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Impact of Technology on Intellectual Property Rights

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ABSTRACT:

Intellectual property (IP) is related to the human brain, which is used for creativity and invention. Inventing or creating something new requires a variety of efforts, including manpower, time, energy, technology, and money. According to the law, an author or innovator is given the legal right or exclusive right to enjoy the economic benefits of his or her invention or creation. These intellectual property rights (IPRs), like physical property, are territorial rights that can be registered with legal authorities in presentable form or in tangible form that can be sold, purchased, or licensed. IPR provides a safe environment for investors, scientist's, artists, designers, traders, and more. Promote innovation and scientific temperament.

In the current scenario of globalization, intellectual property rights are at the core of global trade practices and life around the world. A balanced intellectual property rights system is one of the key mechanisms to support a country's innovation and development goals. The development of any society directly depends on intellectual property rights and its political framework. Lack of awareness of intellectual property rights leads to the disappearance of inventions, high risk of infringement, economic losses and the decline of the domestic intellectual era. As India moved towards liberalization, privatization, and globalization in the 1990s and beyond, Indian policymakers made further adjustments to accommodate the growing needs of domestic and international stakeholders. Indian IPR laws are fully compliant with the Agreement on Trade-Related Aspects of Intellectual Property Rights under the auspices of the WTO. This paper deals with analysis and impact of technology on intellectual property rights on daily basis of an ordinary person.

KEYWORDS: Intellectual Property, Invention, Technology, Territorial rights, Globalization, Agreement , Infringement , WTO, etc.

INTRODUCTION:

The granting of legal rights is based on the assumption that these rights are enforceable. Intellectual property law is based on the premise that rights holders broadly enforce their rights by monitoring the use of their copyrighted works and prosecuting infringers. To do this, we must be able to identify specific incidents of infringement and gather enough evidence to prove in court that a particular person or company is infringing.

Information technology disrupts traditional enforcement mechanisms. These make copying, transferring, and converting works cheaper, faster, more private, and therefore more common and harder to detect and prove. If rights are not effectively enforced, intellectual property owners may be discouraged from producing and distributing intellectual works.

This, in turn, may jeopardize the benefits society derives from the open distribution of intellectual works. And to the extent that widespread unchecked violations exist, the very legitimacy of intellectual property law may be undermined. Enforcement problems raise fundamental questions about the nature and effectiveness of the entire intellectual property system. Many of these issues are discussed elsewhere in this paper.

This chapter focuses on:

1. How advances in technology reduce the effectiveness of traditional enforcement measures.
2. Part of a private effort undertaken by owners to protect their interests.
3. Public attitudes that affect the enforcement of intellectual property laws.

To understand how technology impacts intellectual property enforcement, we need to start with a core question: As the technologies used to create, distribute, and use information change, the very concepts and definitions that traditionally govern intellectual property rights have also changed, blurring the lines. This ambiguity makes it difficult to apply the law consistently in line with the goal of promoting "science and the useful arts." In particular, disputes arise over which particular uses of new technologies harm authors and copyright holders, and whether this harm significantly reduces incentives to produce and distribute works.

This chapter defines intellectual property rights, corresponding to the types of rights traditionally associated with intellectual works: the right to reproduce, the right to publish and perform, and the right to create derivative works. Into three categories: These categories are used only to describe new

technologies in terms that are familiar to policy makers. Use shall not imply any need to extend or enforce these rights. Indeed, one of the challenges for policy makers is to understand whether traditional concepts can be used in the context of new technologies. The impact of technological change varies across intellectual property rights.

This chapter examines trends in three technology categories, each corresponding to a specific type of right traditionally granted by copyright law. For example, changes in storage technology affect owners' rights to control copies of their copyrighted works. Advances in communications technology impact the right to control publications and performance. And new information processing technologies impact owners' rights to control the production of derivative works. To illustrate the impact of advancing technologies on enforcement, this chapter also considers how these technologies interact in integrated computer- and telecommunications-based systems. In the long term, the convergence and interaction of these technologies may pose the greatest enforcement challenges for the entire intellectual property system.

Inventions, works of art, symbols, logos, and brands are typically associated with intellectual property and are therefore all legally protected by trademarks, copyrights, and patents. Intellectual property law has been significantly influenced by digital technology, as evidenced by significant legal and practical advances in cyber-trespass law and protection.

E-commerce and acceptance of business process patents will have profound implications for freedom, computing, and privacy. Through the statement of protecting freedom and privacy, it is recommended that some personal data be given private property rights. Intellectual property must protect not only novel, non-traditional brands such as holograms, but also fully digital works such as software and mobile apps. How these rights can be protected in the digital environment and marketplace is also a topic of discussion.

A company's intangible assets can be extremely valuable, and protecting them in today's increasingly digital and connected world is both essential and challenging. While legal standards in this area continue to evolve, disagreements over intellectual property of any kind can be extremely damaging to a company's brand.

TECHNOLOGY AND ITS RELATION WITH INTELLECTUAL PROPERTY RIGHTS:

Technology makes it cheaper to copy, transfer, and manipulate information and intellectual property. For example, devices such as optical disk storage systems allow ordinary people to collect entire libraries of copyrighted text, music, and images in their homes. Lower prices and improved information systems make more works available to more people. As a result, law enforcement efforts will need to anticipate a much wider range of potential violations than they currently do.

Technology allows us to copy, transfer, and manipulate information and intellectual property more quickly. For example, fiber optic technology can now transmit 100 novellas per second over a distance of 100 miles under laboratory conditions. These features will soon be available in the office and home as well. As a result of these and many similar developments, rights holders may have less market cushion to realize returns from their creative and financial investments. As a result, they may be less motivated to create works.

Technology has made the copying, transmission, and manipulation of information and intellectual works increasingly private. For example, personal computers can store, process, and communicate the contents of large commercial databases without the knowledge or consent of the authors of the works. This makes it increasingly difficult for rights holders to detect, prove, and prevent infringement. Therefore, they may have less incentive to make their work widely available.

Overall, increases in the cost, speed, and performance of information technology have rendered traditional owner-driven (civil law) enforcement largely ineffective in ensuring appropriate control over the public distribution of intellectual works. This may make investors less willing to fund the creation of intellectual works. Intellectual property owners will likely be reluctant to distribute their copyrighted works in a format over which they have little physical control.

This technology itself provides an opportunity for owners to have greater control over the distribution of their works. Private computerized electronic systems can provide the ability to assert control by restricting and monitoring access. Policy makers may need to weigh the benefits of such controls against the potential social costs associated with restricting public access and monitoring private parties' use of the information.

As advances in technology make it more difficult to enforce intellectual property rights, public support for these rights becomes even more important. However, the public currently does not have enough information about intellectual property rights issues. If the public is aware of this issue, they can clearly distinguish between the rights of owners to operate in the marketplace and their own rights to use information as they wish within their homes and businesses. As long as the rights of owners do not conflict with the public's sense of privacy and fairness, the public is likely to support an intellectual property system.

EVOLUTION OF INTELLECTUAL PROPERTY RIGHTS:**PATENT**

YEAR	HIGHLIGHTS
1856	British implemented the first patent statute in India "On Protections of Inventions, provided certain exclusive privileges to inventors for a 14-year term.
1888	Inventions and Designs Act introduced to consolidate and amend previous legislations- 1872 Act for designs and 1883 Act for patents in conformity with amendments in the UK law.
1911	Enactment of the Indian Patents and Designs Act, 1911 . Establishment of Patent Office & The Controller of Patents; Increase in term of patent from 14 years to 16 years; Product Patents in all fields of technologies.
1970	Patents Act 1970; only Process patents for food, drugs, agrochemicals, alloys. 7 years term for food, drug and 14 years term for others; Compulsory license provisions.
1999	TRIPS obligations; filing of application for product patents in areas of drugs, pharma and agro-chemicals allowed as mailbox applications; EMR.
2002	Introduction of 18 months' Publication; Examination of applications by request; Establishment of Intellectual Property Appellate Board; Uniform term of 20 years irrespective of the field of invention.
2005	Product patents introduced in areas of drugs, pharmaceuticals and agrochemicals; Pre/Post- grant Opposition system.

TRADEMARKS

Till 1940	No specific legislation for Trademarks, Common law to resolve issues
1940	Trademark Act and Registry
1958	Trade and Merchandise Act
1999	New Act in view of TRIPS Agreement, new development in trading practices-service, well-known marks registered
2013	Introduced provisions of Madrid Protocol

DESIGNS

1872	Patterns and Design Act
1888	Consolidated as Inventions and Designs Act
1911	Renamed as Indian Patents and Designs Act
1970	Patents Act was separated from Designs Act
2001	Design Act 2000

GEOGRAPHICAL INDICATIONS

1999	Geographical Indications of Goods (Registration & Protection) Act, 1999
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COPYRIGHT

1914	Indian Copyright Act was enacted for the first time in 1914 primarily based on the U.K. Copyright Act, 1911.
1957	After Independence the Comprehensive Copyright Act was enacted in the year 1957 to consolidate the laws related to copyrights in India.
1994	1. definition of "Literary work" consistent with definition of "Computers" and "Computer Programmes".

	<ol style="list-style-type: none"> 2. harmonizing with Rome Convention, 1961 by providing protection to rights of Performers. Producers of Phonograms and Broadcasting organizations. 3. the concept of Registration of Copyright Societies for Collective Management of the rights.
2012	<ol style="list-style-type: none"> 1. The copy Right (amendment) Act 2012 notified on 8-6-2012. 2. provisions in conformity with the WIPO Treaty and WIPO Performances and Phonograms Treaty. 3. Definition of "Copyright" as Exclusive Right , author of a work is the first owner of copyright.

SEMICONDUCTOR INTEGRATED CIRCUIT DESIGN LAYOUT

2000	Semiconductor Integrated Circuits Layout Design Act was enacted in 2000 to provide protection for semiconductor IC layout designs
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IMPACT OF TECHNOLOGY ON IPR:

As digital transformation continues at a rapid pace, the introduction of cutting-edge technologies is having a significant impact on many areas, including the creation, defense, and enforcement of intellectual property (IP) rights.

Digital Innovation and Intellectual Property Creation: New types of intellectual property have emerged as a result of the unprecedented innovation that digital transformation has brought across industries. The digital age has expanded the scope of content that can be protected under intellectual property law, from software and algorithms to digital content and artificial intelligence. As technology advances, laws must change to reflect new developments.

Artificial intelligence is one of the most important technologies that will significantly impact India's existing intellectual property rights framework. Whenever AI creates any kind of work, the following questions arise: If an AI system creates an original work, who owns the intellectual property rights? Or should the AI system itself be considered the creator? Or should rights be given to human programmers and the organizations that own AI systems? Addressing these concerns is critical to determining the future of AI-generated works and ensuring fair compensation for creators.

The scope of artificial intelligence is so complex that there is growing momentum to redefine existing intellectual property laws. Section 2(p) of the Patents Act of 1970 defines the term "patent owner" and section 2(t) defines the term "interested party", so the term "any person" It is specified that it can mean owners and stakeholders. This means that the inclusion of AI clearly precludes AI from falling within its scope, and the law therefore prohibits non-humans from being patent holders.

Additionally, Section 2(d) of the Copyright Act of 1957 defines "author" and an author may be a person or a legal entity. Therefore, protection under the law is limited to works produced by machines. Furthermore, AI may infringe on the intellectual property rights of others.

For example, ChatGPT provides results that are derived from existing online data and may or may not include IP-protected copyrighted material. There are questions about the protection of AI content, as it is clear that existing intellectual property laws are unclear.

Difficulties in protecting digital assets: Digital transformation creates new opportunities for intellectual property creation, but also challenges in protecting digital assets. The ease of digital reproduction and distribution has made enforcement of traditional intellectual property rights more difficult. The growing challenges of copyright infringement, software piracy, and illegal use of digital content require strong legal solutions.

The Emergence of Smart Contracts and Blockchain Technology: Known for its decentralized and secure architecture, blockchain technology is fundamentally changing the way intellectual property rights are managed. Blockchain-based smart contracts provide self-executing, transparent contracts that make the transfer of intellectual property more effective and protect it from manipulation. This has the potential to completely change not just how licenses and royalties are paid, but how intellectual property is managed in general. The creation of blockchain, known as the software for cryptocurrencies such as Bitcoin, has far-reaching implications for intellectual property.

Its decentralized and transparent nature allows it to revolutionize virtual rights management, allowing creators to protect their tracks and take ownership of their works. Blockchain-based systems can provide proof of ownership, creation timestamps, and smart contracts that automatically enforce intellectual property rights. Introducing blockchain technology in the intellectual property field will increase transparency, reduce infringement, and promote honest compensation for creators. However, implementing blockchain in the intellectual property field also raises legal considerations, such as data protection, jurisdiction, and compatibility with existing laws and regulations. As this technology continues to evolve, legal frameworks must adapt and clarify to realize the potential of this technology while protecting intellectual property rights.

Data protection and privacy issues: As digital transformation relies primarily on data-driven technologies, the collection and processing of vast amounts of data raises data protection and privacy issues. It is essential to find a balance between protecting individual rights and promoting innovation. Laws

such as the General Data Protection Regulation (GDPR) place strict limits on the handling of personal data and impact how companies conduct business online.

Globalization and cross-border enforcement of intellectual property: The digital revolution that has enabled the globalization of markets makes it essential to address intellectual property issues globally. The complexity of cross-border enforcement of intellectual property rights arises from different legal frameworks and legal obstacles. Effective protection in the digital age requires international cooperation and legal harmonization.

Cyber security and Intellectual Property Protection: The increasing frequency and complexity of cyber threats requires robust cyber security measures to protect intellectual property. Cyber-attacks, unauthorized access, and data breaches pose significant threats to valuable digital assets, but legal frameworks need to be in place to address these risks and provide remedies for intellectual property infringement in cyberspace. Need to change.

THE EFFECTS OF IPR PROTECTION IN THE TECHNOLOGY TRANSFER CONTEXT ON ECONOMIC GROWTH IN CASE OF DEVELOPING COUNTRIES:

The importance of intellectual property rights (IPR) in international trade negotiations is recognized. This recognition is demonstrated by the creation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), which is an integral part of the World Trade Organization (WTO) Agreement.

The agreement aims to improve intellectual property (IP) standards between WTO agreements harmonize signatory countries; This was an agreement in the Uruguay Round Final Act (1986-1994), which entered into force in stages from January 1995. In order to join the WTO and enjoy the benefits of free trade, developing countries must not only strengthen the protection of intellectual property rights, but also adapt their intellectual property systems to certain standards already in place in developed countries. There has also been a demand for adaptation. Under this program, developed countries would be willing to export technology embedded in their products to developing countries.

Article 7 of the agreement states: "The protection and enforcement of intellectual property rights contributes to the promotion of technological innovation, the transfer and dissemination of technology, the mutual benefit of producers and users of technical knowledge, and contributes to the benefit of society. "It must be something that contributes." and the balance between economic well-being and rights and responsibilities." The signing of the WTO Agreement on TRIPS provoked intense debate among political circles and scientists.

An important debate is whether it would be beneficial for developing countries to strengthen their intellectual property rights systems and align them with certain standards already in place in developed countries. Two competing models can be identified in this current debate. The first recommends a strong intellectual property rights system for economic development, and the second is that weak or non-existent intellectual property rights hinder the rapid spread of knowledge. It argues that this is a method that prevents dissemination and local capacity development from becoming possible. Strong intellectual property rights advocates argue that improved protection of intellectual property rights will benefit developed as well as developing countries.

Meanwhile, northern companies find ample incentives to invest in research and development (R&D) and innovation. On the other hand, they may be in favor of licensing knowledge and collaborating with southern companies on joint projects. Developing countries will benefit from increased inflows of technology transfer. However, critics of intellectual property protection argue that stronger protection could raise prices, distort consumer choice, and reduce welfare. They argue that a strong intellectual property rights system would reduce technology transfer by limiting the scope of imitation, making it difficult to close the technology gap between North and South.

When developing countries align their IP standards with those of developed countries, they incur short-term costs in lease transfer, administrative and enforcement costs, and divert scarce resources from other important areas.

Given the WTO's interest in intellectual property rights and existing disputes over the role of intellectual property rights in the North-South axis, the nature of the relationship between intellectual property protection and technology transfer, and the economic growth of developing countries. It seems necessary to empirically examine their effects on .

According to an extensive study of business in developing countries (Kneel, 2006), imports of technology used in machinery and other capital goods are by far the most important source of technology transfer from a business perspective.

Empirical models examining the economic impact of strengthening intellectual property rights in developing countries offer different views on the impact of intellectual property rights protection on growth. According to Gould and Gruben (1996), protection of intellectual property rights stimulates economic growth when accompanied by trade liberalization policies. By fostering innovation efforts, we can protect intellectual property rights and influence economic growth in open countries. Park and Ginarte (1997) found that intellectual property protection indirectly affects economic growth by stimulating the accumulation of production factors such as physical capital and R&D capital.

Protecting intellectual property rights encourages research departments to invest and take risks. As a result, economic growth is promoted. Xu and Chiang (2005) show that intellectual property protection indirectly affects economic growth by attracting foreign patent flows. Falvey and Foster (2006) find that the relationship between intellectual property protection and economic growth is nonlinear. It depends on the country's level of development and economic structure. However, all of these studies ignore the impact of intellectual property rights protection on technology transfer and economic growth.

INTELLECTUAL PROPERTY IN DIGITAL AGE:

Intellectual property is a legal term that refers to intellectual creations such as inventions, literary works, works of art, designs, symbols, and names used in commerce. In the digital age, the rise of the Internet and new technologies has revolutionized the way intellectual property is created, distributed, and consumed. This creates new challenges not only for intellectual property owners, but also for governments and consumers. One of the biggest challenges to intellectual property in the digital age is piracy.

The distribution of digital content has made it extremely easy to copy and redistribute copyrighted works without permission. This has caused significant losses for creators and sellers of intellectual property and made it difficult to enforce intellectual property rights. Another challenge is the impact of open source software on intellectual property.

Open source software is software whose source code is publicly available and can be freely modified and distributed by users. Because the code can be freely copied and distributed, it can become difficult for companies to protect their intellectual property. A variety of legal and technical solutions are available to address these challenges. For example, governments can strengthen intellectual property laws and improve enforcement efforts.

Companies can also use digital rights management technology to protect their intellectual property while exploring alternative business models that are less reliant on traditional intellectual property rights. Overall, intellectual property in the digital age presents complex challenges that require careful consideration and innovative solutions. All stakeholders must work together to address these challenges and ensure that intellectual property is protected in a way that benefits both creators and consumers.

COPYRIGHT CHALLENGES IN THE DIGITAL ERA:

Copyright is a type of intellectual property that protects the original works of authors, such as books, music, movies, and software. In the digital age, the proliferation of the Internet and new technologies has created new challenges for copyright holders, particularly with regard to unauthorized copying and distribution of copyrighted works. One of the biggest copyright challenges in the digital age is piracy. The rise of peer-to-peer file sharing and online streaming platforms has made it easier than ever to access and share copyrighted content without permission. This has caused huge financial losses to copyright holders, especially in the music and film industries. Another issue is the issue of fair use.

Fair use is a legal principle that allows limited use of copyrighted material without permission for purposes such as criticism, comment, news reporting, teaching, scholarship, and research. However, the digital age has made it more difficult to determine what is fair use, especially when it comes to online content. To address these challenges, governments and organizations have implemented a variety of measures, including: Stricter copyright laws, digital rights management technologies, and alternative business models. However, these efforts have often been met with criticism and controversy, particularly regarding censorship issues and the impact on freedom of expression. Overall, copyright challenges in the digital age will continue to be complex and evolving issues. Stakeholders must work together to find solutions that balance the interests of copyright holders and the public while fostering innovation and creativity in the digital age.

PATENT PROTECTION IN THE DIGITAL AGE:

Patent protection is a type of intellectual property law that protects inventions such as new products, processes, and technologies. In the digital age, the proliferation of new technologies and software creates new challenges for patent protection. One of the biggest challenges to patent protection in the digital age is the problem of patent trolls.

A patent troll is a company or individual who obtains patents in order to sue other companies for infringement, rather than use the patents to develop products or services. This can lead to frivolous litigation and significant legal costs for businesses, especially small and medium-sized enterprises. Another issue is the issue of patentability. Given the rapid pace of technological advancement, it can be difficult to determine whether a particular invention is patentable or merely an obvious variation on existing technology. This can lead to disputes over patent validity and make it more difficult for companies to protect their intellectual property rights. To address these challenges, governments and organizations have implemented a variety of measures, including the creation of patent reform laws and patent examination programs. These programs are intended to reduce the number of frivolous patent lawsuits and streamline the patent application and prosecution process. Overall, patent protection in the digital age will continue to be a complex and evolving issue.

It is important for businesses and organizations to carefully consider intellectual property rights and work with legal experts to navigate the complexities of patent law. This way, you can ensure that your inventions are protected and that you can continue to innovate in the digital age. However, open source software also provides an opportunity to protect intellectual property. For example, companies can use open source licenses to protect their intellectual property while allowing others to view and modify their source code. Some open source licenses require that all derivative works be released under the same license. This ensures that the original developer's intellectual property rights are protected. Overall, the impact of open source software on intellectual property is complex and multifaceted. While this can challenge traditional software development models and complicate intellectual property protection, it also presents opportunities for collaboration and innovation.

Therefore, it is important for businesses and organizations to carefully consider the impact of open source software on their intellectual property rights and to explore alternative approaches to intellectual property protection.

TRADEMARK CHALLENGES IN THE DIGITAL AGE:

Trademarks are intellectual property rights that protect trademarks, logos, and other identifying marks used to distinguish one company's products and services from those of another company. Trademark protection in the online world presents several challenges. One of the biggest challenges is the problem of domain name infringement. The proliferation of websites and domain names can make it difficult for businesses to protect their trademarks from infringement.

Cybersquatters who take advantage of confusion by registering domain names similar to established brands can also pose significant challenges. Another issue is the issue of brand counterfeiting. The rise of social media and online marketplaces has made it easier for individuals and businesses to create fake accounts and websites masquerading as established brands. This can cause consumer confusion and damage the reputation of the original brand.

To address these challenges, companies can take a variety of steps to protect their brands, such as registering them with domain name registrars and monitoring the Internet for trademark infringement. Overall, the challenges for brands in the online world require companies to be vigilant and proactive in protecting their intellectual property rights. By taking the necessary steps to protect their brand, businesses can ensure that their brand is not diluted or misused online.

IPR PROTECTION IN DIGITAL TECHNOLOGIES:

Innovation has led to major technological advances and the dramatic growth of the world economy. With the emergence of the digital economy, digital technologies are increasingly at the forefront of the innovation ecosystem compared to physical technologies. Intellectual property protection plays an important role in facilitating the process of bringing innovative technologies to market and improving the competitiveness of technology-based companies.

Intellectual property comes in many forms, including patents, trademarks, copyrights, industrial designs, and trade secrets. Each form of intellectual property can cover different areas or aspects of technology. Therefore, it is important for companies to identify and optimally utilize their intellectual property rights. Digital technology is systematic and can be continuously developed. Therefore, intellectual property decisions need to be flexible and responsive to changes in technology, business models, and strategies. It is important to understand the importance of having the right IP portfolio.

In a given field, companies can only succeed if they understand how to create large, strategically managed IP portfolios that focus on multiple related emerging and converging technologies. Strategic importance of his IPR in the digital world Intellectual property rights (IPR) have always been important in various industries, and with the advent of the digital world, its strategic importance has increased even further. In the digital world where information and data are currency, protecting intellectual property becomes even more important.

Some of the strategic importance of IPRs in the digital world are: Protecting innovation: IPRs play a key role in protecting innovation in the digital world. As digital content has become easier to copy and share, innovators need to protect their ideas and inventions from theft and misuse.

Patents, trademarks and copyrights provide legal protection to creators and innovators, protecting their ideas and inventions from being copied and plagiarized.

1. Competitiveness of businesses:

Protecting intellectual property rights provides a competitive advantage to businesses. Protecting intellectual property allows companies to differentiate themselves from competitors and offer unique products and services. In a digital world where new products and services enter the market every day, businesses need to protect their innovations to stay ahead of their competitors.

2. Revenue Generation:

IPR can be an important source of revenue for companies. Protecting intellectual property allows companies to collect royalties for the use of patents and trademarks, creating new sources of revenue. In a digital world where information and data are valuable assets, intellectual property protection helps companies generate revenue from licensing agreements and other forms of monetization.

3. Brand Reputation:

Protecting intellectual property rights helps companies build and maintain a strong brand reputation. For example, a trademark can protect a company's brand identity and prevent other companies from using similar names or logos that could confuse consumers. By protecting your brand identity, businesses can maintain their reputation and build trust with their customers.

4. Legal Protection:

IPR provides legal protection to businesses, allowing them to take legal action against those who infringe their intellectual property rights. In a digital world where piracy and other forms of intellectual property theft are rampant, companies need to protect their intellectual property so they can take legal action against those who misuse their property. The Right Approach to Intellectual Property Rights (IPR) The right approach to Intellectual Property Rights (IPR) in a digital world is one between protecting the interests of creators and innovators and promoting the free flow of information and creativity.

CASE STUDIES:

1. MOTOROLA VS. APPLE VS. SAMSUNG AND GOOGLE:

In 2010, as smartphones became an increasingly integral part of our daily lives, Apple found itself facing a legal battle with Samsung over alleged patent infringement related to its phone products. Interestingly, Apple's primary concern was not just directed at Samsung, but also at Google's Android software that was on phones from Samsung and other third-party manufacturers. Google's legal team, involved in part through a mobile application distribution agreement, helped Samsung navigate its legal troubles. At the same time, Motorola sued Apple in one of the most notable lawsuits in technology history. The allegations included Apple's infringement of several patents relating to the operation of 3G mobile phones, while Apple countersued, accusing Motorola of infringing patents relating to various features of smartphones. This case was so troublesome for the courts that it was dismissed three times in 2012. The judges noted that both parties' evidence was insufficient and urged them to find a solution outside the courtroom. It's worth noting that 2012 was the year Google acquired Motorola.

2. BLACKBERRY VS. TYPO PRODUCTS:

If you like the idea of adding a BlackBerry-style physical keyboard add-on to your iPhone, Typo Products, a US-based company, might be for you. However, in 2014, Typo was embroiled in a lawsuit when BlackBerry sued Typo for allegedly infringing on the design of its iconic QWERTY keyboard. January 3, 2014, BlackBerry filed a lawsuit against Typo Products for infringing the design of the company's famous QWERTY keyboard. First, the court granted an injunction against BlackBerry, recognizing the keyboard's patented design.

Nevertheless, Typo Products continued to sell the keyboard as an add-on to iPhones worldwide and through other channels, despite a court order to cease and desist. As a result, Typo was fined his \$860,000, including legal fees and a contempt of court charge against BlackBerry. Nevertheless, Typo has released another version of the discontinued product, "Typo 2". Despite claims that it was not subject to an injunction, the move prompted BlackBerry to file another lawsuit against the company for continuing to interfere with its design patents. Ultimately, a settlement was reached in which Typo Products suspended worldwide sales of his products for cell phones smaller than 7.

3. THE MUSIC INDUSTRY VS. NAPSTER:

Teenage tech genius Shawn Fanning developed the Napster software in 1999, when the Internet was in its infancy, a peer-to-peer file-sharing tool that allowed people to freely share and download music. Needless to say, Napster piqued the interest of the music industry. Metallica drummer Lars Ulrich sued the software's developers in 2000 for copyright infringement, illegal use of a digital audio interface device, and extortion.

It is believed to be the first time a well-known musician has directly sued a provider of peer-to-peer file-sharing software. This caused a domino effect, with major record labels such as A&M suing Napster. The plaintiffs accused the software company of proxy copyright infringement and were ultimately convicted in 2002. To the public's dismay, Napster was forced to shut down this year, issue a public apology, and pay up to \$26 million in damages. The incident sparked resentment against Metallica among some people.

4. VLSI TECHNOLOGIES VS. INTEL:

In 2021, VLSI Technologies filed a lawsuit against leading chip manufacturer and technology giant Intel for patent infringement related to semiconductor technology. This high-profile case spanned several district courts across the United States. A lot is at stake, billions of dollars, and Intel saw the value of its stock rise by his 4.

5% during these events. His first case resulted in a judgment in favor of VLSI, which awarded him more than \$2 billion in damages. Intel appealed the Washington decision.

The court agreed that Intel had infringed another VLSI patent, but emphasized the need for a new process to examine the damages estimates and determine the appropriate amount. In a subsequent trial, another jury in Texas ruled in favor of his VLSI, awarding him \$949 million in patent-related damages in 2022, resulting in VLSI It also received \$1.

5 billion in damages.

However, the Federal Circuit ruled in 2023 that there was insufficient evidence for the original jury to conclude that Intel infringed at least one of the patents at issue, The division was worth an estimated \$675 million.

5. APPLE INC. VS. EMONSTER KK, SAMSUNG ELECTRONICS CO. & NOKIA CORPORATION VS. EMONSTER KK:

Trademark lawsuit related to the use of Animojis, the animated emojis included in iPhone X. Animoji, a company based in Japan, is an application that allows you to use animated emojis. Apple's Animoji feature uses facial recognition to create animated emojis using your face.

The second case is huge: Apple Inc.

vs.

Samsung Electronics Co., now before the Supreme Court, involves Apple design patents that Samsung allegedly stole. Although this is not actually a trademark tassel, patents are also an important part of a company's intellectual property assets.

Finally, there is the case of Apple Inc.

v.

Nokia Corporation. Another patent case involves Apple's use of Nokia technology in its smartphones, tablets, and other communications products. Apple has decided to stop paying for Nokia's technology patents, many of which are already included in its products. It accused Finland-based Nokia of extortion in the use of patents.

CONCLUSION:

In the 500 years that copyright law has existed in some form, it has always lagged behind in adapting to new environments created by technological innovation. For example, the laws that recognize authors' rights to their works were developed over his more than 200 years, from the invention of the printing press to the codification of the Anna Code.

Over time, the law has responded more quickly to technological changes, but it has not yet been able to keep up with innovation. The WCT and later his DMCA were already legal responses to digital technology that were enacted nearly a decade ago. It is therefore unreasonable to expect that the law will eventually become on par with technology and that it will eventually be able to maintain an optimal balance between the interests of society and copyright holders. Therefore, we suggest that copyright holders find new ways to profit financially from their works and adapt to new technologies.

If history has shown us anything, it's that technology will change in ways we can't imagine, and we can't hope that our laws will be in place to prepare for unimaginable changes. is irrational. It has not yet been proven that technology is making creative work less profitable. The number of new products being introduced to the market is also not decreasing. Technology does just the opposite, offering new opportunities to develop markets, increase market penetration, and speed up production. Companies are adapting their business processes to new technological environments and developing new business models to generate alternative revenue streams. The technology to protect digital content from such easy piracy is also constantly evolving. However, Legalsolutions has struggled to adapt to the changing environment.

Secondary liability for copyright infringement has been proven in various cases, but as technology continues to advance and the environment is constantly changing, precedent can no longer be used as a legal basis in such cases.

In general, the rise of digital technology is having a major impact on intellectual property law, creating new challenges and opportunities for artists, companies, and lawyers. As technology advances, we will continue to see new discoveries and legal responses in this area. Intellectual property law is being significantly influenced by the digital economy, as evidenced by significant legal and practical advances in cyber tort law and protection.

E-commerce and acceptance of business process patents will have a profound impact on freedom, computing, and privacy. Online piracy increases in the digital age, but copyright law does not provide sufficient sanctions to address such infringements. Copying on the Internet remains widely accepted by the public, and privacy concerns and legal regulations make identification difficult.

The constant advances in technology require constant monitoring of how they may impact current intellectual property law practice around the world.

The conclusion drawn is that the global intellectual property system is changing and will continue to do so for the foreseeable future. This state of continuing intellectual property development is essential if the world as a whole is to keep up with the technological revolution. The intellectual property architecture must adapt and respond to these dynamic advances, especially in waves of evolving technologies such as artificial intelligence and genetic engineering.

REFERENCES:

1. <https://www.princeton.edu/~ota/disk2/1986/8610/861007.PDF>
 2. <https://ciiblog.in/ipr-protection-in-digital-technologies/>
 3. <https://www.abounaja.com/blogs/technology-and-intellectual-property>
 4. https://www.unido.org/sites/default/files/2009-04/Role_of_intellectual_property_rights_in_technology_transfer_and_economic_growth_0.pdf
 5. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3217699/>
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