argue infringement just on the ground that any unauthorised individual is disseminating his/her copyrighted work. Another notable case in this regard was the *Sci-Hub's case*, again before the Delhi High Court and being represented by the same lawyer who represented Rameshwari Photocopy Services.⁸ Sci-hub makes available

⁸ Apoorva Mandhani, *What HC battle between big publishers & 'rogue' websites could mean for free access to research*, THE PRINT (Feb. 15, 2023, 08:21 IST), <https://theprint.in/judiciary/what-hc-battle-between-big-publishers-rogue-websites-could-mean-for-free-access-to-research/1371040/>.

pirated digital versions of works which are otherwise available only after purchase. There is a widespread notion that the decision shall be in favour of Sci-Hub as it makes available the work for which a researcher would have to otherwise pay some monetary consideration. It is to be noted that if the legislation and judiciary continue to go with the current trend, it would lead to a situation where the degree of creativity starts to dwindle due to a decrease in revenue, or the authors and owners choose not to make available the work in India. Giving a verdict in favour of Sci-Hub would further promote digital infringement of copyright. The above-mentioned judgement may be considered remarkable in terms of promoting access to knowledge, however, it fails to strike a balance between the exclusive rights of the content creators and consumers because it jeopardises the rights of content creators.

There may not exist a straitjacket formula to strike a balance between the exclusive rights of the content creators and consumers, however, keeping into consideration the factors that are incorporated by a creator into a workpiece for creating the same, it shall not be regarded as morally wrong to keep the exclusive rights of the content creators on a higher pedestal for at least the term of the copyright. If the same is not safeguarded, it will lead to a decrease in creativity and quality of work due to a lack of incentives.

V. POSSIBLE SOLUTIONS

As the technologies proliferate further, the perpetrators will come up with more and more advanced methods of bypassing the safeguard measures and infringing the exclusive rights of the content creators. The current solutions that are available for the content creators are very limited in nature as well as scope.

A content creator may opt for a Creative Commons license with the hope that instead of infringing his/her rights or accessing a work illegally, people would choose to use the work to the extent that the content creator has allowed as per the Creative Commons license. Creative Commons licenses are a wide range of licences ranging from permissive to restrictive which is applied to a particular copyrighted work to display what could further be done with the work and to what extent.⁹ This may discourage people from accessing the work illegally, however, the same has certain drawbacks such as loss of control over the work, loss of incentive, etc. Another viable option available for exclusive content creators is the use of DRM (Digital Rights Management) and TPM (Technical Protection Measures).¹⁰ These are digital locks which prevent individuals from accessing or copying a copyrighted work without the consent of the

⁹ ABOUT CC LICENSES, CREATIVE COMMONS, <https://creativecommons.org/share-your-work/cclicenses/>.

¹⁰ Nitin V. Kumar, *Digital Rights Management and Intellectual Property Protection*, SSRN, (2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2030762.

copyright owner. Such, for instance, when one visits a page and it prevents him/her from copying the available information or when one attempts to take a screenshot or screen record a Netflix show, these are certain ways how DRM and TPM attempt to prevent infringement. However, the effectiveness of the same becomes questionable in light of the rapid technological advancements.

A possible nonconventional route towards addressing the issue of digital infringement could be with the help of artificial intelligence. The subject of artificial intelligence has been brewing in the realm of intellectual property for different reasons for the last couple of years. However, the vast information that is at the disposal of artificial intelligence may be helpful in tackling the menace of digital copyright infringement. The regulatory bodies governing the domain of copyright protection shall look into integrating artificial intelligence in the protection framework while incorporating principles similar to DMCA, fair use doctrine and other relevant principles. If the algorithm is programmed in this way and is incorporated into the global internet network, it could help with the takedown of illegal use of copyrighted work on a fastback basis. Such, for instance, YouTube uses a similar algorithm which removes a video that is similar to any other already existing copyrighted video on the platform. The thresholds with respect to the degree of infringement and other relevant information shall be integrated into the algorithm to increase its effectiveness. Further, to ensure that principles of natural justice are not violated, the individuals whose content shall be subjected to takedown measures shall be given an opportunity to present their case within a reasonable time. Attempts shall be made towards establishing a legislative framework dealing exclusively with the digital infringement of copyright worldwide and efforts shall be made towards incorporating artificial intelligence in the framework.

VI. CONCLUSION

Technology has exceeded the imagination of humankind and it shall continue to do the same. As everything has a positive as well as negative side, the same goes with technology. The research highlights the cons of the technology that has been looming over the domain of intellectual property, particularly copyright. The proliferation of technology backed by a rise in interest users has meant that there has been an upsurge in the infringement of copyright digitally. Although there have been previous attempts by certain countries to formulate legislation to specifically deal with the issue, the attempts have been proven futile and have been widely criticised for failing to strike a balance between the rights of content creators and consumers. The threshold that defines whether or not an act falls within the scope of infringement has

differed from place to place and from time to time. The dawn of the digital age has aggravated the same further. It is required to be taken into consideration that the traditional norms that were applied to the copyright in print have become blunt in light of the current dynamics of technology and thus have not been efficient in tackling the issue. The need of the hour is to formulate an exclusive copyright protection framework dealing with digital media. Another pivotal point that is required to be considered is incorporating artificial intelligence in the framework to inspect the global network and fasten the takedown process in case of infringements. The existing protection measures such as DRM and TPM have become inept due to technological advancements. Such, for instance, although DRM and TPM prevent screen-recording a Netflix video directly, the perpetrators have been finding ways to bypass the same without breaking a sweat. This leads to a loss of revenue and incentive for the content creators. Although the incorporation of artificial intelligence to facilitate the cause may seem utopian, the same notion was regarding the majority of the things that are possible today. Such, for instance, flying cars may have been considered impossible during the 1990s, however, today the same has been brewing for a while. Despite the integration of artificial intelligence in the copyright protection framework being a utopia, it needs to be taken into consideration that utopia is nothing but a horizon. Perhaps it is not possible to reach the horizon, but, the journey remains on the course as long as one advances towards the horizon.

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