

UNDERSTANDING THE THEORIES OF INTELLECTUAL PROPERTY IN THE CONTEMPORARY WORLD - AN OVERVIEW

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ABSTRACT

Intellectual Property in the recent period has become one of the most important components of development and has been a matter of international concern. Traditionally, it was just a reward for new things, however, in present times it has become a tool for the development of trade, commerce, investment, Research and Development and ultimate welfare of the state. Theories explaining the nature and concept of traditional property and Intellectual Property in olden days may not be suitable to explain in the present scenario. Hence, this paper is an insight into the theories that explain the Intellectual Property in the present times. This paper concludes that a proper balance between the protection of Intellectual Property Rights over the new knowledge and its quick dissemination and assimilation in the productive enterprise is fundamental to the continued growth of the economy. Patenting of the invention is not an end in itself rather it is a means to achieve the gigantic social goal. The ultimate objective of Intellectual Property is to promote trade and achieve economic growth and is not aimed at protecting the interests of particular private Intellectual Property holding interest groups.

Keywords: Justifications for Intellectual Property Rights, Theories of Intellectual Property, Philosophy of Intellectual Property.

INTRODUCTION

In the present era of technology and competition, new knowledge is crucial for sustained economic growth and development. The various kinds of technology such as Digital Technology, Biotechnology, Information Technology, Nano-Technology etc. play a cardinal role in a knowledge-based economy. In such economic conditions, an incentive for the creation of new knowledge is inevitable and hence, the creators of such knowledge are rewarded largely through the protection of Intellectual Property Rights. As a result, the human intellect has been greatly recognized as a prime & major resource of the current staggering economic growth. The exploitation of this resource beyond the geographical boundaries has been widely accepted in this globalized world. In this present age of technology, the innovation system has become the real determinant of winners and the losers. Genuine pioneers are in a position to exploit new ideas and get the ‘first-mover advantage’, however, without the guaranteed returns for their efforts, they may face a threat from second movers, imitators and also reverse engineers. Intellectual Property protection allows the innovators to leverage their ideas and convert those into commercial ventures.ⁱ Protection of Intellectual Property becomes even more significant in this world of today where scientific developments are happening at ‘breakneck’ speed.

Initially, Intellectual Property protection and its enforcement had its influence merely on domestic trade. However, in the 19th Century, there was an increase in the scientific research & technology-oriented economic activities which lead to enhanced import and export of products which are subject to Intellectual Property protection. Tremendous scientific & technological growth, particularly in communication and transport, and the changing international trade and integration of market have diluted the territorial boundaries making the whole globe as one village. It was realized that the exploitation of intellectual resource beyond geographical & political boundaries is extremely essential to achieve larger economic gains. The International movement of goods, imports and exports, raised questions about the security of Intellectual Property Rights beyond the territorial jurisdiction. The protection of a patent in a foreign country had become difficult due to the discriminatory treatment and the variations between the national laws. Therefore, the industries felt it essential that the Intellectual Property Rights should be effectively protected and enforced at the host countries wherever they invest, manufacture or market their products so that their property rights to new technology are not misused by the local producers by imitation or by making use of reverse engineering. Foreign

Direct Investment (FDI), manufacture, import and export became subject to the adequate and effective protection of Intellectual Property Rights in the member countries. Therefore, in recent years the standard of Intellectual Property protection and its effective enforcement at the international level has become more relevant for the promotion and progress of international trade.ⁱⁱ To deal with this situation an international patent system comprising various international legal instruments and organizations emerged. In this chapter, the meaning, nature, scope and philosophical justification for Intellectual Property protection has been discussed at length.

MEANING OF INTELLECTUAL PROPERTY

The term 'Intellectual Property' refers to the property created by using human intellect. It is the system of legal protections provided to useful inventions, expressions, products and processes, etc., the generation of which involves the creative use of mental faculty. Intellectual Property is distinguished from other properties by the 'labour' involved in its production or creation. The primary labour involved in the production of Intellectual Property is the exercise of creative faculty supplemented by some physical labour applied to make these thoughts tangible, publicly accessible, and usable by others. This refers to inventions, products, things, schemes, objects, ideas, expressions, etc. that may be the subject of strong legal protection.ⁱⁱⁱ By contrast, land and other traditional physical properties such as minerals, water, air, animals, plants etc. do not depend on cognition and imagination for their existence. However, the existence of many physical goods, such as particular flat brooms, chairs, pies, bred animals and plants, does partly depend on the exertion of human labour guided by mental efforts.^{iv} Intellectual Property is a broad concept that covers several types of legally recognized rights arising from some intellectual creativity. Generally, Intellectual Property rights are divided into categories such as Copyright, Patent, Trademark, Designs, Geographical Indications, Trade Secret, Integrated Circuits, Rights of Publicity, and Moral Rights.

Copyright refers to rights of creators of literary, scientific and artistic works. It covers original written works or expressions such as Books, Articles, Poems, Musical Compositions and cinematograph film, Computer Programme; and also printed images such as paintings, photographs and drawings. Subject to some exceptions for fair use, copyright affords the right-

holder the capability to prevent others from using, copying, selling and sampling in whole or in part, performance and distribution of a work, without his/her permission. Books, Novels, Video Albums, Movies, etc. are examples of Copyright.

Patents give exclusive rights conferred on inventors; however, inventions can be patented only if they are new, non-obvious and are capable of industrial applications. The term 'Patent' is short for 'Letters Patent', derived from the Latin *literae patentes*, meaning open letters.^v In England, the Crown use to conduct its administration through charters and letters patent, including the grant of privileges to inventors, authors and producers of new products. These grants, whether of lands, honours, liberties, franchises, or on other things, are contained in charters or letters patent, that is, an open letter called as *literae patentes*: so-called, because they are not sealed up, but exposed to open view, with the great seal pendant at the bottom; and are usually directed or addressed by the King to all his subjects at large.^{vi} The patent in today's perception is a privilege granted by the state for the new invention. It covers novel, useful and non-obvious inventions in products or processes, such as a device, the machine, apparatus, substance, chemical formulae or compositions, some biological and chemical methods and processes, and biological products and materials created through these processes. A patent holder is enabled to prevent others from using, manufacturing, selling or distributing tokens of the invention, or distributing variations.

Trademarks and other marks are the marks that enable the manufacturers to distinguish their goods or services from those of others. Trademark may be a device, number, name, word, symbol or combination thereof that indicates the source of goods or services, distinguishes the products or services of one business from those of others in the same field. Trademarks help manufacturers build consumer loyalty and assist consumers in making informed choices based on the information provided by manufacturers on the quality of their products.^{vii} The owner of a 'trademark' has the right to exclude others from using that trademark by being the first to use it in the market place. The marks like TATA, Reliance, Samsung, ICICI Bank, etc are examples of Trade Marks.

A trade secret is any confidential information that can be used in the operation of a business or enterprise and that is sufficiently valuable and capable of affording an economic advantage over others.^{viii} Trade secret empowers its holders to police the use and exposure of confidential information within an organization, typically a business, about that organization's methods,

databases, formulae and production designs. The formula for Coca-Cola, the recipe of Haldiram's Son Papdi, etc. are the examples of the trade secret.

Industrial designs are new or original aesthetic creations determining the appearance of industrial products. Design rights cover different ways of presenting the outward appearance of things. Design is the feature of shape, pattern, ornament, configuration, composition or combination of pattern, lines or colour, applied to any article whether in three-dimensional form or two-dimensional form or both, by any industrial process, containing some aesthetic value, solely judged by eye. This right generally remains in existence for ten years to be extendable further by a maximum of five years from the date of registration. Designs or shapes of Flower Vase, Cups, Mugs, etc. and patterns of sarees, dresses, ornaments, etc. are the examples of design rights.

Geographical Indication (GI) refers to the geographical origin of a product, having specific quality, characteristic or reputation, attached to it for being produced in that particular geographical environment. It generally consists of a geographical name, sign or a traditional designation used for products or goods that have a specific geographical origin (e.g. a town, region, or country) and possesses qualities, reputations or characteristics that are essentially attributable to that place of origin. Agricultural products typically have qualities that derive from their place of production and are influenced by specific local factors, such as climate, soil, etc. Geographical Indications may be used for a wide variety of products, whether natural, agricultural or manufactured. Pochampally Ikat (Andhra Pradesh)^{ix}; Mysore Agarbathi (Karnataka)^x; Kullu Shawl (Himachal Pradesh)^{xi}; Mysore Sandal Soap (Karnataka)^{xii}; Bidriware (Karnataka)^{xiii}; Solapur Terry Towel (Maharashtra)^{xiv}; Darjeeling Tea (West Bengal)^{xv}; Mahabaleshwar Strawberry (Maharashtra)^{xvi}; Nashik Grapes (Maharashtra)^{xvii} etc. are some of the famous examples of registered GIs in India.

Plant breeders' rights are granted to the owners of 'invented' plant varieties which are novel, distinct and stable.

Finally, the Moral Rights includes the creators right to protect the integrity of their work (e.g. to forbid alterations to the structure of a sculpture or building or a script or a novel, etc.), to require attribution (that copies of the work bear the creator's name), and sometimes to reclaim specific tokens of the work from their owners upon offering compensation.

Copyrights, Patents and Designs typically have restricted terms; currently, in India Copyright lasts for sixty years after the author's death, Patent lasts twenty years from the date of application and Design lasts for ten years, extendable by five years. After the term expires, the work enters the public domain for unrestricted use by the general public.

NATURE OF INTELLECTUAL PROPERTY

Intellectual Property is an innovative and useful incorporeal property created by the human being in quest of his subsistence, general well-being and happiness, which is his natural right. The state protects the form of privileges, designed to promote and reward innovations, creations, writings, etc. and to make it available to the public by compulsory disclosure.

Tangible property is composed of physical things that can occupy only one place at any given time. The possession of a physical thing is essentially 'exclusive', i.e. if one has its possession, the other cannot have it at the same time. This means the tangible property cannot be enjoyed simultaneously by others without harm (rivalry) to the first. This characteristic of excludability is absent in case of 'ideas'. Particular information or knowledge can be shared, possessed and enjoyed by two or more persons at the same time without depriving the first. The possession or use of the idea is 'non-rivalrous' and hence the traditional justifications for the tangible property are not fit for Intellectual Property. In the state of nature, there is no danger of overusing or over distributing an idea, and no danger of fighting over who gets to use it. Everyone can use the idea or the expression without diminishing its value.^{xviii}

Intellectual Property is an intangible, incorporeal property which can be transferred, assigned, mortgaged or licensed and can be dealt with just as with any other property. It is recognized as an asset and can be owned and can be dealt with. Intellectual Property creates rights and duties and establishes property rights in favour of the owner and the owner is empowered to exercise rights over the subject matter and prevent others from doing certain things.

Intellectual Property, though recognized by law as a 'complete property', it is limited in its duration, restricted in its enforcement and subject to additional restrictions under the law which are absent in case of tangible property. For example, the patent is granted for 20 years, it cannot be enforced beyond the territory unless it is granted in the other country and it is subject to

unauthorized or compulsory use such as ‘Governmental Use’ and ‘Compulsory Licenses’.^{xix} Such restrictions are absent in case of tangible property.

THEORIES OF INTELLECTUAL PROPERTY RIGHTS

Intellectual Property Right is a right in an intangible intellectual subject matter created by the human being and protected by law. As discussed above, there are differences like tangible property and intangible Intellectual Property, and hence the theories of tangible property are not able to explain the exclusive proprietary rights in ideas or intangible properties. There are various other theories, which explain the intangible intellectual properties like a patent. Some important theories of Intellectual Property Rights, with special reference to patents, are discussed below.

I. Theory of Natural Rights or Labour Theory

This theory provides that goods are held in common by all men through a grant from God, yet every man has property in his person.^{xx} God grants this bounty to humanity for its enjoyment but these goods cannot be enjoyed by the human being in their natural state. The individual mixes something which is his own i.e. his labour, with those goods and converts them into enjoyable goods and thereby makes it his property. His labour adds value to the goods and converts the goods from a natural state to some useful and enjoyable goods, and thereby excludes the common right of other men to use it.

This theory is based on the moral foundation of honesty and fairness. Intellectual Property is a natural human right of an individual who created it and any act of stealing the same without the prior approval of the creator would be dishonest and unfair. This particular aspect of practice leads to the protection of Intellectual Property Rights. This justification of Intellectual Property is also found in modern laws.^{xxi}

II. The Personhood Theory

This theory posits that proper self-development or personhood requires individuals to secure control over certain things, e.g. one’s home, residence, etc. in their external environment. The necessary assurances of control, take the form of property rights. The significance of someone’s attachment to things is depending upon the labour poured by him and the pain caused by its

loss. Therefore, an object is closely related to one's personhood when its loss causes pain that cannot be compensated or reinstated even by the replacement of that object. Hence, in such circumstance, that particular property is closely connected with the holder of that thing and he has the right to protect it.^{xxii} However, this 'personal property' doctrine is different than the 'fungible property'^{xxiii} instrumental items.^{xxiv} The personhood justification for property emphasizes the extent to which property is personal as opposed to fungible; the justification is strongest where an object or idea is closely entangled with an individual's identity and weakest where the 'thing' is valued by the individual at its market value.

III. Social Contract Theory

The concept of the social contract is that of an agreement between the 'citizenry' and its government, as opposed to the feudal concept of the divine right of kings. This social contract theory corresponds with the theory of natural rights. John Locke was an influential writer on social contract and natural rights. Much information published in patents would not otherwise be disclosed in absence of a patent grant. Without an opportunity for patenting, the inventor maintains secrecy. However, there is always a risk of losing secrecy on part of the applicant, as he cannot recover lost secrecy if a patent is not granted. Society considers the invention as beneficial and therefore recognizes its significance and ensures its protection. Grant of the patent is considered as a social contract between the society and the inventor, wherein an inventor shares his invention with the society and the society offers monopoly in return.^{xxv}

IV. Utilitarian Theory or Incentive Theory

Inventions are considered as costly public goods, as it involves huge investment & expenditure in R&D, production and marketing. There can be considerable costs in the invention process, which often involves repetitious trial & error, and testing, all of which require facilities, labour, and supplies. Development of new drugs cost several millions of dollars, along with physical and mental efforts, labour, inventive skill and time. Lack of security in sufficiently exploiting their inventions may discourage the potential inventors to invent, unless assured exclusive use of the invention is provided, at least for some duration. Without patent protection, inventors would face a risk of losing returns for their efforts. Patents offer a means to recoup such costs of inventions and encourage inventive activity.

Further, once an invention is released in the market, it is difficult to control it multiplying by unauthorized people. Hence, due to the absence of patent protection, inventors will not have

sufficient incentive to invest in creating, developing and marketing new products. The exclusive rights in inventions and creations would promote the public welfare, as, more the inventions mean more industrial development, more new products and facilities, higher the living standard. In every creation, a lot of economics is involved; these creations are useful for society at large and may have an impact on the betterment and economic welfare of society. Therefore, it is the society which protects such creations in the form of Intellectual Property Rights to further the welfare of the State. Hence, this theory is also known as the Utilitarian theory.

However, Intellectual Property protection has been criticized for grant of monopoly rights as monopoly kills competitive market and allows the monopoly holder to exploit the market commercially. This particular aspect is considered as against the societal interest.^{xxvi}

V. The Reward Theory

This theory advocates that grant of a monopoly is a reward for the creative and inventive activities, such as literary works, designs, inventions & discoveries which are beneficial to the society. The reward is aimed at promoting research and boosting overall development through the creation of new knowledge. The US Supreme Court in *William T. Graham v. John Deere Co. of Kan City*^{xxvii} recalled Thomas Jefferson's letter to Isaac McPherson, dated August 13, 1813, and while rejecting the theory of Natural Rights, it recognized the social and economic rationale of the patent system. The Court observed that "The patent monopoly was not designed to secure to the inventor his natural right in his discoveries. Rather, it was a reward, an inducement, to bring forth new knowledge. The grant of an exclusive right to an invention was the creation of society at odds with the inherent free nature of disclosed ideas and was not to be freely given. Only inventions and discoveries which furthered human knowledge, and were new and useful, justified the special inducement of a limited private monopoly." Patent law, therefore, provides a market-driven incentive to invest in R&D, by allowing the inventor to appropriate the full economic rewards of his invention, although for a stipulated limited period.^{xxviii}

VI. Incentive to Disclose Theory

The invention may be concealed due to fear of theft or use by others without paying a royalty to the inventor, and it may die with the demise of the inventor. The society may lose the benefits of invention and it may hamper technological development. Therefore, patent law requires the

inventor to disclose the invention and in return, he is conferred with a monopoly right by the state. A patent grant offers an incentive to disclose the working of an invention, both as a protection to the patentee as to claims, scope, the inventor is entitled to, but also a means for others to benefit from the knowledge surrounding the invention. The information (know-how) of the invention is published by the patent office, which can be used by researchers for further research and technological development. It can also be used by the state in certain circumstances during the term of the patent and by the private individuals after the expiry of the term.^{xxix} Such benefits would not have been possible unless the invention is disclosed by the inventor. The guarantee of protecting the rights of inventors to reap the benefits of such new knowledge through an enforcement mechanism encourages the inventor to disclose the correct information about the invention.^{xxx}

VII. Incentive to Commercialize Theory

The previous theories focus on the inventor, investor and the inventive process. However, an invention without employment and commercial exploitation is practically no invention at all. For society to benefit from the invention, products must be manufactured and consumed. Those political societies with functioning patent systems are the most technologically advanced and the most prosperous. Prosperity and technological advancement cannot be separated, as the former follows the latter. An excellent invention may not be commercialized because of lack of protection. Thus, the incentive to commercialize the invention can be considered the strongest argument for patents. The surety of a patent grant will encourage the enterprise to invest and bring the product in the market, without risk of copying a successful product in the market and risk of return on the costs of the invention.^{xxxi} Therefore, it is proved that, robust the Intellectual Property Mechanism, higher the FDI; higher the FDI inflow, enhanced economic activity, trade and commerce; higher the trade & commerce, increase in business, employment and tax collection, and ultimately it may boost the economy of state & welfare of society. Therefore, commercial exploitation of creations and inventions is the route of economic development of the state, and hence, the state provides a strong Intellectual Property Mechanism and ensures higher commercial use of inventions, discoveries & creations.

The above theories explain the philosophy behind the protection of Intellectual Property Rights and justify it.

CONCLUSION

Intellectual Property has played a significant role in the innovation systems of most advanced countries.^{xxxii} Patents, by their very nature, allow people with innovative ideas to channelize their knowledge into wealth. Intellectual Properties play a unique role in promoting innovation; these are the mechanisms that channel market forces into technological progress and impel technology-driven economic growth. It is believed that a robust Intellectual Property system can motivate investment, foster innovation, revolutionize industries, improve product quality, expand educational opportunities, increase the demand for skilled labour and promote economic growth. Intellectual Property Rights, thus, promise explosive, expansive and unplanned economic growth and its consequent benefits.^{xxxiii}

In the words of W.R Cornish:

“The anxiety to get Intellectual Property protection is ever increasing. The expansion of trade competition since 1950 has brought ever-increasing advantages to those in the van of innovation. Intellectual Property Rights, which help to sustain the lead of those with technical know-how, with successful marketing schemes, with new fetishes for pop-culture, have come to foster immense commercial returns. The increasing number of patents granted & trademarks registered particularly in industrial countries and the upsurge of publishing, record producing, film making and broadcasting stand as some measures of this development”.^{xxxiv}

A proper balance between the protection of Intellectual Property Rights over such knowledge and its quick dissemination and assimilation in the productive enterprise is fundamental to the continued growth of the economy. Patenting of the invention is not an end in itself rather it is a means to achieve the gigantic social goal.^{xxxv} The ultimate objective of the patent is to promote trade and achieve economic growth and is not aimed at protecting the interests of particular private Intellectual Property holding interest groups.^{xxxvi}

ENDNOTES

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- ⁱ Hernando de Soto, *The Mystery of Capital*, 7 (Basic Books, 2000), *cf.* Abramson Bruce, *India's Journey Towards an Effective Patent System Working Paper No.4301*, The World Bank, (2007).
- ⁱⁱ Sell Susan, *Power and Ideas: North–South Polices of Intellectual Property and Antitrust*, Suny Series in Global Politics (State University Of New York Press, Albany, 1998), *cf.* Swatantra Kushwaha ET AL., *An Overview on: Trade-Related Aspects of Intellectual Property Rights*, 01 (03) JOURNAL OF APPLIED PHARMACEUTICAL SCIENCE, 01-05 (2011), available at <http://www.japsonline.com/final/1-5.pdf>
- ⁱⁱⁱ Munzer S. R., *Property, Patents, and Genetic Material*, in *A Companion to Genetics* 438-54 (J. Burley & J. Harris eds., 2002).
- ^{iv} Shiffrin Seana Valentine, *Intellectual Property*, in *A COMPANION TO CONTEMPORARY POLITICAL PHILOSOPHY* 653-668 (Robert E. Goodin ET AL., eds. 2007).
- ^v Craig Allen Nard, *The Law of Patents*, 1 (Aspen Publishers, 2010).
- ^{vi} William Blackstone, *Commentaries on the Laws of England* 316-17 (1768). (The opposite of letters patent is letters clause or litterae clausae, which are sealed so that only the addressee can read the contents of the letter).
- ^{vii} Vivas-Eugui David, *International Centre for Trade and Sustainable Development (ICTSD), Regional and Bilateral Agreements and a Intellectual Property-Plus World: The Free Trade Areas of the Americas (FTAA) Instinctual Property Issues Papers No 1*, Geneva (2003), *cf.* Swatantra Kushwaha ET AL., *An Overview on: Trade-Related Aspects of Intellectual Property Rights*, 01(03) JOURNAL OF APPLIED PHARMACEUTICAL SCIENCE. 01-05, (2011), available at <http://www.japsonline.com/final/1-5.pdf>.
- ^{viii} Swaminathan K V, *Trade Secrets*, in *The Law of Intellectual Property Rights: In Prospect and Retrospect* 272 (Koul A K & Ahuja V K Eds., 2001).
- ^{ix} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/4>
- ^x Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/18>
- ^{xi} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/19>
- ^{xii} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/30>
- ^{xiii} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/20>
- ^{xiv} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/9>
- ^{xv} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/1>
- ^{xvi} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/154>
- ^{xvii} Available at <http://ipindiaservices.gov.in/GirPublic/Application/Details/165>
- ^{xviii} Peter S. Menell, *Intellectual Property: General Theories*, *Encyclopedia of Law and Economics* (B. Bouckaert & G. De Geest, eds. 2000), *Cf.* Robert P Merges, ET AL., *Intellectual Property in New Technological Age 2* (Aspen Law and Business, 2nd ed. 2000).
- ^{xix} See Chapter XVI and Chapter XVII of the Indian Patent Act, 1970.

^{xx} John Locke, *Two Treatises on Government* (3rd ed. 1698), *cf.* Robert P Merges, ET AL., *Intellectual Property in New Technological Age 2* (Aspen Law and Business, 2nd ed. 2000).

^{xxi} Under the present laws copyright protection is granted to the author of the work, patent is granted to the true and first inventor, etc.

^{xxii} Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982), *cf.* Jeffrey D Jones, *Property and Personhood Revisited*, 12, (2010), available at http://works.bepress.com/jeffrey_jones/2 (last visited March 17, 2011).

^{xxiii} Fungibility is the property of a good or a commodity whose individual units are capable of mutual substitution. E.g., Crude oil is fungible: A barrel of crude oil is fungible (direct exchange) with another barrel of the same type and grade of crude oil. Diamonds are not fungible because diamonds vary in cuts, colors, grades, and sizes making it difficult to find many diamonds with the same cut, color, grade, and size.

^{xxiv} See *supra* note 14.

^{xxv} <http://www.patenthawk.com/> (last visited March 17, 2011)

^{xxvi} Amarasinghe Kusal Kavinda, *Intellectual Property Rights Vs Social Justice - A Critical Analysis of Contradiction between Intellectual Property Rights and Social Justice, Global Thoughts And Opinions On The Intellectual Property Laws And Corresponding Rights And Challenges*, First Edn (The LAW Learners Publication, March 2020) 139-151, available at https://www.researchgate.net/publication/340084751_Intellectual_Property_Rights_Vs_Social_Justice_-_A_Critical_Analysis_of_Contradiction_between_Intellectual_Property_Rights_and_Social_Justice

^{xxvii} 383 U.S. 1 (1966)

^{xxviii} Robert P. Merges, ET AL., *Intellectual Property in New Technological Age 137* (Aspen Law and Business, 2nd ed. 2000).

^{xxix} See Sections 9-10 of the Patent Act, 1970.

^{xxx} Section 7(3) of the Patent Act, 1970 requires the applicant to disclose the true and first inventor.

^{xxxi} <http://www.patenthawk.com/> (last visited March 17, 2011)

^{xxxii} Cornish W R, *Intellectual Property 17* (Universal Law Publishing Co. Pvt. Ltd. 3rd ed. 1996).

^{xxxiii} Abramson Bruce, *India's Journey Towards An Effective Patent System Working Paper NO.4301*, The World Bank, (2007).

^{xxxiv} Cornish W R, *Intellectual Property 17* (Universal Law Publishing Co. Pvt. Ltd. 3rd ed. 1996).

^{xxxv} Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy 6* (Department for International Development Policy, 2002), available at http://www.Intellectual_Property_rcommission.org/papers/pdfs/final_report/Intellectual_Propertyfullfinal.pdf

^{xxxvi} Peter K. Yu, *The Objectives and Principles of Intellectual Property Agreement*, 46 *Houston Law Review*, 797-1046 (2009).