

Information Security Standards and IPRs

Cyber Laws (IT Law) in India

Cyber Law also called IT Law is the law regarding Information-technology including computers and the internet. It is related to legal informatics and supervises the digital circulation of information, software, information security, and e-commerce.

IT law does not consist of a separate area of law rather it encloses aspects of contract, intellectual property, privacy, and data protection laws. Intellectual property is a key element of IT law. The area of software license is controversial and still evolving in Europe and elsewhere.

According to the Ministry of Electronics and Information Technology, Government of India :

Cyber Laws yields legal recognition to electronic documents and a structure to support e-filing and e-commerce transactions and also provides a legal structure to reduce, check cyber crimes

Importance of Cyber Law:

1. It covers all transactions over the internet.
2. It keeps eye on all activities over the internet.
3. It touches every action and every reaction in cyberspace.

Area of Cyber Law:

Cyber laws contain different types of purposes. Some laws create rules for how individuals and companies may use computers and the internet while some laws protect people from becoming the victims of crime through unscrupulous activities on the internet. The major areas of cyber law include:

1. **Fraud:**

Consumers depend on cyber laws to protect them from online fraud. Laws are made to prevent identity theft, credit card theft, and other financial crimes that happen online. A person who commits identity theft may face confederate or state criminal charges. They might also encounter a civil action brought by a victim. Cyber lawyers work to both defend and prosecute against allegations of fraud using the internet.

2. **Copyright:**

The internet has made copyright violations easier. In the early days of online communication, copyright violations were too easy. Both companies and individuals need lawyers to bring an action to impose copyright protections. Copyright violation is an area of cyber law that protects the rights of individuals and companies to profit from

their creative works.

3. **Defamation:**

Several personnel uses the internet to speak their mind. When people use the internet to say things that are not true, it can cross the line into defamation. Defamation laws are civil laws that save individuals from fake public statements that can harm a business or someone's reputation. When people use the internet to make statements that violate civil laws, that is called Defamation law.

4. **Harassment and Stalking:**

Sometimes online statements can violate criminal laws that forbid harassment and stalking. When a person makes threatening statements again and again about someone else online, there is a violation of both civil and criminal laws. Cyber lawyers both prosecute and defend people when stalking occurs using the internet and other forms of electronic communication.

5. **Freedom of Speech:**

Freedom of speech is an important area of cyber law. Even though cyber laws forbid certain behaviors online, freedom of speech laws also allows people to speak their minds. Cyber lawyers must advise their clients on the limits of free speech including laws that prohibit obscenity. Cyber lawyers may also defend their clients when there is a debate about whether their actions consist of permissible free speech.

6. **Trade Secrets:**

Companies doing business online often depend on cyber laws to protect their trade secrets. For example, Google and other online search engines spend lots of time developing the algorithms that produce search results. They also spend a great deal of time developing other features like maps, intelligent assistance, and flight search services to name a few. Cyber laws help these companies to take legal action as necessary to protect their trade secrets.

7. **Contracts and Employment Law:**

Every time you click a button that says you agree to the terms and conditions of using a website, you have used cyber law. There are terms and conditions for every website that are somehow related to privacy concerns.

Advantages of Cyber Law:

- Organizations are now able to carry out e-commerce using the legal infrastructure provided by the Act.
- Digital signatures have been given legal validity and sanction in the Act.
- It has opened the doors for the entry of corporate companies for issuing Digital Signatures Certificates in the business of being Certifying Authorities.
- It allows Government to issue notifications on the web thus heralding e-governance.

- It gives authority to the companies or organizations to file any form, application, or any other document with any office, authority, body, or agency owned or controlled by the suitable Government in e-form using such e-form as may be prescribed by the suitable Government.
- The IT Act also addresses the important issues of security, which are so critical to the success of electronic transactions.
- Cyber Law provides both hardware and software security.

Information Technology Act, 2000

The **Information Technology Act, 2000** also Known as an **IT Act** is an act proposed by the Indian Parliament reported on **17th October 2000**. This Information Technology Act is based on the United Nations Model law on Electronic Commerce 1996 (UNCITRAL Model) which was suggested by the General Assembly of United Nations by a resolution dated on 30th January, 1997. It is the most important law in India dealing with Cybercrime and E-Commerce.

The main objective of this act is to carry lawful and trustworthy electronic, digital and online transactions and alleviate or reduce cybercrimes. The IT Act has **13 chapters and 90 sections**. The last four sections that starts from 'section 91 – section 94', deals with the revisions to the Indian Penal Code 1860.

The IT Act, 2000 has two schedules:

- **First Schedule** – Deals with documents to which the Act shall not apply.
- **Second Schedule** – Deals with electronic signature or electronic authentication method.

Key provisions of the Information Technology Act, 2000, include:

1. **Digital Signatures:** The Act recognizes digital signatures as equivalent to physical signatures, providing legal validity to electronic documents.
2. **Electronic Governance:** The Act encourages the use of electronic records and digital signatures in government offices to facilitate efficient and transparent governance.
3. **Electronic Contracts:** The legislation acknowledges the validity of contracts formed through electronic means, ensuring that electronic contracts have legal standing.
4. **Cybercrimes:** The IT Act addresses various cybercrimes and prescribes penalties for offenses such as unauthorized access to computer systems, data theft, and the introduction of viruses or malware.
5. **Data Protection and Privacy:** The Act includes provisions for the protection of sensitive personal data and prescribes penalties for the unauthorized disclosure of information.
6. **Adjudication and Appeals:** The Act establishes adjudicating officers and an Appellate Tribunal to handle disputes related to cybercrimes and other offenses under the Act.

7. **Intermediaries Liability:** The legislation outlines the liability of intermediaries, such as internet service providers and social media platforms, for the content hosted on their platforms.
8. **Network Service Providers:** The Act recognizes the liability of network service providers for any unlawful content transmitted through their networks.

The offences and the punishments in IT Act 2000

The offences and the punishments that falls under the IT Act, 2000 are as follows :

1. Tampering with the computer source documents.
2. Directions of Controller to a subscriber to extend facilities to decrypt information.
3. Publishing of information which is obscene in electronic form.
4. Penalty for breach of confidentiality and privacy.
5. Hacking for malicious purposes.
6. Penalty for publishing Digital Signature Certificate false in certain particulars.
7. Penalty for misrepresentation.
8. Confiscation.
9. Power to investigate offences.
10. Protected System.
11. Penalties for confiscation not to interfere with other punishments.
12. Act to apply for offence or contravention committed outside India.
13. Publication for fraud purposes.
14. Power of Controller to give directions.

Sections and Punishments under Information Technology Act, 2000 are as follows :

SECTION	PUNISHMENT
Section 43	This section of IT Act, 2000 states that any act of destroying, altering or stealing computer system/network or deleting data with malicious intentions without authorization from owner of the computer is liable for the payment to be made to owner as compensation for damages.
Section 43A	This section of IT Act, 2000 states that any corporate body dealing with sensitive information that fails to implement reasonable security practices causing loss of other person will also liable as convict for compensation to the affected party.
Section 66	Hacking of a Computer System with malicious intentions like fraud will be punished with 3 years imprisonment or the fine of Rs.5,00,000 or both.
Section 66 B, C, D	Fraud or dishonesty using or transmitting information or identity theft is punishable with 3 years imprisonment or Rs. 1,00,000 fine or both.
Section 66 E	This Section is for Violation of privacy by transmitting image of private area is punishable with 3 years imprisonment or 2,00,000 fine or both.
Section 66 F	This Section is on Cyber Terrorism affecting unity, integrity, security, sovereignty of India through digital medium is liable for life imprisonment.
Section 67	This section states publishing obscene information or pornography or

SECTION

PUNISHMENT

transmission of obscene content in public is liable for imprisonment up to 5 years or fine of Rs. 10,00,000 or both.

The **Information Technology (Amendment) Act, 2008**, introduced several changes to the original Act, including the addition of provisions related to data protection, increased penalties for certain offenses, and the introduction of new offenses such as cyberterrorism.

It's important to note that laws and regulations may be updated or amended, so it's advisable to refer to the latest legal texts or consult legal professionals for the most current information.

IT Act – 2008 Amendments

The IT Act, 2000 was amended in 2008. This amendment introduced the controversial Section 66A into the Act.

Section 66A

- Section 66A gave authorities the power to arrest anyone accused of posting content on social media that could be deemed 'offensive'.
- As per the said section, a person could be convicted if proved on the charges of sending any 'information that is grossly offensive or has menacing character'.
- It also made it an offence to send any information that the sender knows to be false, but for the purpose of annoyance, inconvenience, danger, obstruction, insult, injury, criminal intimidation, enmity, hatred or ill-will, through a computer or electronic device.
- The penalty prescribed for the above was up to three years' imprisonment with fine.

Section 69A

- Section 69A empowers the authorities to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource if it is necessary or expedient to do so in the interest of the sovereignty or integrity of India, defense of India, the security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of any cognizable offence or for investigation of any offence.
- It also empowers the government to block internet sites in the interests of the nation. The law also contained the procedural safeguards for blocking any site.
- When parties opposed to the section stated that this section violated the right to privacy, the Supreme Court contended that national security is above individual privacy. The apex court upheld the constitutional validity of the section.
- The recent banning of certain Chinese Apps was done citing provisions under Section 69A of the IT Act.

Intellectual Property Rights

Intellectual property rights are the rights given to each and every person for the creation of new things according to their minds. IPR usually give the creator a complete right over the use of his/her creation for a certain period of time.

Intellectual property rights are the legal rights that cover the benefits given to individuals who are the owners and inventors of work and have created something unique with their intellectual creativity or capability. Every person related to areas such as literature, music, invention, etc., can be granted such rights, which can then be used in their business practices by them.

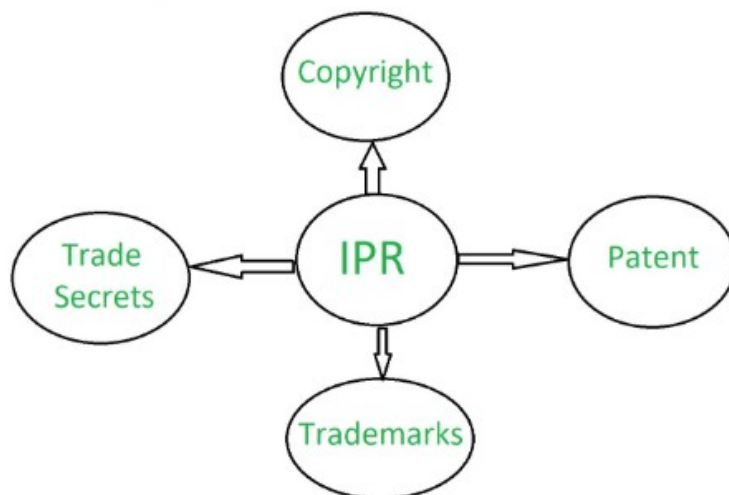
The creator/inventor gets complete rights against any misuse or use of work without his/her prior information. However, the rights are issued for a limited period of time to maintain equilibrium.

What are Intellectual Properties?

1. Industrial designs
2. Scientific discoveries
3. Protection against unfair competition
1. Literary, artistic, and scientific works
2. Inventions in all fields of human endeavor
3. Trademarks, service marks, commercial names, and designations

Types of Intellectual Property Rights:

Intellectual Property Rights can be classified into four types:



1. **Copyright:** Copyright is a term that describes ownership or control of the rights to the use and distribution of certain works of creative expression, including books, videos, movies, music, and computer programs.

2. **Patent:** A patent gives its owner the right to exclude others from making, using, selling, and importing an invention for a limited period of time. The patent rights are granted in exchange for enabling public disclosure of the invention.
3. **Trademark:** A Trademark is a Graphical representation that is used to distinguish the goods and services of one party from those of others. A Trademark may consist of a letter, number, word, phrase, logo, graphic, shape, smell, sound, or combination of these things.
4. **Trade Secrets:** Trade secret describes about the general formula of any product and the key behind any organization's progress. It also includes various firms' different secret formulas for the same products which differ in quality.

Advantages of Intellectual Property Rights:

The advantages of intellectual property rights are as follows:

- IPR yields exclusive rights to the creators or inventors.
- It encourages individuals to distribute and share information and data instead of keeping it confidential.
- It provides legal defense and offers the creators the incentive of their work.
- It helps in social and financial development.
- It inspires people to create new things without fear of intellectual theft.

Copyright in the Digital Medium

Copyright in the digital medium refers to the application of copyright law to works that exist in digital or electronic form. The digital medium encompasses a wide range of content, including text, images, audio, video, software, and other creative works that are created, distributed, and accessed through digital platforms. Here are key aspects of copyright in the digital medium:

1. Digital Works:

- Copyright protection extends to digital works, including content created and distributed in digital form. This can include e-books, digital images, audio files, videos, and software.

2. Originality and Creativity:

- Copyright protection applies to original and creative works of authorship. In the digital context, this includes content created for websites, social media, blogs, online publications, and more.

3. Automatic Protection:

- Copyright protection is generally automatic upon the creation of an original work. In the digital medium, as soon as content is created and fixed in a tangible form (such as saving a digital file), it is considered copyrighted.

4. Exclusive Rights:

- Copyright grants the creator exclusive rights to reproduce, distribute, perform, and display their work. In the digital medium, these rights apply to actions like copying files, sharing content online, streaming, and displaying images or videos on websites.

5. Digital Reproduction and Distribution:

- Digital reproduction and distribution are central elements of copyright in the digital medium. Creators have the right to control how their digital works are reproduced and distributed, whether through downloads, streaming, or other methods.

6. Digital Rights Management (DRM):

- Content creators often use Digital Rights Management (DRM) technologies to control access to and usage of their digital works. DRM can restrict unauthorized copying or distribution of digital content.

7. Online Platforms and Copyright:

- Copyright issues are prevalent on online platforms, including social media, video-sharing sites, and content-sharing platforms. Users and platform operators must be aware of copyright laws to avoid infringement.

8. Fair Use and Digital Millennium Copyright Act (DMCA):

- Fair use principles and the Digital Millennium Copyright Act (DMCA) in the United States provide some flexibility for certain uses of copyrighted material, especially in educational, commentary, or transformative contexts. The DMCA also establishes a process for addressing online copyright infringement.

9. International Considerations:

- Copyright in the digital medium involves international considerations due to the global nature of the internet. Creators need to be aware of copyright laws in different jurisdictions.

10. Challenges and Evolving Issues:

- The digital medium poses challenges to copyright enforcement, such as the ease of copying and sharing digital files. Emerging technologies, like artificial intelligence-generated content, also raise new copyright-related questions.

Understanding and navigating copyright in the digital medium is crucial for creators, publishers, and users alike to ensure that intellectual property rights are respected and protected in the digital landscape.

Copyright Act

As of my last knowledge update in January 2022, the copyright laws in India are primarily governed by the Copyright Act, 1957, and its subsequent amendments.

1. Copyright Protection:

- The Copyright Act, 1957, provides protection for a variety of creative works, including literary, dramatic, musical, and artistic works.

2. Duration of Copyright:

- The duration of copyright protection varies depending on the type of work. Generally, the duration is the lifetime of the author plus 60 years. In the case of anonymous and pseudonymous works, cinematograph films, sound recordings, and photographs, the duration is different.

3. Works Covered:

- Copyright protection extends to a wide range of works, including books, manuscripts, computer programs, artistic works, musical works, sound recordings, cinematograph films, and more.

4. Exclusive Rights:

- The copyright owner has exclusive rights to reproduce, distribute, perform, and display the work. Unauthorized use of copyrighted material without permission may constitute infringement.

5. Fair Dealing and Exceptions:

- The law provides for certain exceptions, such as fair dealing for purposes like research, private study, criticism, review, or news reporting.

6. Performers' Rights:

- The Copyright Act recognizes the rights of performers in their performances. This includes rights in the fixation of their performances and broadcasting.

7. Digital Rights:

- The law has been amended to address issues related to digital technology and the internet. This includes provisions related to circumvention of technological protection measures and protection for internet service providers.

8. Moral Rights:

- The Act recognizes the moral rights of authors, which include the right to claim authorship of the work and the right to prevent any distortion, mutilation, or modification of the work.

9. Registration:

- While copyright protection is automatic, authors can choose to register their works with the Copyright Office to provide additional evidence in case of disputes.

10. Enforcement and Remedies:

- The Act outlines various remedies and penalties for copyright infringement, including injunctions, damages, and the right to seize infringing copies.

11. International Conventions:

- India is a signatory to various international copyright conventions, including the Berne Convention, which provides for the recognition of copyright across member countries.

12. Amendments:

- The Copyright Act has undergone amendments, with the most recent being the Copyright (Amendment) Act, 2012, which introduced changes to address contemporary issues, including digital piracy.

Concept of Patent Right

Patents are a form of intellectual property protection granted to inventors for new, useful, and non-obvious inventions or discoveries. In the digital medium, this can encompass a wide range of technological advancements, software innovations, and digital processes. Here are key aspects of the concept of patent rights in the digital medium:

1. Software Patents:

- One significant aspect of patent rights in the digital medium is the granting of patents for unique and inventive software-related inventions. This can include new algorithms, methods, processes, and applications.

2. Hardware Innovations:

- Patents in the digital medium extend beyond software to cover hardware innovations. This includes inventions related to computer hardware, digital devices, and other technological hardware components.

3. Business Methods and Processes:

- In the digital realm, patents can be granted for innovative business methods and processes that are implemented using digital technology. This could include novel e-commerce methods, online transaction processes, and other digital business innovations.

4. Data Processing Algorithms:

- Algorithms and methods related to data processing, analysis, and manipulation may be eligible for patent protection in the digital medium. This is particularly relevant in fields such as data analytics, machine learning, and artificial intelligence.

5. User Interfaces and User Experience (UI/UX):

- Inventions related to user interfaces, user experience design, and interactive design in the digital space may be eligible for patent protection. This includes novel designs for websites, applications, and other digital interfaces.

6. Telecommunications and Networking:

- Patents can be granted for inventions related to digital communication, networking protocols, and telecommunications technologies. This includes innovations in data transmission, network security, and wireless communication.

7. Digital Medical Technologies:

- In the healthcare sector, digital medical technologies, such as medical imaging software, diagnostic algorithms, and health monitoring devices, may be eligible for patent protection.

8. Patentability Criteria:

- To be eligible for a patent, an invention in the digital medium must meet certain criteria, including novelty, inventive step, and industrial applicability. The invention should be new, non-obvious, and have practical utility.

9. International Considerations:

- Patents in the digital medium often involve considerations of international patent law, as digital innovations can be deployed and accessed globally. Understanding

how patents are granted and enforced internationally is crucial for companies and inventors in the digital space.

10.Challenges and Debates:

- The patentability of certain digital inventions, particularly in the software and business method domains, has been a subject of debate and interpretation. Different jurisdictions may have varying approaches to patenting software.

Patent rights in the digital medium play a crucial role in encouraging innovation and protecting the interests of inventors and technology creators in an increasingly digital and technologically advanced landscape.

Patent Act 1970

The Patents Act, 1970, is the primary legislation in India that governs the grant and regulation of patents. The Act has undergone amendments over the years, including significant amendments in 1999 and 2005. Here are some of the relevant provisions of the Patents Act, 1970, as amended:

1. Patentable Inventions (Section 3):

- The Act outlines what inventions are patentable. Inventions that are new, involve an inventive step, and are capable of industrial application are generally eligible for patent protection. However, certain categories, such as inventions contrary to established laws of nature, traditional knowledge, and methods of agriculture and horticulture, are excluded from patentability.

2. Novelty and Anticipation (Section 2(1)(l)):

- An invention is considered new if it has not been anticipated by prior publication anywhere in the world or used in India before the date of filing of the patent application.

3. Inventive Step (Section 2(1)(ja)):

- The Act requires that an invention must involve an inventive step, meaning it must not be obvious to a person skilled in the art.

4. Industrial Applicability (Section 2(1)(ac)):

- The invention must be capable of industrial application, i.e., it must be useful and applicable in an industry.

5. Non-Patentable Inventions (Section 3 and Section 4):

- The Act provides a list of inventions that are not patentable. This includes inventions that are frivolous or contrary to public order or morality, methods for treatment of humans or animals, plants and animals in whole or any part thereof (other than microorganisms), and mathematical or business methods.

6. Patent Application (Section 7):

- The Act outlines the procedure for filing a patent application, including the contents of the application, the role of the patent office, and the filing requirements.

7. Examination and Opposition (Sections 11, 25, and 25(1)):

- The Act provides for the examination of patent applications to determine whether the invention meets the patentability criteria. It also allows for pre-grant opposition, providing an opportunity for third parties to oppose the grant of a patent before it is granted.

8. Term and Renewal of Patents (Section 53):

- Patents are granted for a limited period, usually 20 years from the filing date of the application. The Act provides for the renewal of patents by payment of prescribed fees.

9. Compulsory Licensing (Chapter XVI):

- The Act includes provisions for compulsory licensing, allowing the government to grant licenses to third parties to use a patented invention under certain circumstances, such as if the patented invention is not available to the public at a reasonable price.

10. Exclusive Marketing Rights (EMRs):

- The Act, as amended in 1999, introduced provisions for Exclusive Marketing Rights (EMRs) to protect the rights of persons who had earlier filed applications for patents in other countries.

11. Revocation of Patents (Section 64):

- The Act provides for the revocation of patents under certain conditions, including if the invention is not worked in the territory of India or is not available to the public at a reasonable price.

12. Rights of Patentees (Chapter VIII):

- The Act outlines the rights of patentees, including the exclusive right to make, use, sell, and import the patented product or use the patented process.

It's important to note that the Patents Act, 1970, has been amended multiple times, and additional rules and guidelines have been issued to complement the Act.