Intellectual Property

Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.

Intellectual property (IP) is a category of property that includes intangible creations of the human intellect there are many types of intellectual property, and some countries recognize more than others. The best-known types are copyrights, patents, trademarks, and trade secrets. The modern concept of intellectual property developed in England in the 17th and 18th centuries. The term "intellectual property" began to be used in the 19th century, though it was not until the late 20th century that intellectual property became commonplace in the majority of the world's legal systems

The main purpose of intellectual property law is to encourage the creation of a wide variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period of time. This gives economic incentive for their creation, because it allows people to benefit from the information and intellectual goods they create, and allows them to protect their ideas and prevent copying.[9] These economic incentives are expected to stimulate innovation and contribute to the technological progress of countries, which depends on the extent of protection granted to innovators.

History of Intellectual Property

One of the first known references to intellectual property protection dates from 500 B.C.E., when chefs in the Greek colony of Sybaris were granted year-long monopolies for creating particular culinary delights. There are at least three other notable references to intellectual property in ancient times—these cases are cited in Bruce Bugbee’s formidable work The Genesis of American Patent and Copyright Law (Bugbee 1967). In the first case, Vitruvius (257–180 B.C.E.) is said to have revealed intellectual property theft during a literary contest in Alexandria. While serving as judge in the contest, Vitruvius exposed the false poets who were then tried, convicted, and disgraced for stealing the words and phrases of others.

The second and third cases also come from Roman times (first century C.E.). Although there is no known Roman law protecting intellectual property, Roman jurists did discuss the different ownership interests associated with an intellectual work and how the work was codified—e.g., the ownership of a painting and the ownership of a table upon which the painting appears. There is also reference to literary piracy by the Roman epigrammatist Martial. In this case, Fidentinus is caught reciting the works of Martial without citing the source.

These examples are generally thought to be atypical; as far as we know, there were no institutions or conventions of intellectual property protection in Ancient Greece or Rome. From Roman times to the birth of the Florentine Republic, however, there were many franchises, privileges, and royal favors granted surrounding the rights to intellectual works. Bugbee distinguishes between franchises or royal favors and systems of intellectual property in the following way: franchises and royal favors restrict access to intellectual works already in the public domain, thus these decrees take something from the people. An inventor, on the other hand, deprives the public of nothing that existed prior to the act of invention (Bugbee 1967). One of the first statutes that protected authors’ rights was issued by the Republic of Florence on June 19, 1421, to Filippo Brunelleschi, a famous architect. This statute not only

recognized the rights of authors and inventors to the products of their intellectual efforts; it built in an incentive mechanism that became a prominent feature of Anglo-American intellectual property protection. For several reasons, including Guild influence, the Florentine patent statute of 1421 issued only the single patent to Brunelleschi. The basis of the first lasting patent institution of intellectual property protection is found in a 1474 statute of the Venetian Republic. This statute appeared 150 years before England's Statute of Monopolies; moreover, the system was sophisticated. The rights of inventors were recognized, an incentive mechanism was included, compensation for infringement was established, and a term limit on inventors' rights was imposed.

American institutions of intellectual property protection are based on the English system that began with the Statute of Monopolies (1624) and the Statute of Anne (1710). The Statute of Monopolies granted fourteen-year monopolies to authors and inventors and ended the practice of granting rights to "non-original/new" ideas or works already in the public domain. In contrast to patent institutions in Europe, literary works remained largely unprotected until the arrival of Gutenberg's printing press in the fifteenth century. Even then there were few true copyrights granted—most were grants, privileges, and monopolies.

The Statute of Anne (1710) is considered by scholars to be the first statute of modern copyright. The statute begins:

"Whereas printers, booksellers, and other persons have lately frequently taken the liberty of printing, reprinting, and publishing books without the consent of the authors and proprietors … to their very great detriment, and too often to the ruin of them and their families: for preventing therefore such practices for the future, and for the encouragement of learned men to compose and write use books, be it enacted …" (Great Britain, Statute of Anne, 1710)

The law gave protection to the author by granting fourteen-year copyrights, with a fourteen-year renewal possible if the author was still alive.

In the landmark English case Miller v. Taylor (1769), the inherent rights of authors to control what they produce, independent of statute or law, was affirmed. While this case was later overruled in Donaldson v. Becket (1774), the practice of recognizing the rights of authors had begun. Other European countries, including Belgium, Holland, Italy, and Switzerland, followed the example set by England (Bugbee 1967). Various international treaties like the Berne Convention treaty and the Trade-Related Aspects of Intellectual Property (TRIPS 1994) agreement have expanded the geographic scope of intellectual property protection to include most of the globe.

The Concept of Intellectual Property

Intellectual property, very broadly, means the legal property which results from intellectual activity in the industrial, scientific and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and such rights of the public in access to those creations. The second is to promote, as a deliberate act of government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development.

Generally speaking, IP law aims at safeguarding creators and other producers of intellectual goods and services by granting them certain time- limited rights to control the use made of those productions. These rights do not apply to the physical object in which the creation may be embodied but instead to the intellectual creation as such. IP is traditionally divided into two branches: "industrial property and copyright". The convention establishing the World Intellectual Property Organization (WIPO), concluded in Stockholm on July 14, 1967 (Art. 2(viii) provides that

Intellectual property shall include rights relating to:

1) Literary, artistic and scientific works:

2) Performances of performing artists, phonograms and broadcasts;

3) Inventions in all fields of human behavior;

4) Scientific discoveries;

5) Industrial designs;

6) Trademarks, service marks, and commercial names and designations;

7) Protection against unfair competition and all other rights resulting from intellectual activity in industrial scientific, literary or artistic fields.

Statutory Provisions and Legislations

The Rights to Intellectual property is inserted in the United Nations Declaration for the Right of Indigenous People (UNDRIP). Particularly, the Article 27 of the UNDHR states that everyone has the right to protect the material and moral interests that are the results of any scientific, artistic or literary production of an author. The Convention Establishing the World Intellectual Property Organization (WIPO Convention) (1967), concluded in Stockholm provides, under its Article 2 (viii) that the IP shall include rights relating to fields like scientific discoveries, industrial designs, literary and artistic works etc.

There are a few international platforms and forums that work for protection and promotion of the Intellectual Property Rights, such as the World Trade organization and World Intellectual Property Organization (WIPO). Furthermore, they do make new laws on IPR and analyse the ways of how these laws can guarantee the protection within the ambit of Human Rights. The Article 2 of WIPO states that IP should include the rights related to the commercial names, literary and artistic works, trademarks and designs against the unfair competition. The importance of the Intellectual Property was first recognized by the Paris Convention for the Protection of Intellectual property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). Both these treaties were originally administered by WIPO.

In India, other laws protecting and promoting Intellectual Property Rights are recognized under the legislative statute, such as: –

- The Geographical Indications of Goods (Registration & Protection) Act, 1999
- The Patents Act (1970)
- The Trade and Merchandise Marks Act, 1958.
- The Designs Act, 2000
- The Copyright Act, 1957

Signatures on Paintings & Creations

✓ Substantial and Identifiable Patterns & particularity in Architectures, Paintings, Jewellery, Dresses etc.

✓ Rewards and monopolies granted by Emperors

Stamping of Jewelers' Initials on Jewellery made by them (Still followed by local Jewelers)

✓ Concept of Copyright came only after invention of Printing Press.

Historical Background: Modern Times

*Modern patents originated in Europe where European sovereigns commonly awarded "letters patent" to favored inventors. The first U.S. patent laws were enacted by Congress in 1790 as part of the Constitution.

*The first patent was granted by the Massachusetts General Court to Samuel Winslow in 1641 for a novel method of making salt.

✓George Washington signed the First United States Patent Grant on July 31, 1790.

✓ Patent system in India was first introduced by British Government in 1856.

✓ The Indian Patents and Designs Act, 1911, (2 of 1911) first enacted under the management of Controller of Patents with a patent term of 14 years.

✓ The Patents Act (39 of 1970) came into force on 20th April 1972.

Initially, the Patent Act, 1970, provided a term of 7 years for pharmaceutical, agro chemical and food products and 16 years for other categories.

Current IP Laws in India

Copyright Copyright Act of 1957

Customs

Intellectual Property Rights (Imported Goods) Enforcement Rules, 2007

Designs

The Designs Act, 2000

The Design (Amendment) Rules, 2008

Geographical Indications Geographical Indications of Goods (Registration and Protection) Act, 1999

Geographical Indications of Goods (Registration and Protection) Rules, 2002 Information Technology

The Information Technology Act, 2000

The Information Technology Rules, 2000

Cyber Regulations Appellate Tribunal (Procedure) Rules, 2000

Patents

The Patents Act, 1970

The Patents (Amendment) Act, 2005

The Patents Rules, 2003

The Patents (Amendment) Rules, 2006

Plant

Plant Varieties Protection and Farmers' Rights Act, 2001

Semiconductor and Integrated Circuits Semiconductor Integrated Circuits Layout Design Act 2000

Rules for the Semiconductor Integrated Circuits Layout Design Act 2000

Trademarks

The Trade Marks Act, 1999 The Trade Marks Rules, 2002.

India - Convention and Treaty

Berne Convention (Literary and Artistic Works)

w.e.f. April 1, 1928

Geneva Convention (Unauthorized Duplication of Phonograms) w.e.f. February 12, 1975.

World Intellectual Property Organization (WIPO) w.e.f. May 1, 1975

Nairobi Treaty (Olympic Symbol) w.e.f. October 19, 1983

Convention on Biological Diversity w.e.f. February 18, 1994

World Trade Organization (WTO) Member and Signatory to TRIPS Agreement

w.e.f. January 1, 1995

Paris Convention

w.e.f. December 7, 1998

Patent Cooperation Treaty (PCT)

w.e.f. December 7, 1998

Budapest Treaty (for deposition of microorganisms)

w.e.f. from December 17, 2001

Salient Features: Indian Patent System

Novelty: Invention would not be considered novel if it is used or published in India or elsewhere before the date of filing/priority.

Term: The term of every patent granted is 20 years from date of filing

Publication: Except where an early request for publication has been made, every patent will be published just after 18 months from the date of filing/priority and will be open for public on payment of fee prescribed. Opposition: Provision of Pre-grant and Post-grant opposition has been introduced, where a

pre-grant opposition can be filed by any person before the grant of patent, a post-grant opposition can be filed by any interested person after the grant of patent but before the expiry of 1 year.

Revocation: A patent can be challenged and revoked any time after the grant of patent on a petition of any interested person or Central Government by the Appellate Board or on a counter-claim in a suit for infringement of the patent by the High Court.

Compulsory license can be granted to any interested person after the expiration of 3 years from the date of grant for non-working, unreasonable price and fail to fulfill the demand of patented invention. Intellectual Property Appellate Board (IPAB) has now been constituted to hear appeals against the decisions of the Controller under the Patents Act, 1970.India is now recognized as an International Searching Authority (ISA) and an International Preliminary Examining Authority (IPEA). E-filing Facility for e-filing of for patent and trademark has been launched.

Role of IP in Innovation

The term 'ip' refers to unique value-adding creations of the human intellect that results from human ingenuity creativity and inventiveness. As there are many players involved in facilitating the market success of an innovation, the effective use of IP plays an important role in reducing the risk for the players involved, who may then be able to reap acceptable returns for their participation in the process. IP acts as a key in facilitating the process of taking innovative technology to the market. At the same time, IP helps in enhancing the competitiveness of technology-based enterprises, whether such enterprises are commercializing new or improved products or providing service on the basis of new or improved technology.

For most technology-based enterprises, a successful invention results in a more efficient way of doing things or in a new commercially viable product. The improved profitability of the enterprise is the outcome of added value that underpins a bigger stream of revenue or higher productivity.

Research and Development Stage

Several indicators have been used to measure the efforts of an enterprise in undertaking research and developing innovative ideas. These include expenditure on research and development (R&D), information on innovation, total sales, firm size, innovation strategies, etc. These indicators are directly or sometimes indirectly influenced by IP. The IP tools used during the "conception of an innovative idea" stage continues to be relevant also during this stage. Thus, trade secret continues to be relevant, especially if the enterprise is yet to decide on whether to file a patent application. Keeping trade secrets continues to be relevant during the entire R&D phase, as one would not want the competitors to ever have access to vital information. If used by such competitors it would result in the erosion of competitive advantage, derived from the final product.

During this period, researchers should periodically consult several sources of information that would provide input for the success of their project. Patent documents continue to be a relevant source of information that is often grossly underutilized. Patent documents provide useful information on the state-of-the art, which would enable an enterprise to avoid unnecessary wastage of resources, in terms of money and time, during the R & D process, thereby hopefully reducing the normally high R & D costs. Patent information can also provide useful information, which can lead to product improvement or to design-around inventions, which may help to "short-circuit" the lengthy time frame often required to take a new product to the market.

To sum up, innovation is a process, which begins from the conception of an idea to the launching of a new product/process in the market place. Intellectual property rights can be used effectively to facilitate successful innovation. Innovative technologies stand a better chance of successfully reaching the marketplace if IP is used strategically. Gauging the importance of IP in innovation by merely focusing on patents as input and/or output of innovation, does not do justice to the significant role that can be played by the other tools of IP. A broader approach to the contribution of IP in innovation is

therefore needed. IP also provides access to financing and technical facilities. In addition, IP provides a strong negotiation position when it comes to entering into and maintaining business partnerships.

Trade secrets

A trade secret is any practice or process of a company that is generally not known outside of the company. Information considered a trade secret gives the company a competitive advantage over its competitors and is often a product of internal research and development.

To be legally considered a trade secret in the United States, a company must make a reasonable effort in concealing the information from the public; the secret must intrinsically have economic value, and the trade secret must contain information. Trade secrets are a part of a company's intellectual property. Unlike a patent, a trade secret is not publicly known.

- Trade secrets are secret practices and processes that give a company a competitive advantage over its competitors.
- Trade secrets may differ across jurisdictions but have three common traits: not being public, offering some economic benefit, and being actively protected.
- U.S. trade secrets are protected by the Economics Espionage Act of 1996.

Understanding a Trade Secret

Trade secrets may take a variety of forms, such as a proprietary process, instrument, pattern, design, formula, recipe, method, or practice that is not evident to others and may be used as a means to create an enterprise that offers an advantage over competitors or provides value to customers.

Trade secrets are defined differently based on jurisdiction, but all have the following characteristics in common:

- They are not public information.
- Their secrecy provides an economic benefit to their holder.
- Their secrecy is actively protected.

As confidential information (as trade secrets are known in some jurisdictions), trade secrets are the "classified documents" of the business world, just as top-secret documents are closely guarded by government agencies.

Because the cost of developing certain products and processes is much more expensive than competitive intelligence, companies have an incentive to figure out what makes their competitors successful. To protect its trade secrets, a company may require employees privy to the information to sign non-compete or non-disclosure agreements (NDA) upon hire.

Trade Secret Treatment

In the United States, trade secrets are defined and protected by the Economic Espionage Act of 1996 (outlined in Title 18, Part I, Chapter 90 of the U.S. Code) and also fall under state jurisdiction. As a result of a 1974 ruling, each state may adopt its own trade secret rules.

Some 47 states and the District of Columbia have adopted some version of the Uniform Trade Secrets Act (USTA).1 The most recent legislation addressing trade secrets came in 2016 with the Defend Trade Secrets Act, which gives the federal government cause for action in cases involving the misappropriation of trade secrets.

The federal law defines trade secrets as "all forms and types of" the following information:

- Financial
- Business
- Scientific
- Technical
- Economic
- Engineering

Such information, according to federal law, includes:

- Patterns
- Plans
- Compilations
- Program devices
- Formulas
- Designs
- Prototypes
- Methods
- Techniques
- Processes
- Procedures
- Programs
- Codes

The above includes, according to federal law, "tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing.

The law also provides the condition that the owner has taken reasonable measures to keep such information secret and that "the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information.

Other jurisdictions may treat trade secrets somewhat differently; some consider them property, while others consider them as an equitable right.

Real-World Examples

There are many examples of trade secrets that are tangible and intangible. For example, Google's search algorithm exists as intellectual property in code and is regularly updated to improve and protect its operations.

The secret formula for Coca-Cola, which is locked in a vault, is an example of a trade secret that is a formula or recipe. Since it has not been patented, it has never been revealed.

The New York Times Bestseller list is an example of a process trade secret. While the list does factor in book sales by compiling chain and independent store sales, as well as wholesaler data, the list is not merely sales numbers (books with lower overall sales may make the list while a book with higher sales may not).

Utility Models

A utility model is a registered right that gives the holder exclusive use of a technical invention. The right is given in exchange for public disclosure of the workings of the invention and is granted for a limited period. In 1997, the European Commission proposed the harmonisation of laws on utility models across EU countries. However, this has been abandoned as no agreement could be found. Nevertheless, the Commission continues to monitor the economic relevance and impact of utility model legislation.

There is no global acceptance of the term “utility model” due to there being fundamentally different concepts from one country to another. If one examines national laws, one finds that utility model protection is referred to in Australia as “innovation patent”, in Malaysia as “utility innovation”, in France as “utility certificate”, and in Belgium as “shortterm patent”. Some systems define utility models as intangible subject matter such as technical concepts or inventions or devices, while others anchor their definitions to threedimensional forms. Yet others profess to grant “utility model” protection which, in actuality, is equivalent to patent protection without examination and for a shorter duration. Thus, “utility model” is a generic term which refers to subject-matter that hinges precariously between that protectable under patent law and sui generis design law.3 It is not an accepted or clearly defined legal concept within the intellectual property paradigm.

The confusion reflects the fact that within the international arena, a consideration of the nature and extent of protection under the various national “utility model” laws reveals little consensus. Indeed, the utility model law is not a standard feature within the intellectual property regime of many states. There are currently approximately 75 countries which provide, in some form or another, utility model protection.4 Included amongst the countries which do not have a utility model regime are significantly the United States, United Kingdom and Canada. However, major industrial nations which have adopted the utility model regime include Japan, South Korea and Germany. The ambiguity of the term “utility model” is also reflected in the cross-referencing and inter-dependency of priority periods between utility model, industrial design and patents. Thus, a period of priority can be secured for an application for industrial design based on the filing date of a utility model; and a period of priority can be secured for a utility model application by virtue of a right of priority based on a patent application (and vice versa).5 Whilst there is no specific reference to utility model protection under the TRIPS Agreement, it is arguable that by reference to Art. 2(1), TRIPS Agreement, the relevant provisions of the Paris Convention provisions (including Art. 1(2)) are extended to all WTO countries. However, we are once again left with our initial position: the Paris Convention does not demand that signatories of the Convention implement utility model laws. Nevertheless, the term is bandied about by policy makers, legislators and jurists to refer to a second tier patent system, offering a cheap, no-examination protection regime for technical inventions which would not usually fulfil the strict patentability criteria. This is an important factor: utility model protection is accorded, cheaply and quickly, to inventions or innovations, many of which cannot gain protection under the patent regime. As far as one can perceive, there are three traits common to all the national “utility model” laws from a global perspective, which are that:

• all utility model laws confer exclusive rights on the proprietor of the right (as opposed to an anti-copying right)

• novelty is a criterion in all utility model systems, though the standard of novelty varies widely.6

• registration is a requirement but that usually there is no substantive examination of applications.

• most utility model laws protect the technical character of the invention, as opposed to the ornamental function or the appearance of the product.

IPRs and Biodiversity

IPRs, as the term suggests, accord legal protection to ideas and information that are used to develop new inventions or processes. These rights enable the holder to exclude imitators from marketing such inventions or processes for a specified time; in exchange, the holder is required to disclose the formula or idea behind the product/process. The stated purpose of IPRs is to stimulate innovation, by offering higher monetary returns than the market otherwise might provide. While IPRs such as copyrights, patents, and trademarks are centuries old, the extension of IPRs to living entities and attendant knowledge/technologies occurred only relatively recently. In 1930, the US Plant Patent Act was passed, which accorded IPRs to asexually reproduced plant varieties. Several other countries subsequently extended some form of protection to plant varieties, until in 1961, an International Convention for the Protection of New Varieties of Plants was signed. Most signatories were industrialised countries, who had also formed a Union for the Protection of New Varieties of Plants (UPOV). This treaty came into force in 1968.

Plant varieties or breeders' rights (PVRs/PBRs) give the holder of the right limited regulatory powers over the marketing of 'their' varieties. Until recently, most countries allowed farmers and other breeders to be exempted from such rights, as long as they did not indulge in branded commercial transactions. However, a 1991 amendment to the UPOV has tightened the monopolistic nature of PVRs/PBRs, and some countries have virtually eliminated the exemptions for farmers and breeders.

Historically, plant varieties had been exempted from the international patent regime in deference to farmers' traditional practices of saving and exchanging seeds. Industrialised countries, however, have been debating the merits of PBRs as a form of monopoly that may encourage plant-breeding activity. This culminated in the International Convention for the Protection of New Varieties of Plants (UPOV Convention) in 1978, which as indicated above, was amended in 1991, further strengthening the monopolistic hold of plant breeders. Until recently, the UPOV Convention was primarily comprised of Organisation for Economic Co-operation and Development (OECD) countries. However, the TRIPs Agreement now extends the requirement to protect plant variety property rights to all WTO Member States.

In addition, in many countries, patents with full monopolistic restrictions are now applicable to plant varieties, microorganisms, and genetically modified animals. In 1972, the US Supreme Court recognized microbiologist Ananda Chakrabarty's patent claim for a genetically engineered bacterial strain. This legitimized the view that anything made by humans and not found in nature was patentable. Genetically altered animals, such as the infamous 'onco-mouse' of Harvard University (bred for cancer research), were also soon accorded patents. Finally, several patent claims have been made, and some granted, on human genetic material, including material that has hardly been altered from its natural state.

Until very recently, these plant rights were only recognized in some countries, and they could not enforce these rights in other nations. However, this has changed with the signing of the TRIPs Agreement. TRIPs requires that all signatory countries accord:

· Patents to micro-organisms and "microbiological processes;" and

· Some "effective" form of IPRs for plant varieties, either patents or some sui generis (new) version.

IPRs vs. Biodiversity

The CBD has two interesting provisions relating to IPRs. Article 16.5 states that Contracting Parties shall cooperate to ensure that IPRs are "supportive of and do not run counter to the CBD's objectives." However, this is "subject to national legislation and international law." Article 22 states that the CBD's provisions will not affect rights and obligations of countries under "existing international

agreements, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity." Read together and in the spirit of the CBD, many people have concluded there is a basis for countering the seemingly inexorable march of the IPR regimes described above.

But in order for this argument to hold, the actual impacts of IPRs on biodiversity need to be examined. This is a difficult subject, for many impacts are hard to assess. However, the following must be considered:

· Current IPR regimes have allowed industrial and commercial interests to appropriate the resources and knowledge of resource-rich but economically poor countries and communities, further impoverishing them and denying them the benefits of technological innovation;

· IPRs are likely to greatly intensify the trend of homogenization of agricultural production and medicinal plant use systems. In agriculture, for instance, any corporation that has spent enormous amounts of money obtaining an IPR would want to market its varieties in as large an area as possible. The result could be serious displacement of local diversity of crops (though of course IPRs would not be the only factor);

· Increasingly, species-wide IPRs (such as those for transgenic cotton and soybeans) could stifle even public sector and small-scale private sector crop variety development;

· Having to pay substantial royalties to industrial countries and corporations could greatly increase the debt burdens of many countries. This could further intensify the environmental and social disruption that is often caused when debt repayment measures are taken up, such as the export of natural products;

· Farmers who innovate on seeds through re-use, exchange with other farmers, and other means, would be increasingly discouraged from doing so if the tighter regimes that UPOV 1991 sanctions are imposed on their countries; these regimes would also increase the economic burden on farmers, further discouraging innovation;

· The ethical aspects of IPRs are serious, and to many communities and people the most important reasons for opposing current IPR regimes. The patenting of life forms is abhorrent to many traditional societies and modern conservationists because of the underlying assumption that nature exists apart from, and solely for the use of, humans. The privatisation of knowledge is also repugnant to many societies that hold knowledge to be largely, though by no means solely, in the public domain.

Role of WIPO and WTO in IPR establishments

The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is the most comprehensive multilateral agreement on intellectual property (IP). It plays a central role in facilitating trade in knowledge and creativity, in resolving trade disputes over IP, and in assuring WTO members the latitude to achieve their domestic policy objectives. It frames the IP system in terms of innovation, technology transfer and public welfare. The Agreement is a legal recognition of the significance of links between IP and trade and the need for a balanced IP system.

The World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) have agreed on a joint initiative to provide technical cooperation for developing countries.

The purpose is to help developing countries which are members of the WTO meet the January 1, 2000 deadline-less than a year and a half away-for conforming with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

This process involves bringing their laws on copyright, patents, trademarks and other areas of intellectual property into line with the agreement, and providing for effective enforcement of these laws in order to deal with piracy, counterfeit goods and other forms of intellectual property infringements.

The Directors General of the two organizations, Mr Renato Ruggiero of the WTO and Dr Kamil Idris of WIPO, are sending joint communications to the ministers of each of the developing countries concerned to inform them of the initiative. The communication will underscore the two organizations' commitment to help developing countries comply with the TRIPS Agreement on time.

The aim is for WIPO and the WTO, together with the countries requesting assistance, and (where appropriate) donor countries, to maximize use of available resources in the coming critical period by improved planning and coordination of technical cooperation activities.

The forms of technical cooperation that are available include assistance in preparing legislation, training, institution-building, and modernizing intellectual property systems and enforcement.

The task of conforming with the TRIPS Agreement is seen as a challenge for developing countries because of the complexities of intellectual property laws and their enforcement. But it also provides an opportunity to use intellectual property protection to accelerate economic, social and cultural development.

At the same time, the two organizations stress that assistance given to other countries-in particular least developed countries, which do not have to meet the year-2000 deadline-will not suffer. The WTO and WIPO renew their commitment to continue to provide technical cooperation to these countries.

The joint initiative will build on the existing cooperation between the two organizations, which has been established since the signing of the WIPO-WTO Agreement in 1995. This provides, among other things, for cooperation in providing legal technical assistance and technical cooperation related to the TRIPS Agreement for developing country members of either of the two organizations.

The 132-member WTO came into being on January 1, 1995, at the same time as the TRIPS and other WTO agreements. Developed countries had to conform with the TRIPS provisions by January 1, 1996. Developing countries are given an extra four years, until January 1, 2000, to comply. Least developed countries have a longer transition period that lasts, in general, until January 1, 2006.

The WTO's TRIPS Agreement specifies minimum standards of protection for each of the main categories of intellectual property, building on the main WIPO conventions. It also deals with the effective enforcement of intellectual property rights.

WIPO, which has 171 members, is responsible for international cooperation in promoting intellectual property protection around the world. In particular, it looks after various international conventions, such as the Paris Convention for the Protection of Industrial Property (patents, industrial designs, etc) and the Berne Convention for the Protection of Literary and Artistic Works (copyright).

This press release is being issued simultaneously by WTO.

Right of Property

Individuals in a private property rights regime acquire and transfer in mutually agreed-upon transfers, or else through homesteading. Mutual transfers include rents, sales, voluntary sharing, inheritances, gambling, and charity.

Homesteading is the unique case; an individual may acquire a previously unowned resource by mixing his labor with the resource over a period of time. Examples of homesteading acts include plowing a field, carving stone, and domesticating a wild animal.

In areas where property rights don't exist, the ownership and use of resources are allocated by force, normally by the government. That means these resources are allocated by political ends rather than economic ones. Such governments determine who may interact with, can be excluded from, or may benefit from the use of the property.

Private Property Rights

Private property rights are one of the pillars of capitalist economies, as well as many legal systems, and moral philosophies. Within a private property rights regime, individuals need the ability to exclude others from the uses and benefits of their property.

All privately owned resources are rivalrous, meaning only a single user may possess the title and legal claim to the property. Private property owners also have the exclusive right to use and benefit from the services or products. Private property owners may exchange the resource on a voluntary basis.

Common rules of IPR practices

The concepts that underpin the protection of ideas and inventions are not new; such laws have been around for several hundred years and are discussed under the broad heading of intellectual property (IP). IP is easily misunderstood, but at the same time most scientists encounter it at some point in their career, as it is a necessary feature in the commercialization of research.

The term intellectual property includes such concepts and rights as copyright, trademarks, industrial design rights, and patents. It is important to remember that IP is a tool to help your endeavours, and not a goal in itself. Having IP for its own sake is pointless. IP can be crucial in commercializing research and running a successful science-based business, but having a patent and having a successful patented product are two very different things.

Above all, IP can only work for you if you understand what it is, why you want it, and what you are going to do with it. These ten simple rules are intended to provide an overview of these issues; however, we must start with a warning. Laws relating to IP change all the time, they are complex, sometimes rather obscure, and are very different from country to country. For example, research surrounding methods of treatment by surgery and therapy and diagnostic methods are patentable in the United States, but specifically excluded from patentability in Europe [1]. However, these boundaries seem to be shifting in both the US and Europe. In short, we are dealing with a complex and changing subject and restrict ourselves here to the guiding principles.

Rule 1: Get Professional Help

Although the process of obtaining IP looks deceptively simple, like many things the devil is in the detail. Let's consider patents as an example. The practicalities of patent application are straightforward; you simply file documents with the relevant body indicating that a patent is sought, and provide the identity of the person applying and a description of the “invention” for which a patent is sought. The patent office will then write back to you with an application number.

However, there is no guarantee that a patent application will become a granted patent. Indeed, at the application stage they do not even check that your description describes an invention at all. Even if you draft a description in as much detail as you would for an academic research paper and file it yourself, the prospect that it will be granted and enforceable is very low. There is skill and technique, even a language, that patent attorneys and patent agents have that allows them to describe and define inventions in the way a patent office requires. As an example, in everyday parlance, the terms “comprise” and “consist” could be considered to mean the same, whereas they have very distinct meanings in a patent application.

The dangers are possibly even greater with trademarks and registered designs (also known as “design patents”)—these are generally granted with very little examination and patent offices are often even less inclined to suggest using a patent/trademark attorney for such “simpler” rights; however, the lack of examination means the validity of such a right is uncertain and they become open to challenge.

The costs of redrafting a self-filed application are invariably higher than the costs for drafting an application from scratch, and if there has been any disclosure it will probably not be possible to re-draft. So, in summary, if you want your IP to be valuable, you should seek professional advice at an early stage.

Rule 2: Know Your (Intellectual Property) Rights

IP rights come in various guises, and each is a defensive right to pursue legal action in the event that a third party infringes. In very basic terms:

Patents protect inventions—broadly, things that are new and not obvious—and the way they work. Sometimes this is expressed as “everything under the sun made by man”; however, there are numerous local exceptions from patentability—we touched on the complexities of methods of treatment above—but there are similar issues in relation to genes, computer programs, and business methods, for example.

Registered designs protect the appearance of products (not the function, which is protected by patents).

Trademarks protect brands (e.g., trade names and logos).

Copyright protects the expression of ideas—i.e., the words you choose to use to describe your idea—not an idea itself.

Most businesses do not need the trinity of patents, trademarks, and designs; in fact, trademarks are probably the only IP most companies have or need, however for a few companies the full house is required: for example, consider the Apple® iPad®: two registered trademarks, a registered design for its shape, and of course patents for the way it interacts with the user. Not to mention copyright covering the code and the packaging. A huge battle in the courts around the world is currently taking place over these rights that may well effect changes in the law. The Wall Street Journal calls the recent Apple/Samsung case “the patent trial of the century”.

Rule 3: Think about Why You Want IP (i.e., What You Will Actually Do with It)

Any money spent on IP is capital that cannot be spent on production, marketing, etc., so think carefully about why you are investing in protecting your IP. There are many good reasons: to stop people from copying you; to add value to your company if you want to sell it; to sell or license to a third party; to hold it in your armoury if you suspect you are going to be sued and want to countersue (for example, Google has spent a substantial amount of money buying patents recently); even to reduce your tax bill (in certain countries profits attributed to patents can be taxed at a lower rate).

However, in general, IP is a right to prevent other people from doing something; owning IP does not necessarily give you the right to do anything yourself.

One school of thought says that IP is only valuable if you are willing to enforce or defend it, and the cost of such an action can be prohibitive. Indeed, the business model of “patent trolls” is to purchase patents, sometimes from those who cannot afford to enforce them, not to use the invention, but just to enforce against infringing companies. On the other hand, the term “defensive IP” has been used to describe IP obtained, not to stop other people from competing, but to stop a competitor from patenting something that you may wish to use in the future. Thus a patent application may be filed, and published but allowed to lapse, with no intention of ever enforcing it, simply because the step of publication will mean that should a competitor apply to patent the same or a similar invention, the patent office will locate your application and it will anticipate the competitor's application.

Note also that while this article is titled “Ten Simple Rules to Protect Your IP”, it is important not to be too introspective and to consider other people's IP. For example, successful strategies can be built around taking exclusive licenses—licenses that exclude even the IP owner from using the IP. One tactic to improve your competitive position can be to take an exclusive license under a patent, then either expand your range to include the patented product, or continue only to sell your own product, but use the exclusive license to prevent manufacture of the other by anybody else.

Rule 4: If You Don't Protect the IP, Your Innovation Is Less Likely to Happen

Maybe you are not an entrepreneur yourself, but have an idea that you would like to see it exploited—it could, after all, make the world a better place. You can publish it—then anyone who wishes can use it freely. But the big question here is, will they? Many inventors think that by publishing their ideas freely they are more likely to have them exploited; however, the converse is often true (for example, in health care, where lack of patent protection is often cited as a major reason for not following up an idea (T. Roberts, former president of the Chartered Institute of Patent Attorneys [UK]).

The reason is economic: most innovations require investment, and investors look for a return on their money. However, ideas that are released without any IP protection will often immediately attract competitors who can perhaps undercut the inventor (for example, with economies of scale). This decreases the likelihood of investment in the development of an invention (which is often more crucial than the invention itself) and increases the need for investment in marketing, etc. to obtain a competitive edge.

So what we have to consider here is that—even if you don't want to profit personally from the innovation—it may still pay to protect it so that it will see the light of day through other investors. Remember, IP can be licensed and what happens to the resulting income is up to the IP's owner. And this is a point where it gets complex for scientists and others who invent as part of their employment. We will cover this in more detail in Rule 10.

Rule 5: What's in a Name?

You have a great idea but it's not patentable, or you have applied for patent protection but are worried that it may not cover everything, and of course the protection will expire after 20 years [5]. This is where trademarks come in to fill the gap in your protection. Unlike patents and designs, a trademark or brand can be protected with a registration at any time (unless someone else has got there before you)—you do not need to have kept your name a secret, and once registered the right will only expire if you stop using it or fail to renew it (generally every 10 years). So, you can protect your invention with a patent and sell it under your brand, which is also protected. Once the patent protection expires, customers are used to buying your product with reference to your brand, and will hopefully continue to do so even though competitors may start offering rival products. Just make sure your brand is something memorable and unique to you.

Viagra is just one example of a trademark so closely associated with the product (sildenafil) that a good proportion of the market should remain in the hands of the trademark owner well after the patent has expired (in this instance, if priced competitively). You do need to be careful here in selecting the name you are protecting: descriptive brands are easy to market but hard to protect because descriptive terms do not fulfil the requirement of “distinct character”. And you can be too successful: many people now use the trademark Hoover to mean a generic vacuum cleaner, Thermos for a vacuum flask to keep food hot, or Tannoy for a public address system. It can be very expensive in terms of lawyers fees to police such trademarks and keep protecting these names and prevent them becoming simply part of the language and hence devalued.

Rule 6: Be Realistic about What You Can, and Cannot, Protect

IP rights are, generally speaking, national rights provided by individual governments to regulate activity in that particular country. In some cases there are bilateral and multilateral agreements (for example,

most of the world has signed up to the Berne Agreement, which accords the same level of copyright protection to foreign nationals of other Berne states that is provided to nationals of the state concerned).

However, for most rights, it is a national issue. In an ideal world, each incremental improvement would be patented in each national jurisdiction (there are approximately 200 countries in the world), along with the name you trade under, and every brand would be the subject of a trademark, as would any color associated with your company and any sound you use, your products and their packaging would be the subject of registered designs, and your patent attorneys would be very wealthy!

In the real world it is essential to be realistic. A patenting regime covering more than the US, Europe, and a handful of other countries is a rare sight outside the realms of very large companies (such as big pharma), and even many big companies restrict themselves to key markets.

Rule 7: It's Big Business and Controversial

The world of IP is a big one. It's controversial, as it has a huge impact on international relations and trade. It's also controversial for political reasons, as many people feel that aggressive protection stifles the utility of products that have the potential to do good in the emerging world (again, for example, big pharma). The World Intellectual Property Organization (WIPO) is the United Nations agency dedicated to this area [7], and it's worth considering its overarching aims, which include reducing the knowledge gap between developed and developing countries, and ensuring that the IP system continues to effectively serve its fundamental purpose of encouraging creativity and innovation in all countries.

Of course, many question the value to society of IP, or at least the expansion of IP, in promoting creativity and innovation. The Public Library of Science describes itself as a driving force of the open-access movement, and accordingly, unlike many copyrighted works, this article may be copied without seeking permission, provided that the original authors and source are cited.

It can be hard, for example, to defend the extension of copyright from 50 years after an author's death to 70 years on the grounds that the extra 20 years of protection is in any way likely to encourage creativity. Whatever your thoughts on IP, it is worth bearing in mind that others may disagree.

As a scientist and innovator you may be driven by many ideals: to make the world a better place, perhaps, or to buy yourself a yacht—we are all different. But like it or not, if you want to commercialize your ideas you cannot avoid the issue of IP, and we go back to Rule 1 here—get professional advice. Even if your aim is totally philanthropic you may still need to invest to protect your innovation, perversely because this is what will give it the biggest chance of actually succeeding. Simply make sure you tell your patent attorney what your ultimate aims are.

Rule 8: Keep Your Idea Secret until You Have Filed a Patent Application

Little upsets a patent attorney more than hearing “I have a great idea—it's selling really well” or “I've shown it to a few companies and they seem very interested”.

There is an old maxim that says a secret shared is not a secret anymore. While a secret shared under a non-disclosure agreement (NDA)—documents most people have heard about but probably never read—ought to stay secret, discussing an invention under the umbrella of confidentiality is no substitute for being able to freely discuss or publish an idea that is protected by a patent application.

Obviously, once your idea is published by a journal it is too late to file a patent application—your invention has been made available to the public. However, earlier in the publication cycle the situation is different. If you send a paper to a journal for submission, it will (excluding open review) be treated as a confidential disclosure to the publisher and the reviewers. Notwithstanding, the best advice is still to file a patent application before submitting a paper, either to avoid a potential “abusive disclosure” or hold up the publication of the paper.

In summary, novelty is key to patentability and your own disclosures count against you, so remember to file a patent application before telling anybody who is not bound by confidence.

Rule 9: Trade Secrets

Regarding patents, the economic reasoning behind the system is an exchange between you and the public. The government allows you a monopoly, and your side of the bargain is to disclose fully your invention so that once your 20 years of protection is up, it can be freely exploited for the good of society. A patent can provide you with a 20-year government approved monopoly. However, some ideas cannot be patented and indeed, some innovators don't want to patent their ideas. All is not lost here, however, as we fall back on an older idea and one much beloved of thriller writers: the trade secret.

If you really can keep a secret, your monopoly on an idea or product may never end. But once the genie's out of the bottle, like a champagne cork, you won't get it back in and you are unlikely to extract sufficient damages from whoever breaches confidentiality. Thus, if you have an idea that cannot be reverse engineered, you do not have to enter into the patent bargain. Trade secrets are free—just prevent the secret being disclosed. But bear in mind that that this can be very difficult indeed, but not impossible. Famous successful examples include the recipe for Coca-Cola and the formulation of the alcoholic beverage Chartreuse, which is only known by two monks.

Rule 10: Make Sure the IP Is Owned in a Way That Allows Development

Notice that we don't suggest “make sure you own the IP of your invention”. If you discover something whilst working as an employee (e.g., of a company or an academic establishment), there will certainly be something in your contract about this. Generally, the employer will have first call on the invention, but may have clauses that will return rights to the individual if it is not exploited within a certain time—in some countries this is enshrined in law.

Ownership of IP is a minefield, and can be particularly difficult in an academic setting where numerous complicating features are involved. Universities, as employers, are likely to have a right to their employees' inventions; funding bodies may make their own claim; inventorship is not like authorship—the people whose names are on an academic paper are unlikely all to be inventors; and in cross-border collaborations, national laws on ownership may well be in competition with each other. One complicating factor that is often encountered is joint ownership: if you can, avoid joint ownership; instead, set up a company to own the IP and license it to partners if necessary (otherwise you face differing national rules on what joint owners can do with and without each other's permission).

If it is necessary to share IP, work out at the beginning who owns what, what rights each party has and importantly who will have the right to future inventions. In fact this is a common theme in several of our Ten Simple Rules: as soon as money rears it ugly head, strife follows, so it's as well to plan for dispute resolution right from the beginning.

In summary, first, you can never act too early, but it's very easy to act too late. Like many topics that involve the law, IP is a mind-numbingly complex topic and more so, perhaps, as it's not national, but international, so get the very best professional advice you can. If you are working as an employee, speak to your company at the earliest stage; they have a vested interest in helping get it right. Second, because significant sums of money are involved, plan for future discord. Finally, persevere: your invention can make the world a better place.

characteristics of Intellectual Property Right:

(1) Intangible property:

IP does not cover the created physical object but retains the conceptual development behind the physical object. Intellectual property law does not deal with the material object in which works of the mind have

represented. The main feature which distinguishes IP from other types of property in its intangibility IP is about a person's ability to produce a new idea and put it before the public. Intellectual property: The product does not have any property as such but the strength, judgement, and initiative of the mind that is included in the product. This generates more theoretical value Intangible product. IPR is awarded in a specific authorship work, mark, design, etc. For the integration of ideas.

(2) Rights & duties

IP not only gives rise to rights of ownership but also to duties. In relation to his work/product, the IP owner has the right to conduct such actions. He is entitled exclusively to produce, copy the work, market the work, etc. He has a negative right also to rule out the exercise of his statutory rights for third parties. In this way, IPR law grants the proprietor's exclusive right to exclusion.

The reciprocal requirement must not be infringed on the right by all others. The privilege resulting from the application of IP law gives the owner the right to use the job. Such a right does not extend to others except the IP holders.

(3) Creation of statute:

Intellectual property is derived from common law,ans it is covered under specific laws.

In accordance with relevant legislation, IPRs are statutory rights. Intellectual property, to put it differently, is statute formation. The right holder is protected by proposals, technical solutions or any other knowledge conveyed in a legally acceptable manner and subject in some instances to registration procedures.

In addition in the case of certain types of IPR, as is the case for patents and product designs the registration of the work is compulsory According to the applicable legislative requirements, whereas it is voluntary to register with respect to certain other forms of IPR such as trademarks, copyrights or geographical indications.

Some other formalities must be met to obtain such IP privileges. For example, microorganism patent. Similarly, it is a must for the divulgation of an invention to secure a patent. IPR award is exclusively conditional on all statutory requirements.

(4) Territoriality

Intellectual property laws are mainly territorial and apply only within the relevant competence. Although the TRIPS agreement sets the minimum standard in its respective municipal laws for all nations, the IP laws around the world are not harmoniously united. Full IPRs legislation is not in effect.

To order to secure and implement their IPR, developers and inventors of different kind of IPs have to comply with their national law and jurisdictions. The extent of security depends on the national legislation in question.

(5) Assignable

They should obviously be granted because they are privileges. A dichotomy between rights to intellectual property and the actual form in which the work is embedded is conceivable. IP may be bought, sold or licensed, employed, or affiliated.

(6) Dynamism

The IPR is constantly changing. The IP sector is also developing accordingly, as technology in all areas of human activities is changing exponentially. In accordance with the demand for scientific and technological advancement the scope of its defense is being extended and new items are being added to the IPRs sector.

Copyright and protection of plant variety are mentioned as a few of the current developments in the field of IPR. Technological progress and social development require a steady reassessment of the IPR system. In the technological era, developments particularly in the field of IT and biotechnology, require the regular review of IPRs.

(7) subject to public policy

They are exposed to the profound incarnation of public policy. IP seeks to maintain and find a suitable reconciliation between two competing interests. On one hand, customers try to take up works without much trouble, and on the other hand, the owners of intellectual rights need to be adequately compensated.

(8) subject matter of IPR protection

Intellectual property rights eligibility depends on the protection issue. Also, products specifically identified and acknowledged in the Law as the subject of protection are entitled to intellectual property rights. While the minimum requirements laid down in law may be included, protection may still be defined if it is expressly omitted from the subject matter entitled to protection.

The Classical justification for intellectual property rights

The debate about the justification of intellectual property rights is as longstanding as these rights have been implemented under the jurisdictions of western societies. Over time, three classical justification of western societies. Over time, three classical justification have been developed, which are often used in combination to argue in favour of intellectual property rights. One characteristic of these rights is that they grant monopoly rights for the economic exploitation of creative work on an invention for a certain time period. But interestingly it seems to be clear, even for the strongest proponent of such monopoly rights that some restrictions to the execution of intellectual property rights have to be set.

Trademark

A trademark (also written trade mark or trade-mark) is a type of intellectual property consisting of a recognizable sign, design, or expression that identifies products or services from a particular source and distinguishes them from others. The trademark owner can be an individual, business organization, or any legal entity. A trademark may be located on a package, a label, a voucher, or on the product itself. Trademarks used to identify services are sometimes called service marks.

The first legislative act concerning trademarks was passed in 1266 under the reign of Henry III, requiring all bakers to use a distinctive mark for the bread they sold. The first modern trademark laws emerged in the late 19th century. In France, the first comprehensive trademark system in the world was passed into law in 1857. The Trade Marks Act 1938 of the United Kingdom changed the system, permitting registration based on "intent-to-use", creating an examination based process, and creating an application publication system. The 1938 Act, which served as a model for similar legislation elsewhere, contained other novel concepts such as "associated trademarks", a consent to use the system, a defensive mark system, and a non-claiming right system.

The symbols ™ (the trademark symbol) and ® (the registered trademark symbol) can be used to indicate trademarks; the latter is only for use by the owner of a trademark that has been registered.

A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks are protected by intellectual property rights.

At the national/regional level, trademark protection can be obtained through registration, by filing an application for registration with the national/regional trademark office and paying the required fees. At

the international level, you have two options: either you can file a trademark application with the trademark office of each country in which you are seeking protection, or you can use WIPO's Madrid System.

In principle, a trademark registration will confer an exclusive right to the use of the registered trademark. This implies that the trademark can be exclusively used by its owner, or licensed to another party for use in return for payment. Registration provides legal certainty and reinforces the position of the right holder, for example, in case of litigation.

The term of trademark registration can vary, but is usually ten years. It can be renewed indefinitely on payment of additional fees. Trademark rights are private rights and protection is enforced through court orders.

A word or a combination of words, letters, and numerals can perfectly constitute a trademark. But trademarks may also consist of drawings, symbols, three-dimensional features such as the shape and packaging of goods, non-visible signs such as sounds or fragrances, or color shades used as distinguishing features – the possibilities are almost limitless.

A trademark identifies the brand owner of a particular product or service. Trademarks can be used by others under licensing agreements; for example, Bullyland obtained a license to produce Smurf figurines; the Lego Group purchased a license from Lucasfilm to be allowed to launch Lego Star Wars; TT Toys Toys is a manufacturer of licensed ride-on replica cars for children. The unauthorized usage of trademarks by producing and trading counterfeit consumer goods is known as brand piracy.

The owner of a trademark may pursue legal action against trademark infringement. Most countries require formal registration of a trademark as a precondition for pursuing this type of action. The United States, Canada, and other countries also recognize common law trademark rights, which means action can be taken to protect any unregistered trademark if it is in use. Still, common law trademarks offer to the holder, in general, less legal protection than registered trademarks.

A trademark may be designated by the following symbols:

- ™ (the "trademark symbol", which is the letters "TM" in superscript, for an unregistered trademark, a mark used to promote or brand goods)
- ℠ (which is the letters "SM" in superscript, for an unregistered service mark, a mark used to promote or brand services)
- ® (the letter "R" surrounded by a circle, for a registered trademark)

A trademark is typically a name, word, phrase, logo, symbol, design, image, or a combination of these elements. There is also a range of non-conventional trademarks comprising marks which do not fall into these standard categories, such as those based on color, smell, or sound (like jingles). Trademarks that are considered offensive are often rejected according to a nation's trademark law.

The term trademark is also used informally to refer to any distinguishing attribute by which an individual is readily identified, such as the well-known characteristics of celebrities. When a trademark is used about services rather than products, it may sometimes be called a service mark, particularly in the United States.

The essential function of a trademark is to exclusively identify the source or origin of products or services, so a trademark, properly called, indicates the source or serves as a badge of origin. In other words, trademarks serve to identify a particular entity as the source of goods or services. The use of a trademark in this way is known as trademark use. Certain exclusive rights attach to a registered mark.

Trademarks are used not only by businesses but also by noncommercial organizations and religions to protect their identity and goodwill associated with their name.

Trademark rights generally arise out of the use of, or to maintain exclusive rights over, that sign about certain products or services, assuming there are no other trademark objections.

Different goods and services have been classified by the International (Nice) Classification of Goods and Services into 45 Trademark Classes (1 to 34 cover goods, and 35 to 45 cover services). The idea behind this system is to specify and limit the extension of the intellectual property right by determining which goods or services are covered by the mark, and to unify classification systems around the world.

Functions of UNESCO in IPR maintenance

UNESCO is a Specialized Agency of the United Nations. Its constitution was adopted by the LONDON CONFERENCE in Nov, 1945 and entered into effect on 4 Nov, 1946 when 20 states had deposited the instruments of acceptance. It was founded on 16 Nov, 1945 as an IGO. Currently, 195 countries are members of UNESCO (as of 2018). The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to enhance universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the people of the world, without distinction of race, sex, language or religion, by the Charter of the UN. In support of this objective, UNESCO's principal functions are:

- to promote intellectual cooperation and mutual understanding among people through all means of mass communication
- to give fresh impulse to popular education and to the spread of culture
- to maintain, increase and diffuse knowledge
- to encourage scientific research and training
- to apply sciences to ensure human development and the rational management of natural resources.

MOTTO: The motto of the UNESCO is, "since war begins in the minds of men, it is in the minds of men that the foundations for peace should be sought."

As a forum for global intellectual cooperation, UNESCO has the widest range of programmes of all UN specialised agencies. This includes education, science, culture, communication and information. The concrete objectives in the individual programme areas are redefined every two years by the UNESCO General Conference. Medium Term Strategies set out overarching programme objectives. The Secretariat implements the UNESCO programmes operationally.

UNESCO has a total budget of $1.2 billion for the years 2018 and 2019, of which $592.2 million is through membership fees. Germany (July 1951 joining) is the third largest contributor to UNESCO after Japan and China. The financial situation has been tense since the failure of US contributions since 2011- until then the largest contributor. In Oct 2017, the US announced its withdrawal from UNESCO, which came into effect at the end of 2018.

STRUCTURE

UNESCO has three bodies according to its constitution:

1. The General Conference
2. The Executive Board
3. The Secretariat

The General Conference is the assembly of all Member States, which meets every two years. At the General Conference, each member state has one vote. It is the supreme decision-making and controlling body of UNESCO.

It sets the objectives and general guidelines of UNESCO's work. It convenes state conferences and adopts recommendations or agreements.

The General Conference elects the members of the Executive Board and at its suggestion, appoints the Director General.

The Executive Board consists of 58 member states and meets five times in the Biennium. It reviews UNESCO's work programme and makes recommendations to the General Conference. The Secretariat implements the UNESCO programmes operationally.

The Secretariat is headquartered in Paris and has more than 50 field offices worldwide.

UNESCO is a forum for international cooperation and exchange of information, experience and ideas. It is not a development aid organisation or agency for project funding.

It builds model projects, advises governments through expert missions and ministerial conferences and promotes knowledge sharing through more than 250 larger and countless smaller expert networks.

An important function of UNESCO is the development of normative instruments at intergovernmental level. It has passed numerous international conventions, recommendations and declarations, most notably the 1972 Convention on the protection of Cultural and Natural Heritage.

EDUCATION: UNESCO makes an important contribution to improving education worldwide. In the context of the UN Sustainable Development Goals (SDG), UNESCO has tasked itself with implementing SDG4- ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all. In 2015, the UNESCO member states adopted the Global Education Agenda 2030 in order to achieve these goals- agenda to coordinate and implement and providing global monitoring of progress in education (main task).

a. In this context - Global Education Monitoring Report- 2019 was launched at the Federal Foreign office in Berlin Nov. 2018

b. Global Education Meeting (GEM) in Brussels in Dec 2018, which took stock of the progress made and challenges faced

c. UNESCO- responsible for the implementation of the World Action Program 'Education for Sustainable Development' (2015-2019) includes overall concept of ecologically, economically and socially sustainable development that will be taught at different levels of education.

d. UNESCO Associated Schools Network, motto of the curriculum is: 'learning to live together in a pluralistic world of cultural diversity'.

e. UNESCO Chairs programme - 40 UNITWIN Networks, 700 UNESCO Chairs-> 116 centres. Priority areas - education in the natural and social sciences, culture and communication.