

“DIGITAL ENVIRONMENT AND INTELLECTUAL PROPERTY RIGHTS”

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Abstract:

The ownership of intangible goods is referred to as intellectual property. This encompasses concepts, layouts, images, words, and artistic works. Digital media, including online-downloadable audio and video clips, is also included in this term. Due to its intangible nature, intellectual property can be challenging to recover if it is stolen. For instance, let's say someone has a brilliant idea for a brand-new invention. When copyright was first established, intellectual property could be expressed physically in the form of books or other publications. In the current era of information, the inherent physical restriction on unauthorized copying is eliminated because digital information can be copied quickly and cheaply. Thus, it is time to reevaluate the copyright model's guiding principles. The goal of copyright law is to strike a balance between users' and copyright holders' rights. The digital age is not exempt from the application of copyright laws. Libraries need to make sure that the public has the same access rights to digital information as they do to printed information, since more and more information is becoming available in this format. 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. Copyright issues associated with digital / electronic information and protection of digital right.

Keywords: Intellectual Property Right, Digital Society, Library.

Introduction:

The Latin root "intellectus," which denotes the capacity for knowing as opposed to feeling, is where the word intellect gets its start. Man has the innate ability to learn new things and build up a knowledge bank by doing so throughout his life. All that an intellectual product is is the offspring of his creative thought and original idea, which together make up the unique category of property known as intellectual property. Intellectual property refers to the ownership of intangible assets. An object of a right is something in which the owner has an interest, and a right is an interest that is legally protected. In terms of intellectual property rights, the object is irrelevant.

Intellectual Product:

First I identify the components of an 'intellectual product' and then analyse how these individual components are created, combined, distributed, used and where and when copyright law is applied on this creative work.

An intellectual product has two components: intellectual and physical component. Intellectual product = intellectual component + physical component
The intellectual component is the intangible part of the product i.e. the creative work – The ideas, concepts, discoveries and the expression of these elements that is protected by copyright.

The expression of the work replicated in a physical medium is the physical component. For instance, the paper, ink binding, etc., of a book would be consider edits physical component. Now think about the steps involved in writing, publishing, and using a book after it has been created. We can say that an author who writes a story entirely in their brain has produced the intellectual component of a new intellectual product, even though at this point it is intangible and unavailable to anyone. The story and composition take on a tangible form as soon as the author creates a physical component in the form of a manuscript. The creator of the work has the right to assert copyright at this point. The physical manifestation of the story will be safeguarded by the copyright awarded to the author. Since the story is only an idea in the author's head and there isn't a physical copy, the question now is, does the copyright for that story still stand if the manuscript is destroyed? The manuscript may be revised at the writer's discretion.

The manuscript is now published by the author as a printed book. This book turns into an exact replica of the intellectual product that is offered to the customer. As they now possess the product's physical component, they are able to do the following with it:

- ❖ They can read the book and transfer the intellectual component of the intellectual product into their head.
- ❖ They are allowed fair use to the intellectual product such as quoting short sections of it.
- ❖ Destroy the book.
- ❖ Write over the page
- ❖ Under the first scale rule they can lend the book or sell it to another user.

Features of Intellectual Property:

1. It is a form of intangible property.
2. Its existence distinct from the physical articles or goods which contain the rights.
3. In some cases the rights are capable of existence and enforcement with no tangible form.
4. The same things may give rise to the different rights. For instance, a document may be protected by trademarks, patents, and design rights. A trademark that is pictorial may also be protected by copyright.

Categories of Intellectual Property Rights:

"Intellectual property" broadly two categories: (a) Industrial property and (b) Copyright. Industrial property consists of rights relating to inventions, trade marks, industrial designs and geographical indications. Copyright safeguards intellectual property rights in the domains of literature, science, music, art, and audio-visual productions, among others. "Intellectual property rights" (IPR) are the fundamental ownership rights of intellectual property that are mainly derived from laws pertaining to trade marks, patents, designs, and copyrights.

According to the World Intellectual Property Organizations, there are seven categories Of Intellectual Property Rights:

- i) Copyright and Related Rights
- ii) Trademarks, Trade names and Service marks
- iii) Geographical Indications
- iv) Industrial Designs
- v) Patents
- vi) Layout Designs of Integrated Circuits
- vii) Undisclosed Information

1. Copy right:

Copyright laws grant authors, artists and other creators protection for their literary and artistic works (e.g. books, movies, music, paintings, photographs, and software) and give a copyright holder the exclusive right to control reproduction or adaptation of such works for a certain period of time i.e. life of the author plus several decades.

Works covered under copy rights:

The copy right can be enumerated as follows:

- Artistic work: 1) It means a painting, a sculpture, a drawing 2) an engraving or a photograph 3) a work of architecture and any other work of artistic craftsmanship.
- Literary work: It includes computer programmes, tables and compilations including computer databases.
- Musical work: It means a work consisting of music and any graphical notation of such work.
- Dramatic work: It includes any piece of recitation, choreographic work or entertainment in dumb show.
- Cinematography film: It means any work of visual recording.
- Sound recording: It means a recording of sounds.

Six Rights of Copyright:

The Right to Copy: If one creates something artistic that is fixed in some medium, only that person who holds the copyright may make a copy of the thing created.

The Right to prepare Derivative works: A film adapted from a book or video game that was inspired by a well-known film is called a derivative work.

The Right to Distribute Copies: In the digital world distributing copies would be posting material on the Internet.

The Right to Perform Works Publicly: When a play is performed for an audience, it is publicly performed. If a copyright holder allows a play to be performed by others, he/she is entitled to a royalty fee and control over how the work is performed.

The Right of Public Performance of Sound Recording by means of Digital Audio Transmission

The Right to Display Works Publicly: It is considered fair use in an educational setting when a teacher displays a copy of a painting during an art lesson. If the painting is posted on a website that is open to the public and can be accessed by anybody, it can be considered a public display in a distance-learning course rather than just a classroom display. If the painting is available on a webpage created specifically for the class, it may be used provided that only class participants are able to access it.

2. Patents:

An invention is a product or process that offers a novel approach to a problem or a new technical solution. A patent is an exclusive right granted for such an invention. The ownership of an invention is protected by a patent. Protection is only offered for a short time, usually 20 years. There are three different kinds of patents: plant, design, and utility (mechanical, electrical, and chemical) patents. Patents covering inventions that are typically categorized as machines, like MP3 players and cell phones, are known as utility patents. A functional thing's design is eligible for a design patent. A plant patent is granted on a new type of plant that is created by human intervention.

3. Trademarks:

Trademarks are symbols or signs that i. e. logo and names registered by a manufacturer or merchant to identify goods and services. As long as the trade marks are used, protection is typically awarded for ten years, with renewals possible. Different types of trademarks exist. A trademark can be a trade dress, certification mark, service mark, brand name, or collective mark. For example, a brand name would be Coca-Cola; a trade dress would be the shape of the Coca-Cola bottle; a collective mark could be the CPA lettering after an accountant's name that designates an association such as Certified Public Accountants.

4. Integrated circuits:

The topography or layout design of integrated circuits is a relatively new field in IP that emerged with the advancement of computer technology. Circuitry printed on semiconductor layers carries out the instructions printed on a computer chip. The circuitry on a chip requires a significant investment of time, money, and expertise, all of which must be protected as intellectual property.

5. Breeder's right:

A type of intellectual property right given to those who create new plant varieties is called a plant breeder's right. Plant breeders' rights are granted to those who create new plant varieties in order to safeguard them from being exploited without authorization. In the case of vines and trees, a plant breeder's right is granted for 25 years; in all other cases, it is granted for 20 years.

6. Trade secrets:

Trade secrets are proprietary business knowledge or other confidential details that are kept under wraps and are not generally available to the public. They are sometimes prohibited from being disclosed publicly. They are sometimes confused with, or considered a subset of, "confidential information.". Unlike patents, trade secrets are protected as long as the information is kept secret.

7. Geographical indications:

A geographical indication is a label applied to products that come from a particular location and have characteristics or a reputation unique to that location. A geographical indication typically consists of the name of the product's place of origin. For example Kolhapuri chappals from Kolhapur, India. Geographical indications may be used for a wide variety of agricultural products.

8. Utility models:

This concept originated in U. S. patent law. A utility model is an exclusive right granted for an invention, which allows the right holder to prevent others from commercially using the protected invention, without his authorization, for a limited period of time. Patent law in India does not provide any registration of utility model. For example, duplicate key making machine.

9. Industrial Designs:

An intellectual property right that safeguards an object's visual design is known as an industrial design right. It is focused on two-dimensional elements like patterns, lines, or color, or three-dimensional elements like an object's shape or surface. Numerous products use industrial design in one way or another. From jewelry, watches, and high-end goods to business and medical equipment; from furniture, appliances, and household goods to cars and architectural designs. The Design Act, 2000 has superseded the Indian Design Act, 1911 in that country. A design has a ten-year term starting on the registration date. This period can be extended by 5 years if application is made before the expiry of 10 years.

IPR and Digital Rights:

Unauthorized data sharing, data integration, unethical data utilization, and unauthorized public disclosure are the main areas of concern when it comes to privacy in the digital age. The major issues are to be considered as follows:

1. Should digitization be compared to reproduction, like using a Xerox machine for example?
2. Is digitization considered a creative endeavor, much like translating between languages?
3. Can transmission of digitized documents through Internet be considered as commercial distribution or public communication similar to broadcasting?
4. Should we view databases as a distinctive compilation that warrants protection under copyright law?
5. What on Earth qualifies as fair use in an online setting?
6. What worries the community of librarians about?
7. What are the ways in which the public could exercise fair use of those works in a digital context where access is restricted by copyright owners?

The problems listed above are unique to the library. Libraries grant their patrons the following privileges: reading a document, perusing the entire collection, searching the catalogue, obtaining Xerox copies for research and educational purposes, obtaining photocopies of articles from other libraries or clearinghouses, disseminating reprinted copies of documents for public awareness, and offering interlibrary loan services.

If digitization is regarded as reproduction work, it is evident that in digitization the original work is merely changed into the digital form and the process of changing is accomplished by a machine, without any creativity. Is it possible that all of these activities will continue in the digital age? Digitization is the conversion of natural human language into machine language, if it is to be viewed as a translation from one language to another. But there is no creativity involved in digitization, which is comparable to reprography in some ways. Copyright only safeguards artistic creations. An original document's simple conversion to digital format does not qualify as creative work. Since information transmitted over the Internet can be compared to broad casting, copyright laws do not apply.

Ways for Protection of Digital / Intellectual Property:

Digital Rights Management (DRM) technologies, which are also referred to as Electronic Rights Management Systems, serve to protect copyright by means of content identification and protection, access control, integrity protection, and payment for access. DRM technologies block unauthorized users from viewing the content. Access is safeguarded by licensing agreements and user IDs and passwords. Technical Protection Measures (TPM) offer an additional layer of protection for digital content. With the use of these technologies, publishing companies can safeguard and prevent unauthorized use of content like text, music, and video.

The use of DRM technology allows authors to charge for the use of their creations. More and more content is being sold and distributed via the TPM and DRM technologies.

1. Cryptography:

The most established method for protecting network security and privacy is cryptography. This entails encrypting or scrambling the data so that only authorized users can decrypt or unscramble it and make it unintelligible or unreadable. Nevertheless, cryptography only safeguards the work while it is being distributed or transmitted. The work offers no protection once it has been decrypted.

2. Digital Watermark Technology:

A digital signal or pattern added to a digital document is called a digital watermark. It resembles the electronic TV channel on-screen logo. The work is identified by a special code. The message may include information about copyright permission or about ownership, sender, recipient, etc. A watermark generator, an embedder, and a watermark detector decoder make up the system. The legal user can remove these watermarks with a predetermined algorithm. The technology of watermarking is widely employed for safeguarding multimedia content.

3. Digital Signature Technology:

A digital signature contains the sender's and/or recipient's identity, the date, the time, any unique codes, and so forth. Digital products can be enhanced with this information. This digitally identifies and binds software for delivery to a designated client. Digital signatures on documents ensure their authenticity and stop unauthorized copies.

4. Electronic Marking:

This method involves assigning a unique mark to every document copy that is automatically generated by the system. This method is employed in electronic publishing, where papers are printed, duplicated, or faxed, in order to safeguard intellectual property.

5. Security Features of Operating System:

For protection of files, data etc.. the operating system of computer such as Windows 2000 Professional, Windows 2000 Server, MS-SQL Server has some unique special security and integrity features.

Conclusion:

The use of digital information is linked to several problems. e. issue of single articles versus full issues of e-journals, user-friendliness, incompatible hardware and software, formatting, graphics, scholarly recognition and obsolescence. In addition to safeguarding the publishers' copyright, it's critical to safeguard users' and libraries' interests. It can be challenging to establish boundaries in the digital sphere between what is acceptable and what constitutes infringement. Fair use may allow for minor infractions that do not violate the rights of the owner.

It is challenging to determine, understand, and regulate copyright infringement in the context of digital information. A copyright holder has very little control over who may use their creations. It is necessary to amend the copyright law in this situation. In the digital age, librarians have an obligation to gather information and provide it to readers, even if it is in electronic format. Copyright protection ought to promote innovation rather than erect barriers to information use. Librarians ought to act as an agent provocateur, facilitating the unrestricted exchange of knowledge between information users and copyright holders.

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