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Intellectual Property & Copyright Infringement in Digitalization of Libraries

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ABSTARCT

We are in the 21st century, where all possible tasks perform through digitalization; nowadays traditional form of taking books, periodicals, and journals from libraries in physical mode is obsolete. E-books and many other online applications are in the limelight where we can get all the authors' books together under one umbrella. Nowadays, we do not require to search for a particular author's written book at any shop. We all get all these together with editor's notes in online databases. As we are in a tech-based era, we need to have a strong IP Framework person team to safeguard the online databases, podcasts, and everything from getting infringed, as Social media plays an essential role in branding the business of digital companies like E-book reader, WPS software pdf reader, etc. Thus, in this article, we will discuss how IPR will comprehend a strong legal framework in safeguarding librarians' digital rights and the authors' rights from being misused and copying the original content directly.

Keywords: Copyright, Technology, Cyberspace, Digital Libraries, DMCA, Information Technology.

Introduction:

Intellectual property encompasses know-how, confidential information, trade secrets, designs, trademarks, and patents. It is essential to expanding creativity in nearly all facets of human endeavour and developing industry, commerce, and trade. People who develop novel, innovative ideas are attempting to obtain protections under this umbrella of intellectual property rights as the field of intellectual property rapidly advances. Authors, singers, artists, chemical engineers, and other intellectual property producers were sponsored by the State earlier, indicating they had flourished while working with the King's support in Copyright.³ Its honour, bravery, and possessions were all dependent on the King. The results of their intellectual development culminated in the property of the State. The significance of

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³ DUNCAN MATTHEWS, GLOBALISING INTELLECTUAL PROPERTY RIGHTS: THE TRIPS AGREEMENT (2002).

intellectual property rights became apparent only after the advent of the press for printing, which enabled the volume replication of books. The IPR legislation is critical to a developing country's socioeconomic, political, technical, environmental, and cultural benefits. It refers to mental creations such as innovations, literary and imaginative inventions, designs, economic symbols, names, and pictures. Intellectual property is an ensemble of legal rights that, in most situations, provide temporary protection for various sorts of innovation, design, brand name, or creative production. Intellectual property refers to various unique legal monopolies over intellectual creations, artistic and economical, and the legal industry. Intellectual property is a method of distributing information, apart from protecting the rights holders from illegal infringements and abuses of their rights. The original inventors and successors of creations addressed by Copyright have several fundamental rights.

They have the only right to use or allow others to use the work under agreed-upon terms. The author of a work may be prohibited or authorized:

- Its replication in many forms, such as printed publishing or sound recordings;
- Public performance, such as in a play or musical piece;
- Translation into another language or adaptation, such as a novel into a screenplay.

IPR-protected content, such as music, computer programs, and databases, may be readily reproduced and duplicated on the Internet, utilizing immediate reproduction techniques, publication, and distribution, incurring substantial financial damage to rights owners. Since the Internet is borderless and illegal content may flow through several geographical zones in seconds, the consequence of losses on the Internet tends to be larger. Detecting infringements of intellectual property rights is difficult in online and offline environments. Different regulations safeguard intellectual property rights, including Copyright, patents, trademarks, and trade secrets. Copyright legislation safeguards unique forms of expression such as literary work, music, computer software, and sound recordings. Patent law protects inventions such as items and processes, non-natural plants, and computer software. Words and logos are protected by trademark law, whereas unfair competition and trade secrets safeguard essential corporate information. Industrial designs cover unique and original designs used in machinery, equipment, and utility items. Intellectual Property novel violation in cyberspace, the Internet has created hybrid kinds of infringing like linking,⁴ framing,⁵ and meta-tagging.⁶ Each

⁴ What is a Hyperlink? Definition for HTML Link Beginners, <https://www.freecodecamp.org/news/what-is-a-hyperlink-definition-for-html-link-beginners/> (last visited Jun 28, 2023).

⁵ Connecting to Other Websites - Copyright Overview by Rich Stim - Stanford Copyright and Fair Use Center, <https://fairuse.stanford.edu/overview/website-permissions/linking/> (last visited Jun 28, 2023).

⁶ Meta Tags - How Google Meta Tags Impact SEO, WORDSTREAM, <https://www.wordstream.com/meta-tags> (last visited Jun 28, 2023).

government enacts laws that safeguard intellectual property rights.

Research Methodology:

The research performed by the authors is purely doctrinal as it is the most appropriate and suitable method for conducting the literary works of the research.

Research Objectives:

The research has been conducted in-depth analysis for the readers to gain some inputs in the arena of outlining the definition, history, traits, and objective behind turning into a digital library, followed by moving on to the proposed instances of that change, it additionally discusses copyrights and other forms of intellectual property, in addition to the difficulties and obstacles faced by digital libraries, before concluding with forecasts about what is to come.

Concept of Intellectual Property Law and Its necessary legislation for this arena:

The term "intellectual property" describes what is ultimately the outcome of an individual's creative thinking and imagination in addition to that people's rights to restrict how their works utilize. Intellectual property owners can purchase, sell, swap, and license their property to other people or organizations. The intellectual property lacks reality and does not resemble the musical, theatrical, or artistic creation that may have emerged from it. For instance, a book represents a physical property that can be transferred without causing damage to the owner's intellectual property, in this case, the artist's Copyright. Intellectual property legislation protects against infringement of the rights of others.

Need of IPR:

- It incentivizes people to strive for new inventions, acknowledges artists and innovators, and rewards intellectual property.
- Individuals and companies would only be able to reap the total rewards of their innovations if concepts were protected.
- It brings genuine and distinctive items available.
- It preserves individuals' rights to utilize their ideas and innovations.
- It guarantees protection against unfair commercial techniques.
- It guarantees the world's accessibility to useful, beneficial, and creative works.
- It promotes the continual innovativeness and creativity of IPR owners.

Subsequently becomes essential for India to uphold its intellectual property system. It will create an intense drive to stimulate and sustain an effective innovation strategy for India's

industrial and business sectors.⁷

Copyright Law and its Overview:

Copyright safeguards the author's, artists, or other creator's labour, skill, and judgment in creating an original work. It may grant to writers, actors, musicians, other artists, and makers of films and sound recordings. It is a collection of rights, including reproduction, disclosure to the public, modification, and translation of work. A copyright is a bundle of legal rights that authors appreciate for their creations during a limited time. In the United States, the U.S. Copyright Office works to “advance the progress of science and useful industries through providing authors and inventors the exclusive right to what they have created and written during a specified duration.”

Copyright Law in Digital Age:

The 'digitization' of these assets into binary forms (0s and 1s), which are transmitted via the internet, re-distributed, replicated, and maintained in flawless digital form. Given the capabilities and characteristics of digital network technologies, e-commerce has had a considerable impact on the system of copyright and associated rights, and the breadth of copyright and related privileges influences how e-commerce evolves.⁸ While licensing is precisely tailored for the Analog world, the digital environment has transformed how copyright content is advertised, disseminated, provided, and consumed, with significant implications for upstream and downstream rights-clearing techniques. Digital ownership rights are defined as follows by Business Dictionary.com: "Copyrights relating to digital assets (such as music or written works) published and distributed online via the internet or other computerized communication networks." Copyright holders, content providers, and others existed long before the advent of computers or digital media. The development of electronic media and analogs/digital converting technologies, particularly those accessible on mass-market general-purpose personal computers, has significantly exacerbated the issues of copyright-dependent people and organizations, as those people and groups rely partially or entirely on revenue derived from such an arena.

Advantages of Digital Technologies in Copyright Regime:

- **Transmission Facilitation:** Digital technology allows for the simple, quick, and worldwide dissemination of work without sacrificing quality and at a low cost. Once information from a single source reaches the recipient/s, electronic systems permit the

⁷ Maryam Alavi & Dorothy Leidner, *Knowledge Management Systems: Issues, Challenges, and Benefits*, 1 CAIS (1999), <https://aisel.aisnet.org/cais/vol1/iss1/7> (last visited Jun 28, 2023).

⁸ 1483442479P8_M22.pdf, https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000021LI/P000038/M001891/ET/1483442479P8_M22.pdf (last visited Aug 3, 2023).

recipient/s to pass it on to numerous receivers. Consumers confront no traditional barriers to sharing copyrighted content through online channels.

- **Speedy Accessibility to Electronic Materials:** Since the internet is widespread, customers who demand such inventions for their advantage have easy access to what's available on the digital platform.
- **Storage Facilitation:** Unlike conventional media forms, the digital medium provides a denser means of storing protected material. The complete collection may be stored on CDs, pen drives, or hard disks.
- **Easy replication:** The computerization of copyrighted works, which makes copy easier. However, because of tremendous advancements in such linked technologies, it is now quite simple to duplicate digital data with precision and clarity at a quicker rate. As a result, with the appropriate software and broadband connectivity, just one copy may meet the requirements of millions.⁹
- **Time-Saving:** When everything is available with a single click in a single location, time is bound to save. The transmission of protected information has become a time-saving activity for both parties, i.e., the writers and consumers of such work, thanks to modern technology. It also helps authors to make such compositions accessible online, saving them time in seeking an acceptable marketplace for the same. Furthermore, consumers' time visiting such locations to hunt for material reduces because digitization can access with just one click.
- **Budget Efficient:** Digital technologies that are both time efficient and incredibly inexpensive for both providers of copyrighted material and consumers.
- **Facilitating Authors' Immediate Publication:** The online medium provides a free environment enabling authors to make available their contributed works without the intrusion of traditional publishers. The conventional method of work propagation involves a gateway in the form of publishers, etc. that offers suitable platforms for distributing the work; however, in digital media, authors can make their work accessible to their targeted audiences with the intermediaries playing a smaller role.
- **Platforms to Facilitate the Development of Novel Different kinds of Functions:** The emergence of electronic devices has provided the birth to a completely new set of 'works' like multimedia works, computer software, databases,' and so on, adding such stars to the entertainment industry and transforming the work culture of almost all fields

⁹ David L. Hayes, *Advanced Copyright Issues on the Internet*, SSRN JOURNAL (2016), <https://www.ssrn.com/abstract=2847799> (last visited Aug 3, 2023).

using like communication and information technologies."¹⁰

- **Challenges of Digital Rights environment in Copyright Regime:**
- **Holder:** The fundamental idea of copyright is that it forbids the copying of 'work' without the express consent of the copyright holder. As previously noted, the internet permits relatively straightforward dissemination of copyrighted material; nevertheless, due to a lack of strict oversight of its copies, which can produce readily and transmitted to millions of users, the copyright owner experiences financial harm. The digital platform enables mass dissemination of copied content while making it extremely hard for copyright holders to recognize and pursue legal action against the large number of persons violating their copied works.
- **Sharing and extracting:** Software Applications and documents could be copied into a computer's hard drive throughout the internet, thus providing a different strategy for copying data or work available via the internet. Sometimes, there are limits on downloading work that, if not obeyed, can result in a violation or even a criminal offense. Copying a video or audio file through companies that engage in Peer-to-Peer sharing (P2P) that contains audio or video format is similarly illegal.
- **Digital Media Plasticity:** In electronic mediums, users can readily edit, adapt, modify, or transform creations. Such flexibility and elasticity afforded by digital media enabled changing and amending digital material to a gentle process, prompting fears for individuals and owners regarding how their initial creation would be treated. Any undesired and unauthorized addition or deletion of the original text can change its overall significance, which may not be the writer's desire or intention.
- **Derivate works:** Derivatives creation happens when multiple programs or information sets merge or utilizes to generate new work. Using original works in derivative works without the author's consent is a copyright infringement.
- **Hot-linking:** Violations of copyright are also possible when a picture is shown online by linking to the website that initially hosted the image.
- **Caching and Mirroring:** Caching (also known as "mirroring," usually if it involves the preservation of a website or other full collection of material from a source) refers to the procedure of keeping duplicates of material from an initial content the source site (e.g., as a Web page) for future use when a copy of the information is needed repeatedly, thus removing the requirement to return to the original content source for such material. Caching aims to "speed up repeated utilization of information and minimize network bottlenecks caused by numerous transfers." This storing of such content is only transient, with times ranging from a few seconds to minutes to hours to days. The cache may be dangerous to copyrighted

¹⁰ Id.
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information since the same data is replicated and saved for later use, potentially harming the copyright holders' interests.

Digital Libraries & Copyright Legislation:

Electronic or publishing archives contain both copyrighted and non-copyrighted resources, including public domain works. For instance, a textual work or an e-book has protection as an item of writing, photos as a work of art, and a music DVD or CD as a performance of music. The notion applies to everyone, yet how artists express their inspiration and passion is unique, and these are protected characteristics. Copyright can only protect the form, and scientific and legal works are covered in this sense through national legislation and international conventions such as the Berne Convention. When the license period ends, the result of the art enters the public domain. It can be openly used, except for applying the moral right, especially the powers to acknowledge paternity and defend the reliability of the work, by the State portrayed by the Minister of Culture. It should be noted that a corresponding right is mandated in legislation for work properly published or shown to the public for the first time after the expiration of copyright protection.¹¹ As a result, it is important to check the origin of the work and the applicable regulations each time because the term of a moral right may be infinite, as in French law. In contrast, certain works enjoy "perpetual" protection.

Copyright Law & Information Technology in Digital Libraries:

While although it would be feasible to exist without copyright law in the traditional era, performing so in the digital age is impossible. The importance of Copyright has risen immensely with the rise in technological advances, governing just a few aspects of humanity to overseeing nearly every element of the way life is experienced through an electronic device. Given the competitive relationship between Copyright and Technology, one may wonder exactly what the essence of the risk to Copyright is in the modern age of electronic systems and institutions, which we have been experiencing for at least two decades. Copyright has never granted the owner full authority over every potential application of their creation. The premise of commercialization of Copyright induces a significant amount of exclusions to the limits for commercial utilization of intellectual property, especially intellectual property regulatory limits.¹² Some of these limits allow for lawful non-profit use of intellectual property in such a way that any usages beyond those authorized and enabled by law are not permissible without the express approval of the intellectual property right-holder. This vision of intellectual property law, a plain description of traditional intellectual property regulation designed to correspond with the traditional world, looks incompatible with digital reality. Given the current

¹¹ Dionysia Kallinikou, *Intellectual Property Issues for Digital Libraries in the Internet Networked Public Sphere*. <https://citeseerx.ist.psu.edu/viewdoc/download?rep=rep1&type=pdf&doi=10.1.1.206.440>

¹² Id.

scenario, we may conclude that digital libraries that use ICTs and IP networks create and disseminate copyrighted content regularly, activating the potential for copyright infringement.¹³ As a result, to keep up with the detrimental energy levels of ICTs and internet networks in a way that encourages transparency and open access to educational resources, we need to reinforce what already exists as a copyright legal structure, such as regulations regulating the functioning of digital collections and legal problems regarding the release of works.

Copyright Law & Open Access (OA) for Digital Libraries:

The Internet and the Open Access movement inevitably changed librarians' perceptions of their duties, including their significance in maintaining, archiving, and sharing expertise, art, and culture with the general public.¹⁴

Librarians who have had the opportunity to gain a grasp of what could evolve through their higher education in colleges and universities typically strive to develop strategies for choosing the results that are best related to the deepest values of their profession, particularly their desire to conquer obstacles in the freely accessible to information, art, and culture saved, archived, and distributed through libraries.¹⁵

The Internet and the Open Access movement inevitably affected librarians' concepts of what they do, especially how crucial it is in preserving, archiving, and propagating understanding, creativity, & literature to people of all ages. Owing to the interdisciplinary essence underlying their career, librarians, especially people who serve charities and individuals, are at risk of embracing approaches that remove both cost and authorization restrictions to preserve the information prevalent and open to everyone. The general public is a particularly important shareholder regardless of the library type.

The Librarian's Responsibility in Copyright Protection:

In the digital age, knowledge is viewed as a resource without value unless extracted, processed, and used. Library and data science specialists give users information and acquire data from diverse sources. However, copyright rules do not address piracy and unauthorized usage. The argument over violating original writers' copyrights is crucial, particularly in the digital context, where digital material is easily captured, stored, processed, and downloaded. Because of the facilities involved in organizing, mixing, and remixing content, it is difficult to identify copyright infringement. So, Librarians and information scientists should receive knowledge of

¹³ Abhijeet Sinha & Rajesh Kr Bhardwaj, *Digital Libraries and Intellectual Property Rights*.

¹⁴ Kallinikou, *supra* note 11.

¹⁵ Sinha and Bhardwaj - Digital Libraries and Intellectual Property Rights.pdf, <https://rajkbhardwaj.files.wordpress.com/2014/02/art-9.pdf> (last visited Aug 4, 2023).

IPR regulations and be ready to participate when laws are amended to protect user interests. Fair use of print content establishes, but breach of copyright laws in the context of electronic data can be challenging to evaluate, grasp, access, and regulate.¹⁶ It is hard for copyright owners to determine who utilized their work, provide authorization for usage, and get payment. Over here,¹⁷ Copyright laws need amendment in such a scenario. Librarians in digital contexts have the same obligation to gather information and assist readers, even if that information is in the form of e-information. Librarians' responsibilities must be safeguarded and developed.

Conclusion:

The growth of information superhighways has serious ramifications for intellectual property, with digital technology causing major issues. Intellectual property rights (IPR) are essential for human innovation because they ensure inventors are acknowledged and compensated fairly for their efforts. Libraries must guarantee that the public can access digital material while protecting intellectual property rights. The digital era has resulted in significant modifications in company activity, with IPRs being required to combat computer software and other IT product piracy. Instead of erecting barriers, copyright protection should stimulate the use of knowledge for inventiveness. Libraries must assure public access while protecting their intellectual property as more content becomes available in digital forms.

Suggestions:

1. National entities that handle intellectual property rights must maintain a continual service-driven strategy by producing new and specialized services to meet the demands of societies that build their economic viability on the potency of their expertise.
2. Copyright laws should be updated to reflect our electronic and networked world and contemporary technical advancements regarding data management to protect intellectual property rights at the national and international levels.
3. Regarding the challenges surrounding librarianship and copyrights, it is necessary to conclude that library authorities should allow for limited photocopying. It should only occur after careful consideration of the user's request. Furthermore, the circulars published by the organization or UGC shall not override the provisions of the Copyright Act.

¹⁶ Dr Ekta Dubey, *Intellectual Property Rights: The New Challenges in Digital Environment*.

¹⁷ Monica Henao-Calad, Paula Montoya & Beatriz Ochoa, *Knowledge Management Processes and Intellectual Property Management Processes: An Integrated Conceptual Framework*, 31 AD-MINISTER 137 (2017). <https://doi.org/10.17230/ad-minister.31.8>

4. Librarians may additionally offer orientation workshops to help people become more aware of using e-resources more cautiously and legally. Librarians ought to keep acting as a catalyst for the free flow of information between copyright holders and information consumers.
5. IPRs are gaining stirring importance in the digital age, and there is an urgent need to examine the laws regulating print and other media at different levels. As a result, libraries and librarians should be granted restricted copying rights through acceptable modifications to the copyright legislation.
6. With a few exceptions, the stringent copyright laws do not match the digital era when every digital transaction results in a duplicated byte. We must take a more deliberate approach to rationalizing copyright, introducing broad fair dealing principles, lowering copyright conditions, decriminalizing charitable infringement, and other such steps. If we do not adopt such actions soon, we shall all treat like criminals for the rest of our lives.
