**NAVIGATIONIN THE FIELD OF DIGITAL ERA IN INTELLECTUAL PROPERTY RIGHT IN DIGITAL AGE**

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**ABSTRACT**

*"The digital revolution has brought significant challenges to the traditional IP frameworks, not only in terms of enforcement but also in adapting to the speed of technological change."* — ***Pamela Samuelson***

Intellectual property rights are one of the indispensable laws that prevails in India governing and protecting a myriad of human creations and inventions. Intellectual property inculcates within its ambit the ownership of intangible goods, Which within it, it includes ideas, designs, symbols, writings and creations. It also refers to digital media such as audio and video clips that can be downloaded online. Since intellectual property is intangible, if it is stolen, it may be difficult to recover. The advent of Copyright[[3]](#footnote-3) is said to be when the expression of the intellectual product used to be in in physical form, such as a book.

Today, in the information-oriented age where digital information can be easily copied at a trivial cost this natural physical limitation to unauthorized copying is removed. It is therefore time to reconsider the principle of the copyright model. The purpose of copyright law is to balance the rights of copyright holders and users. The prevailing copyright law is applicable in the digital age also. As more and more information becomes available in digital format, libraries must be ensure that public can enjoy the same access rights as with printed information. This paper deals with scope and coverage of various concepts connected with IPR, such as intellectual product, patents, copyright, designs, trademarks, computer software, databases, Internet and cyber laws.

**Keywords:** *Intellectual Property Right, Digital Society, copyright law*.

**INTRODUCTION**

The word intellect comes from the Latin root ``intellectus'', which means the ability to know rather than to feel. Humans have a unique ability to acquire knowledge and expand their body of knowledge by accumulating knowledge over a lifetime. An intellectual product is nothing more than its original idea, the brainchild of creative thinking, forming a special kind of property known as intellectual property. Intellectual property is the ownership of something intangible. A right is an interest protected by law, and the object of a right is what the owner has an interest in. The subject of intellectual property rights is irrelevant.

Intellectual property rights (IPR) are broadly defined as rights granted to creators and owners of works that are the result of human intellectual creativity.

They include:

* Trademarks that distinguish goods or services
* Patents for new inventions
* Registered designs for making products
* Copyright of creative works such as books, paintings, music, etc.

**Intellectual Property Rights in Education - Using the Works of Others**

Colleges and Universities are both major creators and consumers of intellectual property, making extensive use of the works of others. Institutions must be able to share and protect their intellectual output and maximize the value of their assets.

By recognizing the importance of intellectual property rights, educational institutions can leverage the value of their expertise and seize innovative opportunities in an increasingly competitive environment.

* **Content copyright law and online sharing**[[4]](#footnote-4)

For teaching and learning, the Copyright Exception allows limited copying without requiring permission or payment from the rights holder.

For example, the exception (Section 32 of the CDPA Copyright, Designs and Patents Act of 1988 – “Illustration for instruction”) provides that copyright does not apply as long as the use is fair, noncommercial, and limited to the user. Permission is granted to use the protected work for illustration purposes during instruction. Granted, directed, and authorized rights holders. Many materials used in teacher presentations may fall under this provision, including those that are streamed remotely to students.

The industry pays creators and entrepreneurs royalties for the widespread use of others' work. As the adoption of blended learning accelerates, maximizing the use of copyright exceptions in teaching and learning requires building trust and expertise among staff and students. Copyright literacy can greatly improve the digital skills and confidence of students and staff. See how a university's approach to copyright education aims to support strategic goals by informing policy and practice in innovation and knowledge creation - His 2020 at the University of Kent Copyright Literacy Strategy .

• **License and Ownership.**[[5]](#footnote-5)

Also, understanding how licensed content can be used and reused is critical to achieving efficiency. As learning content continues to digitize, institutions need to get the most value out of their licensed resources.

A license is a contract between a copyright owner and a user that specifies what the user can do with the work. For example, the Copyright Licensing Agency (CLA) license permits the copying, scanning, and sharing of digital content copies of educational books, magazines, and electronic publications over secure distance learning networks ( subject to our Terms and condition ).

* **Manage licenses via Jisc collection**

Jisc Collections negotiates and licenses high-value digital content agreements necessary to support teaching, learning, and academic research on behalf of Jisc members and clients.

We can License Subscription Manager you can browse, purchase and manage subscriptions to all digital content and services licensed through your Jisc Collections agreement.

**Intellectual property after 1 January 2021**

Changes to UK IP law will come into effect after 1 January 2021 to ensure a smooth exit from EU IP systems. Very briefly:

* **Trademarks**
	1. trademark is "any graphically represented sign capable of distinguishing the goods or services of one company from the goods or services of another."

Comparable UK trade mark and design rights will be introduced at the end of the transition period under the terms of the Withdrawal Agreement

* **Patents**
	1. patent is an intellectual property that is valid for 20 years and protectsin the UK provided renewal fees are paid per year annually.

A European patent can be applied for via UK Intellectual property right office or directly to the European Patent Office (EPO) to obtain patent protection in more than 30 countries in Europe using the (non-EU) European Patent Convention (EPC)

* **Designs**

* A registered design protects the shape or appearance of a product or part of a product. The appearance of a product can be the result of a combination of elements such as shapes, colors and materials. Designs re-registered in the UK will take effect at the end of the transition period under the terms of the Withdrawal Agreement.
* **Copyright**

A copyright is a legally enforceable property right that allows its owner to profit from a work, such as a book, by preventing others from using the work without their permission for a period of time. Copyright protects the expression of ideas, but not the idea itself. For a work to receive copyright protection, it must be original and expressed in a specific form - for example in writing (either in print or electronically).

 Most works protected by UK copyright (such as books, films and music) remain protected in the EU and the UK, as the UK continues to participate in international copyright treaties. For the same reason, works protected by EU copyright are still protected in the UK. This applies to work done before and after January 1, 2021.

**Intellectual product:**

First, I identify the components of an "intellectual product" and then analyse how those individual components are created, combined, shared, used, and where and when copyright law applies to that creative work. An intellectual product has two parts:

• Intellectual and • physical component.

**Intellectual component + physical component**

* The **intellectual component** is the intangible part of the product, ie. the creative work - ideas, concepts, discoveries and the expression of these elements, which are protected by copyright.
* The **physical component** is the expression of the work reproduced in a physical environment. For example, in the case of a book, the physical component would be paper, ink binding, etc.

Now consider the sequence of events involved in the creation and publication of the book and the subsequent use of the book. If the author creates a story only in his head, it can be said that he has created an intellectual component of a new mental product, which at this moment is an intangible form that no one can accessit .

Immediately the writer produces a physical component in the form of a manuscript, the story and composition become a tangible form. At this point, the author can claim copyright for his work. The copyright granted to the author protects the expression of the story in its physical part. Now the question is, if someone destroys the script, does the story still have copyright? But the intangible story still exists in the brain of the writer, and there is no tangible copy. The author has the right to rewrite the manuscript.

Now the author publishes the manuscript as a printed book. This book becomes a complete copy of the intellectual product sold to the user. Because they become the owner of the physical part of the product and can do the following with it:

* They can read a book and convey the mental part of the book mental product on the head.
* They have the right to use the intellectual product reasonably, for example to borrow it its short parts.
* Destroy the book.
* Write at the top of the page
* According to the rule of the first scale, they can lend or sell the book for other purposes.

**Characteristics of intellectual property:**

1. It is a form of intangible property.
2. Its existence is separate from the physical objects or goods that it contains rights
3. In some cases, rights can exist and be enforced without specific form.
4. Different rights may apply to the same things. For example, a document patent, design rights and trademarks may apply. A Pictorial trademark may also be subject to copyright.

 **Categories of intellectual property rights:**

"Intellectual property" in two parts:

a) Industrial property and

(b) Copyright.

Industrial property consists of rights related to inventions, trademarks, industrial designs and geographical indications.

Copyright protects rights related to the creation of the human mind in fields of literature, science, music, art and audiovisual works, etc. The Basic Fundamental rights of ownership of intellectual property is known as "intellectual property rights" (IPR), which mainly comes from patent, design, copyright and trademark law.

**According to the World Intellectual Property Organizations**, there are seven of them Categories of intellectual property rights:

1. Copyright and related rights
2. trademarks, trade names and service marks
3. Geographical indications
4. Industrial models
5. Patents
6. Arrangements of integrated circuits
7. Unpublished information
8. **Copy right**

Copyright law gives authors, artists and other creators protection for their literary and artistic works (such as books, films, music, paintings, photographs and software) and gives the copyright holder the exclusive right to control the reproduction or adaptation of such works.

for a particular individual. goal time period, i.e. the life of the author plus several decades.

* + **Copyright works covered under ;**

Copyrights can be listed as follows:

* + **Artistic work;**
	+ It means painting, sculpture, drawing
	+ engraving or photograph
	+ architecture and any other work of artistic craftsmanship. ➢ **Written work:**

It contains computer programs, tables and collections including databases.

* + **Musical work:**

This means a work consisting of music and any graphics indication of such work.

* + **Dramatic work:**

This includes any statement, choreography work or entertainment in silly shows.

* + **Movie description:6** This means any visual recording.
	+ **Audio recording:**

This means recording sounds.

**Six main Fundamental right copyrights:[[6]](#footnote-6)**

* + **Right to copy:**
	+ If something artistic is created that is attached to the environment, only the owner of the copyright can copy the creation.
	+ **Right to Create Derivative Works:**

A derivative is a film made from a film or video game based on a popular film.

* + **Right to distribute copies:**

 In the digital world, distributing copies would mean publishing the material on theInternet.

* + **The right to perform works in publicity** : If the play is transferred to a person to the public, it is presented publicly. If the copyright owner allows you to play done by others, he has the right to a royalty and control over how work is done. Right to public performance of digital sound recording in Audio transmission
	+ **The right to public exhibition of works displayed** : In an educational institution, if the teacher shows a copy of the painting in art class, it is considered fair use.

In distance learning, if the painting is placed on a web page that is available to everyone in the world, so it's a public display, not this one an exclusively educational demonstration in the classroom. When the painting is visible a website created for the category can be used if the website is protected to allow access only to members of the class.[[7]](#footnote-7)

1. **Patents:**

A patent is an exclusive right granted to an invention—a product or process that provides a new way of doing something or that provides a new technical solution to a problem. A patent protects patent owners of their inventions.

Protection is granted for a fixed period, usually 20 years.

A patent can be of three types:

* **Utility patents** are inventions that are commonly thought of as machines, such as a

cell phone or an MP3 player. It is divided into three categories: mechanical, electrical and chemical),

* **Design patents** are granted for the design of a functional item.
* A **plant patent** is granted to a new type of plant created by human activity.
1. **Trademarks:[[8]](#footnote-8)**

Trade marks are signs or symbols, ie. logos and names, registered by a manufacturer or trader to identify goods and services. Protection is usually granted for ten years and is extended as long as the trademarks continue to be used. Brands may vary. A trademark can be a trademark, trademark, service mark, certification mark or collective mark. For example, a brand name would be Coca-Cola; the shop dress would be in the shape of a Coca-Cola bottle; the collective mark can be the letter CPA after the name of the accountant who represents a partnership, for example, a barrister.

1. **Integrated circuit**

Integrated circuit layout design (topography) is a relatively new field in Intellectual property which emerged with information technology. The programming instructions of the computer chip are carried out by a printed circuit board semiconductors. Designing circuits on a chip requires large investments in knowledge, skills and capital and must be protected by intellectual property rights.

1. **Right of the breeder:**

A breeder is an intellectual property right granted to the breeder of new plant varieties. Breeders of new plant varieties can obtain breeding rights to protect their varieties from unauthorized exploitation. The right of the plant breeder is granted for 25 years in the case of vines and trees and 20 years in all other cases.

1. **Trade secrets;**

Trade secret (which is equivalent to "confidential" or a subset thereof information") is a trade secret, non-public information practices or proprietary information about the company, the disclosure of which may sometimes be illegal. Unlike patents, transactions are protected as long as the information is kept secret.

1. **Geographical indications:**

A geographical indication is a sign used on goods with a special label geographical origin and has characteristics or reputations derived from that place origin In most cases, a GI consists of a name the place of origin of the goods. For example, Kolhapur hats from Kolhapur, India. Geographical indications can be used for many agricultural purposes Products.

1. **Utility models:**

This concept originated in the United States. patent law The utility model is exclusive for a given invention that enables the right holder to prevent others commercial use of the protected invention without his permission a for a limited time. The Indian Patent Act does not provide for registration useful model. For example, a double key making machine.

1. **Industrial models:**

An industrial design right is an intellectual property right that protects the visual appearance

drawing items. This applies to three-dimensional properties such as product shape or surface or two-dimensional features such as patterns, lines or colour . Industrial design is applied to a wide variety of products. From watches, jewellers, luxury goods to industrial and medical equipment; from household items, furniture, electrical appliances to vehicles and architectural structures. In India, the Indian Planning Act of 1911 was replaced by the Planning Act of 2000. The model is valid for 10 years from the date of registration. This deadline can be extended by five years if the application is submitted before the end of 10 years.

**Intellectual Property Rights (IPR) and Digital Rights:[[9]](#footnote-9)**

In the digital age, privacy is an important issue, where unauthorized data sharing, data integration, unethical data use, and unauthorized disclosure are major concerns. The most important questions to be addressed are the following:

1. Should digitization be considered similar to reproduction, for example with a Xerox machine?
2. Is digitization a creative activity, like translating from one language to anothersecond?
3. Can the transmission of digitized documents via the Internet be considered a commercial broadcast or a public transmission similar to a broadcast?
4. Can a database be considered a special collection object that should be protected by copyright law?
5. What can be considered reasonable use in the internet environment?
6. What are the concerns of the library community?
7. How can the public enjoy fair use of these works in a digital context if the copyright owner restricts access?

 The above questions are related to the library. Libraries gave their users the ability to read a document, browse the entire collection; search the library catalog; to provide a Xerox copy for research and educational purposes; obtain photocopies of articles from other libraries or clearinghouses; distribute widely reproduced documents for public awareness and provide library loan service. Will this activity continue in the digital age? If digitization is seen as copying a work, then it is quite clear that in digitization, the original work is simply converted into digital, and the conversion process is carried out by a machine without creativity. If you think of it as a translation from one language to another, digitization is also a transformation from natural human language to machine language. However, digitization does not involve creativity and can be considered an activity similar to reprography. Copyright only protects creative works. The mere conversion of an original document into a digital format cannot be considered a creative work. The transmission of information on the Internet can be considered similar to broadcasting; therefore, copyright law is not applicable.

 **Importance of intellectual property protection in the digital age**

The technical progress of the last decade has been such that there has been regular disruptive change and explosive growth in information technology. The cycle of innovation has also shortened considerably, as it seems that inventions come again and again. Along with the amazing discoveries are the challenges of protecting intellectual property rights in the digital age. Intellectual property rights have branched out, covering many elements, including the intangible assets of your brand. This article explains the importance of intellectual property protection in the digital age.

Today, it's no longer about registering your business name or getting a trademark.

 **Why is intellectual property protection important?**

 The Internet has made it easier for people to access magazines, publications and all kinds of digital information. This leads many users to believe that any information found on the Internet can be reproduced because it is publicly available. When the shutdown was announced, more and more fake domains were created with copyrighted information, according to knowledgeable sources.

 **Examples of IP protection in the digital arena**

In 2019, British news site The Guardian accused a journalist from another country of plagiarizing parts of a Guardian article in a newspaper column he wrote for. Several brands, such as the North Face, have also faced PR disasters due to online scams. While everyone wants to be at the top of search engine results, it is not wise to get there by hook or by crook. The North Face came up with a plan to replace Wikipedia images with their images so that their images would appear first on Google. Within days, Wikipedia caught on and accused The North Face of illegally using its educational platform for free advertising. The above cases highlight why it is time to secure your intellectual property rights and successfully enforce copyright in this digital age.[[10]](#footnote-10)

 **Government initiatives to protect intellectual property**

In 1998, the United States passed a law prohibiting unauthorized access and use of protected works on the Internet by implementing two World Intellectual Property Organization (WIPO) treaties. This was seen as an important step towards the adoption of intellectual property rights and the inclusion of law enforcement in the digital scenario. There are several types of intellectual property laws to protect access rights to digital publications and digitized archives. In the digital sense, IP is not just trademarks and copyrights. There is a special form of permissions called database permissions that is not usually covered. In the UK, Open Data Commons is a group that has introduced legal tools and database laws to regulate access to and use of databases. They implemented systems to separate public data from restricted data versions. They achieve this by classifying different types of data according to the extent to which third parties can obtain and use the data with the permission and consent of the author. **Ways to protect digital and intellectual property:**

Digital Rights Management (DRM) technologies (also known as electronic Rights Management Systems) secures copyright by identifying and protecting content, controlling access to the work, protecting the integrity of the work, and ensuring payment for access. DRM technologies prevent illegal users from accessing content. Access is protected by username and password and license agreements. Another way to protect digital content is technical protectionProcedures (TPM). These technologies allow publishing companies to secure and protect content such as music, text and videos from unauthorized access. If the author wants to pay for the use of his work, DRM technology can be used. TPM and DRM technologies are increasingly used to sell and distribute content online Through INTERNET .

1. **Cryptography:**

Cryptography is the oldest mechanism used for security data privacy across networks. This involves scrambling (or decrypting) data to make it unreadable or unintelligible in a language that can only be deciphered (or deciphered) by a legitimate user. However, encryption only protects the work during transmission or distribution. Once the work is decrypted, it offers no protection.

1. **Digital Watermark Technology:**

A digital watermark is a digital signal or pattern added to a digital signal a document It is similar to the electronic display logo used by television stations. A unique identifier is used to identify the work. The message may contain information about ownership, sender, recipient, etc. or information copyright permission. The system consists of a watermark generator, an embedder and a decoder for a watermark detector. A legitimate user can remove these watermarks using a predefined algorithm. Watermarking technology is widely used to protect multimedia works.

1. **Digital signature technology:**

The digital signature contains the identifier of the sender and/or recipient, date, time, any unique code etc. This information can be added to digital products. This digitally tags and associates the software with the specified deliverable customer Digitally signed fingerprints ensure the authenticity of documents and prevent illegal copying.

1. **Electronic entry:**

In this technique, the system automatically generates a unique sign that is indicated on each document copy. This technology is used for copyright protection and in electronic publishing where documents are printed, copied or faxed.

1. **Security features of the operating system:**

To protect files, data, etc., the operating system of a computer such as Windows 2000 Professional, Windows 2000 Server, MS-SQL Server are a few unique special security and integrity features.

**Impact of the digital age on intellectual property**

The digital age has had a profound impact on intellectual property law. With the rise of technology and the Internet, the way people create, distribute and consume information and creative works has changed dramatically. This has led to new challenges and opportunities in intellectual property law and further questions about how to protect and enforce intellectual property rights in the digital world. One of the most important effects of the digital age on intellectual property law has been the rise of digital piracy. Due to the ease of copying and distribution of digital content, piracy has become a major problem for creators and owners of intellectual property rights. This has increased the need for more effective protection of intellectual property and new methods to detect and prevent piracy. Distribution and fulfillment

Another impact of the digital age on intellectual property rights has been the rise of the sharing economy.[[11]](#footnote-11) Online platforms like Airbnb and Uber have disrupted traditional business models and challenged traditional intellectual property rights by allowing people to share their assets and monetize them. This has raised new questions about the scope of intellectual property rights and the need for new laws and regulations to deal with these new business models. The digital age has also had a significant impact on the enforcement of intellectual property rights. With the rise of the Internet, owners of intellectual property rights can now easily track and enforce their rights worldwide. This made it easier to detect and prevent IP violations. However, this raised new questions about jurisdiction and cross-border enforcement of intellectual property rights. The digital age has also changed IP rights management and licensing. With the proliferation of digital platforms and cloud-based services, intellectual property rights owners can now easily license their rights to a global audience, making it easier to monetize their intellectual property. However, this has raised new questions about the scope and validity of IP licenses and the need for new laws and regulations to license digital IP rights.

**Conclusion:**

There are several issues associated with the use of digital information, viz. publishing single articles versus entire e-journal topics, user-friendliness, incompatibility. hardware and software, design, graphics, scientific identification and aging Did you understand the importance of protecting intellectual property rights? While protecting the copyrights of publishers is important, it is equally important to protect the interests of libraries and users in digital format.

In the Digital environment, it is difficult to draw the line of what is allowed, to what extent and what is a violation. Minor violations that do not conflict with the rights of the owner may be accepted as part of fair use. In the context of digital information, it is difficult to assess, understand fair use, access and control copyright infringement. It is almost impossible for a copyright owner to know who has used their work. The copyright law needs to be changed in this regard. In a digital environment, librarians have a certain responsibility to collect information and help readers, even providing it in electronic form.

Copyright protection should encourage creativity, not create barriers to the use of information. Librarians should act as a catalyst for the free flow of information between copyright holders and information users.

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