# DIGITAL NOTES

## *Intellectual Property Rights*

**SUBJECT CODE**

***R17A0051***

## B.Tech –II Year –II Semester

**DEPARTMENT OF MECHANICAL ENGINEERING**

# MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

**(An Autonomous Institution – UGC, Govt.of India)**

Recognizes under 2(f) and 12(B) of UGC ACT 1956

(Affiliated to JNTUH, Hyderabad, Approved by AICTE –Accredited by NBA & NAAC-"A" Grade-ISO 9001:2015

Certified)

# MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

**COURSE OBJECTIVES:**

- **To understand the concepts IPR**
- **To understand the fundamentals of Law in IPR.**
- **To apply the concepts of IPR in development and research.**

**UNIT – I:**

**Introduction: Introduction to Intellectual property law, types of intellectual property, importance of intellectual property rights, agencies responsible for intellectual property Registration, Regulatory-Compliance and liability issues.**

**UNIT – II**

**Trade Marks: Purpose and function of trademarks, Acquisition of trade mark rights, transfer of rights, protectable matter, selecting and evaluating trademark, registration of trademarks, claims.**

**Trade Secrets: Trade secret law, determination of trade secret status, liability for misappropriation of trade secrets, protection for submission, trade secret litigation.**

**Unfair Competition: Misappropriation right of publicity, false advertising.**

**UNIT – III**

**Copyrights: Fundamentals of copyright law, originality of material, right of reproduction, right to perform the work publicly, copyright ownership issues, notice o copyright.**

**Patents: Foundation of patent law, patent searching process, ownership right and transfer.**

**UNIT-IV**

**Introduction to Cyber law: information technology act, cyber crime and e-commerce, data security, confidentiality, privacy, international aspects of computer and online crime.**

**UNIT – V:**

**New development of intellectual property: new developments In trade mark law, copyright law, patent law.**

**International overview on intellectual property, international trade mark law, copyright law, patent law.**

**COURSE OUTCOMES:**

- **Learner should be able to demonstrate understanding of basic concepts of IPR.**
- **To differentiate between Trade marks, Copyrights, Patents and Trade secerets**
- **To Analyze new Developments of IPR.**

**TEXT BOOKS:**

1. **Intellectual property right by Deborah E Bouchoux**
2. **Cyber law, Text and cases South western special topics collection.**
3. **Intellectual property rights by N.K Acharya**
4. **Fundamentals of IPR for engineers, BY komal bansal**

**REFERENCES:**

**Intellectual property rights by P. Radhakrishnan.**

# CONTENTS

# INTELLECTUAL PROPERTY RIGHTS

## UNIT –I

INTRODUCTION TO THE INTELLECTUAL PROPERTY RIGHTS and definition:

**Intellectual property law** is the area of **law** that deals with **legal** rights to creative works and inventions. It controls who gets to use creations including new products, artistic works and designs. The purpose of **intellectual property law** is to allow the people who create and invent things to profit from their work

**Intellectual property rights** are the **rights** given to persons over the creations of their minds. They usually give the creator an exclusive **right** over the use of his/her creation for a certain period of time.

A **right** that is had by a person or by a company to have exclusive **rights** to use its own plans, ideas, or other intangible assets without the worry of competition, at least for a specific period of time. These **rights** can include copyrights, patents, trademarks, and trade secrets.

These rights may be enforced by a court via a lawsuit. The reasoning for intellectual property is to encourage innovation without the fear that a competitor will steal the idea and / or take the credit for it.

Examples of Intellectual Property include:

- **Patents** – IP protection for the features, devices and processes that make things work. Patents are probably the most applicable type of IP protection for manufacturers and are often filed by those who invent new technologies, processes and products.
- **Trade Marks** – distinctive words or logos that uniquely distinguish goods and services
- **Design Rights** – protection for a 3D shape or form. It can apply to the distinctive look of a product.
- **Copyright** – protects material that is recorded or written down. For small manufacturers this includes engineering drawings, technical documentation and stored digital data.

**You'll find four main types of IP protection for your business:**

- Patents. A patent grants property rights on an invention, allowing the patent holder to exclude others from making, selling, or using the invention. ...
- Trademarks. ...
- Trade Secrets. ...
- Copyrights.

Examples: *Utility patents*: For tangible inventions, such as machines, devices, and composite materials, as well as new and useful processes. *Design patents*: For the ornamental designs on manufactured products. *Plant patents*: For new varieties of **plants**

**Intellectual property** (**IP**) is a category of property that includes intangible creations of the human intellect, and primarily encompasses copyrights, patents, and trademarks.[1] It also includes other types of rights, such as trade secrets, publicity rights, moral rights, and rights against unfair competition. Artistic works like music and literature, as well as some discoveries, inventions, words, phrases, symbols, and designs, can all be protected as intellectual property.[2][3] It was not until the 19th century that the term "intellectual property" began to be used, and not until the late 20th century that it became commonplace in the majority of the world.

The main purpose of intellectual property law is to encourage the creation of a large variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create – usually for a limited period of time. This gives economic incentive for their creation, because it allows people to profit from the information and intellectual goods they create. These economic incentives are expected to stimulate innovation and contribute to the technological progress of countries, which depends on the extent of protection granted to innovators.

The intangible nature of intellectual property presents difficulties when compared with traditional property like land or goods. Unlike traditional property, intellectual property is "indivisible" – an unlimited number of people can "consume" an intellectual good without it being depleted. Additionally, investments in intellectual goods suffer from problems of appropriation – a landowner can surround their land with a robust fence and hire armed guards to protect it, but a producer of information or an intellectual good can usually do very little to stop their first buyer from replicating it and selling it at a lower price. Balancing rights so that they are strong enough to encourage the creation of intellectual goods but not so strong that they prevent the goods' wide use is the primary focus of modern intellectual property law.

**Intellectual property rights** are like any other **property right**. They allow creators, or owners, of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation. ... Both treaties are administered by the

World **Intellectual Property** Organization (***WIPO***).

INTELLECTUAL PROPERTY RIGHTS BASICS:

# Intellectual Property Law Basics

Patent Law

Patent law covers the legal conditions under which an invention may be patented. In the U.S., patent law requires that the invention be of patentable subject matter, and have utility, novelty, and non-obviousness. A patent examiner judges patentability during an official examination of a patent application. If the patent is granted, the invention is presumed to have been patentable. However, if an error occurs during the granting procedure, infringement litigation may result. This may occur if, for example, the examiner failed to research all prior technology ("prior art") in the field of the invention to confirm that the invention had novelty. If the invention was not truly novel, other patent holders may bring legal action against the patent.

Copyright Law

A copyright gives the owner the exclusive right to reproduce, distribute, perform, display or license his work. The owner also receives the exclusive right to produce or license derivatives of his or her work. Limited exceptions to this exclusivity exist for types of "fair use," such as book reviews. To be covered by copyright, a work must be original and in a "concrete medium of expression." Under current law, works are covered whether or not a copyright notice is attached and whether or not the work is registered. The U.S. Copyright Act, 17 U.S.C.S. §§ 101–810, is federal legislation enacted by Congress under its constitutional grant of authority to protect the writings of authors. Changing technology has led to an ever-expanding understanding of the word "writings." The Copyright Act now reaches architectural design, software, the graphic arts, motion pictures and sound recordings. Given the scope of the federal legislation and its provision precluding inconsistent state law, the field is almost exclusively a federal one. Copyright attorneys can concentrate on litigation,

prosecution or administration. Typical tasks in the prosecution arena include searching for the availability of copyrights and negotiating license agreements. Litigators step in when copyrights are violated, or are in need of protection. Copyright attorneys also handle all aspects of copyright registration, transfers and placement/use of proper copyright notices.

Trademark Law

Trademark law is relevant in virtually all industries and is an area that represents tremendous growth and importance in today's economic climate. Trademarks are generally distinctive symbols, pictures, or words that sellers affix to distinguish and identify the origin of their products. These marks are protected by federal laws that require registration with the federal and/or state government, giving the owner exclusive rights to use it on the product it was intended to identify and often on related products. Because companies invest tremendous resources to the development of trademarks, companies are prepared to invest the necessary resources towards the protection of these rights from infringers, whether these rights are owned or licensed to others. Trademark law helps owners properly obtain, protect, and utilize an intellectual property portfolio for their business success.

**Role of Intellectual Property in Innovation and New Product Development**

# Innovation

Generally put, an 'innovation' is developing a new idea ***and*** putting it into practice. As this article is focused on the competitive strategy of a private enterprise in a market-driven business environment, the term 'innovation' is used here to refer to the process of bringing valuable new products (goods and services) to market i.e., from the idea/concept formulation stage to the successful launching of a new or improved product in the marketplace[2], or the result of that process, so as to meet the explicit or implied needs of current or potential customers. In other words, through innovation an enterprise seeks to deliver unique new value to its customers. In this context, 'marketing' is the understanding of that unique new value and communicating it to the current and potential customers of a business so that the product sells itself.

Technological innovation may be classified in several ways: product vs. process, radical (basic or fundamental) vs. incremental (improvement), and disruptive vs. sustaining (sequential and/or complementary). Other important types of (non-technological) innovations that do not result from scientific and/or technological R&D, but are often crucial for profitably marketing the products and services resulting from the investment

made in R&D are: marketing innovation, institutional innovation, and complementary innovation.

In this article, however, the focus is on technological innovations. Nowadays, it is generally accepted that in a knowledge-driven, competitive business environment, technological innovation (hereafter, for the sake of simplicity, simply called 'innovation') is a principal determinant of successful firm performance. But differences of opinion persist amongst economists and policymakers about the exact role of intellectual property (IP) in relation to innovation. On the one hand, in theory, the IP system is considered to be absolutely necessary "to encourage creative intellectual endeavor in the public interest,"[3] and on the other, some observers believe that, in practice, the IP system hinders competition to the extent that it is often seen to be playing a negative role in innovation.[4] Hence the need for a systematic and periodic study and review of the actual use by businesses of the tools of the IP system so that economists are able to provide empirical, evidence-based guidance to policymakers to adapt the IP system so that it continues to serve the conflicting private and public interest in spurring further innovation and its wide diffusion in the shortest possible time. This article, however, does not deal with these otherwise important aspects.
Managing innovation better than its competitors is one of the main objectives of a business that wishes to survive and thrive in today's economy. By relying on practical examples, this article highlights the important contributions made by the effective use of the different tools in the IP system to the process of taking innovative technologies to market, through launching of superior products and/or services. For explaining the role of the tools of the IP system, it goes beyond merely looking at technological innovation as either radical or incremental technological breakthroughs. Instead, it looks upon technological innovation as an interactive process made up of a number of distinct stages. It begins with the formulation of a novel idea/concept and, through a series of stages, ends in the successful launching and marketing of a new or improved product in the marketplace. In other words, it looks at practical IP issues of relevance to different stages in the whole new product development process in which technological innovations may be introduced at different stages of the value chain from the producer to the end user.[5] For the sake of simplicity, it focuses on the idea stage and the research and development stage.

Innovation is a process, which begins from the conception of an idea to the launching of a **new product**/process in the market place. **Intellectual property rights** can be used effectively to facilitate successful innovation. ... **IP** also plays an important **role** in safely navigating the "valley of death"

. "valley of death" in innovation (the "valley of death" normally starts from the period an invention has been made to the launching of a new product/process). This is the period

where most inventions collapse due to the absence of external support or are found to be not commercially viable.

## Understanding How Intellectual Property (IP) Relates to E-Commerce

Intellectual property (we'll use the abbreviation "IP" from now on) is a legal term that refers to industrial property and to **copyright and related rights**. Industrial property comprises the protection of **patents, trademarks, industrial designs,** and **geographical indications**. It also includes the protection of **utility models, trade dress** and **layout-designs or topographies of integrated circuits**, where such protection exists, and **protection against unfair competition including/or protection of undisclosed information/trade secrets**. IP is really a type of property or **asset**, just as valuable (or more valuable) than physical or real property, even though it may be intangible, like knowledge. The value of IP assets relative to physical assets has increased because of the importance of technology and creative works in the modern economy. **IP consists of new ideas, original expressions, distinctive names, and appearance that make products unique and valuable**. IP is often traded (or "**licensed**") in its own right without trading in the value of an underlying product or service, by means of patent or other IP licenses from a rights owner to another.

There are several reasons why IP is important to E-Commerce and e-commerce is important to IP. **E-Commerce, more than other business systems, often involves selling products and services that are based on IP and its licensing.** Music, pictures, photos, software, designs, training modules, systems, etc. can all be traded through E-Commerce, in which case, IP is the main component of value in the transaction. IP is important because the things of value that are traded on the Internet must be protected, using technological security systems and IP laws, or else they can be stolen or pirated and whole businesses can be destroyed.

Also, **IP is involved in making E-Commerce work**. The systems that allow the Internet to function - software, networks, designs, chips, routers and switches, the user interface, and so on - are forms of IP and often protected by IP rights. Trademarks are an essential part of E-Commerce business, as branding, customer recognition and good will, essential elements of Web-based business, are protected by trademarks and unfair competition law. E-Commerce businesses and Internet related businesses are based on product or patent licensing. This is because so many different technologies are required to create a product that companies often outsource the development of some component of products, or share technologies through licensing arrangements. If every company had to develop and produce all technological aspects of every product independently, development of high technology products would be impossible. The economics of E-Commerce depends on companies working together to share, through licensing, the opportunities and risks of business. Many of these companies are SMEs.

Finally, E-Commerce based businesses usually hold a great deal of their value in IP; so the valuation of your E-Commerce business will be affected by whether you have protected your IP. Many E-Commerce companies, like other technology companies, have **patent portfolios and trademarks**

Value of Intellectual property in international commerce:

**Intellectual property** rights (IP rights) are not inherently valuable. Their **value** is the strategic advantage gained by excluding others from using the **intellectual property**. To be valuable, your exclusionary rights should be strategically aligned with your business objectives.

## Issues affecting IP Internationally:

The question of intellectual property rights (IPRs) has received increasing attention in the arena of international economic policy. Industrial nations have placed IPRs on the agenda of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), 1 advocating that GATT members exchange access to patent and copyright protection for each other's firms in much the same way in which they currently exchange access to the domestic goods market for each other's firms. Such a policy, if adopted, could extend the international recognition of intellectual property beyond the countries which currently adhere to the Paris Convention on patents and the Berne Convention on copyrights to embrace the near-global group of GATT members. Some developing countries, in resisting such a policy, argue that an extension of international IPRs would harm their own technological progress and that they should continue to be free to opt out of the partial system of international IPRs provided by the current conventions) International exchanges of goods market access represent steps in the direction of free trade, a policy which possesses well-known theoretical arguments and some empirical evidence in its favor. The case Remark: The capable research assistance of Leola Ross and the helpful

for international extension of IPRs has been argued more casually, in terms of preventing piracy, broadening the rewards to inventive activity, or providing a good international business climate in general; firms might not wish to locate in countries where their technological or market advantages are easily copied. But it is by no means clear that the extension of IPRs across national borders has effects which parallel those of free trade. While free trade generally increases the degree of competition in the international market, extension of IPRs implies that firms possessing domestic monopoly power in the use of a particular idea can more easily extend that monopoly power overseas. The exercise of international IPRs is thus primarily the province of the multinational firm rather than of the atomistic units assumed in much trade theory. Although there is some theoretical and descriptive work on the role of intellectual property in the multinational firm, there is little direct empirical evidence on either the extent to which international flows of trade and investment are influenced by the international pattern of IPRs under the status quo or the role which decisions about IPRs play in a country's choice of international policy instruments generally. This paper seeks to remedy both of those gaps. First, it imbeds countries' choices about membership in international IPR conventions and about domestic patent protection in a broader empirical model of the exports and overseas affiliate sales of the United States to its various trading partners in 1982. The effects of IPRs on the volume of licensing payments and receipts of U.S. overseas affiliates is examined. In addition, evidence on the pattern of countries' joint decisions about tariffs, international IPRs, and policy towards U.S. overseas affiliates is presented. The paper consists of six sections. Section II summarizes the previous state of discussion concerning the role of intellectual property in the multinational firm. Implications are drawn for the potential effects of changes in IPR policy on

such firms' behavior. Section III describes the results of a joint cluster analysis of countries' international IPRs and other international economic policies.

# UNIT II

Parties to IP Rights: Ownership:-

There are three primary scenarios for the ownership of intellectual property rights: (1) the university owns the intellectual property; (2) the sponsor owns the intellectual property; and (3) the university and sponsor jointly own the intellectual property. As a matter of policy, universities generally require faculty

Intellectual property arising from industry-sponsored university research should not take the form of trade secrets as this form prohibits publication or presentation of research results.

Trade secrets require a level of guardianship that universities are not set up to provide.

Especially a state institution that must comply with a Freedom of Information Act.

Companies from some industrial sectors take the position that the sponsor has a right to own the intellectual property since it has paid for the research.

**Authorised User:**

Authorizing New Device based on IP Address, with Laravel Middleware

I recently saw few of the e-commerce & payment gateway sites using device authorization system based on IP address, browser etc. I was also working on a same for my client's web app recently so wanted to share a detailed post with the community people.

In this blog post, I will go in detail to cover following stuff.

- Allow the user to enter login credentials, if the login credentials are valid, also verify if the user's device is authorized with the current IP address assigned to the user's device.
- If the user's device is not authorized to access the protected pages, like the dashboard, the application will send an email to the recently logged in user's email to ask for authorizing the device before proceeding.
- After sending the email, the page will redirect to wait for email authorization, and that will keep refreshing on certain time interval to check if the user is authorized, so it can redirect to the dashboard.

- If the user is not active and did not authorize the device within next 15 min after email is sent, it will log out the user as a reason for a timeout with a certain message.

**Licensee:**

The word license simply means permission – one person grants permission to another to do something. A license agreement is a formal, preferably written, document recording the circumstances under which a promise shall be legally binding on the person making it. There are at least two essential parties: the licensor, the party who owns the IP and is agreeing to let it be used, and the licensee, the party who receives rights to use the IP in exchange for payment. Therefore, a license agreement is a partnership between an IP owner (licensor) and another who is authorized to use such rights (licensee) under certain conditions, usually for a monetary compensation in the form of a flat fee or running royalty that is often a percentage or share of the revenues gained from use of the invention. Simply put, a license grants the licensee rights in property without transferring ownership of the property. page 2 6. For a license of IP to be effective, four basic conditions must be met: the licensor must have ownership of relevant IP or authority from the owner to grant a license; the IP must be protected by law or at least eligible for protection; the license must specify what rights with respect to IP it grants to the licensee; and the payment or other economic or IP assets to be given in exchange for the license must be clearly stated. 7. There are many different types of IP licenses such as technology licenses, publishing and entertainment licenses, and trademark and merchandising licenses. ADVANTAGES OF LICENSING FOR THE LICENSOR 8. Many companies have a portfolio of patents, utility models, proprietary know-how

**What is a Patent Attorney:**

A patent attorney is a lawyer with expertise in intellectual property law pertaining to securing and protecting an inventor's property rights. Patent attorneys have passed a federal exam referred to as the "patent bar exam" that grants them a license to represent clients before the United States Patent and Trademark Office (USPTO). They have also passed the state bar exam that all attorneys must pass. Patents are granted to inventors of unique useful and no obvious inventions. Other countries may have different certifications or qualifications for patent attorneys or have patent processes that may require no more than an individual with general legal credentials.

**4 steps to finalize a requirements document**

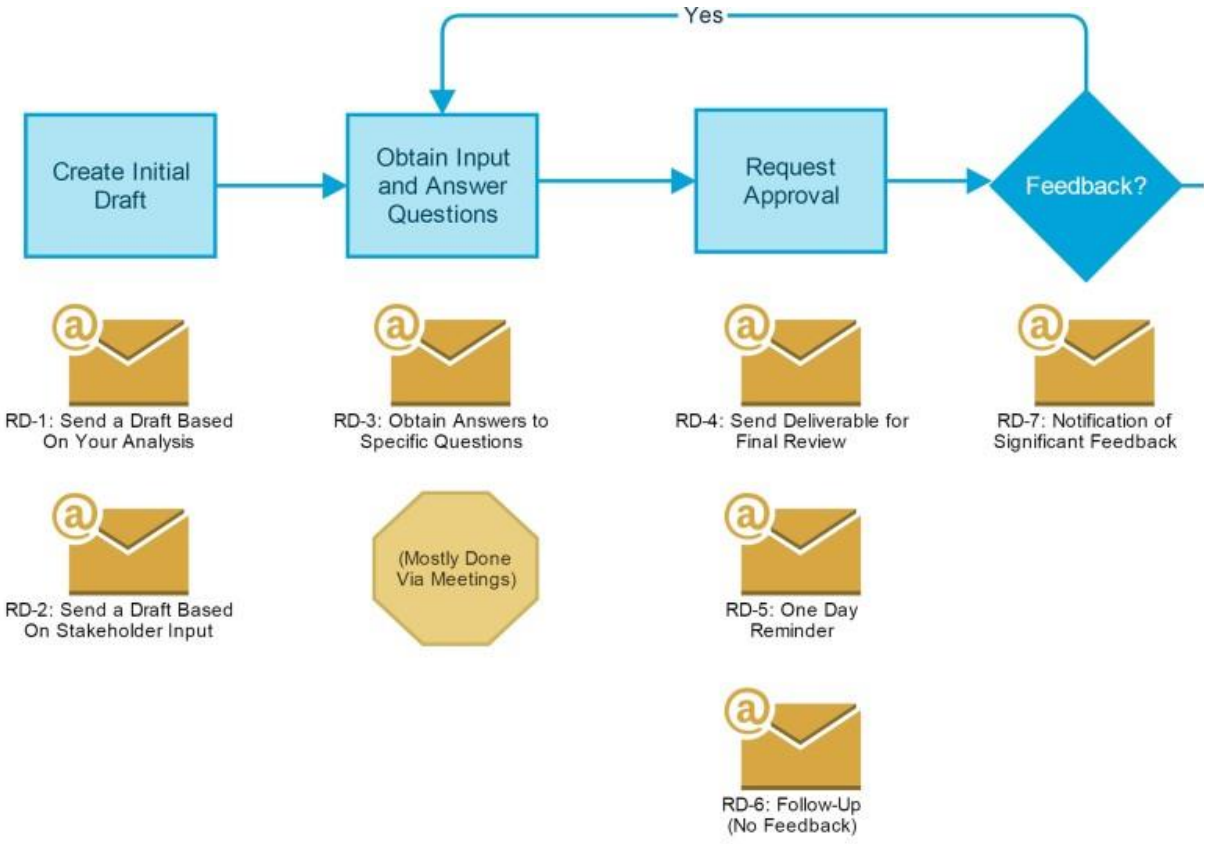
One of the things that I wish I'd known when I started out as a business analyst was I would need to take deliberate steps to ensure my stakeholders truly got what they wanted and needed out of the requirements.

As requirements *authors* and *analyzers*, it's really easy to get so wrapped up in the process that you take on more *ownership* than is prudent. However, when stakeholders do not buy into the requirements, you can expect change requests late in the development cycle and a longer process to put the solution to use.

By methodically seeking feedback at each stage of the requirements process and using email correctly as part of this process, you'll get critical input on your documentation and ensure your stakeholders embrace the upcoming changes to their processes.

(This is the third installment of a 4-part series going into a little more detail on the things I would have liked to have known before I started my business analyst career.)

Here's a quick visual map you can use to remember what pieces of communication to consider sending on a project when it comes to the 4 steps to finalize a requirements document.




Click here to download this visual map in PDF format and save it for future use. You also might want to check out our Email Communication Templates for copy-and-paste email templates covering each of the scenarios discussed here.

Now, let's take a closer look at how we can get the input we need on a requirements document.

**Step 1 – Create an Initial Draft**

To create a first draft, the business analyst may do independent research or meet with stakeholders to seek their high-level input.

Either way, the *first* draft is not the *final* draft – ever. Yet it is sensible to send an early draft out for review, as this can help get questions answered and move the requirements process along.

The important thing when sending out an early draft for review is to emphasize that this is indeed a working draft and that stakeholder input is still required. Highlighting specific questions you have and identifying next steps can help manage stakeholder expectations.

**Step 2 – Obtain Input and Answer Questions**

Once the first draft is complete, you'll need to obtain additional input and get questions answered. Most often, you'll conduct a requirements walk-through.

On occasion, it may be more efficient to receive answers to key questions via email. In this case, send an email with the specific questions you have and attach the draft copy of your deliverable for more background information.

**Step 3 – Send a Deliverable for Final Review**

Once a requirements document has been reviewed and key questions resolved, you will have a document that's ready for final review and approval. Email is a great way to manage this kind of task.

Simply attach the document to your email, explain what's expected of your stakeholders, communicate a deadline by which you need their feedback or approval, and hit send.

Since stakeholders are busy, plan to remind them *before the deadline*. Including a description of how their approval helps move the project forward can help them carve out time for this task.

**Step 4 – Finalize Deliverable**

Once you go through the above steps, sometimes multiple times, you'll have your approved document. This is a step to communicate (and celebrate)!

Send the final deliverable out to anyone who needs to know about the final document, including those involved in implementing and testing against the specification.

***use rights***.

**intellectual property rights**. A **right** that is had by a person or by a company to have exclusive **rights** to **use** its own plans, ideas, or other intangible assets without the worry of competition, at least for a specific period of time. These **rights** can include copyrights, patents, trademarks, and trade secrets.

# UNIT-3

A **copyright** is a form of protection provided by the laws of the United States to authors of "original works of authorship." This includes literary, dramatic, musical, artistic and certain other creative works

**Fundamentals of copyright law:**

United States law offers protection from duplication through copyright regulation to those who create "original works." While there are many items that fall under the umbrella of this protection, certain guidelines must be met in order to gain the full protection of the law. Works of visual art, musical recordings, video or sound broadcasts and literary works are all examples of things that may be copyrighted. Creations need not be published in order to qualify, though applying for a registered copyright is an imperative step toward complete legal protection.

## Copyright Ownership

The current law, established by the Copyright Act of 1976, provides for automatic protection the moment a work is created. No written notice is required. Once an item is in tangible form, it is considered the property of the owner and may not be duplicated or used for monetary gain by another person or entity.

Usually, the creator owns rights to the work, but there are several exceptions to that standard. Independent contractors often create parts of a larger literary work, such as an article that becomes a piece of a magazine or an essay published in an anthology. In any cases where work is considered "made for hire," it becomes property of the hiring person or company. In such instances, the employer has full rights to the copyright. Other occasions when this may occur include:

- A translation
- Part of a film or screenplay
- A compilation
- An atlas
- An instructional manual or text
- A test or answer key for a test
- Supplementary material, such as an introduction, afterword, editorial note, appendix, etc.

In other cases, employees may produce innovative work during employment for a company. These creations are considered the intellectual property of the employer, who reserves the copyright to all designs.

Copyrights may sometimes be owned jointly. This occurs most often when two authors contribute to a written work with the intention of creating an inseparable finished product. Both authors share the ownership of the copyright and the privilege of equal profit regarding any proceeds the work may bring in.

## Copyright Registration

In order to legally defend a copyright, owners must register it with the U.S. Copyright Office. Statutory damages and attorney fees can only be awarded in cases of a registered copyright violation. Registration must be completed within three months of the first publication or before any infringements occur in order for damages to be awarded.

### Copyright Owner's Rights

Owning a copyright affords certain rights by law:

- The right to make duplications
- The right to distribute or sell copies
- The right to display or perform the work in a public setting
- The right to adapt or make changes to the original

These claims also indicate that the owner has full freedom to profit from the sale, display or other utilization of the copyrighted material.

### Transferring a Copyright

Ownership may be sold or transferred at any time during the life of the copyright using a variety of methods. Typically, sale or assignment happens in one of four ways:

1. Assignment or sale transfers some or all of the rights of ownership, usually for a predetermined amount of compensation. In order to publish a book or work of literature, the owner often sells the copyright to the publishing company in exchange for a contract and monetary compensation.
2. Transfer at death reassigns ownership when an owner dies with a valid will naming a beneficiary. If no will exists, laws dictating intestate succession apply.
3. Mortgage temporarily transfers the interest in the copyright to another as security for a loan or other debt.
4. Involuntary transfer usually occurs by court order during a divorce, bankruptcy or foreclosure.

Owners retain the right to publish, duplicate, defend, sell and monetize their copyrighted work as long as the copyright is in effect.

## Originality under Copyright Law:

opyright is the right which a person acquires in a work, which is the result of his intellectual labor. It is a special type of intellectual property that aims at protecting the fruit of a man's labor or skill from being misappropriated by someone else. It seeks to encourage authors, composers, and artists to create original works by rewarding them with the exclusive right for a specified period to reproduce the works for publishing and selling them to the public.

Now, S 13 of the Indian Copyright Act lists the works in which copyright subsists. It states as follows:

*Subject to the provisions of this section and the other provisions of this Act, copyright shall subsist throughout India in the following classes of works, that is to say-*

*Original literary, dramatic, musical and artistic works.*

*Cinematographic films, and*

*Sound recordings*

## What is meant by originality?

The Indian Copyright Act seeks to protect 'original' literary, dramatic, musical and artistic works. The question that arises here is- what is meant by originality?

The word 'original' does not mean that the work must be the expression of original and inventive thought. Originality with respect to the expression of the thought does not require novelty of the expression. The Act only requires that the work should not be copied from another work. This means that the work should originate solely from the author.

Though this seems difficult to comprehend, several judicial decisions have laid down the parameters of what would be deemed to be original, especially with regard to literary works.

The first case in this regard is *University of London Press Ltd v. Tutorial Press Ltd.* In this case, the question arose with regard to certain mathematics question papers that were formulated by the University of London. University Tutorial Press was engaged in the work of collecting question papers of the University of London and publishing them in the form of a book. Now, the University of London claimed that such act was violating the copyright of the professors employed with them and therefore Tutorial Press should desist from the publication of the question papers. On the other hand, Tutorial Press claimed that the questions of the question paper were drawn from an existing body of knowledge; hence there existed no originality. As a consequence, they held that the college's claim that there exists copyright in the question papers holds no water. The Court, however, held that despite the fact that the questions have been drawn from an existing body of knowledge, the formulation of questions into a question paper requires the exertion of effort and skill and this qualifies the question paper for protection under copyright law. The Court held that originality does not mean that the work has to be original; it only means that some effort has to be put in for it to be deemed as original.

This was further reiterated in the case of *Burlington Home Shopping Pvt. Ltd. v. Rajnish Chibber.* In this case, the dispute was whether the customer database collected by the company would amount to an original work and therefore qualify for a copyright protection. The Indian courts, relying on the *University of London Press case* held that since skill and labor had been invested in the preparation of the database, it would amount to an original work. The Court held that the 'sweat of the brow' should be the threshold for determining the originality of a work.

However, the scenario changed with the case of *Fiest Publications Inc. v. Rural Telephone Service Co.* In this case, the contents of a telephone directory were brought under scrutiny to determine whether they would qualify to be a subject of copyright protection. The Court, diverting from the established threshold of 'sweat of the brow' held that it is the 'modicum of creativity' that should be the determining factor in determining the originality of the work. The Court held that there should exist at least minimal creativity in the work for it to warrant copyright protection. In this case, the Court held that the contents

of a telephone directory would not amount to an original work since there existed no creativity in the same.

The stance of the Court changed in the case of *DB Modak v. Eastern Book Company*. In this case, the appellant was the publisher of a well-known journal known as Supreme Court Cases. The respondents, in this case, launched a software program which contained notes from the SCC. They were sued under a claim of infringement and unfair competition. The respondents, in this case, held that since Government documents are not copyrightable, this would apply to judicial decisions as well. Therefore, they claimed that the act of the respondents would not amount to an infringement. The Court held otherwise and said that despite the fact that the respondents were merely copying the judicial decisions from the petitioner, they had failed to realize that there were some skill and creativity used in the formulation of SCCs. The SCC reports were not a mere copy of the judicial decisions. There were additions made to it in the form of headnotes, cross references, divisions of paragraphs etc. Therefore if the respondents had only copied the judicial decisions, it would not amount to infringement. However, they had copied the cross references, headnotes and other additions as well. Therefore it was a clear violation of the plaintiff's copyright. The Court held that mere application of skill, labor, and judgment is not sufficient for copyright protection. It is the skill and judgment required in a work that should be the determining factor for originality under copyright.

## Rights of reproduction copyright

### Rights under the Copyright Act Generally

Under the Copyright Act of 1976 there are exclusive rights provided to the owner of a copyright. The owner of the copyright has the exclusive right to the following:

***RIGHT TO REPRODUCE THE COPYRIGHTED WORK IN COPIES OR PHONORECORDS;***

- To prepare derivative works based upon the copyrighted work;
- To distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- In the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
- In the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

### Moral Rights

With regards to works of visual arts, the author of the visual arts are granted what are called "moral rights," which are the rights of attribution (also called the right of paternity) and the right of integrity

**THE COPYRIGHT ACT DEFINES "VISUAL ARTS," AS**

[A] painting, drawing, print or sculpture, existing in a single copy, in a limited edition of 200 copies or fewer that are signed and consecutively numbered by the author, or, in the case of the sculpture, in multiple cast, carved, or fabricated sculptures of 200 or fewer that are consecutively numbered by the author and bear the signature or other identifying mark of the author; or a still photographic image produced for exhibition purposes only, existing in the single copy that is signed by the author, or in a limited edition of 200 copies or fewer that are signed in consecutively numbered by the author.

*Id.* at § 101. Section 106A of the copyright act states specifically that these rights include:

- To claim ownership of the work,
- To prevent the use of his or her name as the author of any work of visual art which he or she did not create,
- Shall have the right to prevent the use of his or her name as the author of the work of visual art in the event of a distortion, mutilation, other modification of the work which would the prejudicial to his or her honor reputation, and
- To prevent any intentional distortion, mutilation, or other modification of that work which will be prejudicial to his or her honor reputation, and any intentional distortion, mutilation, or modification of that work is a violation of that right, and
- To prevent any destruction of a worker recognized stature, and any intentional or grossly negligent destruction of that work is a violation of that right.

These "moral rights" are not given to other authors of copyrighted works, such as literary or musical works. Moral rights are rarely asserted in the U.S. because most contracts regarding copyright licenses have a waiver of moral rights.

**Reproduction Rights**

What does it mean to reproduce? To be considered a copy, a non-author must duplicate, transcribe, imitate, or simulate some substantial part of the work in a fixed form in a material object.

The owner of the copyright is the right to make their own copies or phonorecords and can stop others from doing so as well. However, the right to reproduce the work cannot prevent a non-owner of the copyright from reading the work out loud or creating a choreographed dance from the work, if of course reading the work out loud are creating a choreographed dance was not a public performance, which therefore could violate another right under the act.

In order for a non-author to infringe on the authors write to reproduce the work, the work

reproduced must actually be the copyrighted work. In other words, it must appear that the non-author's work (1) was copied from the author's work, and (2) the reproduced work was "substantially similar" to the copyrighted work. In *Arnstein v. Porter,* the seminal case that developed this two part test states specifically,

As to the first—copying—the evidence may consist (a) of defendant's admission that he copied or (b) of circumstantial evidence—usually evidence of access—from which the trier of the facts may reasonably infer copying. Of course, if there are no similarities, no amount of evidence of access will suffice to prove copying. If there is evidence of access and similarities exist, then the trier of the facts must determine whether the similarities are sufficient to prove copying. On this issue, analysis ('dissection') is relevant, and the testimony of experts may be received to aid the trier of the facts. If evidence of access is absent, the similarities must be so striking as to preclude the possibility that plaintiff and defendant independently arrived at the same result. If copying is established, then only does there arise the second issue, that of illicit copying (unlawful appropriation).[4b] On that issue (as noted more in detail below) the test is the response of the ordinary lay hearer; accordingly, on that issue, 'dissection' and expert testimony are irrelevant.

An author/plaintiff can prove that the non-author copied their work by providing direct evidence, circumstantial evidence that the non-author had access to the work and there are similarities, or circumstantial evidence that there are striking similarities between the authors work and the non-authors work.

Once copying has been established, a plaintiff must prove that the copying was "unlawful appropriation." The key is that there must be a showing that there was a taking of copyrightable expression that would create substantial similarities to a subjective audience.

## RIGHTS OF COPYRIGHT THE RIGHT TO PUBLICLY PERFORM

The Right to Publicly Perform is the fourth part in our series on what makes a Copyright. The prior three rights reviewed are linked below for you to get up to speed. To refresh, the six parts of copyright are:

- The right to reproduce the copyrighted work
- The right to prepare derivative works based upon the work
- The right to distribute copies of the work to the public
- The right to publicly perform the copyrighted work
- The right to publicly display the copyrighted work
- (sound recording only) The right to digitally transmit to publicly perform the copyrighted work

**Copyright ownership issues:**

One of the most important concerns in copyright law is the determination of copyright ownership. The general rule is that the creator of the work is the owner of all copyright interests in the work. However, where two or more parties create a work together, copyright ownership becomes a more difficult issue. In addition, copyright ownership is more difficult to determine when the creator of a work is being paid by a third-party to create the work.

This section of BitLaw explains these issues in more detail in the sections below:

joint authorship
works made for hire--the standard
works made for hire--the importance of the determination
example: ownership of software programs

## Notice of Copyright:

There are certain requirements for securing copyright protection for your work. First of all, it must be original and in a fixed, tangible form, like a short story on paper or a painting on canvas. It must also fall within a certain category of works, such as literary works, sound recordings or broadcasts, software, photographs, paintings, or dramatic works. Under earlier U.S. law, it also had to have a notice of copyright. But, with the United States' adherence to the Berne Convention in March 1989, the notice was no longer a requirement for works created after that date. Notice of copyright is still relevant to older works' copyright status; and while no longer required, it can provide certain benefits to copyright holders.

PATENT:

A **patent** is a form of intellectual property. A patent gives its owner the right to exclude others from making, using, selling, and importing an invention for a limited period of time, usually twenty years. The patent rights are granted in exchange for an enabling public disclosure of the invention. People who are employed to do research are often obligated by their employment contracts to assign inventions to their employer. In most countries patent rights fall under civil law and the patent holder needs to sue someone infringing the patent in order to enforce their rights. In some industries patents are an essential form of competitive advantage; in others they are irrelevant.

The procedure for granting patents, requirements placed on the patentee, and the extent of the exclusive rights vary widely between countries according to national laws and international agreements. Typically, however, a granted patent application must include one or more claims that define the invention. A patent may include many claims, each of which defines

a specific property right. These claims must meet relevant patentability requirements, such as novelty, usefulness, and non-obviousness.

Under the World Trade Organization's (WTO) TRIPS Agreement, patents should be available in WTO member states for any invention, in all fields of technology, provided they are new, involve an inventive step, and are capable of industrial application. Nevertheless, there are variations on what is patentable subject matter from country to country, also among WTO member states. TRIPS also provides that the term of protection available should be a minimum of twenty years

**Foundation of patent law:**

Below in no particular order are some of the foundational rules of patent law. No attempt is made to prove these rules, but most should be familiar to patent attorneys. If you disagree or are looking for an explanation feel free to comment below and I will respond. In many cases I have already written a post related to the foundational rules. For my analysis of the Foundation of 35 USC 103 see 5th Anniversary of KSR: Is Section 103 is Unconstitutional?

*Patents are a Constitutional Right

*Patents and Copyrights are the only right mention in the Constitution

*Patents are a Natural Right

*Patents are a Property Right – the basis of all property rights is creation/production and the same is true of patents.

*Trade Secrets are a Natural Right

*Patents can be viewed as a Social Contract where the inventor gives up their right to a trade secret in order to obtain a patent.

*All Inventions are a combination of known/existing elements/steps and known connections

*Patents are not monopolies (A property right cannot be a monopoly)

*All Inventions use natural phenomena – we are not dealing in magic.

*Every element in every claim of a patent behaves in a predictable way – they do not violate the laws of physics – again we are not patenting magic.

*Claims define what the invention is.

*Every element (word) in a claim has to be given meaning – reading a claim is like reading an equation – not like reading prose.

*The definition of an Invention implies that it is Useful or has an Objective Result

*The definition of an inventor requires that they be the first person to create the invention, which results in the novelty requirement.

**Patent searching process:**

A patent is an exclusive right conferred on person or legal entity to exclude others from making, using, and selling the patented invention for a limited time period. The patent can be a utility or design patent. Utility patents are granted for new and useful processes, articles, machines and any improvements while design patents are granted for new and ornamental design of manufacture. The utility patent protects the method an article is created and used. On the other hand, design patent protects only the ornamental appearance of the invention.

**Search for patents**

Any type of invention requires a thorough search and analysis to verify its novelty. Large organizations, lawyers, SMEs, and researchers conduct patent searches in leading patent databases to determine the relevance of their inventions in light of the existing art. Patents include technical and legal information.

## Transfer of ownership

Ownership means a person has a right over a property, and owns it. An owner will have the right of possession, right to its use, right of way, right to transfer it and the right to earn rent from the property.

An owner can transfer his property by gifting or selling it. A sale deed, or any document through which the ownership rights are transferred, is a document that gives evidence of an individual's ownership of a property. Rights in property can be transferred only on execution and registration of a sale deed in favor of the buyer.

A conveyance deed is executed to transfer title from one person to another. Generally, an owner can transfer his property unless there is a legal restriction barring such transfer. Under the law, any person who owns a property and is competent to contract can transfer it in favor of another. If the owner gives another individual a power of attorney (POA), that person can sell it under this authority. A POA gives another person the power to act on behalf of the owner. However, if the POA only grants a person the authority to manage the property, he cannot sell it.

Agreement to sell precedes execution of a sale deed. The subsequent sale deed is based on the agreement to sell. The agreement is signed and executed by the seller and buyer on a non-judicial stamp paper. As such, it has legal value and can be produced as evidence. Agreement to sell is the base document on which the conveyance deed is drafted. Every document of transfer of property by way of sale would be preceded by an agreement to sell. The agreement to sell is also in writing.

Any instrument indicating transfer of property must be registered. The sale deed and other relevant documents have to be stamped and registered at the subregistrar's office having jurisdiction over the property. The purpose of registration is to prevent fraud and provide security. It also ensures that every person dealing with property, where such dealings require registration, may rely with confidence on the statements contained in the registered document as a complete account of all transactions by which his title may be affected.

A transfer of title in real estate is not valid if the sale deed is not registered. Registration in the name of the seller by the person transferring property is crucial for the transfer of clear title in favour of the new owner. Registration is to be done after payment of appropriate stamp duty, as prevalent in the State.

## UNIT-4

**Cyber Law:**

Cyber law is the area of law that deals with the Internet's relationship to technological and electronic elements, including computers, software, hardware and information systems (IS).

Cyber law is also known as Cyber Law or Internet Law.

Cyber laws prevent or reduce large scale damage from cybercriminal activities by protecting information access, privacy, communications, intellectual property (IP) and freedom of speech related to the use of the Internet, websites, email, computers, cell phones, software and hardware, such as data storage devices.

The increase in Internet traffic has led to a higher proportion of legal issues worldwide. Because cyber laws vary by jurisdiction and country, enforcement is challenging, and restitution ranges from fines to imprisonment.

**Cyber Law of India: Introduction**

In Simple way we can say that cyber crime is unlawful acts wherein the computer is either a tool or a target or both

**Cyber crimes can involve criminal activities that are traditional in nature, such as theft, fraud, forgery, defamation and mischief, all of which are subject to the Indian Penal Code. The abuse of computers has also given birth to a gamut of new age crimes that are addressed by the Information Technology Act, 2000.**

**Information Technology Act**

India's **Information Technology Act, 2000 or IT Act**, is a subject of contention and controversy. As it is amended, it contains some of the most stringent privacy requirements in the world and has the unfortunate impact of holding intermediaries liable for illegal content. The **Information Technology Act, 2000** (also known as **ITA-2000**, or the **IT Act**) is an Act of the Indian Parliament (No 21 of 2000) notified on 17 October 2000. It is the primary law in India dealing with cybercrime and electronic commerce. It is based on the *United Nations Model Law on Electronic Commerce 1996* (UNCITRAL Model) recommended by the General Assembly of United Nations by a resolution dated 30 January 1997.

**Provisions of IT Act 2000**

The IT Act of 2000 passed in a budget session of parliament and signed by President K.R. Narayanan in 2000. It underwent further finalization by India's Minister of Information Technology, Pramod Mahajan.

The original act addressed electronic documents, e-signatures, and authentication of those records. It also enacted penalties for security breach offenses including damaging computer systems or committing cyber terrorism. Regulating authorities received power to monitor these situations and draft rules as situations arose.

The IT Act underwent changes as Internet technology grew. In 2008, additions expanded the definition of "**communication device**" to include mobile devices and placed owners of given IP addresses responsible for distributed and accessed content.

Privacy was addressed in 2011 when stringent requirements for collecting personal information came into effect.

he most **controversial change** in this act involves section 66A. It makes "offensive messages" illegal and holds the owners of servers responsible for the content.

That means if an IP address with pornographic images is traced to your servers, you can be held liable for it even if you did not authorize its access.

Penalties arrange from imprisonment of three years to life and fines. Offenses that occur in a corporate setting can result in further administrative penalties and bureaucratic monitoring that can prove burdensome to doing business.

**Requirements of IT Act 2000**

**The IT Act 2000 applies to companies that do business in India**. This includes entities registered in India, outsource there, and maintain servers within the country's borders.

The act covers all activity involving online exchanges and electronic documents.

If your only connection with India is having customers there, **you are not held to the IT Act**. The only way that can occur is if you run a service or sell a product and also maintain servers there.

For example, Instagram is popular in India with many people participating in that social media app. However, Instagram is a U.S. company and does not need policies complying with the IT Act.

However, Snapdeal, an online shopping source in India, is an Indian company that conducts transactions in India. It is held to the stipulations in the IT Act 2 — and that is addressed in its Privacy Policy page.

**Cyber Crime:**

**Cybercrime**, or **computer-oriented crime**, is the crime that involves a computer and a network.[1] The computer may have been used in the commission of a crime, or it may be the target.[2] Cybercrimes can be defined as: "Offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm, or loss, to the victim directly or indirectly, using modern telecommunication networks such as Internet (networks including but not limited to Chat rooms, emails, notice boards and groups) and mobile phones (Bluetooth/SMS/MMS)".[3] Cybercrime may threaten a person or a nation's security and financial health.[4] Issues surrounding these types of crimes have become high-profile, particularly those surrounding hacking, copyright infringement, unwarranted mass-surveillance, sextortion, child pornography, and child grooming.[3] There are also problems of privacy when confidential information is intercepted or disclosed, lawfully or otherwise. Debarati Halder and K. Jaishankar further define cybercrime

from the perspective of gender and defined 'cybercrime against women' as "Crimes targeted against women with a motive to intentionally harm the victim psychologically and physically, using modern telecommunication networks such as internet and mobile phones".[3] Internationally, both governmental and non-state actors engage in cybercrimes, including espionage, financial theft, and other cross-border crimes. Cybercrimes crossing international borders and involving the actions of at least one nation state is sometimes referred to as cyber warfare.

A report (sponsored by McAfee), published in 2014, estimated that the annual damage to the global economy was $445 billion.[5] Approximately $1.5 billion was lost in 2012 to online credit and debit card fraud in the US.[6] In 2018, a study by Center for Strategic and International Studies (CSIS), in partnership with McAfee, concludes that close to $600 billion, nearly one percent of global GDP, is lost to cybercrime each year

**Classifications Of cyber crime:**

**Financial fraud crimes:**

Computer Fraud is any dishonest misrepresentation of fact intended to let another to do or refrain from doing something which causes loss. In this context, the fraud will result in obtaining a benefit by:

- Altering in an unauthorized way. This requires little technical expertise and is common form of theft by employees altering the data before entry or entering false data, or by entering unauthorized instructions or using unauthorized processes;
- Altering, destroying, suppressing, or stealing output, usually to conceal unauthorized transactions. This is difficult to detect;
- Altering or deleting stored data;

Other forms of fraud may be facilitated using computer systems, including bank fraud, carding, identity theft, extortion, and theft of classified information.

A variety of internet scams, many based on phishing and social engineering, target consumers and businesses.

**Cyber terrorism:**

Government officials and information technology security specialists have documented a

significant increase in Internet problems and server scans since early 2001. But there is a growing concern among government agencies such as the Federal Bureau of Investigations (FBI) and the Central Intelligence Agency (CIA) that such intrusions are part of an organized effort by cyber terrorists, foreign intelligence services, or other groups to map potential security holes in critical systems.[9] A cyber terrorist is someone who intimidates or coerces a government or an organization to advance his or her political or social objectives by launching a computer-based attack against computers, networks, or the information stored on them.

Cyber terrorism in general can be defined as an act of terrorism committed through the use of cyberspace or computer resources (Parker 1983). As such, a simple propaganda piece in the Internet that there will be bomb attacks during the holidays can be considered cyber terrorism. There are also hacking activities directed towards individuals, families, organized by groups within networks, tending to cause fear among people, demonstrate power, collecting information relevant for ruining peoples' lives, robberies, blackmailing etc.

**Cyber extortion:**

The U.S. Department of Defense (DoD) notes that the cyberspace has emerged as a national-level concern through several recent events of geostrategic significance. Among those are included, the attack on Estonia's infrastructure in 2007, allegedly by Russian hackers. "In August 2008, Russia again allegedly conducted cyber attacks, this time in a coordinated and synchronized kinetic and non-kinetic campaign against the country of Georgia. The December 2015 Ukraine power grid cyber attack has also been attributed to Russia and is considered the first successful cyber attack on a power grid. Fearing that such attacks may become the norm in future warfare among nation-states, the concept of cyberspace operations impacts and will be adapted by war fighting military commanders in the future.

**E-commerce:**

**E-commerce** is the activity of buying or selling of products on online services or over the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.

Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle although it may also use other technologies such as e-mail. Typical e-

commerce transactions include the purchase of online books (such as Amazon) and music purchases (music download in the form of digital distribution such as iTunes Store), and to a less extent, customized/personalized online liquor store inventory services.[1] There are three areas of e-commerce: online retailing, electric markets, and online auctions. E-commerce is supported by electronic business.[2]

E-commerce businesses may also employ some or all of the followings:

- Online shopping for retail sales direct to consumers via Web sites and mobile apps, and conversational commerce via live chat, chat bots, and voice assistants
- Providing or participating in online marketplaces, which process third-party business-to-consumer or consumer-to-consumer sales
- Business-to-business buying and selling;
- Gathering and using demographic data through web contacts and social media
- Business-to-business (B2B) electronic data interchange
- Marketing to prospective and established customers by e-mail or fax (for example, with newsletters)
- Engaging in pretail for launching new products and services
- Online financial exchanges for currency exchanges or trading purposes.

**Data Security:**

Data security refers to the process of protecting data from unauthorized access and data corruption throughout its lifecycle. Data security includes data encryption, tokenization, and key management practices that protect data across all applications and platforms.

**Why Data Security?**

Organizations around the globe are investing heavily in information technology (IT) cyber defense capabilities to protect their critical assets. Whether an enterprise needs to protect a brand, intellectual capital, and customer information or provide controls for critical infrastructure, the means for incident detection and response to protecting organizational interests have three common elements: people, processes, and technology.

Data Security Solutions

Micro Focus drives leadership in **data security solutions** with over 80 patents and 51 years of expertise. With advanced data encryption, tokenization, and key management to protect data across applications, transactions, storage, and big data platforms, Micro Focus simplifies the protection of sensitive data in even the most complex use cases.

Cloud access security – Protection platform that allows you to move to the cloud securely while protecting data in cloud applications.

Data encryption – Data-centric and tokenization security solutions that protect data across enterprise, cloud, mobile and big data environments.

Hardware security module -- Hardware security module that guards financial data and meets industry security and compliance requirements.

Key management -- Solution that protects data and enables industry regulation compliance.

Enterprise Data Protection – Solution that provides an end-to-end data-centric approach to enterprise data protection.

Payments Security – Solution provides complete point-to-point encryption and tokenization for retail payment transactions, enabling PCI scope reduction.

Big Data, Hadoop and IofT data protection – Solution that protects sensitive data in the Data Lake – including Hadoop, Teradata, Micro Focus Vertica, and other Big Data platforms.

Mobile App Security - Protecting sensitive data in native mobile apps while safeguarding the data end-to-end.

Web Browser Security - Protects sensitive data captured at the browser, from the point the customer enters cardholder or personal data, and keeps it protected through the ecosystem to the trusted host destination.

Email Security – Solution that provides end-to-end encryption for email and mobile messaging, keeping Personally Identifiable Information and Personal Health Information secure and private.

**Confidentiality:**

Confidentiality is roughly equivalent to privacy. Measures undertaken to ensure confidentiality are designed to prevent sensitive information from reaching the wrong people, while making sure that the right people can in fact get it: Access must be restricted to those authorized to view the data in question. It is common, as well, for data to be categorized according to the amount and type of damage that could be done should it fall into unintended hands. More or less stringent measures can then be implemented according to those categories.

Sometimes safeguarding data confidentiality may involve special training for that privacy to such documents. Such training would typically include security risks that could threaten this information. Training can help familiarize authorized people with risk factors and how to guard against them. Further aspects of training can include strong passwords and password-related best practices and information about social engineering methods, to prevent them from bending data-handling rules with good intentions and potentially disastrous results.

A good example of methods used to ensure confidentiality is an account number or routing number when banking online. Data encryption is a common method of ensuring confidentiality. User IDs and passwords constitute a standard procedure; two-factor authentication is becoming the norm. Other options include biometric verification and security tokens, key fobs or soft tokens. In addition, users can take precautions to minimize the number of places where the information appears and the number of times it is actually transmitted to complete a required transaction. Extra measures might be taken in the case of extremely sensitive documents, precautions such as storing only on air gapped computers, disconnected storage devices or, for highly sensitive information, in hard copy form only.

**Information Privacy:**

**Information privacy**, also known as **data privacy** or **data protection**, is the relationship between the collection and dissemination of data, technology, the public expectation of privacy, legal and political issues surrounding them.

Privacy concerns exist wherever personally identifiable information or other sensitive

information is collected, stored, used, and finally destroyed or deleted – in digital form or otherwise. Improper or non-existent disclosure control can be the root cause for privacy issues. Data privacy issues may arise in response to information from a wide range of sources,

such as:

- Healthcare records
- Criminal justice investigations and proceedings
- Financial institutions and transactions
- Biological traits, such as genetic material
- Residence and geographic records
- Privacy breach
- Location-based service and geo location
- Web surfing behavior or user preferences using persistent cookies
- Academic research

The challenge of data privacy is to use data while protecting an individual's privacy preferences and their personally identifiable information. The fields of computer security, data security, and information security design and use software, hardware, and human resources to address this issue. Since the laws and regulations related to Privacy and Data Protection are constantly changing, it is important to keep abreast of any changes in the law and to continually reassess compliance with data privacy and security regulations. Within academia, Institutional Review Boards function to assure that adequate measures are taken to ensure both the privacy and confidentiality of human subjects in research.

**International aspects of computer and online crime:**

There is no commonly agreed single definition of "cybercrime". It refers to illegal internet-mediated activities that often take place in global electronic networks.Cybercrime is "international" or "transnational" – there are 'no cyber-borders between countries'. International cybercrimes often challenge the effectiveness of domestic and international law and law enforcement. Because existing laws in many countries are not tailored to deal with cybercrime, criminals increasingly conduct crimes on the Internet in order to take advantages of the less severe punishments or difficulties of being traced. No matter, in developing or developed countries, governments and industries have gradually realized the colossal threats of cybercrime on economic and political security and public interests. However, complexity in types and forms of cybercrime increases the difficulty to fight back. In this sense, fighting cybercrime calls for

international cooperation. Various organizations and governments have already made joint efforts in establishing global standards of legislation and law enforcement both on a regional and on an international scale. China–United States cooperation is one of the most striking progresses recently, because they are the top two source countries of cybercrime.

Information and communication technology (ICT) plays an important role in helping ensure interoperability and security based on global standards. General countermeasures have been adopted in cracking down cybercrime, such as legal measures in perfecting legislation and technical measures in tracking down crimes over the network, Internet content control, using public or private proxy and computer forensics, encryption and plausible deniability, etc.[2] Due to the heterogeneity of law enforcement and technical countermeasures of different countries, this article will mainly focus on legislative and regulatory initiatives of international cooperation.

## Internet Crime

Internet crime is any crime or illegal online activity committed on the Internet, through the Internet or using the Internet. The widespread Internet crime phenomenon encompasses multiple global levels of legislation and oversight. In the demanding and continuously changing IT field, security experts are committed to combating Internet crime through preventative technologies, such as intrusion detection networks and packet sniffers.

Internet crime is a strong branch of cybercrime. Identity theft, Internet scams and cabers talking are the primary types of Internet crime. Because Internet crimes usually engage people from various geographic areas, finding and penalizing guilty participants is complicate

Internet crimes, such as the Nigerian 419 fraud ring, are a constant threat to Internet users. The U.S. Federal Bureau of Investigation (FBI) and Federal Trade Commission (FCC) have dedicated and appointed IT and law enforcement experts charged with ending the far-reaching and damaging effects of Internet crime.

Examples of Internet crime legislation include:

- U.S. Computer Fraud and Abuse Act, Section 1030: Amended in 2001 through the U.S.

Patriot Act

- CAN SPAM Act of 2003
- Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011

As the U.S. works to combat Internet crime, other countries are experiencing increased cybercriminal activity. In 2001, Web sense (an organization focused on network abuse research) reported the alarming spread of Internet crime in Canada. This global shift is under review by the Canadian government.

Types of Internet crime include:

- Cyber bullying and harassment
- Financial extortion
- Internet bomb threats
- Classified global security data theft
- Password trafficking
- Enterprise trade secret theft
- Personally data hacking
- Copyright violations, such as software piracy
- Counterfeit trademarks
- Illegal weapon trafficking
- Online child pornography
- Credit card theft and fraud
- Email phishing
- Domain name hijacking
- Virus spreading

To prevent becoming an Internet crime, online vigilance and common sense are critical. Under no circumstances should a user share personal information (like full name, address, birth date and Social Security number) to unknown recipients. Moreover, while online, a user should remain suspicious about exaggerated or unverifiable claims.

## UNIT-5
## NEW DEVELOPMENTS OF INTELLECTUAL PROPERTY

### NEW DEVELOPMENT IN TRADE MARKS LAW:

**The Internet:**

Trademark owners throughout the world are struggling with new issues presented by increased electronic communication, primarily that occurring through the Internet.

The Internet derives from a network set up in the 1970s by the Department of Defense to connect military and research sites that could continue to communicate even in the event of nuclear attract.

In the 1980s, the National Science Foundation expanded on the system, and its first significant users were government agencies and universities.

In the early1990s, however, it became apparent that the system could provide a global communication network, allowing people from all over the world to talk with each other; send written messages, pictures, and text to each other; and establish web pages to advertise their ware and provide information to their customers.

**Assignment of Domain Names:**

A company's presence on the internet begins with its address or domain name not only serves as a locator for a company but also functions as a designation of origin and a symbol of goodwill---a trademark.

There are two portions to a domain name: the generic top-level domain, which is the portion of the name to the right of a period (such as .gov or .com) and the secondary level domain, which is the portion of the name to the left of a period (such as "kraft" in Kraft.com").

Disputes frequently arise between owners of registered mark and owners of domain names whose domain names similar or identical to the registered marks.

**Internet Corporation for Assigned Names and Numbers [ICANN]:**

To help resolve the problems in the domain names registration and use process

The government created the ICANN

It is a non-profit corporation

It is governed by a board of directors elected in part by various members of the Internet community.

ICANN are authorized to register domain names ending with .com, .org and .net

Registrations usually last one year, at which time they can be removed or will expire.

Registration requires a representation that the person seeing to register the name is not doing so far an unlawful purpose and does not know of any infringement

ICANN recently added seven new top-level domains, including .biz and .info

### PROTECTING A DOMAIN NAME:

People register well-known marks as domain names to prey on consumer confusion by misusing the domain name to divert customers from the legitimate mark owner's site. This practice is commonly called cybersquatting.

There are three approaches for against cybersquatter:

An action can be brought under the Federal Trademark dilution Act
A civil suit can be instituted under the recent Anticybersquatting consumer protection Act,
An arbitration proceeding can be instituted through ICANN's disputs resolutions process
Cybersqutter and the dilution doctrine: Federal trademark dilution Act (15 U.S.C § 1125 (C)
Cyber quarters and Anti cyber squatting consumer protection Act (15 U.S.C § 1125 (d) [ACPA: Anti cyber squatting consumer Protection Act]

To prevail in a civil action under ACPA, a plaintiff must prove three thing:
The plaintiff's mark is a distinctive or famous mark deserving of protection
The alleged cyber squatter's infringing domain name is identical to or confusingly similar to the plaintiff mark
The cyber squatter registered the domain name is bad faith
Resolving Disputes through the Uniform Domain Name Dispute Resolution Policy: [UDRP] 1999
The allegedly wrongful domain name is identical or confusingly similar to the complainants' trademark;
The domain name registrant has no legitimate interest in the domain name and
The domain name is being used in bad faith

**NEW DEVELOPMENT IN COPYRIGHT LAW:**

While acknowledging that clothing is a useful article and thus not subject to copyright protection, a New York Federal court ruled that lace design, copyrighted as writing and incorporated into wedding dresses, were protectable and enjoined another maker of wedding dresses from making or marketing copies. Similarly, detailed embroiders or some other two dimensional drawing or graphic work affixed to a portion of a garment may be copyrightable.
A federal court in California recently held that while type fonts themselves are not protectable under copyright law, a software program that generated and created the typefaces was protectable. ¬ As soon as Stephen King sold his book riding the Bullet exclusively in an Internet format, an individual cracked the copyright protection software and posted free copies of the book on the Internet. The publishers responded by adopting stronger encryption technology. Similarly, in 2000, Mr. King suspended online publication of a serial novel because too many individuals were downloading the work without paying it.
It late 1997 President Clinton signed into law the No Electronic Theft [NET] Act [amending 18 U.S.C §2319] to enhance criminal penalties for copyright infringement, even if the infringer does not profit from the transaction. The act also extends the statutes of limitations for criminal copyright infringement from three to five years, and allows law enforcement officers to use federal copyright law against online copyright violation, thereby extending the same copyright protection to the Internet that is provided to other media.
In September 1999, the Clinton administration relaxed government restrictions on the export of encryption products and simultaneously introduced new legislation to give law enforcement agencies greater authority to combat the use of computers by terrorists and criminals and to create a new code cracking unit within the FBI [Foreign Bureau of Investigation] .
In mid-2000, president Clinton signed the Electronic signatures in Global and National Commerce Act, making digital execution, called e-signatures, as legally binding as their paper

counterparts.
In 2000, federal prosecutors in Chicago indicted seventeen people who called themselves "Pirates with Attitude" for pirating thousands of software programs. The case was brought under the NET Act. Some of the individuals were former employees of Intel and Microsoft.
The copyright office has recommended that congress amend section 110 of the copyright Act to grant educators the right to transmit copyrighted works for distance learning if certain conditions are met.

**NEW DEVELOPMENT IN PATENT LAW:**
The patent Act has proven remarkably flexible in accommodating changes and development in technology. Thus advisement in technology generally has not necessitated changes in the stately governing patent protection.
Business method and software patent:
Many of the cutting-edge issues in patent law related to patents for computer software. For several years, the conventional wisdom has been that unless a computer program had significant commercial value and application patent protection was often counterproductive or ineffective in that the PTO often took two years to issue a patent, roughly the same time it took for the software program to become absolute.
**Biotechnology patent:**
Medicines, Science, agricultural and pharmacology present the other cutting-edge issues in patent law. Research into genes may hold the key to curing disease throughout the world. Agricultural research may hold the key to providing sufficient food for the world's ever-increasing population.
The development of strains of plants and crops that are resistant to brought and disease has also led to an increasing number of patents issued, and attendant litigation.

In the field of "a biotech".
American Investors Protection Act of 1999 [AIPA]:

The AIPA was signed into law in 1999 and represents the most significant changes to patent law in twenty years. Although some of the provisions of AIPA have been discussed earlier, its key subtitles are as follows:

Inventors' Right Act of 1999
The First Inventor Defence Act of 1999
The patent term guarantee act of 1999
The domestic publication of Foreign filed patent application act of 1999
The optional Inter parts re-examination procedure Act of 1999

**Introduction of International Patent protection:**

The rights granted by a U.S Patent extend only throughout the U.S and have no effect in a foreign country. Therefore, an inventor who desires patent protection in other countries must apply for a patent in each of the other countries or in regional patent office.
The Paris convention (already it is in previous units)
The European patent organization

Agreement on Trade-Related Aspects of IPR (already it is in previous units)
The patent Law Treaty
Foreign Filling Licenses
Applications for United States Patents by Foreign applicants
The European patent organization:
The European Patent Organization (EPO) was founded in 1973 to provide a uniform patent system in Europe. A European patent can be obtained by filing a single application with the EPO headquartered in Munich (or its sub branches in The Hague or Berlin or with the national offices in the contracting nations). Once granted, the patent in valid in any of the EPO countries designated in the application and has the same force as patent granted in any one of the contracting nations.

**INTELLECTUAL PROPERTY AUDITS:**
Many companies believe that copyright extends only to important literary works and therefore fail to secure protection for their marketing brochures or other written materials. Similarly, companies often fail to implement measures to ensure valuable trade secrets maintain their protect ability. Because clients are often unaware of the great potential and value of this property, law firms often offer their clients an intellectual property audit to uncover a company's protectable intellectual property. The IP audit is analogous to the accounting audit most companies conduct on an annual basis to review their financial status.
Another type of IP investigation is usually conducts when a company acquires another entity. At that time, a thorough investigation should be conducted of the intellectual property of the target company to ensure the acquiring company will obtain the benefits of what it is paying for and will not inherit infringement suits and other problems stemming from the targets' failure to protect its IP. This type of IP investigation is generally called a due diligence review inasmuch as the acquiring company and its counsel have an obligation to duly and diligently investigate the target's assets.
Conducting the Audit:
The first step in the audit should be a face-to-face meeting of the legal team and company managers.
The legal team should make a brief presentation on what Intellectual Property is, why it is important to the company, and why and how the audit will be conducted.
Managers will be more likely to cooperate if they fully understand the importance of the audit.
Obtaining this kind of "buying" from the client managers and employees will speed the audit and reduce costs.
Moreover, education about the importance of intellectual property helps ensure that managers consider ways to further protect a company's valuable assets and remain alert to possible infringements of the company's Intellectual capital or infringements by the computer of other's right.
Finally, having, outside counsel involved in the process will ensure that communications related to the audit are protected by the attorney-client privilege
Once the company's managers have been advised of the need for the audit, the legal team should provide a work-sheet or questionnaire to the company specifying the type of information that the firm is looking for so that company files can be reviewed and materials assembled for inspection by the firm and its representatives.