# Directorate of Distance Education
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# NALSAR University of Law, Hyderabad

**Reading Material**

## ONE YEAR ADVANCED DIPLOMA IN CYBER LAWS

## 1.3 IPR IN CYBER SPACE

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# INTRODUCTION

The Internet has opened up a world of opportunities for artistic and literary creation. Ease of transmission from creator to viewer, and re-transmission from viewer to viewer, makes the Internet an ideal medium for artistic and academic creators to disseminate their work, and for commercial creators to reach wider audiences. Technology has provided the means for people to innovate - along with the means for viewers to edit, alter, distort, and redistribute the words, sounds, and images they find on the Internet.

With the growth in the use of internet these days the cybercrimes are also growing. Cyber theft of IP is one of them. Cyber theft of IP means stealing of copyrights, trade secrets, patents etc., using internet and computers.

This Module is aimed to help the Cyber Law students to familiarise with the major types of intellectual property currently in use in the commercial world and understand the impact and implications of each of them. Large sections of this Module has been carefully compiled from several important publications made by WTO (World Trade Organisation) and WIPO (World Intellectual Property Organisation), other Government documents and published articles.

Lastly, the *CRI Guidelines for Examination (2017) and Uniform Domain Name Dispute Resolution Policy* have been added as Annexures for better understanding and in depth study.

# CHAPTER I

# OVERVIEW OF IP SYSTEM

## Concept of Intellectual Property

Intellectual property, very broadly, means the legal rights which result from intellectual activity in the industrial, scientific, literary 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 the 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, intellectual property 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. Those rights do not apply to the physical object in which the creation may be embodied but instead to the intellectual creation as such. Intellectual property 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 provides that intellectual property shall include rights relating to:

- literary, artistic and scientific works,
- performances of performing artists, phonograms and broadcasts,
- inventions in all fields of human endeavor,
- scientific discoveries,
- industrial designs,
- trademarks, service marks and commercial names and designations,
- protection against unfair competition,

and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

The areas mentioned as literary, artistic and scientific works belong to the copyright branch of intellectual property. The areas mentioned as performances of performing artists, phonograms and broadcasts are usually called "related rights," that is, rights related to copyright. The areas mentioned as inventions, industrial designs, trademarks, service marks and commercial names and designations constitute the industrial property branch of intellectual property. The area mentioned as protection against unfair

competition may also be considered as belonging to that branch, the more so as of the Paris Convention for the Protection of Industrial Property *(Stockholm Act of 1967)* (the *"Paris Convention"*) includes *"the repression of unfair competition"* among the areas of *"the protection of industrial property"*; the said Convention states that *"any act of competition contrary to honest practices in industrial and commercial matters constitutes an act of unfair competition".*

The expression *"industrial property"* covers inventions and industrial designs. Simply stated, inventions are new solutions to technical problems and industrial designs are aesthetic creations determining the appearance of industrial products. In addition, industrial property includes trademarks, service marks, commercial names and designations, including indications of source and appellations of origin, and protection against unfair competition. Here, the aspect of intellectual creations—although existent—is less prominent, but what counts here is that the object of industrial property typically consists of signs transmitting information to consumers, in particular as regards products and services offered on the market, and that the protection is directed against unauthorized use of such signs which is likely to mislead consumers, and misleading practices in general.

Scientific discoveries, the remaining area mentioned in the WIPO Convention, are not the same as inventions. *The Geneva Treaty on the International Recording of Scientific Discoveries (1978)* defines a scientific discovery as "the recognition of phenomena, properties or laws of the material universe not hitherto recognized and capable of verification. Inventions are new solutions to specific technical problems. Such solutions must, naturally, rely on the properties or laws of the material universe (otherwise they could not be materially or *"technically"* applied), but those properties or laws need not be properties or laws *"not hitherto recognized"*. An invention puts to new use, to new technical use, the said properties or laws, whether they are recognized *("discovered")* simultaneously with the making of the invention or whether they were already recognized *("discovered")* before, and independently of, the invention. Intellectual property (IP) law comprises a set of exclusive rights to exclude others from making, copying, or using certain intangible creations of the human mind.

IP is a bundle of legal rights resulting from intellectual creativity in industrial, scientific, artistic and literary fields. This definition is from the point of view of rights. IP is legal protection accorded to works of the mind in distinction from manual work (result of physical labour). It is a legal protection accorded to incorporeal ownership.

The World Intellectual Property Organization (WIPO) is one of the specialized agencies of the United Nations (UN) system of organizations. The *"Convention Establishing the World Intellectual Property Organization"* was signed at Stockholm in 1967 and entered into force in 1970. However, the origins of WIPO go back to 1883 and 1886, with the adoption of the Paris Convention and the Berne Convention respectively. Both of these conventions provided for the establishment of international secretariats, and

both were placed under the supervision of the Swiss Federal Government. The few officials who were needed to carry out the administration of the two conventions were located in Berne, Switzerland. Initially there were two secretariats (one for industrial property, one for copyright) for the administration of the two conventions, but in 1893 the two secretariats united. The most recent name of the organization, before it became WIPO, was BIRPI, the acronym of the French-language version of the name: United International Bureaux for the Protection of Intellectual Property (in English). In 1960, BIRPI moved from Berne to Geneva.

At the 1967 diplomatic conference in Stockholm, when WIPO was established, the administrative and final clauses of all the then existing multilateral treaties administered by BIRPI were revised. They had to be revised because member States wished to assume the position of full governing body of the Organization (WIPO), thus removing the supervisory authority of the Swiss Government, to give WIPO the same status as all the other comparable intergovernmental organizations and to pave the way for it to become a specialized agency of the United Nations system of organizations.

Most of the intergovernmental organizations now called specialized agencies did not exist before the Second World War. They were created for the specific purpose of dealing with a particular subject or field of activity at the international level.

Intellectual properties have their own peculiar features. These features of intellectual properties may serve to identify intellectual properties from other types of properties. It is pertinent to take a brief look at their common features. In other words, in spite of the different branches, intellectual property has some common characteristics that distinguish them from other rights. For instance, Intellectual property rights are, naturally, proprietary in nature. They can be bought and sold, mortgaged and licensed just like any other type of property. A valuation can be put on them for contractual or accounting purposes. Nevertheless, it is very important to be able to distinguish between the property rights which exist in a tangible item and the intangible intellectual property rights which may be embodied in that item.

Some of the major characteristics of intellectual property include:

1) Exclusive Right

2) Territorial

3) Independent

4) Assignable

5) Divisible

6) Volatility

7) Subject to Public Policy

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 rights are like any other property right. They allow creators, or owners, of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation. These rights are outlined in Article 27 of the Universal Declaration of Human Rights, which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions. The importance of intellectual property was first recognized in the *Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works* (1886). Both treaties are administered by the World Intellectual Property Organization (WIPO).

There are several compelling reasons for the need to protect IP:

1) The progress and well-being of humanity rest on its capacity to create and invent new works in the areas of technology and culture.
2) The legal protection of new creations encourages the commitment of additional resources for further innovation.
3) The promotion and protection of intellectual property spurs economic growth, creates new jobs and industries, and enhances the quality and enjoyment of life.

An efficient and equitable intellectual property system can help all countries to realize intellectual property's potential as a catalyst for economic development and social and cultural well-being. The intellectual property system helps strike a balance between the interests of innovators and the public interest, providing an environment in which creativity and invention can flourish, for the benefit of all.

## Philosophical Foundation of Intellectual Property

In the IP literature, patents, copyrights, trademarks and trade secrets are considered to be statutory and moral ways of increasing innovations and boosting technological development. For this reason, individual rights to IP have been extended to almost all knowledge intensive sectors, including health care. Recent studies have been carried out of the moral foundations of IPRs, examining the plausibility of patents,

copyrights, trademarks and trade secrets in relation to four theories of liberal morality: natural law (Locke); personality development (Hegel); just reward (Nozick); and social utility (Bentham).

In the contemporary era of economic globalization, an increasing number of theorists argue that the world is fast moving towards an *'intellectual capitalism'*. The main characteristic of such an advanced system of social relations is the historical shift of priority from the social division of labor to the social division of knowledge. This shift is clearly reflected in the continuous creation of knowledge pools, clusters and networks at regional, national, international and global levels. Therefore, intangible forms of property such as intellectual property (IP) are increasingly becoming more important than traditional paradigms of tangible property such as land and factories. In the IP literature, patents, copyrights, trademarks and trade secrets are considered to be statutory and moral ways of increasing innovations and boosting technological development. For this reason, individual rights to IP have been extended to almost all knowledge intensive sectors.

Any attempt to approach the particular concept of IPRs presupposes adequate understanding of the general concept of property. The meaning of property is neither abstract nor static. Rather, it is concrete and changes through different historical moments of economic and social development. These moments are linked with the various stages of development of the division of labor. Different conceptions of property arose, historically, in connection with tangible things[1]. These things can be physically held and are either movables or immovables. Movables mainly include what Marx[2] called *'the miracles of industry and change'* e.g. movable capital. Immovables mainly include land-based products e.g. immovable capital.

## Moral Justifications of IP Rights

### 1. Natural Law

IPRs are moral-claim rights that each individual naturally has independently of the laws and government of civil society. The concept of nature here does not imply that individuals are born with IPRs but rather that these rights can be recognised as valid by moral and rational human beings apart from any provisions of positive law[3]. The ability to claim IPRs or any natural right depends on human reason. The moral conception of IPRs as natural rights plays important role in justifying legislation for patents, copyrights, trademarks, etc.

[1] Waldron, J. (1988) The Right to Private Property, Oxford: Clarendon Press.
[2] Marx, K. (1975) Early Writings, London: Penguin.
[3] Waldron, J. (1988) The Right to Private Property, Oxford: Clarendon Press.

The moral justification of IPRs on the grounds of natural law uses as an example the Lockean theory of private property. In his *Second Treatise of Government*[4], Locke[5] introduces the principle of self- ownership as a natural right of each individual to her own person and labor. This principle is linked

with negative liberty and not utility maximisation. Owning herself, each person is free to do with her powers whatever she chooses so long as she does not cause or threaten harm to non-consenting others. However, in the case of harm without prior consent, the affected person has the right to full compensation. On the grounds of self-ownership, Locke forms his mixing labor theory that justifies private property as a natural right. According to him *'The Labor of [Man's] Body and the Work of his Hands, we may say, are properly his. Whatsoever then he removes out of the State that Nature hath provided and left it in he hath mixed his Labor with, and joyned to it something that is his own, and thereby makes it his Property'*[6].

It is well known that Locke's theory of private property is theologically founded. Locke argues that God gave the world to human beings in common and provided them with reason to make use of it to the best advantage of their life. This argument theoretically leads to the formation of two provisos. The first is the *'no waste'* proviso according to which appropriated resources must be used, otherwise they become common again. The second is the *'enough and as good'* proviso. As it is well known, for Locke private appropriation is morally justified only if it leaves enough and as good to newcomers. Both provisos condition individual property rights and develop presuppositions of social reproduction. Therefore, it can be said that Locke's theory justifies the transition from the *'general'* right of common ownership in the state of nature to the *'special'* right of private ownership in civil society.

Thinkers such as Bouckaert[7] and Hughes[8] tend to believe that the conception of IPRs as moral-claim rights founded upon the principle of self-ownership is theoretically sustainable. Bouckaert criticises the theological basis of the Lockean principle of self-ownership. In his view, this principle needs to be reconstructed on a secular basis. Bouckaert[9] suggests four general ideas that a secular and moral argument of self-ownership must take into account in order to be relevant to IPRs justification:

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[4] <https://www.earlymoderntexts.com/assets/pdfs/locke1689a.pdf>

[5] John Locke (1632 – 1704) was an English philosopher and physician, widely regarded as one of the most influential of Enlightenment thinkers and commonly known as the "Father of Liberalism".

[6] Locke, J. (1988) Two Treatises of Government, 3rd ed., Cambridge: Cambridge University Press.

[7] Boudewijn Bouckaert (1947 - ) is a Belgian law professor, a member of the Flemish Movement, and a libertarian conservative thinker and politician. He chairs the academic board of the LIB-ERA! think tank and serves as Member of the Flemish Parliament for the liberal party List Dedecker.

[8] Justin Hughes is the William H. Hannon Professor of Law at Loyola Law School, Los Angeles, where he teaches courses in intellectual property law, international trade, and internet law. He taught at the Benjamin N. Cardozo School of Law from 2002 through 2013.

[9] Bouckaert, B. (1990) 'What is Property?' Harvard Journal of Law and Public Policy, Vol.13, pp.275- 816.

i. self-ownership must be linked with moral perfection;

*ii.* self-ownership requires a relative notion of the *'good life';*

iii. the *'good life'* requires self-knowledge; and

iv. self-knowledge requires self-ownership.

Hughes' defence of IPRs is more coherent than that of Bouckaert. Specifically, his argument is based on three propositions[10]:

i. the production of ideas requires a person's labor;
ii. these ideas are appropriated from a *"common"* which is not significantly devaluated by the ideas removal; and
iii. ideas can be made property without breaking the non-waste condition.

Hughes adopts Nozick's[11] reformulation. Nozick[12] accepts that Locke's *'enough and as good'* condition may be ineffective in modern societies because of the scarcity of resources and the introduction of money.

It might be argued that IPRs also violate the *'no waste'* proviso. Thinkers such as Richards argue that *'The history of patents is rife with example of cases where new ideas and innovations have been delayed or permanently lost by interests who used patents to prolong their existing intellectual and physical capital stock'*[13]. In fact, appropriated ideas can be also (temporally) wasted if they are not be fully used. The idea is temporally wasted and the 'no waste' proviso is violated. The application of the 'no waste' condition to IP morally requires owners to have enough resources to exploit their ideas and to ensure sufficient access to the products/processes embodying their ideas.

## 2. Personality Development

IPRs constitute a moral necessity for the development of each individual's personality. The latter can only be adequately expressed in ethical community. That is a liberal realm in which contracts and exchange take place. IPRs are moral rights because facilitate the achievement of each individual's personality in ethical

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[10] Hughes, J. (1988) 'The Philosophy of Intellectual Property' The Georgetown Law Journal, Vol.77, pp.287-366.

[11] Robert Nozick (1938 – 2002) was an American philosopher. He held the Joseph Pellegrino University Professorship at Harvard University, and was president of the American Philosophical Association.
[12] Nozick, R. (1974) Anarchy State and Utopia, Oxford: Blackwell.
[13] Richards, D. G. (2002) 'The Ideology of Intellectual Property Rights in the International Economy', Review of Social Economy, Vol. IX, No.4, pp.521-620.

community. This particular rationale is crucial for justifying laws of copyright and patent protection. As Newman[14] points out, the individual's intellectual creation is considered to be part of her personality. Especially, the French and the German law recognise the right of each creator to receive both public identification and protection against any changes unapproved by the creator[15].

The moral justification of IPRs in terms of personality development derives from Hegel's[16] theory of property. In his *Philosophy of Right*, Hegel[17] conceives private property as an abstract right related to human needs and freedom. In order to satisfy their physical needs and develop their individuality and freedom, people need to have control of resources. As Ryan[18] argues *'Hegel sees property rights as implicit in our first and basic entry into the world as free agents…'*. In this respect, he differs from Locke who sees property rights depending on mixing labor with unowned objects. As Waldron[19] correctly observes *'The Lockean theory makes the general human right to property conditional whereas the Hegelian theory makes it unconditional'*. Also, the concept of freedom here does not have any libertarian meaning e.g. absence of coercion. In Hegel's theory freedom is conceived as each individual's ability to form abstracted thoughts and to relate them straight back to particular needs and desires. Personality is viewed as a part of the inner subjective world of each individual. Hegel stresses that both freedom and personality must be translated into the external objective world by means of private property. Hegel is idealist; he believes that abstract thought rules the world[20]. Therefore, in Hegel's theory, the individual who owns an object is able to abstract herself in thought from any particular need and to embody her free will and personality into that object. Denial of this personal link to an object results in alienation. In *Philosophy of Right*, Hegel writes: *'The reason I can alienate my property is that it is mine only in so far as I put my will into it'*. Hegel's concept of alienation is crucial for his justification of private property in ethical community. Hegel believes that those individuals who are alienated from their property or those who have no property at all, fail to get recognition as persons in community. In his view, only property owners can be recognised as persons entering into several contractual relationships[21]. Hegel's concept of ethical community refers to the liberal

[14] Newman, S. (1997) 'Rights, Freedoms and Phonograms: Moral Rights and Adaptation Rights in Music and Other Copyright Works', Computer Law & Security Report, Vol.13, No.1, pp.22-28.
[15] Hughes, J. (1988) 'The Philosophy of Intellectual Property' The Georgetown Law Journal, Vol.77, pp.287-366.

[16] Georg Wilhelm Friedrich Hegel (1770 – 1831) was a German philosopher and an important figure of German idealism. He achieved wide recognition in his day and - while primarily influential within the continental tradition of philosophy - has become increasingly influential in the analytic tradition as well.
[17] Hegel, G. W. F. (1942) Philosophy of Right, Oxford: Clarendon Press.

[18] Rayan, A. (1984) Property and Political Theory, Oxford: Basil Blackwell.
[19] Waldron, J. (1988) The Right to Private Property, Oxford: Clarendon Press.
[20] Callinicos, A. (1999) Social Theory: A Historical Introduction, Cambridge: Polity.
[21] Hegel, G. W. F. (1942) Philosophy of Right, Oxford: Clarendon Press.

market place as one moment of ethical life. That is the specific social context rooted to custom and tradition of the ancient city-states. In Hegel's theory the liberal realm of contracts and exchange is regulated by the state. The latter constitutes another moment of ethical life. The state intervenes to resolve antagonisms which threaten the stability of community.

The question, of course, is whether the moral justification of IPRs as a necessity for personality development can be theoretically sustained. Hegel is clear that creators are rightfully the owners of their intellectual products. He also argues that *'Single products of my particular and mental skill and of my power to act I can alienate to someone else and I can give him the use of my abilities for restricted period, because, on the strength of this restriction, my abilities acquire external relation to the totality and universality of my being'.*

IP can only satisfy epiphenomenal needs created within the capitalist market, taking the form of individual needs. Essential needs outside that realm remain unsatisfied. These needs include the development of presuppositions of social reproduction. IP is a form of private property that is the product, the result and the consequence of alienated social labor. Therefore, IP appears not to be justified on the grounds of the recognition of society as a whole.

## 3. Just Reward

This implies that IPRs constitute a just reward for enterprise and merit. Individual creators of innovative ideas and inventors morally deserve to be rewarded for their qualities and talents. Thinkers who favour the merit concept of justice abstract from the Hegelian conception of individuality and personality. The reward-based rationale of IPRs played important role in the 19th century patent controversy. As Machlup and Penrose[22] stress, one of the arguments for IPR protection was advanced *'...in the name of fairness to secure the inventor his just reward'.* The moral justification of IPRs in terms of just reward derives from libertarianism. Libertarians propose principles of justice which recognise that each individual is entitled to her talents and abilities. Whatever goods are acquired on the basis of natural talents and abilities are just. Libertarians argue that just distribution results from people's free exchanges. More precisely, Nozick, one of the most debated libertarians of the 20th century, suggests an *'entitlement theory'* based on three principles of justice[23]:

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[22] Machlup, F. and Penrose, E. (1959) 'The Patent Controversy in the Nineteenth Century' Journal of Economic History, Vol. X, No.1, pp.1-29.

[23] Nozick, R. (1974) Anarchy State and Utopia, Oxford: Blackwell.

i. A person who acquires a holding in accordance with the principle of justice in acquisition is entitled to that holding.

ii. A person who acquires a holding in accordance with the principle of justice in transfer, from someone else entitled to the holding, is entitled to the holding.

iii. No one is entitled to a holding except by (repeated) applications of 1 and 2.

Nozick's entitlement theory implies that if people's current ideas are justly acquired, then just distribution can only take place in the free market. People have the right to sell and buy ideas, benefiting from exchange. The state is not morally justified to intervene in order to redistribute the benefits of innovative ideas to naturally disadvantaged or less creative people. Only the owners of the ideas can decide on such distribution.

This intuitive argument ignores the intuition about dealing fairly with unequal circumstances. The principle of fairness is a *'self-evident'* truth that requires social redistribution to remedy unequal circumstances developed in the process of exchange. Secondly, the self-ownership argument fails to comprehend the socio-economic presuppositions of natural talents and abilities. The latter remain natural potentialities if individuals lack the economic and social means of their development.

Certainly, most liberal critiques of the reward-foundation of IPRs reconstruct the egalitarian theories of Rawls[24] and Dworkin[25]. In contrast to libertarians such as Nozick, Rawls[26] and Dworkin[27] consider distribution on the basis of *'natural lottery'* to be morally arbitrary. For Rawls justice implies equal share of social goods (liberty and opportunity, income and wealth, self-respect). This does not mean removal of all inequalities but only those which make the position of someone worst off.

[24] John Bordley Rawls (1921 – 2002) was an American moral and political philosopher in the liberal tradition. Rawls received both the Schock Prize for Logic and Philosophy and the National Humanities Medal in 1999.
[25] Ronald Myles Dworkin (1931 – 2013) was an American philosopher, jurist, and scholar of United States constitutional law. At the time of his death, he was Frank Henry Sommer Professor of Law and Philosophy at New York University and Professor of Jurisprudence at University College London.
[26] Rawls, J. (1971) A Theory of Justice, Oxford: Oxford University Press.
[27] Dworkin, R. (1981a) 'What is Equality? Part I: Equality of Welfare', Philosophy and Public Affairs, Vol.10, No.3.

In Rawls' theory, *'If certain inequalities benefit everyone, then they will be accepted by everyone'*. This theory is illustrated in the principle of equal liberty and the difference principle. Rawls' principles can justify IPRs on the grounds that in the long run, innovative ideas make everyone better off. The term *'natural lottery'* was introduced by Rawls and refers to talents and abilities that each individual naturally inherits. The problem of socio-economic presuppositions of natural talents and capacities is targeted by Dworkin. In his theory, Dworkin argues that people ought to be equal in resources at their command and not in their welfare. Specifically, he proposes a *'starting gate'* distribution of equal resources through a hypothetical auction device. The latter is combined with insurance schemes, free market institutions and taxation. Initial distribution of resources according to people's choices ensures that each individual gets equal means to develop her natural talents and capacities. Natural disadvantages are compensated by insurance schemes. Taxation can be used to implement his theory in practice. However, this theory is sensitive to the special character of liberal freedom - it can only justify IPRs on the grounds of individual choice and ambition.

## 4. Social Welfare

Yet another theory is a consequentialist theory of social and political morality which holds that moral and legal rules such as IPRs are justified to the extent that they promote happiness in society[28].

Utilitarianism, especially in its hedonistic version formulated by Bentham[29] and Mill[30] conceives happiness as a sum of pleasures. *'Pleasure is good, and pain or displeasure is bad'*[31]. Utilitarianism is a goal-based theory concerned with the social welfare of each individual in so far as this contributes to a particular conception of the good. Therefore, this theory is hostile towards right-based theories such as natural law, personality development and reward-based theories of IPRs.

According to Bentham, the idea that there are moral rights which exist independently of social recognition and enforcement and could be the starting point of morality is wild and pernicious nonsense[32]. In his view, rights are legal obligations which contribute to maximisation of the total social utility.

[28] Rayan, A. (1987) Property, Milton Keynes: Open University Press.
[29] Jeremy Bentham (1748 – 1832) was an English philosopher, jurist and social reformer regarded as the founder of modern utilitarianism. Bentham defined as the "fundamental axiom" of his philosophy the principle that "it is the greatest happiness of the greatest number that is the measure of right and wrong".
[30] John Stuart Mill (1806 – 1873) was a British philosopher, political economist, and civil servant. One of the most influential thinkers in the history of classical liberalism, he contributed widely to social theory, political theory, and political economy.
[31] Raphael, D. D. (1994) Moral Philosophy, Oxford: Oxford University Press.
[32] Bentham, J. (1970) 'An Introduction to the principles of Morals and Legislation' in J. H. Burns and

Critics of utilitarianism object to the conception of IPRs as legal arrangements for maximising social welfare on the grounds that it is instrumental. IPRs are not intrinsically good. If IPRs fail the utility test, then, they can no longer be justified in society. This implies that creators are entitled to their ideas only in so far as these ideas are valued as useful instruments for maximising social welfare.

However, utilitarianism is a theory that does not necessarily justify IPRs. In certain cases, utilitarianism requires common ownership of innovative ideas in order to contribute to total maximisation of social welfare. Although there is an epistemological problem with measuring welfare maximisation objectively, utilitarianism remains a widely accepted consequentialist theory of morality. Utilitarianism requires political decisions about IPRs to take account of the likely consequences for the happiness and unhappiness of all persons who will be affected[33]. Therefore, according to that theory, justification of IPRs depends on their socio-economic effects. Whether those effects are efficient and optimal determines the moral necessity of IPRs in society.

Theoretically speaking, first of all, patents, copyright, trademarks and trade secrets cannot be sustained as moral rights on the grounds of Locke's labor theory of property. The application of the *'no waste'* and *'enough and as good'* provisos in the private appropriation of ideas through a person's labor is problematical. The social character of intellectual creativity philosophically weakens the position

according to which the mixing-labor theory can be plausibly used in the moral justification of IPRs. On the other hand, the purpose of intellectual appropriation is to prevent free access to *'enough and as good'* ideas, at least, for a certain period of time. This is also the reason why the *'no waste'* proviso cannot be satisfied by IPRs. Patented inventions which are not fully exploited or used for a certain period of time can be considered as being wasted in the Lockean sense. Second, IPRs and especially copyrights cannot be justified as a necessity for personality development. The Hegelian theory of intellectual property leaves open the epistemological question of personality embodiment in IP products and fails to resolve the problem of social recognition of IP creators. Third, patents, copyrights, trademarks and trade secrets cannot constitute just reward for enterprise and merit.

Individual creators of innovative ideas and inventors do not morally deserve to be rewarded for their qualities and talents. Apart from the fact that these qualities and talents are to a certain extent the outcome of an arbitrary *'natural lottery'* in the Rawlsian sense, they can only be fully developed within particular economic and social conditions. Fourth, patents copyrights, trademarks and trade secrets fail the universal test of social utility. Existing research in the socio-economic costs and benefits of IPRs reveals that, in

H. L. Hart (eds) The Collected Works of Jeremy Bentham, Oxford: Clarendon Press.

[33] Raphael, D. D. (1994) Moral Philosophy, Oxford: Oxford University Press.

many cases, they reduce growth and minimise social welfare. Therefore, utilitarianism does not necessarily justify IPRs from the point of view of morality.

IPRs can be rather seen as political developments which aim to reproduce the capitalist division of knowledge and labor at national, international and global levels.

In essence, *'information feudalism'* is nothing but another antinomy of capitalism through which the division of knowledge and labor are reproduced as class divisions between individuals and between nation states. This antinomy not only threatens equality but also liberty and human welfare.

## Economic Theory

Intellectual property rights are intimately related to markets. They play a crucial role in constituting markets in information. Economic theory is too important a resource to ignore in a philosophical treatment of intellectual property. Economics is a discipline which is rich in approaches. There is nothing narrow about its scope. Information economics seems to play the role of the dangerous supplement to the neoclassical paradigm. Institutional economics recognises that power is a more complex notion than just market power. Public choice theory has proved to be a fruitful venture, at least in the eyes of its exponents, into political theory.

Given the overtly economic character of much intellectual property legislation, one possibility worth investigating is that economic theory of one kind or another provides a justification for the enactment of intellectual property rights. Of course, these rights are very different from each other in terms of legal detail and character. A patent monopoly gives the owner rights against the independent inventor of the same invention, while copyright offers rights against copying but does not prohibit the independent creation of the same work. Despite important differences like these, intellectual property rights share a fundamental character - they are rights in abstract objects.

Economists, like social and political theorists, are interested in power. Very often they are most concerned with market power: in a nutshell, the capacity to price above marginal cost. Within institutional economics, power seems to be more broadly conceived of as something that shapes and creates markets rather than just something that is delivered through the pricing mechanism.

There are many illustrations of this cost–benefit approach in intellectual property. The debate over the optimal length of the patent term is one. Probably, the greatest service that economics can perform in the area of intellectual property is to track empirically the consequences of various intellectual property arrangements. Without the cost benefit approach intellectual property would remain an opaque institution.

Amongst other things, one would not know who the real winners and losers are when states, legislatures and judges shift the boundaries of abstract objects and draw new enclosure lines in the intellectual commons.

Intellectual property protection is an important component of national economic policies. Governments face complex choices on how to design an IP system that best serves their policy objectives, and how to respond to changes in technology and in business models that challenge the status quo.

Intellectual property rights have attracted increasing attention both in academic circles as well as in public policy debates over the past decades. This has gone hand-in-hand with their increasing use, particularly (but not only) patents, reforms in the national and international legal frameworks that have resulted in the strengthening of IPRs and the fast growth of sectors in which knowledge, innovation and appropriability play a key role (e.g. biotechnology, information and communication technologies and the cultural industries). Intense debates among researchers have taken place on a wide range of issues, including the reasons for the growing use of IPRs; the impact of the strengthening of IPRs on innovation; the role of IPRs in developing countries; whether there is a need for international harmonization of the laws regulating the matter and the consequences of IPR legislative reforms on poor communities in areas such as health or traditional knowledge.

Models and economic studies have obvious conclusions about the role of intellectual property rights on economic development[34]. The issue is complex, the effectiveness of intellectual property rights in the development and growth depends on the circumstances of each country. Severe systems of intellectual property protection can either stimulate or restrict growth. The effects on economic growth and technological progress are positive only if they are structured in such a way as to promote competition. Consequently, the success of economic development will be to reduce this gap.

Intellectual property regime, as part of the innovation system, aims to stimulate innovation by allowing innovators to restrict the use of knowledge produced by imposing rewards in exchange for the use of that knowledge and thus offers the possibility of a return on investment. But one should bear in mind that the innovation system contains other elements, too. There are other ways to finance and produce research, e.g. Universities and Research Laboratories.

The innovation system is based on research and basic research occurs mainly in universities and government-funded laboratories. It is obvious, however, that research must be funded and the financial

[34] Livia Ilie (2014) 'Intellectual Property Rights: An Economic Approach' Procedia Economics and Finance Volume 16, 2014, Pages 548-552.

needs of research are huge, but *"research funding through monopoly profits is neither efficient nor equitable"*. Obviously, in the context of a market economy, an economy which is based on profit, companies must be compensated in order to be stimulated to innovate. Research, development and innovation are expensive processes. Investing in R&D and innovation results will imply further protection to give companies time to recover the investment made and to be motivated to continue these investments.

**Intellectual property protection system has two major economic goals:**

i. to stimulate investment in knowledge creation and innovation by establishing exclusive rights of use and exploitation of new technologies and products;
ii. absence of such protection would allow competitors to use the results for free and would discourage companies to invest in research, development and innovation; widespread dissemination of new knowledge.

Although intellectual property rights can foster the acquisition and dissemination of new knowledge and information, this can be made at costs that are often very high. Information and knowledge, intellectual creations have characteristics of public goods that are non-competitive, and therefore it is difficult to exclude their use by others. The fact that it is consumed by someone, does not prevent someone else to consume it. Knowledge and information have this quality. In other words, there is no marginal cost associated with the consumption of knowledge and information.

From an economic perspective, it is socially efficient to provide broad access to new inventions. In a free market, where no intellectual property rights exist, new products and technologies could be easily multiplied at marginal cost, which would benefit society. According to the concept of public good, it

can be said that it is more efficient to share knowledge freely to all, but to restrict their use by setting a price for the use.

Between the two objectives there should be a trade-off: an overprotected system will limit social gains by limiting the dissemination and use of results; a weak protection system will reduce innovation due to the lack of an adequate return on investment.

The efficiency in the use of knowledge and information can be addressed statically and dynamically. From a static point of view, to effectively use knowledge and information would require their free distribution. Providing temporary exclusive rights through intellectual property rights will lead to pricing above marginal cost and a return on investment made in R&D and innovation. From this point of view, IPR introduce

inefficiency in use, distortions, the most problematic of which is the creation of monopoly power. Monopoly leads to both inequalities in consumption and distortions in resource allocation.

On the other hand, the free distribution of knowledge and information would create problems in stimulating innovation and here comes the dynamic efficiency. Therefore, the legal system includes on the one hand intellectual proprietary rights system, on the other hand the anti-trust system to limit abuses of monopoly power. Between competition policy and intellectual property related policies must strike a balance: Competition Policy envisages improving consumer welfare by constraining the behavior of companies that have market power; intellectual property rights confer some monopoly power to those who hold these rights.

Economic theory demonstrates that intellectual property rights can play a role either positive or negative on economic growth and development. The relationship is basically positive, but dependent on other factors that promote the benefits of intellectual property protection. Intellectual property protection systems should be based on market economy mechanisms and overcome the problems imposed by the creation and dissemination of information.

## Types of IP

In most countries, there are four primary types IP that can be legally protected, each having their own attributes, requirements and costs:

1) Patents

2) Trademarks

3) Copyrights

4) Trade Secrets

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the WTO (World Trade Organization). It sets down minimum standards for the regulation by national governments of many forms of IP as applied to nationals of other WTO member nations The TRIPS Agreement is Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on April 15, 1994.The TRIPs Agreement however, covers seven categories of IP Rights:

1) Copyright

Copyright (or author's right) is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings.

2) Trademarks

A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises.

3) Geographical Indications

A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place. In addition, the qualities, characteristics or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production, there is a clear link between the product and its original place of production.

4) Industrial Designs

5) Patents

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a

problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application.

6) Integrated Circuits

Integrated circuits, commonly known as *"chips"* or *"micro-chips"* - are the electronic circuits in which all the components (transistors, diodes and resistors) have been assembled in a certain order on the surface of a thin semiconductor material (usually silicon).

7) Trade Secrets

Any confidential business information which provides an enterprise a competitive edge may be considered a trade secret. Trade secrets encompass manufacturing or industrial secrets and commercial secrets.

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## CHAPTER II

# COPYRIGHT AND INFORMATION TECHNOLOGY

## I. Understanding Copyright & Related Rights

Copyright law is a branch of that part of the law which deals with the rights of intellectual creators. Copyright law deals with particular forms of creativity, concerned primarily with mass communication. It is concerned also with virtually all forms and methods of public communication, not only printed publications but also such matters as sound and television broadcasting, films for public exhibition in cinemas, etc. and even computerized systems for the storage and retrieval of information.

Copyright deals with the rights of intellectual creators in their creation. Most works, for example books, paintings or drawings, exist only once they are embodied in a physical object. But some of them exist without embodiment in a physical object. For example, music or poems are works even if they are not, or even before they are, written down by a musical notation or words.

Copyright law, however, protects only the form of expression of ideas, not the ideas themselves. The creativity protected by copyright law is creativity in the choice and arrangement of words, musical notes, colors, shapes and so on. Copyright law protects the owner of rights in artistic works against those who *"copy",* that is to say those who take and use the form in which the original work was expressed by the author.

### Copyright Protection

Copyright protection is above all one of the means of promoting, enriching and disseminating the national cultural heritage. A country's development depends to a very great extent on the creativity of its people, and encouragement of individual creativity and its dissemination is a *sine qua non* for progress.

Copyright constitutes an essential element in the development process. Experience has shown that the enrichment of the national cultural heritage depends directly on the level of protection afforded to literary and artistic works. The greater the number of a country's intellectual creations, the higher its renown; the greater the number of productions in literature and the arts, the more numerous their so- called *"auxiliaries"* (the performers, producers of phonograms and broadcasting organizations) in the book, record and entertainment industries; and indeed, in the final analysis, encouragement of intellectual creation is one of the basic prerequisites of all social, economic and cultural development.

Legislation could provide for the protection not only of the creators of intellectual works but also of the auxiliaries that help in the dissemination of such works, in respect of their own rights. The protection of these auxiliaries of intellectual creators is also of importance to developing countries since the cultural achievement of some of these countries includes, in no small measure, performance, sound recording and broadcasting of different creations of their folklore as well.

While developing countries are often in need of foreign books, especially in the field of science, technology, education and research, they could offer to the world an abundance of their national cultural heritage, which can be protected, within the framework of copyright legislation, through protection of the rights of these auxiliaries or of related (or *neighboring*) rights as they are called.

Adoption of the law is the first step. The practical value of the law depends on its effective and efficient application. This can be achieved through setting up of appropriate authors' organizations for collection and distribution of authors' fees. Copyright, if effectively implemented, serves as an incentive to authors and their assignees (the publishers) to create and disseminate knowledge. It is something that society must necessarily accept if it wishes to encourage intellectual creativity, to ensure the progress of the sciences, the arts and of knowledge in general, to promote the industry using authors' works and to render it possible to distribute such works in an organized manner among the widest possible circle of interested persons.

Copyright protection, from the viewpoint of the creator of works, makes sense only if the creator actually derives benefits from such works, and this cannot happen in the absence of publication and dissemination of his works and the facilitation of such publication and dissemination. This is the essential role of copyright in developing countries.

There are several factors influencing intellectual creativity in developing countries, apart from the pecuniary condition of most of the authors and intellectual creators themselves, who need to be offered incentives and subsidies. There is the shortage of paper for the production of textbooks for the process of continuing education (both formal and non-formal), and for production of prescribed and recommended books as also general books, which are to be placed within the reach of the common man in these countries.

The role of governments in this activity could include financial assistance in the creation and production of textbooks and other educational literature, inputs for training and also help for expansion of the library system, the creation of mobile libraries to serve far-flung and remote rural areas, etc. In this whole chain, the various links, namely authorship, publishing, distribution and fostering of the library movement on a broad base, cannot be underrated, and need to be carefully nurtured and coordinated.

In the late nineteenth and in the twentieth century considerable socio-economic and political changes on the one hand, and rapid strides in technological development on the other, have brought about substantial changes of outlook in relation to copyright. The freedom and expansion of the press, the gradual disappearance of the feudal order, the growth of adult training and mass education schemes, the raising of standards in higher education, the increase in the number of universities, institutions of higher learning and libraries, the emphasis on the use of national languages, the development of science and technology, the changed map of the world with the birth of a number of newly independent developing nations - all these factors have caused conceptual changes.

The challenge in this new situation is to maintain a balance between provision of adequate rewards to creators of works and ensuring that such rewards are in harmony with the public interest and the needs of modern society.

Economic rights have a time limit, which can vary according to national law. In those countries which are members of the Berne Convention, the time limit should be equal to or longer than 50 years after the creator's death. Longer periods of protection may however be provided at the national level.

## Subject Matter of Copyright Protection

The subject-matter of copyright protection includes every production in the literary, scientific and artistic domain, whatever the mode or form of expression. For a work to enjoy copyright protection, however, it must be an original creation. The ideas in the work do not need to be new but the form, be it literary or artistic, in which they are expressed must be an original creation of the author. And, finally, protection is independent of the quality or the value attaching to the work – it will be protected whether it be considered, according to taste, a good or a bad literary or musical work - and even of the purpose for which it is intended, because the use to which a work may be put has nothing to do with its protection.

Works eligible for copyright protection are, as a rule, all original intellectual creations. A non- exhaustive, illustrative enumeration of these is contained in national copyright laws. To be protected by copyright law, an author's works must originate from him; they must have their origin in the labor of the author. But it is not necessary, to qualify for copyright protection, that works should pass a test of imaginativeness, of inventiveness. The work is protected irrespective of the quality thereof and also when it has little in common with literature, art or science, such as purely technical guides or engineering drawings, or even maps. Exceptions to the general rule are made in copyright laws by specific enumeration; thus laws and official decisions or mere news of the day are generally excluded from copyright protection.

**Practically all national copyright laws provide for the protection of the following types of work:**

1) literary works: novels, short stories, poems, dramatic works and any other writings, irrespective of their content (fiction or non-fiction), length, purpose (amusement, education, information, advertisement, propaganda, etc.), form (handwritten, typed, printed; book, pamphlet, single sheet, newspaper, magazine); whether published or unpublished; in most countries *"oral works",* that is, works not reduced to writing, are also protected by the copyright law;

2) musical works: whether serious or light; songs, choruses, operas, musicals, operettas; if for instructions, whether for one instrument (solos), a few instruments (sonatas, chamber music, etc.), or many (bands, orchestras);

3) artistic works: whether two-dimensional (drawings, paintings, etchings, lithographs, etc.) or three-dimensional (sculptures, architectural works), irrespective of content (representational or abstract) and destination (*"pure"* art, for advertisement, etc.); maps and technical drawings;

4) photographic works: irrespective of the subject matter (portraits, landscapes, current events, etc.) and the purpose for which they are made;

5) motion pictures *("cinematographic works"):* whether silent or with a soundtrack, and irrespective of their purpose (theatrical exhibition, television broadcasting, etc.), their genre (film dramas, documentaries, newsreels, etc.), length, method employed (filming *"live",* cartoons, etc.), or technical process used (pictures on transparent film, videotapes, DVDs, etc.).

6) computer programs (either as a literary work or independently).

Many copyright laws protect also *"works of applied art"* (artistic jewelry, lamps, wallpaper, furniture, etc.) and choreographic works. Some regard phonograph records, tapes and broadcasts also as works.

## Rights Comprised in Copyright

The owner of copyright in a protected work may use the work as he wishes - but not without regard to the legally recognized rights and interests of others - and may exclude others from using it without his authorization.

Therefore, the rights bestowed by law on the owner of copyright in a protected work are frequently described as *"exclusive rights"* to authorize others to use the protected work. The original authors of works protected by copyright also have *"moral rights",* in addition to their exclusive rights of an economic character.

What is meant by *"using"* a work protected by copyright? Most copyright laws define the acts in relation to a work which cannot be performed by persons other than the copyright owner without the

authorization of the copyright owner. Such acts, requiring the authorization of the copyright owner, normally are the following:

1) copying or reproducing the work; performing the work in public;

2) making a sound recording of the work;

3) making a motion picture of the work;

4) broadcasting the work; translating the work;

5) adapting the work.

## Right of Reproduction and Related Rights

The right of the owner of copyright to prevent others from making copies of his works is the most basic right under copyright. For example, the making of copies of a protected work is the act performed by a publisher who wishes to distribute copies of a text-based work to the public, whether in the form of printed copies or digital media such as CD-ROMs. Likewise, the right of a phonogram producer to manufacture and distribute compact discs (CDs) containing recorded performances of musical works is based, in part, on the authorization given by the composers of such works to reproduce their compositions in the recording. Therefore, the right to control the act of reproduction is the legal basis for many forms of exploitation of protected works.

Other rights are recognized in national laws in order to ensure that the basic right of reproduction is respected. For example, some laws include a right to authorize distribution of copies of works. The right of distribution is usually subject to exhaustion upon first sale or other transfer of ownership of a particular copy, which means that, after the copyright owner has sold or otherwise transferred ownership of a particular copy of a work, the owner of that copy may dispose of it without the copyright owner's further

permission, for example, by giving it away or even by reselling it. Another right which is achieving wider and wider recognition, including in the TRIPS Agreement[35], is the right to authorize rental of copies of certain categories of works, such as musical works included in phonograms, audiovisual works, and computer programs. The right of rental is justified because technological advances have made it very easy to copy these types of works; experience in some countries has shown that copies were made by customers of rental shops, and therefore, that the right to control rental practices was necessary in order to prevent abuse of the copyright owner's right of reproduction. Finally, some copyright laws include a right to control importation of copies as a means of preventing erosion of the principle of territoriality of copyright; that is, the legitimate economic interests of the copyright owner would be endangered if he could not exercise the rights of reproduction and distribution on a territorial basis.

## Performing Rights

Another act requiring authorization is the act of public performance - for example, public readings, dramatic and musical performances before an audience. The right to control this act of public performance is of interest not only to the owners of copyright in works originally designed for public performance, but also to the owners of copyright, and to persons authorized by them, when others may wish to arrange the public performance of works originally intended to be used by being reproduced and published. For example, a work written originally in a particular way in order to be read at home or in a library may be transformed *("adapted")* into a drama designed to be performed in public on the stage of a theater.

## Recording Rights

The third act to be examined is the act of making a sound recording of a work protected by copyright. So far as music is concerned, sound recording is the most favored means of communicating a work to a wide public. This serves much the same purpose for musical works as books serve for literary works. Sound recordings can incorporate music alone, words alone or both music and words. The right to authorize the making of a sound recording belongs to the owner of the copyright in the music and also to the owner of the copyright in the words. If the two owners are different, then, in the case of a sound recording incorporating both music and words, the maker of the sound recording must obtain the authorization of both owners.

[35] <https://www.wto.org/english/docs_e/legal_e/27-trips.pdf>

Under the laws of some countries, the maker of a sound recording must also obtain the authorization of the performers who play the music and who sing or recite the words. This is another example of the fact that the owner of copyright in a work cannot use it or authorize the use of it in a way which is contrary to the legal rights of others.

## Motion Picture Rights

A *"motion picture"* is a visual recording, giving to viewers an impression of motion. In the technical language of copyright law, it is often called a *"cinematographic work"* or an *"audiovisual work"*. In some countries the word *"film"* is used instead of the expression *"motion picture"*. The expression *"motion picture"* is perhaps preferable, because such productions are, today, frequently made with technological methods (such as magnetic tape) which do not require the use of photographic film.

A drama originally written for performance by performers to an immediately present audience *("live performance")* can be visually recorded and shown to audiences far larger in numbers than those who can be present at the live performance; such audiences can see the motion picture far away from the place of live performance and at times much later than the live performance.

## Broadcasting Rights

A major category of acts restricted by copyright consists of the acts of broadcasting works and of communicating works to the public by means of wires or cables. When a work is broadcast, a wireless signal is emitted into the air which can be received by any person, within range of the signal, who possesses the equipment (radio or television receiver) necessary to convert the signal into sounds or sounds and images.

When a work is communicated to the public by cable, a signal is diffused which can be received only by persons who possess such equipment linked to the cables used to diffuse the signal. In principle, according to the Berne Convention for the Protection of Literary and Artistic Works, owners of copyright have the exclusive right of authorizing both the wireless broadcasting and the diffusion by cable of their works.

The broadcasting and diffusion by cable of works protected by copyright have given rise to new problems resulting from technological advances which may require a review by governments of their national copyright legislation. The advances include the use of space satellites to extend the range of wireless signals,

the increasing possibilities of linking radio and television receivers to signals diffused by cable, and the increasing use of equipment able to record sound and visual images which are broadcast or diffused by cable.

## Translation and Adaptation Rights

The acts of translating or of adapting a work protected by copyright require the authorization of the copyright owner. *"Translation"* means the expression of a work in a language other than that of the original version.

*"Adaptation"* is generally understood as the modification of a work from one type of work to another, for example adapting a novel so as to make a motion picture, or the modification of a work so as to make it suitable for different conditions of exploitation, for example adapting an instructional textbook originally prepared for higher education into an instructional textbook intended for students at a lower level.

Translations and adaptations are themselves works protected by copyright. Therefore, in order, for example, to reproduce and publish a translation or adaptation, the publisher must have the authorization both of the owner of the copyright in the original work and of the owner of copyright in the translation or adaptation.

## Moral Rights

The Berne Convention requires member countries to grant to authors:

1) the right to claim authorship of the work;

2) the right to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the work which would be prejudicial to the author's honor or reputation.

These rights, which are generally known as the moral rights of authors, are required to be independent of the usual economic rights and to remain with the author even after he has transferred his economic rights.

## Related Rights

There exist rights related to, or *"neighboring on",* copyright. These rights are generally referred to as

"related rights" (or *"neighboring rights")* in an abbreviated expression.

It is generally understood that there are three kinds of related rights: the rights of performing artists in their performances, the rights of producers of phonograms in their phonograms, and the rights of broadcasting organizations in their radio and television programs. Protection of those who assist intellectual creators to communicate their message and to disseminate their works to the public at large, is attempted by means of related rights.

Works of the mind are created in order to be disseminated among as many people as possible. This cannot be done generally by the author himself, for it requires intermediaries whose professional capability gives to the works those forms of presentation that are appropriate to make them accessible to a wide public. A play needs to be presented on the stage, a song needs to be performed by artists, reproduced in the form of records or broadcast by means of radio facilities.

All persons who make use of literary, artistic or scientific works in order to make them publicly accessible to others require their own protection against the illegal use of their contributions in the process of communicating the work to the public.

The protection of authors' interests does not consist merely in preventing the use of their creations and cannot be limited to prohibiting infringements of the rights that laws afford to the authors. Their works are intended to be made available to the public at large. Various categories of works are made accessible to the public in various ways. A publisher reproduces a manuscript in its final form without adding to the expression of the work as created by the author. The interests of book publishers are protected by means of copyright itself and laws do recognize that copyright is essential as a stimulus to creative writing, as also to support the economies of publishing.

The position is slightly different with regard to dramatic and musical works, pantomimes, or other types of creative works intended for either auditive or visual reception. Where some of such works are communicated to the public, they are produced or performed or recited with the aid of performers. In such cases, there arises the interest of the performers themselves in relation to the use of their individual interpretation in the performed work.

The problem in regard to this category of intermediaries has become more acute with rapid technological developments. Where, at the very beginning of the 20th century, the performance of dramatists, actors, or musicians ended with the play or concert in which they performed, it is no longer so with the advent of the phonograph, the radio, the motion picture, the television, the videogram and satellites.

These technological developments made possible the fixing of performances on a variety of material, viz., records, cassettes, tapes, films, etc. What was earlier a localized and immediate phase of a performance in a hall before a limited audience became an increasingly permanent manifestation capable of unlimited and

repeated reproduction and use before an equally unlimited audience that went beyond national frontiers. The development of broadcasting and more recently, television, also had similar effects.
These technological innovations, since they have made it possible to reproduce individual performances by performing artists and to use them without their presence and without the users being obliged to reach an agreement with them, have led to a reduction in the number of live performances. This creates what has come to be known as technological unemployment among professional artists, thus giving a new dimension to the protection of the interests of performers.

Likewise by the very same token, the increasing technological development of phonograms and cassettes and, more recently, compact discs (CDs), and their rapid proliferation, was pointing to the need of protection of producers of phonograms. The appeal of the phonogram, as also the easy availability in the market of the variety of increasingly sophisticated recording devices, created the growing problem of piracy, which by now has become a worldwide scourge. In addition, there is the increasing use of records and discs by broadcasting organizations; while the use of these by the latter provides publicity for the phonograms and for their producers, these also have, in turn, become an essential ingredient of the daily programs of broadcasting organizations. Consequently, just as the performers were seeking their own protection, the producers of phonograms began to pursue the case of their protection against unauthorized duplication of their phonograms, as also for remuneration for the use of phonograms for purposes of broadcasting or other forms of communication to the public.

Finally, there were the interests of broadcasting organizations as regards their individually composed programs. The broadcasting organizations required their own protection for these as well as against retransmission of their own programs by other similar organizations.

Thus the need was felt for special protection for performers, producers of phonograms and broadcasting organizations. The performers through their organizations at the international level sought a study leading to their protection. While a performer would be paid once for recording a performance, and the recording of the performance could be played repeatedly for the benefit of a third party, the performers felt that they would not only not derive any income from such secondary use, but would also be placed in the awkward position of having to compete with their own recordings in respect of their employment potential for live performances in theaters, restaurants, cafés, etc.

Unlike most international conventions, which follow national legislation and provide a synthesis of existing laws, the Rome Convention was an attempt to establish international regulations in a new field where few national laws existed. This meant that most States would have to draft and enact laws before adhering to the Convention. Since the adoption of the Convention in 196l, a large number of States have legislated in matters related to the Convention, and a number of others are considering such legislation. The notion of

Related Rights is understood as meaning rights granted in an increasing number of countries to protect the interests of performers, producers of phonograms and broadcasting organizations in relation to their activities in connection with the public use of authors' works, all kinds of artists' presentations or the communication to the public of events, information, and any sounds or images. The most important categories are: the right of performers to prevent fixation and direct broadcasting or communication to the public of their performance without their consent; the right of producers of phonograms to authorize or prohibit reproduction of their phonograms and the import and distribution of unauthorized duplicates thereof; the right of broadcasting organizations to authorize or prohibit rebroadcasting, fixation and reproduction of their broadcasts. An increasing number of countries already protect some or all of these rights by appropriate rules codified mainly within the framework of their copyright laws. Several countries also grant a sort of moral right to performers to protect them against distortion of their performances and grant them the right to claim the mention of their name in connection with their performances. Some countries also protect the interests of broadcasting organizations by preventing the distribution on or from their territory of any program- carrying signal emitted to or passing through a satellite, by a distributor for whom the signal is not intended. No protection of any related right can, however, be interpreted as limiting or prejudicing the protection secured to authors or beneficiaries of other related rights under a national law or an international convention.

Protection of performers is provided in order to safeguard the interests of actors, singers, musicians, dancers, or other persons who act, sing, deliver, declaim, play in or otherwise perform literary or artistic works, or expressions of folklore, against certain unlawful uses of their performances. The term *"producer of phonograms"* denotes a person who, or a legal entity which, first fixes the sounds of a performance or other sounds. A phonogram is any exclusively aural fixation of sounds of a performance or of other sounds. A duplicate of a phonogram is any article containing sounds taken directly or indirectly from a phonogram and which embodies all or a substantial part of the sounds fixed in that phonogram. Gramophone records (discs), magnetophone cassettes and compact discs are duplicates of a phonogram. Broadcasting is usually understood as meaning telecommunication of sounds and/or images by means of radio waves for reception by the public at large. A broadcast is any program transmitted by broadcasting, in other words, transmitted by any wireless means (including satellite transmissions) for public reception of sounds and of images and sounds.

Communication to the public by wire is generally understood as meaning the transmission of a work, performance, phonogram or broadcast by sounds or images through a cable network to receivers not restricted to specific individuals belonging to a private group.

By first fixation of sounds is meant the original embodiment of sounds of a live performance, or of any other sounds not taken from another existing fixation, in some enduring material form such as tapes, records

or any other appropriate device permitting them to be perceived, reproduced or otherwise repeatedly communicated. First fixation of sounds is not to be confused with first publication of a phonogram.

Another notion, that of rebroadcasting, is either simultaneous transmission of a broadcast of a program being received from another source, or a new, deferred broadcast of a formerly recorded program transmitted or received earlier. Finally, it must be stated that since in the cultural life of countries, including the developing countries, due importance is attached to the artistic heritage, the protection of related rights affords rights to those who contribute to the interpretation and dissemination of that heritage. It is particularly important for some developing countries whose tradition is largely oral and where the author is often the performer as well. In this context, the place occupied by works of folklore must be borne in mind, and the interests of the artists performing and thus perpetuating them must be safeguarded when use is made of their performances. By also protecting the producers of phonograms, particularly in developing countries, the basis for setting up an industry in the tertiary sector of the economy is ensured. Such an industry, while guaranteeing the dissemination of national culture, both within the country and throughout the world, can additionally constitute a substantial source of revenue for the country's economy and, in those cases where its activities extend beyond the country's frontiers, can represent an inflow of foreign currency. The part played by the broadcasting organizations in

developing countries should also not be forgotten, nor that such organizations have a natural interest in the protection of their programs against rebroadcasting, reproduction and communication to the public.

## Ownership of Copyright

The owner of copyright in a work is generally, at least in the first instance, the person who created the work, that is to say, the author of the work. There can be exceptions to this general principle. Such exceptions are regulated by the national law. For example, the national law may provide that, when a work is created by an author who is employed for the purpose of creating that work, then the employer, not the author, is the owner of the copyright in the work. It is to be noted, however, that the *"moral rights"* always belong to the author of the work, whoever may be the owner of the copyright.

In many countries, copyright (with the exception of moral rights) may be assigned. This means that the owner of the copyright transfers it to another person or entity, who becomes the owner of the copyright. In some other countries, an assignment of copyright is not legally possible. However, very nearly the same practical effect as the effect of assignment can be achieved by licensing. Licensing means that the owner of the copyright remains the owner but authorizes someone else to exercise all or some of his rights subject

to possible limitations. When such authorization or license extends to the full period of copyright and when such authorization or license extends to all the rights (except, of course, the moral rights) protected by copyright, the licensee is, vis-à-vis third parties and for all practical purposes, in the same position as an owner of copyright.

## Limitations on Copyright Protection

Temporal: Copyright does not continue indefinitely. The law provides for a period of time, a duration, during which the rights of the copyright owner exist. The period or duration of copyright begins with the creation of the work. The period or duration continues until sometime after the death of the author. The purpose of this provision in the law is to enable the author's successors to have economic benefits after the author's death. It also safeguards the investments made in the production and dissemination of works.

In countries which are party to the Berne Convention, and in many other countries, the duration of copyright provided for by national law is the life of the author and not less than fifty years after the death of the author. In recent years, a tendency has emerged towards lengthening the term of protection.

Geographic: The second limitation or exception to be examined is a geographical limitation. The owner of the copyright in a work is protected by the law of a country against acts restricted by copyright which are done in that country. For protection against such acts done in another country, he must refer to the

law of that other country. If both countries are members of one of the international conventions on copyright, the practical problems arising from this geographical limitation are very much eased.

Permitted Use: Certain acts normally restricted by copyright may, in circumstances specified in the law, be done without the authorization of the copyright owner. Such examples include reproduction of a work exclusively for the personal and private use of the person who makes the reproduction; another example is the making of quotations from a protected work, provided that the source of the quotation, including the name of the author, is mentioned and that the extent of the quotation is compatible with fair practice.

Fair Use: The primary objective of copyright is not to reward the labor of authors, but "[t]o promote the Progress of Science and useful Arts. To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art.

The fair use provision of the Copyright Act allows reproduction of a copyrighted item for general purposes of criticism, comment, news reporting, teaching, scholarship and research. To determine whether use of a work is fair use or not is determined by these four factors:

1) Purpose and character of use. If use of the item is for non-commercial purposes, such as a book review or education.

2) Nature of the copyrighted work. If the item were factual versus being a creation.

3) Amount and substantiality of the portion used. How much of the original work was copied and whether the copied portion is considered the "essence" of the work.

4) Commercial value of the item. Fair use if the item is not a substitute for the copyrighted work.

With the sanction of fair use, copyright protection is balanced and creates an environment in which there is a free flow of information, a structure in which information may be passed to the public domain, and a means by which art, science, and literature do progress.

Non-Material Works: In some countries, works are excluded from protection if they are not fixed in some material form. In some countries, the texts of laws and of decisions of courts and administrative bodies are excluded from copyright protection. It is to be noted that in some other countries such official texts are not excluded from copyright protection; the government is the owner of copyright in such works and exercises those rights in accordance with the public interest.

Miscellaneous: In addition to exceptions based on the principle of *"fair use"* other exceptions are to be found in national laws and in the Berne Convention. For example, when the broadcasting of a work has been authorized, many national laws permit the broadcasting organization to make a temporary recording of the work for the purposes of broadcasting, even if no specific authorization of the act of recording has been given. The laws of some countries permit the broadcasting of protected works without authorization, provided that fair remuneration is paid to the owner of copyright. This system, under which a right to remuneration can be substituted for the exclusive right to authorize a particular act, is frequently called a system of *"compulsory licenses".* Such licenses are called *"compulsory"* because they result from the operation of law and not from the exercise of the exclusive right of the copyright owner to authorize particular acts.

## II. Copyright in Cyberspace

The advancement of information technology and the dawn of the information society, intellectual property law has to be adapted to fit the new way of life. The key business of the Internet is computer

.It is the largest and the most efficient distribution mechanism that has existed to date and at the same time it plays host to the largest number of piracy websites, from where one can download software. Books, movies and music are reproduced easily with a few clicks of the mouse, often making it difficult to differentiate an original from a copy. Considering the extent to which computer programmes and communications software are growing in market size and with great economic value, copyright protection is extremely important and essential. Even earlier, copyright has been supported by the judges who have usually been sympathetic to the principle of protecting the result of a person's skill or effort.

By sophisticated copying methods and with the help of internet, if one's work is disseminated over the Internet; it becomes almost impossible for the copyright owner to control further dissemination without adequate protection. The benefits to the user may also come with drawbacks. These drawbacks may become increasingly apparent from the enhanced control that copyright owners can be able to exert over access to works protected by copyright, and over further re-use. To control dissemination and copying of works, copyright owners have been developing technological protection measures like *Electronic Copyright Management Systems (ECMS)*[36].These systems, in their most advanced form, allow the copyright owner to dictate when, and who, may access a work. Legislations (DMCA[37] and EUCD[38]) apparently give legal backing for the technical measures used to control access to works. The users fear two consequences will

[36] Electronic Copyright Management Systems (ECMS) is a scheme to make digital works harder to copy and easier to license.

[37] DMCA (Digital Millennium Copyright Act) is a 1998 US copyright law that implements two 1996 treaties of the WIPO. It criminalizes production and dissemination of technology, devices, or services intended to circumvent measures that control access to copyrighted works (commonly known as digital rights management or DRM). It also criminalizes the act of circumventing an access control, whether or not there is actual infringement of copyright itself. In addition, the DMCA heightens the penalties for copyright infringement on the Internet.

[38] EUCD (European Union Copyright Directive) is a controversial European directive that evolved out

of the WIPO Copyright Treaty (WCT). Because the EUCD provides full copyright ownership rights, little exception is provided for anti-circumvention, unlike U.S. copyright legislation.Officially known as the European Union's Directive 2001/29/EC, EUCD is also known as the Information Society Directive or InfoSoc Directive.

flow from this enhanced control exerted by copyright owners. The first is that the public domain will be locked away, accessible and usable only at the behest of the copyright owner. The second is that creative works will only be accessible on a pay-per-view business model, with the result that only those who can afford to pay will be granted access. As a result, the balance between the private property rights and the public interest has seems to be tilted in favour of the former.

Copyright protection gives the author of work a certain *'bundle of rights'* including the exclusive right to reproduce the work in copies, to prepare derivative works based on the copyright work and to perform or display the work publicly. All these rights come into play in a network environment It should be kept in mind that the principles of copyright that govern these rights are the same irrespective of the work being digital in nature or otherwise.

DMCA forms the legal framework for rights management in digital works, such as copyrights. *"DMCA protected"* is redundant, since any copyrighted work is already protected by the DMCA, at least in the US. DMCA's principal innovation in the field of copyright is the exemption from direct and indirect liability of Internet service providers and other intermediaries. This exemption was adopted by the *European Union in the Electronic Commerce Directive 2000*[39]. The Copyright Directive 2001 implemented the 1996 *WIPO Copyright Treaty* (WCT)[40] in the EU.

A DMCA notice informs a company, web host, search engine, or internet service provider that they are hosting or linking to material that infringes on a copyright. A DMCA notice is also known as a DMCA takedown notice or a DMCA request.

EUCD was established June 22, 2001 by the European Parliament and Council of the European Union (EU). The directive, geared toward harmonizing diverse European copyright approaches, was created to implement WCT and the WIPO Performances and Phonograms Treaty (WPPT)[41].

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[39] Electronic Commerce Directive 2000/31/EC is a European Union Directive of the European Parliament and of the Council from June 08, 2000. It regulates certain legal aspects of information society services in the Internal Market, in particular electronic commerce and mere conduit.

[40] WCT (WIPO Copyright Treaty) is a special agreement under the Berne Convention which deals with the protection of works and the rights of their authors in the digital environment. In addition to the rights recognized by the Berne Convention, they are granted certain economic rights. The Treaty also deals with two subject matters to be protected by copyright:

1) computer programs, whatever the mode or form of their expression; and
2) compilations of data or other material ("databases").

[41] WIPO Performances and Phonograms Treaty (WPPT) deals with the rights of two kinds of beneficiaries, particularly in the digital environment:

1) performers (actors, singers, musicians, etc.); and
2) producers of phonograms (persons or legal entities that take the initiative and have the responsibility for the fixation of sounds).

Because EUCD makes no exceptions for anti-circumvention applications, the use of potentially relevant digital media is prohibited in European colleges and universities. While member states may apply for copyright permission, they are limited by EUCD regulations. Implementing EUCD has been universally challenging, due to technology's varying interpretations, implementations and provisions, such as digital watermarking and encryption. However, businesses - such as movie studios, record labels and software manufacturers - are generally in favour of EUCD's stringent copyright stipulations. Today, EU members remain at odds over EUCD. Thus, the directive and related legislation are under constant review by the European courts.

Hence the US and the EU both appear to have adopted similar standards with regard to the questions of access and *'pay-per-view'* business models. The US has made it clear that circumvention of access controls is outlawed under the DMCA. While the EU appears to be making an attempt to allow for circumvention of controls, these only apply once lawful access has been gained to the work. In US and EU both, it appears, that access to the public domain, and the price of that access, is left to the dictate of market forces.

The initiative of an author to authorize his work to be digitized can have benefits and also carry risks. Among the benefits are the opening up of new markets and new opportunities to publicise the work (and offer better access to it). Among the risks are the danger of unauthorized copies and unauthorized use of the work. In the context of document information management, we can view ECMS as a necessity and an imposition.

**However, ECMS have the following definite advantages:**

1) ECMS gives authors feedback from statistics for reading/searches of their work in real time - This makes it possible to have in an organised and systematic way statistics on how many people accessed a certain paper, for instance, or an image or diagram in a specific work. This can ultimately help the author to determine the success or failure of his work and in this way be an incentive (or not) for the author to produce further works;

2) New source of revenue for authors - In the absence of ECMS, authors would publish their works in the traditional way (i.e. paper magazines, scientific journals) or on the Web, making them available mostly free of charge. With the emergence of ECMS, authors can have a new source of revenue that can be complimentary to traditional publication;

3) Incentive not to copy - Quite often, due to the small imprints of certain works, there are many works with limited numbers of printed copies in the face of what is really required by the market, and they therefore sell out quickly. As a result of this, the unauthorised copy will necessarily occur because

people won't be able to access these particular works. With ECMS, the works are always available and this problem won't occur;

4) Access control - ECMS invariably involves an element of security and access control, which enables the restriction of who uses what information. This makes it possible to stop unauthorised use (without prior consent) of the works;

5) More and better contents - There is a tendency with ECMS for authors to produce more (and better) contents once they know that their works may have some sort of compensation (academic and/or financial);

6) Editorial control quality - Since most of the information available through these systems must be paid for, one has to necessarily guarantee its quality - this can be assured by referees.

**The use of ECMS also has some disadvantages:**

1) Restrictions on information access - Once the access and use of the information must be paid for, ECMS are tacitly restricting access to it, since there are several people that will be unwilling (for several reasons) to pay for the information, and thus to be granted access to it;

2) Implementation and running costs - ECMS implementation has several costs, from which the following are taken:

3) Personnel costs - informatics professionals to implement and run the service, and referees to select the works present;

4) Costs of hardware and software - to these costs one must add the costs of developing specific application software and the possible acquisition of complimentary modules to the system.

5) Payment systems not secure - Nowadays there are still reservations regarding some payment systems. A good option is to implement a system where a payment is made in the first place and the corresponding amount is credited into the personal/corporate account that will be used in the future. Another possibility is to go for electronic payment systems (directly or indirectly connected to credit cards), and some of these are still not regarded by certain users as being safe;

6) High complexity of some access control and payment means - Some of the available options of access control and some of the available payment mechanisms are complex to use, which in practical terms may deter some people from using them, or of using them incorrectly;

7) No privacy - Most of the ECMS include a user behavior control component: what they acquire; preferred contents/works; rates of usage of the system. This data may be transmitted to publishers and/or to authors, and in this way, break users' privacy. In this context, the identity of the users should be anonymous; but this raises questions related to certain payment systems which require user authentication, for instance.

It is becoming apparent that the digital era is advantageous for copyright owners for the time being at least. To what extent, users are losing is not yet clear. The existing exceptions and limitations to the rights should have to be reassessed by making empirical research in the light of the new electronic environment (access control measures) and if it is found unfairly tilted then need to be fairly balanced. A fair balance of rights and interests between the different categories of right holders, as well as between the different categories of right holders and users of protected subject-matter must be safeguarded.

## III. Idea – Expression Dichotomy

Copyright is a right given to or derived from works and it is not a right in novelty only of ideas. Copyright essentially protects the works of an author or creator and prevents others from copying such original work. It does not, however, bar others from coming to the same result through an independent process.

There exists no copyright in ideas. Copyright subsists only in the material form to which the ideas are translated. Two authors may have the same idea for a book. However the way they express themselves i.e., the way they put down their idea in a tangible form is what that makes a difference. It is the form in which a particular idea, which is translated that is, protected.

The primary reason for granting protection to expressions and not ideas is to protect the free flow of ideas. Ideas are too valuable to be copyrighted. The copyrighting of ideas would eventually bring creativity and innovation to a standstill. It is for this reason that the freedom to copy ideas is central to the structure of copyright law.

The idea-expression dichotomy poses a major challenge in distinguishing between the two. The absence of a statutory provision necessitates reliance on several case laws that attempt at chalking out a clear distinction between the two. An important case in this regard is that of *RG Anand v. Deluxe Films*[42]. The plaintiff was the author of a play called *Hum Hindustani*. In 1954, the defendant Mohan Sehgal sent a letter to the plaintiff

[42] AIR 1978 SC 1613.

expressing his desire to make a movie based on the play. The plaintiff and the defendant met and discussed the entire play. The defendant did not commit anything, but the plaintiff later came to know that the defendant released a movie titled *New Delhi*. After watching the movie, the plaintiff was of the opinion that it is based on the story of his play. So he filed a suit against the defendant for permanent injunction and damages. Both the District Court and the High Court ruled against the plaintiff on a finding of the facts. The case finally reached the Supreme Court of India. The Supreme Court held that the movie cannot be considered to be an infringement of the script of the play. The reason it gave was that though the idea behind both the stories was the same, the manner in which both had been expressed were vastly different from each other. Therefore it cannot be held to be copyright infringement.

More recently, in the case of *Mansoob Haider v. Yashraj Films*[43], the Bombay High Court reiterated on the fact that ideas are not copyrightable. The residue left behind after filtering out dissimilarities is the idea which is not copyrightable and similarity of ideas does not lead to copyright infringement.

Not all ideas can be expressed creatively. Often, there are ideas that can be expressed in only a particular way. In such a case, copyrighting the expression would amount to the copyrighting of the idea that would in turn stall the free flow of ideas. In every such case where the expression is necessary to effectively communicate an idea, courts apply the *Merger Doctrine*[44] to find that no copyright subsists. The Merger Doctrine primarily seeks to address the point where ideas and expressions converge.

An important case in this regard is that of *Morrisey v. Proctor & Gamble Co*[45]. This case primarily dealt with a competition/contest and whether its rules are a subject for copyright. The court held that the idea of the contest is merged with the rules. Copyrighting the rules would amount to copyrighting the idea of the contest and therefore the rules are not a subject matter of copyright. Likewise, in the case of *Joshua Et-Hokin v. Skyy Spirits Inc*[46] the question arose about some photographs of the iconic blue bottle of Skyy Spirits. The Court held that since there are only a few ways in which a bottle can be photographed, the pictures cannot seek copyright protection.

[43] Notice of Motion (L) No. 502 of 2014 in Suit No. 219 of 2014.
[44] Merger Doctrine is a principle of copyright law which says when there is only one or limited number of ways to express an idea, copyright law will not protect the expression because it has *"merged"* with the idea. When the idea and expression are very difficult to separate, they are said to merge.

[45] 379 F.2d 675 (1st Cir. 1967)
[46] 225 F.3d 1068 (9th Cir. 2000)

Cases in the present have been decided on the basis of the above cases. However one fails to realize that this undermines the effort invested by the author or the creator. For example, consider the photographs of the bottle. It is obvious that the no two photographs of the bottle clicked by two different photographers can be the same. Even the variation in a slight angle can cause a huge difference. In such cases, the idea-expression dichotomy proffers no solution and is therefore, at times, inadequate.

## IV. Commissioned Work & Work for Hire

In art, a commission is the act of requesting the creation of a piece, often on behalf of another. Artwork may be commissioned by private individuals, by the government, or businesses. Commissions often resemble endorsement or sponsorship. In the current world, commissioned work has work has moved out of the realms of art and include many other forms of creativity – like undertaking research, generating software codes, etc.

A commission is also an order for someone to do something and get paid, for example an artist received a commission for a new painting to hang in the building lobby. Ownership of copyright initially belongs to the author or authors of the work. The "author" is generally the individual who created the work, but there is an exception for *"works made for hire"*.

Generally, the person who creates a work is considered its *"author"* and the automatic owner of copyright in that work. However, under the work made for hire doctrine, your employer or the company that has commissioned your work, not you, is considered the author and automatic copyright owner of your work.

In the copyright law of the US, a work for hire[47] is a work subject to copyright that is created by an employee as part of his or her job, or some limited types of works for which all parties agree in writing to the WFH designation. *Work for* hire is a statutorily defined term[48], so a work for hire is not created merely because parties to an agreement state that the work is a work for hire. It is an exception to the general rule that the person who actually creates a work is the legally recognized author of that work. According to copyright law in the US and certain other copyright jurisdictions, if a work is *"made for hire"*, the employer - not the employee - is considered the legal author. In some countries, this is known as corporate authorship. The entity serving as an employer may be a corporation or other legal entity, an organization, or an individual.

[47] or work made for hire or WFH.
[48] 17 USC § 101.

When work is commissioned by a client, the copyright will not belong to the client. An example of commissioned work would be that of a photographer who can retain copyright over all his photographs. Work made for hire and commissioned work are different from one another because work made for hire involves an employee and commissioned work is executed by an independent contractor. The parties

can execute a written agreement clarifying if they would like the copyright to be vested in the client. In the absence of an agreement, copyright over the commissioned work would automatically vest in the independent contractor.

The Copyright Act defines the "work made for hire" doctrine as

1) a work prepared by the employee within the scope of his or her employment; or

2) certain enumerated categories of work that are specially ordered or commissioned.

A work created by an employee within the scope of his or her employment is a work made for hire. The employer for whom the work is made is the *"author"* of the work for copyright purposes and is the owner of the work's copyright (unless the employee and employer have agreed otherwise). The work made for hire rule does not give employers ownership of works made by employees outside the scope of their employment.

## V. Software – Copyright vs. Patent

The debate between copyright and patent is an old conversation regarding software. The US Supreme Court has been dealing with this since 1879[49]. The court's decision described the difference between these two legal protections.

Computer software or programs are instructions that are executed by a computer. These are in the form of source codes and object codes, which take a lot of skill, time and labour to develop them. Computer programs have a market value and hence can be copied and used by unauthorized persons. These should hence be protected under a strict legal regime. Software can be protected under copyright law, and inventions related to software may as well be protected under patent law.

[49] Baker v. Selden, 101 US 99, 25 L. Ed. 841, (1879)

The Copyright Act *of India*[50] was amended to include *'computer program'* as *'literary work'*. Further, Section 2(ffc) of the Act defines 'Computer program' as a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result[51]. Hence, software program can certainly be protected under Copyright law.

Copyright protection extends for author's lifetime plus 60 years. Hence, protecting software program under copyright law (which in any case is automatic) may arrear to be attractive. However, it has to be noted that copyright protects expression of an idea and not the idea itself. Hence, in the case of software programs, it is the software program that is protected, and not the functionality of the software programs. Hence, it may not be a good idea to rely solely on copyright law to protect *software related invention.* One may wish to explore the option of protecting software related inventions using patents.

A software patent is defined by the Foundation for a Free Information Infrastructure (FFII) as being a *"patent on any performance of a computer realized by means of a computer program".* While The Indian Patent Act allows a new product or process involving an inventive step and capable of industrial application to be patentable, it also provides a list of subject matter that cannot be patented. Section 3 of the Act lists down subject matter that cannot be patented, and Section 3(k) specifically states that *"computer program per se"* is not a patentable subject matter.

Most countries place some limits on the patenting of invention involving software. For example, US patent law excludes *"abstract ideas"*, and this has been used to refuse some patent applications involving software. In Europe, "*computer programs as such*" are excluded from patentability. The EPO holds that a program for a computer is not patentable if it does not have the potential to cause a *"further technical effect"* beyond the inherent technical interactions between hardware and software.

It is important to note that a computer program (source code) may not be patentable as such, but it does not mean that a software invention cannot be patented. One way of determining whether a software invention will be considered patentable subject matter or not, is by trying to judge whether the software invention offers a technical solution to a technical problem. The invention may be consider a patentable subject matter

[50] < http://www.copyright.gov.in/Documents/Copyrightrules1957.pdf>
[51] < http://www.copyright.gov.in/Documents/Copyrightrules1957.pdf>

if the software invention offers a technical solution to a technical problem. A software invention once patented, will be valid for 20 years.

A patent over a software invention can be used to prevent others from utilizing a certain algorithm without permission, or to prevent others from creating software programs that perform patent protected functions. In contrast, copyright law protects only the expression of an idea and not the idea itself. In other words, copyright can only prevent the copying of a particular expression of an idea i.e. copying of source code or a portion of it, and not the copying of the idea/functionality. Hence, patents offer much broader protection.

There are significant differences in protection offered by patent and copyright. Some major contrasting features of these two forms of protection are illustrated below.

1) Patent law protects functional aspects of an invention. Copyright protects the idea that is expressed. Under copyright, the form of expression is protected, and not the idea or concept.

2) Copyrights become effective the moment a work is created in a fixed, tangible form of expression. Patents need to be applied for before the same is made public (some countries provide a grace period for filing a patent application post public disclosure).

3) Copyright protection extends for author's lifetime plus 60 years (may vary based on the type of work being copyrighted), whereas term of a patent is 20 years.

Any software program, whether there is an inventive aspect involved or not, is protected under copyright. However, the dilemma of whether to opt for patent protection arises when there is an inventive aspect associated with a software product or a process. In case the software product or a process has inventive aspects, then one should definitely explore the option of protecting the same using patents. The reason being, protection offered by patents as compared to copyright is much broader and stronger.

## VI. Multimedia & Copyright

Multimedia and multimedia materials are combinations of data, texts, still images, animations, moving images, and sounds. Multimedia materials may be found on videotapes, audiotapes, and laser disks; digitized multimedia materials may reside on floppy disks, CD-ROMs, digital tapes, and the hard disks of networked computer servers, including World Wide Web servers.

Definitely, multimedia comprises a parking lot of many different brands, shapes, contexts and each and all of those brands, shapes and contexts are to be assumed by any user or viewer of multimedia to be protected by copyright. It is with this assumption, at this early stage of development, that the creation of multimedia can be a maddening, circuitous maze of undefined latitudes. With the ever-quick advancement of computer and web technology, the legal profession remains abashed in its efforts to disentangle the web mess. Educators are making their own judgments concerning fair use since there are no clear-cut fair use guidelines to follow. In March 1997, the "*Fair Use Guidelines for Educational Multimedia"*[52] was presented by representatives of copyright owners and educators. The guidelines address length and frequency of copyrighted text, images, motion pictures, software and music and the circumstances under which their use in the creation of educational multimedia may be considered *"fair use"*.

Although the copyright owner of a multimedia website has every element of his website copyrighted, every element (any of the graphic, animation, photograph, sound or video captions of the work) is exposed to the public at large because of the nature of the Internet. Needless to say, the public may or

may not respect copyright protection and if not, elements may be copied and/or the page may be used as a link to that person's website thereby causing even more people to link and copy, and so the circle continues. Questions of how to monitor or how to receive remuneration for use of the link still need to be answered.

In creating a multimedia or derivative work, the author of that work has to have permission to use any element of a previously copyrighted work, and, since we are to assume that each item is copyrighted, obtaining permission to use can be overwhelming and costly. For instance, for a photograph, image, sound or video clip, the author has to locate who to credit for each of the elements and send a request to use the element from the copyright holder. The copyright holder will reply with permission to use the element but if that copyright holder is not the sole owner of the element, the author then has to repeat the process until the author finds the true copyright holder and receives the holder's permission. The fact that these elements are in different media also contributes to the problem of obtaining permission as each media may have its own set of guidelines to get that permission.

The process can be even more complicated in that the copyright holder may have moved, live overseas, gone out of business, sold the business to someone else and assigned the copyright to another person, or that the author cannot locate the source of credit. In any of these cases, the author is to take as many reasonable steps towards locating the copyright holder as possible.

Permission to use sound can be even more overwhelming. To obtain the rights to a single song, the multimedia developer would have to obtain rights from the music publisher (the owner of the copyright in

[52] <http://depts.washington.edu/uwcopy/Using_Copyright/Guidelines/Fair.php>

the *'musical composition'*) and the record company (the owner of the copyright in the '*sound recording'*) and a release from the artists. If the developer wants to use the music with video, he or she will also need a *'synchronization license'*. In addition, the copyrights of many musical compositions are owned by more than one company, and the developer would need to obtain permission from each owner. In addition, a synchronization license will be needed if the movie is to be combined with a video. To obtain permission to use a video clip may also involve the same type of procedure.

To an extent, by placing a copyrighted material on the Internet, the author is giving implied permission to the public at large to copy and use the material for any purpose. *"Copyright law does recognize that permission to use copyrighted material can be implied from a copyright owner's conduct or from custom"*. For example, when a website is placed on the Internet, implied consent is given to make a temporary copy in RAM in order to view the site, or if an Internet user requests its provider to place a message in the bulletin board, again, the user is given implied permission to the provider to display the message. What is not yet legally determined is whether it is implied license to transfer the RAM copy into the hard drive or not (unless the item is fair use). It would appear that if the copy from the hard

drive were printed and sold commercially, that this would be a copyright infringement and not the fact that the copy were just in the hard drive (personal use). Access to the Internet does not automatically mean that these works can be reproduced and reused without permission or royalty payment.

## VII. Infringement, Piracy & Remedies

The rights of an owner of copyright are infringed when one of the acts requiring authorization of the owner is done by someone else without his consent. The unauthorized copying of copyright materials for commercial purposes and the unauthorized commercial dealing in copied materials is known as *"piracy"*.

Incidence of Piracy: An essential part of piracy is that the unauthorized activity is carried on for commercial gain. This element of commercial gain implies that piracy will often be carried out on an organized basis, since not only is the unauthorized reproduction of a work involved, but also the subsequent sale or distribution of the illegally reproduced work, which will require some form of organized distribution network or contact with potential purchasers. To the consumer, often only the end of the chain of such a distribution network will be visible in the form of one sales outlet selling a pirated product. It is important to bear in mind, however, particularly when addressing the question of the means of dealing effectively with piracy, that behind one such outlet will often lie a systematically organized illicit enterprise, which illegally reproduces a copyrighted work and distributes it to the public via a number of such sales outlets.

While piracy is not a recent phenomenon, two developments have occurred which have caused it to assume alarming proportions, and to threaten the basis of the copyright system. The first has been the advances in the means by which intellectual works may be communicated. The medium of the printed word has been supplemented progressively by media for communicating audio and visual recordings in the form of phonograms, music cassettes, films and videograms. Similarly, widespread commercialization of the computer has added a further means of recording and communicating information. Most recently, the advent of digital technology has had a tremendous impact on the creation, dissemination and use of works.

The copyright system has responded to these developments by progressively enlarging the subjects over which the creators of intellectual works are granted rights. These advances, however, have increased the scope for pirates to interfere in the control which an author exercises over the dissemination and use of his works by the public. Simultaneously with the advances in the means of communicating intellectual works have been significant advances in the means of reproducing tangible records of those works. Foremost amongst the latter developments have been:

1) the development of the offset technique of printing and of duplicating and photocopying machines;

2) the invention of the magnetic tape, the advent of the compact disc, and the development of higher quality and cheaper cassette recorders which enable not only the playing of pre-recorded cassettes, but also the recording of music from live performances, radio or gramophone records; and

3) the invention of the video recorder, which has extensively enlarged the means by which films and other, principally visual, works may be received.

One consequence of these advances is the difference in cost between, on the one hand, the making of the original recording by an author and his business partners and, on the other hand, the reproduction of such a recording by others. In the case of a film, a producer must, through his own and his partners investment, finance the script writer and any other literary author involved, the musical composer, the actors, the support cast, the cost of location and site facilities, and the use of sophisticated visual and sound recording equipment. Once a tangible record has been made of the film, however, particularly if the record is contained in a videogram recording, further records of the work can be reproduced with considerable ease and at little cost. Thus, advances in recording technology have produced the means whereby pirates can easily produce illegal versions of the original work. Since the pirate has not made, and therefore does not need to recover the cost of, any investment in the production of the original work, the pirated copies are usually sold at reduced prices, thereby undermining the original author's, performer's, investor's and distributor's possibility of obtaining a just moral and economic reward for their work and investment.

Effects of Piracy: While consumers may sometimes see short-term benefits in the availability of cheaper works as a result of piracy, the quality of reproductions made by pirates is often very inferior. Consumers are also disadvantaged in the long term by piracy as a result of the absence of remuneration given to authors and performers by pirates, and of the misappropriation of the economic returns to publishers and producers. This diversion of economic rewards from authors and their business partners to pirates removes the incentive to the investment of time, effort, skill and resources in the creation of new works.

Since piracy is a clandestine activity, the profits derived by pirates are not subject to tax collection. Amongst the adverse consequences of this diminution in governmental revenue may be a reduction in the amount of government sponsorship available for the arts, as the level of such sponsorship may in part be determined by reference to the contribution which is made to the government budget by taxation derived from the distribution or sale of works subject to copyright protection.

Piracy can be seen to have detrimental effects, therefore, on each of the elements that make up the copyright system. In consequence, piracy threatens to stultify the evolution and development of national cultural identity which the copyright system is designed to promote.

## Software Piracy

Software piracy is the illegal copying, distribution, or use of software. It is such a profitable *"business"* that it has caught the attention of organized crime groups in a number of countries. According to the Business Software Alliance (BSA)[53], about 36% of all software in current use is stolen. Software piracy causes significant lost revenue for publishers, which in turn results in higher prices for the consumer.

When one purchases a commercial software package, an EULA[54] is included to protect that software program from copyright infringement. Typically, the license states that you can install the original copy of software you bought on one computer and that you can make a backup copy in case the original is lost or damaged. One agrees to the licensing agreement that when one opens the software package (this is called a shrink wrap license), when you open the envelope that contains the software disks, or when you install the software.

[53] < https://www.bsa.org/>

[54] An EULA (End User License Agreement) is a legal contract between a software application author or publisher and the user of that application.

**Types of software piracy include:**

1) Softlifting

   Borrowing and installing a copy of a software application from a colleague.

2) Client-server overuse

   Installing more copies of the software than you have licenses for.

3) Hard-disk loading

   Installing and selling unauthorized copies of software on refurbished or new computers.

4) Counterfeiting

   Duplicating and selling copyrighted programs.

5) Online piracy

Typically involves downloading illegal software from peer-to-peer network, Internet auction or blog. (In the past, the only place to download software was from a bulletin board system and these were limited to local areas because of long distance charges while online.)

Software piracy applies mainly to full-function commercial software. The time-limited or function-restricted versions of commercial software called shareware[55] are less likely to be pirated since they are freely available. Similarly, freeware [56], a type of software that is copyrighted but freely distributed at no charge, also offers little incentive for piracy.

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[55] Shareware is a type of proprietary software which is initially provided free of charge to users, who are allowed and encouraged to make and share copies of the program. Shareware is often offered as a download from a website or as a compact disc included with a magazine.

[56] Freeware is software, most often proprietary, that is distributed at no monetary cost to the end user. There is no agreed-upon set of rights, license, or EULA that defines freeware unambiguously; every

publisher defines its own rules for the freeware it offers. For instance, modification, redistribution by third parties, and reverse engineering without the author's permission are permitted by some publishers but prohibited by others.

The losses suffered as a result of software piracy directly affect the profitability of the software industry. Because of the money lost to pirates, publishers have fewer resources to devote to research and development of new products, have less revenue to justify lowering software prices and are forced to pass these costs on to their customers. Consequently, software publishers, developers, and vendors are taking serious actions to protect their revenues.

Using pirated software is also risky for users. Aside from the legal consequences of using pirated software, users of pirated software forfeit some practical benefits as well. Those who use pirate software:

1) Increase the chances that the software will not function correctly or will fail completely;

2) Forfeit access to customer support, upgrades, technical documentation, training, and bug fixes;

3) Have no warranty to protect themselves;

4) Increase their risk of exposure to a debilitating virus that can destroy valuable data;

5) May find that the software is actually an outdated version, a beta (test) version, or a non-functioning copy;

6) Are subject to significant fines for copyright infringement; and

7) Risk potential negative publicity and public and private embarrassment.

Software piracy is often taken seriously - if sued for civil copyright infringement, the penalty can be high per title infringed. If charged with a criminal violation can result in high fine per title infringed and imprisonment.

## Remedies

Remedies for infringement of copyright or for violation of related rights consist of civil redress, as where infringers are obliged by court to cease the infringement and to undertake reparatory action by any appropriate means, for example, rectification in the press or liability for damages. Some laws also provide for penal remedies in the form of fines and/or imprisonment. Infringing copies, receipts resulting from infringement and any implement used for the same are usually subject to seizure.

The main remedies which are available to a copyright owner in respect of infringement in common-law jurisdictions are an injunction to restrain the continuation of the infringement, and damages to compensate

the copyright owner for the depreciation caused by the infringement to the value of his copyright. In the context of piracy, because it is often carried out as an organized activity, the effectiveness of these remedies may be jeopardized for a number of reasons.

In the first place, the organizer of the making and distribution of illegal reproductions may be using a large number of sales outlets of an impermanent nature. The copyright owner may be confronted with a situation in which it is possible to locate only a small proportion of these outlets, without being able to prove any linkage between the outlets, or any common source of supply for the outlets. Furthermore, the service of a writ commencing an action for infringement, by giving notice to the pirate or to those distributing the works which he has illegally reproduced, may precipitate the destruction of vital evidence required to indicate the source of supply and the extent of sales which have taken place. In addition, since piracy often involves an international dimension, there is a risk that the financial resources and other assets of a pirate may be removed from the jurisdiction in which legal proceedings are commenced against him, thereby depriving the copyright owner of the possibility of recovering damages. These difficulties have accentuated the need for preliminary remedies which may be obtained speedily, which will assist in the collection of evidence against a pirate, and which will prevent the destruction of evidence and the removal of financial resources against which damages may be claimed. In many common-law jurisdictions a number of developments have occurred in recent years in response to this need.

*Anton Piller* Orders: Foremost among the new developments which have occurred in preliminary remedies has been the so-called *Anton Piller order*[57]. The *Anton Piller* order, named after the case in which the English Court of Appeal sanctioned its use (Anton Piller K.G. v Manufacturing Processes Ltd. [1976] RPC 719), is an order granted by the court permitting the inspection of premises on which it is believed some activity is being carried on which infringes the copyright of the plaintiff. The order has a number of features which make it a particularly appropriate remedy in the context of piracy:

i. the order will be granted ex-parte, that is, on the application and in the presence alone of the copyright owner, without prior warning being given to the defendant. The essence of the order is thus that it takes the defendant by surprise and precludes the defendant from destroying or removing vital evidence.

ii. the terms on which the order is granted enable the copyright owner to inspect the premises of the defendant, and all documents (including business information, such as bills, invoices, sources of supply and customer lists) relating to the alleged infringement. By virtue of these terms, the

[57] <http://www.bailii.org/ew/cases/EWCA/Civ/1975/12.html>

copyright owner is given the means whereby he may be able to establish the source of supply of pirated works, and the extent of sales which have taken place, which will assist in turn in establishing the amount of damages to which he may be entitled.

iii. the order for inspection will often be accompanied by an injunction restraining the defendant from altering or removing in any way articles or documents referred to in the order for inspection.

The *Anton Piller* order can undoubtedly constitute an important weapon in the armory against piracy. Since it is granted on an *ex-parte* basis, however, care needs to be exercised to ensure that the rights of persons against whom it is granted, and whose actions have not yet been judged, are adequately protected. Two safeguards, in particular, which have been required by courts in jurisdictions where it is available, should be noted. First, it will only be granted where it is essential that the plaintiff should have inspection so that justice can be done between the parties. In order to meet this criterion, usually a copyright owner will have to prove that there is clear evidence that the defendants have in their possession incriminating documents or material; that the circumstances are such that there is a real possibility or grave danger that the incriminating materials will be destroyed or hidden if the defendant is forewarned; and that the potential or actual damage to the plaintiff as a result of the defendant's alleged wrongdoings is very serious.

The second safeguard which is often required is proper respect for the defendant's rights in the execution of the order. In this respect, it may be required that, in executing the order, a copyright owner be attended by his lawyer, give the defendant adequate opportunity of considering the order, and not force entry into the defendant's premises against his will. Of course, if a defendant were to refuse entry into his premises, this would cause extremely adverse inferences to be drawn against him at the subsequent trial.

In relation to *Anton Piller* orders, it may finally be noted that the effectiveness of the orders was brought into question in one case when a defendant, pleading the privilege against self-incrimination, successfully applied to discharge orders on the ground that they would expose

him to a real risk of prosecution for a criminal offense[58] (Rank Film Distributors Ltd. v Video Information Center [1981] 2 All E.R. 76). In order to overcome the effects of this decision, it may be necessary to pass legislation revoking the privilege against self-incrimination as a basis for refusing to comply with an *Anton Piller* order, as was done in the Supreme Court Act of 1981 in the United Kingdom.

[58] <https://swarb.co.uk/rank-film-distributors-v-video-information-centre-hl-1-mar-1981/>

Discovery Against Third Parties: In certain common-law jurisdictions it has been decided that an innocent third party, who becomes caught up in the wrongdoings of another, is liable to furnish a plaintiff with evidence in his possession relevant to the prosecution of an action by the plaintiff against the wrongdoer. This decision arose in the English case of Norwich Pharmacal Co. v. Commissioners of Customs and Excise ([1972] RPC 743, [1974] AC 133)[59] where the plaintiffs, the proprietors of a patent covering a chemical compound, discovered that various persons were importing the compound into the country in contravention of their patent, but were unable to establish the identity of these persons.

This information was in the possession of the Commissioners of Customs and Excise, since the importers were required under the customs regulations to fill in a form of entry specifying the name of the importer and a description of the goods. The customs authorities refused to disclose the identity of the importers on the ground that the information had been given to them in confidence.

Nevertheless, it was decided that an innocent third party, such as the customs authorities, who inadvertently becomes involved in the wrongdoing of another, will be liable to furnish information concerning the wrongdoer to a plaintiff. While this case was concerned with patents, it also has an application to copyright and could be of particular use to copyright owners who are unable to establish the identity of persons importing pirated works into a country.

A related but more effective procedure is to be found in Section 53[60] of the Indian *Copyright Act 1957*. This provision enables the Registrar of Copyrights to order that copies made out of India of a work which, if made in India, would infringe copyright, shall not be imported. The section also authorizes the Registrar to enter any ship, dock or premises for the purpose of examining allegedly infringing works. The use of the section in a case involving the transportation of pirated audio cassettes over Indian territory was approved by the Indian Supreme Court in Gramophone Company of India Ltd. v. Panday ([1984] 2 SCC 534)[61].

Interlocutory Injunctions: In order to minimize the damage being inflicted by piracy, it will be important for a copyright owner to take swift action in seeking to prevent its continuation. For as long as piracy continues, he will be deprived of a portion of his potential market, and thus of the capacity to recover the economic reward for his creativity or investment. The aim of the interlocutory injunction is to meet this need by granting speedy and temporary relief during the period before a full trial of an infringement action takes place, thus preventing irreparable damage from occurring to the plaintiff's rights.

[59] < https://swarb.co.uk/norwich-pharmacal-co-and-others-v-customs-and-excise-commissioners-hl- 26-jun-1973/>
[60] < https://indiankanoon.org/doc/359894/>
[61] < https://indiankanoon.org/doc/383397/>

One of the difficulties which has been experienced with interlocutory proceedings is that they have tended to become themselves lengthy inquiries involving rather full consideration of the facts of the case, with the result that their effectiveness as a means of obtaining temporary relief is prejudiced. In many common-law jurisdictions, this has caused a reassessment of the principles on which interlocutory relief is granted and, in particular, of the standard of proof which a plaintiff is required to establish in order to obtain interlocutory relief. Previously, a plaintiff was required to establish a prima facie case that his copyright was being infringed, that is, to establish on the balance of probabilities that his case for infringement could be defended. In order to overcome the delays and the lengthy proceedings which this standard of proof involved; many jurisdictions have now required that a plaintiff establish only that there is a *"serious question"* to be tried. In other words, the merits of the legal issues involved in the case need only be considered at the interlocutory stage to the point where the court is satisfied that the plaintiff's claim for infringement is not frivolous. Thereafter, the decision as to whether an injunction should be granted is taken on the basis of the factual circumstances of the case, and whether, in particular, each party could be adequately compensated in damages for the temporary impairment of his right were he to be unsuccessful at the interlocutory stage, and later prove to be successful at the trial.

The adoption of this approach to interlocutory proceedings assists in avoiding excessive delays in obtaining relief during the period, which is most important for the copyright owner, namely, the period immediately following the initial publication and marketing of his work.

Final Remedies: The two usual remedies which are available for copyright owners in common-law jurisdictions following the final trial of an infringement action are a perpetual injunction and damages. The perpetual injunction is granted in order to prevent any further repetition of the infringing action. In order to make the injunction effective, it is often coupled with an order for the delivery by the infringer of all infringing copies of the copyright work, which are then subject to destruction so as to ensure that they cannot be re-used or sold.

The object of an award of damages to a copyright owner is to restore the copyright owner to the position he would have been in had his copyright not been infringed. A difficulty often encountered in obtaining a satisfactory judgment in damages is the production of evidence as to the extent of sales which have taken place and thus as to the extent of damage which has been caused to the plaintiff's copyright. It is for this reason that the recent developments in preliminary remedies, such as the Anton Piller order, which are aimed at enabling a plaintiff to acquire evidence of infringement, are particularly important. Of particular relevance to piracy, is the provision in some jurisdictions for additional damages in the case of a flagrant infringement of copyright. Before an award of additional damages can be made in such jurisdictions,

however, it is necessary to establish that the infringer's conduct has been deliberate and calculated, and that he has obtained a pecuniary advantage in excess of the damages that he would otherwise have to pay.

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# CHAPTER III

# PATENTS AND INFORMATION TECHNOLOGY

## I. Understanding Patents

A patent is a document, issued, upon application, by a government office (or a regional office acting for several countries), which describes an invention and creates a legal situation in which the patented invention can normally only be exploited (manufactured, used, sold, imported) with the authorization of the owner of the patent. "Invention" means a solution to a specific problem in the field of technology. An invention may relate to a product or a process. The protection conferred by the patent is limited in time (generally 20 years).

In a number of countries, inventions are also protectable through registration under the name *of "utility model"* or *"short-term patent".* The requirements are somewhat less strict than for patents, in particular in respect of inventive step, and in comparison, with patents the fees are lower, and the duration of protection is shorter, but otherwise the rights under the utility model or short-term patent are similar. Patents are frequently referred to as *"monopolies",* but a patent does not give the right to the inventor or the owner of a patented invention to make, use or sell anything. The effects of the grant of a patent are that the patented invention may not be exploited in the country by persons other than the owner of the patent unless the owner agrees to such exploitation. Thus, while the owner is not given a statutory right to practice his invention, he is given a statutory right to prevent others from commercially exploiting his invention, which is frequently referred to as a right to exclude others from making, using or selling the invention. The right to take action against any person exploiting the patented invention in the country without his agreement constitutes the patent owner's most important right, since it permits him to derive the material benefits to which he is entitled as a reward for his intellectual effort and work, and compensation for the expenses which his research and experimentation leading to the invention have entailed.

It should be emphasized, however, that while the State may grant patent rights, it does not automatically enforce them, and it is up to the owner of a patent to bring an action, usually under civil law, for any infringement of his patent rights. The patentee must therefore be his own *"policeman".*

Simply put, a patent is the right granted by the State to an inventor to exclude others from commercially exploiting the invention for a limited period, in return for the disclosure of the invention, so that others

may gain the benefit of the invention. The disclosure of the invention is thus an important consideration in any patent granting procedure.

Perhaps there was a time when products were conceived, manufactured, and purchased entirely locally. In such a world, inventors would need to worry about protecting their intellectual property only within their own communities or countries. But the rise of globalization, particularly spurred by online commerce, has dramatically changed that dynamic. Perhaps a product is conceived in India, but it might be manufactured in various pieces across several different countries, and then imported to countries all over the world for sale. This new global economy presents a host of challenges for inventors.

The owner of an Indian patent can stop anyone from making, using, selling, or offering for sale the invention in India. In addition, an Indian patent owner can stop anyone from importing unauthorized copies of the invention into India.

However, Indian patent rights stop at the Indian border. An inventor cannot use an Indian patent to stop someone from making, selling, or using the invention in another country. To do that, Indian inventors must acquire patent rights in that country and rely on rules of reciprocity in international treaties. *"Reciprocity"* or *"reciprocal treatment"* means that when an inventor from Country A applies for a patent in Country B, the inventor will be treated in the same manner as inventors living in Country B. This reciprocal treatment extends only to inventors who live in nations that have signed the treaty *("signatory nations").* India is a signatory nation to several international patent treaties, the most important of which are the Paris Convention and the Patent Cooperation Treaty.

Contrary to what many inventors might assume, there is no such thing as an *"international patent";* that is, a single patent that protects your invention in all of the world's 195 countries. Each country has its own system of patent enforcement and registration, which makes enforcement complication for inventors. However, there are certain mechanisms and treaties that can help you secure as much protection as possible.

Firstly, to the extent that one is interested in protecting your invention in one specific country where you intend to do business, you can simply file for protection in those countries of choice directly. Secondly, although there is no global patent office, there are many regional patent offices that do provide regional patent applications. Some examples include the African Intellectual Property Organization (OAPI), the African Regional Intellectual Property Organization (ARIPO), the Eurasian Patent Organization (EAPO) and the European Patent Office (EPO).

These organizations allow inventors to file a single application that will receive protection in multiple *"member countries"* concurrently. As one can imagine, this makes sense in regions where goods are traded frequently between neighbouring countries.

## Paris Convention

India, like the majority of industrialized nations, is a party to the Paris Convention[62], an international treaty that provides certain reciprocal patent filing rights. Members of the Paris Convention are known as *"Convention countries"*.

In order to acquire patent rights, the inventor must separately file a patent application in each Convention country. The advantage of the Paris Convention for an Indian inventor is that the inventor's filing date can be retained in another Convention country provided that the patent application is filed in the country within one year of the Indian filing date.

## Patent Cooperation Treaty

Most industrialized countries are also members of the Patent Cooperation Treaty (PCT)[63], a treaty that enables inventors to file a relatively economical international application in their home country within one year of their home country filing date.

There are two major advantages in filing a PCT application:

1) the inventor obtains a filing date that is good in every member country in which the inventor seeks patent protection, and

[62] 1The Paris Convention applies to industrial property in the widest sense, including patents, trademarks, industrial designs, utility models, service marks, trade names (designations under which an industrial or commercial activity is carried out), geographical indications (indications of source and appellations of origin) and the repression of unfair competition.
< https://www.wipo.int/edocs/lexdocs/treaties/en/paris/trt_paris_001en.pdf>

[63] The Patent Cooperation Treaty (PCT) is an agreement for international cooperation in the filing, searching and examination of patent applications and the dissemination of information contained in the applications. The treaty implements the concept of filing a single international patent application which will have a legal effect of filing in the different countries bound by the treaty.
< https://www.wipo.int/export/sites/www/pct/en/texts/pdf/pct.pdf>

2) an initial international patent search will be conducted and PCT member countries will rely heavily on this search.

The inventor in a PCT nation must eventually file separate "national" applications in each country or regional group of countries where the inventor wants coverage, but the initial search procedure simplifies the international patent process.

An Indian. inventor cannot file a foreign patent application until the inventor gets a PCT foreign-filing license or until six weeks have elapsed from the inventor's Indian filing date. The inventor can then obtain a 20 or 30 month delay, depending on whether the inventor requests examination (a provision known as *"Chapter II")* before filing in countries that are member to the PCT.

## II. Conditions of Patentability

An invention must meet several criteria if it is to be eligible for patent protection. These include, most significantly, that the invention must consist of patentable subject matter, the invention must be industrially applicable (useful), it must be new (novel), it must exhibit a sufficient *"inventive step"* (be non-obvious), and the disclosure of the invention in the patent application must meet certain standards.

Patentable Subject Matter: In order to be eligible for patent protection, an invention must fall within the scope of patentable subject matter. Patentable subject matter is established by statute and is usually defined in terms of the exceptions to patentability, the general rule being that patent protection shall be available for inventions in all fields of technology (Article 27.1 of the *TRIPS Agreement*[64]).

Subject matter which may be excluded from patentability includes the following (Article 27.3 of the *TRIPS Agreement*[65]*).* Examples of fields of technology which may be excluded from the scope of patentable subject matter includes the following:

1) discoveries of materials or substances already existing in nature;

2) scientific theories or mathematical methods;

3) plants and animals other than microorganisms, and essentially biological processes for the

4) production of plants and animals, other than non-biological and microbiological processes;

[64] <https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm>
[65] <https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm>

5) schemes, rules or methods, such as those for doing business, performing purely mental

6) acts or playing games;

7) methods of treatment for humans or animals, or diagnostic methods practiced on humans

8) or animals (but not products for use in such methods).

The *TRIPS Agreement* (Article 27.2[66]) further specifies that Members may exclude from patent protection certain kinds of inventions, for instance inventions the commercial exploitation of which would contravene public order or morality.

Industrial Applicability (Utility): An invention, in order to be patentable, must be of a kind which can be applied for practical purposes not be purely theoretical. If the invention is intended to be a product or part of a product, it should be possible to make that product. And if the invention is intended to be a process or part of a process, it should be possible to carry that process out or *"use"* it (the general term) in practice.

*"Applicability"* and *"industrial applicability"* are expressions reflecting, respectively, the possibility of making and manufacturing in practice, and that of carrying out or using in practice. The term *"industrial"* should be considered in its broadest sense, including any kind of industry. In common language, an *"industrial"* activity means a technical activity on a certain scale, and the *"industrial"* applicability of an invention means the application (making use) of an invention by technical means on a certain scale. National and regional laws and practices concerning the industrial applicability requirement vary significantly. At one end of the spectrum, the requirement of industrial applicability is met as long as the claimed invention can be made in industry without taking into account the use of the invention. At the other end of the spectrum, the *"usefulness"* of the claimed invention is taken into account for the determination of the industrial applicability. On the other hand, some countries do not require industrial applicability, but utility.

Novelty: Novelty is a fundamental requirement in any examination as to substance and is an undisputed condition of patentability. It must be emphasized, however, that novelty is not something which can be proved or established; only its absence can be proved.

An invention is new if it is not anticipated by the prior art. *"Prior art"* is, in general, all the knowledge that existed prior to the relevant filing or priority date of a patent application, whether it existed by way of

[66] < https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm>

written or oral disclosure. The question of what should constitute *"prior art"* at a given time is one which has been the subject of several debates.

One viewpoint is that the determination of prior art should be made against a background of what is known only in the protecting country. This would exclude knowledge from other countries, if it was not imported into the country before the making of the invention, even if that knowledge was available abroad before the date of the making of the invention.

Another viewpoint is based on the differentiation between printed publications and other disclosures such as oral disclosures and prior use, and where such publications or disclosures occurred.

The disclosure of an invention so that it becomes part of the prior art may take place in three ways, namely:

1) by a description of the invention in a published writing or publication in other form;

*2)* by a description of the invention in spoken words uttered in public, such a disclosure being called an *"oral disclosure";*

*3)* by the use of the invention in public, or by putting the public in a position that enables any member of the public to use it, such a disclosure being a *"disclosure by use".*

Publication in tangible form requires that there be some physical carrier for the information, a document in the broad sense of the term, and that document must have been published, that is to say, made available to the public in any manner such as by offering for sale or deposit in a public collection. Publications include issued patents or published patent applications, writings (whether they be manuscript, typescript, or printed matter), pictures including photographs, drawings or films, and recording, whether they be discs or tapes in either spoken or coded language. Today, publication on the Internet must increasingly be taken into consideration.

Oral disclosure, as the expression suggests, implies that the words or form of the disclosure are not necessarily recorded as such and includes lectures and radio broadcasts.

Disclosure by use is essentially a public, visual disclosure such as by display, sale, demonstration, unrecorded television broadcasts and actual public use.

A document will only destroy the novelty of any invention claimed if the subject matter is explicitly contained in the document. The subject matter set forth in a claim of an application under examination is thus compared element by element with the contents of each individual publication.

Lack of novelty can only be found if the publication by itself contains all the characteristics of that claim, that is, if it anticipates the subject matter of the claim. Lack of novelty may however, be implicit in the publication in the sense that, in carrying out the "teaching" of the publication, a person having ordinary skill in the art would inevitably arrive at a result falling within the terms of the claim. Generally speaking, lack of novelty of this kind will only be raised by the Patent Office where there is no reasonable doubt as to the practical effect of the prior *"teaching".*

It should be noted that in considering novelty, it is not permissible to combine separate items of prior art together.

Inventive Step *(Non-Obviousness):* In relation to the requirement of inventive step (also referred to as "non-obviousness"), the question as to whether or not the invention *"would have been obvious to a*

*person having ordinary skill in the art"* is perhaps the most difficult of the standards to determine in the examination as to substance.

The inclusion of a requirement like this in patent legislation is based on the premise that protection should not be given to what is already known as part of the prior art, or to anything that the person with ordinary skill could deduce as an obvious consequence thereof.

The expression *"ordinary skill"* is intended to exclude the *"best"* expert that can be found. It is intended that the person be limited to one having the average level of skill reached in the field in the country concerned.

It should be noted that novelty and inventive step are different criteria. Novelty exists if there is any difference between the invention and the prior art. The question, *"is there inventive step?"* only arises if there is novelty. The expression *"inventive step"* conveys the idea that it is not enough that the claimed invention is new, that is, different from what exists in the state of the art, but that this difference must have two characteristics:

1) it must be *"inventive",* that is, the result of a creative idea, and it must be a step, that is, it must be noticeable.

There must be a clearly identifiable difference between the state of the art and the claimed invention. This is why, in some jurisdictions, there is the concept of an *"advance"* or *"progress"* over the prior art.

2) it is required that this advance or progress be significant and essential to the invention.

In order to assess the nature of the differences which are relied upon as constituting an inventive step, account has to be taken of the prior art as a whole. Thus, as distinct from the assessment of novelty, the subject matter of the claim under examination is compared not with each publication or other disclosure separately, but with the combinations thereof, insofar as each such combination is obvious to the person having ordinary skill in the art. The combination may be global, whereas the claim may define a set of subject matter known separately. For the inventive step to be denied, it is necessary that not only the combination, but also the choice of the combined elements, is obvious. It is the sum of the differences that have been discovered which must be compared with the prior art and judged as to obviousness, and not each of the new elements taken individually, except where there is no technical link between them.

In most cases, it is useful to assess inventive step in relation to three aspects, namely:

1) the problem to be solved;

2) the solution to that problem; and

3) the advantageous effects, if any, of the invention with reference to the background art.

If the problem is known or obvious, the examination will bear on the originality of the solution claimed. If no inventive step is found in the solution, the question becomes whether or not the result is obvious or whether it is surprising either by its nature or by its extent. If a person having ordinary skill in the art would have been able to pose the problem, solve it in the manner claimed, and foresee the result, the inventive step is lacking.

Disclosure of the Invention: An additional requirement of patentability is whether or not the invention is sufficiently disclosed in the application. The application must disclose the invention in a manner sufficiently clear for the invention tobe carried out by a person skilled in the art.

The description should set out at least one mode for carrying out the invention claimed. This should be done in terms of examples, where appropriate, and with reference to the drawings, if any. In some countries, the description is required to disclose the best mode for carrying out the invention known to the applicant.

Oppositions: Whether or not there is an examination as to substance, some jurisdictions provide for an opposition procedure which may be instituted either before or after the grant of a patent. An opposition procedure is designed to allow third parties to present objections to the grant of a patent.

So that oppositions may be filed, the public must be informed of the content of the application, and this is done by the Patent Office by publication of a notice in an official journal or gazette to the effect that:

1) the application is open to public inspection; and/or

2) the Patent Office will, unless opposition is filed within a prescribed period, grant a patent; or

3) a patent has been granted on the application.

The grounds upon which an opposition may be filed are prescribed by the relevant legislation. Generally speaking, it should be possible for an opposition to be based on non-compliance with any substantive requirement. However, the law in some countries restricts an opposition to certain substantive requirements only. Typically, these grounds are lack of novelty, inventive step or industrial applicability, insufficient disclosure of the invention, or the fact that an amendment made to a patent application has gone beyond the original disclosure in the application as filed. Some jurisdictions make it possible to file an opposition on the ground that the applicant has no right to a patent.

## III. Patent Infringement & Remedies

Exclusive Right of a Patent Owner: Generally speaking, a patentee acquires the right, enforceable at law, to decide who shall and who shall not exploit his patented invention. He retains this right for the term of the patent, provided he pays any necessary renewal or maintenance fees.

The patent owner's legal rights over his invention are usually limited in a number of quite different ways:

1) the claims which define the monopoly may be subject to amendment or invalidation by the courts in respect of defects which were not detected prior to the grant of the patent.

2) where the invention is an improvement or development of an earlier subsisting patent, the patent owner may need to obtain a license and pay royalties to the earlier patent owner.

3) the patent owner's rights are usually limited by the patent law, quite apart from the question of validity of his patent.

   In most patent systems, for example, the patent owner is required to work his invention, either on his own behalf, or by licensing others to use it, if he wishes to retain his monopoly. A non- voluntary license may, for instance, be granted to third parties if it can be demonstrated that the patented invention is not worked or is insufficiently worked in the country.

4) a legal limitation on a patent owner's right to exploit his invention is that patented inventions may often be used by Government or by third parties authorized by Government, where the public interest so requires, on terms fixed by agreement or by the courts.

With the exception of the limitations just referred to, the grant of a patent allows its owner to exclude others from exploiting the patented invention. The right of the owner is called exclusive because it allows the exclusion of others from exploiting the invention and because the owner is the only one allowed to exploit the invention as long as others are not given an authorization, for example, by way of license to do so. This exclusive right of the patent owner has two main applications in practice, namely protection against infringement and the possibility of assigning or licensing the right, in part or in whole.

An infringement of the exclusive right of a patent owner involves the unauthorized exploitation of the patented invention by a third party. The making of the invention in particular, and its development for industrial application, usually involve considerable expense for the applicant and for the future owner of the patent for invention. The patent owner thus wishes to recover this expense through exploitation of the patented invention, in particular through the sale of products that incorporate the invention.

Enforcement of Rights: Initiative for enforcing a patent rests exclusively with the patent owner. It is he who is responsible for detecting infringements and for bringing them to the infringer's attention. In

many jurisdictions there is a strict rule that the patent owner may not threaten legal action without the possibility of incurring severe countermeasures, including damages, if the threats prove to be on insufficient grounds. The main purpose of such provisions in the law is to prevent patent owners from threatening the customers of alleged infringers without pursuing the primary infringer. In practice, a polite letter pointing out the existence of the patent carries the implication that the patentee will sue if the infringement continues. Such a letter has proven to be quite effective in suppressing an infringement. If the infringer is persistent, the patent owner may consider whether he wishes to offer a license. Many incipient disputes are settled through license negotiations at an early stage, the terms of the license reflecting the bargaining strength of the parties. But if the patent owner is reluctant to license on terms acceptable to the licensee, he may have recourse to legal action by suing for infringement and seeking an injunction to restrain the infringement. The invariable legal response of an infringer who wishes to pursue the contest is to petition for invalidation of the patent.

The great majority of patent infringement disputes never reach the stage of court action but are settled through negotiation. Of those that do reach the stage at which official legal action is taken, very few go beyond the pre-trial stage, the usual outcome being settlement before any court hearing, possibly with the help of an unofficial arbitrator. Settlements of this nature can take several years, especially in complicated

cases, but they do not typically involve large legal costs. Such settlements almost invariably involve a license and possibly damages as well.

Types of Infringement: There are several ways in which infringement of patent rights might arise. Firstly, there is the situation where a patent is deliberately infringed by a third party without any attempt to avoid the infringement. This will either be straight copying of the invention or else involve minor variations or modifications thereof. This form of infringement may occur because the third party is unscrupulous, or because he has been advised by his patent agent that the patent in question, or one or more claims thereof, is invalid.

With this form of infringement there is generally no argument as to whether or not there is infringement. If all the features of the patented invention have been copied, then there must be infringement, and the only matter to be resolved is whether the claims of the patent are valid.

The second situation which arises is where the infringement is deliberate, but some attempt has been made to avoid the appearance of infringement. It frequently happens that once an invention is disclosed either by sale of the product incorporating the invention, or in a published patent document, or in some other publication, third parties are given ideas. The publication generally outlines the problem and shows a way of solving it. Third parties then may endeavor to design an alternative to do the same thing. While third parties may be genuinely trying to design around the patent whilst still making use of the basic idea of the inventor, the result does not always clearly fall outside the scope of the claims of the patent. This is probably the most common form of infringement faced by patent owners and it gives rise to the most litigation.

The last situation that arises is the case of accidental infringement. As soon as a patent owner comes across something which embodies his idea he naturally feels that his invention is being copied. This is not necessarily so, since there may be many people working to solve a particular problem at the same time. For example, research departments of different large organizations may all be working on a similar problem. Similarly, there may be several companies who have been asked to tender for a contract to solve a particular problem or to achieve a certain result, and in so doing may come up with similar ideas to that which may have been involved in the patented invention. Thus, although the patent owner may feel that his invention has been copied, the third party has, in fact, arrived at a similar if not identical solution via a different route.

Elements in Establishment of Infringement: To establish infringement the patent owner must prove all the following elements:

1) the carrying out of a prohibited act;

2) the prohibited act must have been done after the publication of the patent application, or

3) the issuance of the patent where no early publication occurs;

4) the prohibited act must have been done in the country where the patent has been granted;

5) the prohibited act must be in relation to a product or process falling within the scope of a claim of the patent.

Prohibited Acts: A prohibited act, the most important element in establishing an infringement, is one which involves the making, using, selling or importing the patented product, or the use of the patented process, or the making, using, selling or importing the product directly obtained through the patented process.

To make the product means that the product described and claimed in the patent is carried out in practice. Such making is also referred to as manufacturing especially when the product is produced on a commercial scale. The method of manufacture and the quantity in which the product is manufactured is irrelevant so far as infringement of a patented product is concerned.

There are however, three main exceptions in most laws to infringement of exclusive rights to make a patented product, namely:

1) where the patented product is made for the sole purpose of scientific research and experiment;

2) where a third party had started making the product before the date when the patent application for an invention incorporated in the product was filed; and

3) where the patented product is made under a non-voluntary license or under an authorization granted by the Government on public interest grounds.

In respect of patented processes, only the making of products directly obtained through the patented process is a prohibited act. *"Directly"* in this context means *"immediately"* or *"without further transformation or modification".*

One of the difficulties in establishing infringement in respect of products directly obtained through a patented process, is that of proving that the patented process was used to produce the product. Some laws partially solve this by providing for the reversal of the burden of proof in respect of patents for processes by introducing the following presumption: if the product resulting directly from the use of the patented process was new on the filing date or priority date of the patent application, an identical product manufactured by a third party is presumed to have been obtained by the same process. Some other laws go further and eliminate the difficulty by not limiting the resulting product to one which has to be new.

The use of a patented product does not require that the use be repetitive or continuous. The rule is that use is a prohibited act irrespective of who the user of the patented product is, and for what purpose the patented product is used. The use of the patented product is a prohibited act irrespective of whether the product actually being used was made by the patent owner, with the authorization of that owner, or without the authorization of such owner.

There are, in most laws, five exceptions to infringement of exclusive rights to use a patented product, namely:

1) where the use of the patented product is solely for purposes of scientific research and experiment;

2) where the patented product that is used is a product which was put on the market in the country by the owner of the patent for invention, or with his authorization;

3) where the use of the patented product occurs in vehicles in transit in the country;

4) where the patented product is used by third parties who have the special right to continue to make the product; and

5) where the patented product is used under a non-voluntary license or under an authorization granted by the Government on public interest grounds.

The sale of a patented product is a prohibited act irrespective of whether the product actually sold was made by the patent owner, or with or without his authorization. Any product that corresponds to the

description of the invention and is claimed in the patent, even if made without the authorization of the owner, is a patented product.

Importing a product simply means that an article which constitutes or incorporates the patented product is brought into the country where protection has been conferred. Thus, importation is a physical act of transportation of the product across the border into the territory of the country. It is irrelevant which other country the product is imported from. Furthermore, it does not matter whether the importation takes place for purposes of use or sale, or for the purposes of distribution free of charge. It is also irrelevant whether the imported product enjoys patent protection in the country in which it was made or in the country from which it was imported.

The principles relating to the use, sale and importation of patented products, as far as the definitions of these acts are concerned, applies, mutatis mutandis, also to the use, sale and importation of products directly obtained through a patented process.

After Publication of the Application or Issuance of the Patent: The second element in establishing an infringement, namely that the prohibited act must have been done after the publication of the invention in either a patent application or in the granted patent, needs little comment. It would be contrary to natural justice if third parties could be charged with committing an offense when details of the invention were not available to the public to see what it is that could not be done.

In the Country where the Patent has been Granted: The third element in establishing an infringement also requires little comment. Generally speaking, patents do not extend beyond the boundaries of the country which granted the patent. The patent law of a country has no effect in any other country. However, in a small number of countries, particularly U.K. Dependent Territories, it is possible to extend the coverage of a United Kingdom patent to those countries by the owner of the U.K. patent applying, generally within a period of three years from the date of grant thereof, to register such patent in the country concerned.

Within the Scope of a Claim of the Patent: The fourth element in establishing an infringement is one which is normally the decisive point in any patent litigation. The scope of protection of the patent is determined in all countries by the claims. The meaning of the claims is ultimately interpreted by the courts. The manner in which the courts will interpret a claim in turn depends upon the domestic law and to a certain extent the rules or regulations. Therefore, what a claim means will depend upon the jurisdiction in which it is being interpreted.

The courts, particularly in common law systems, attempt to determine what structure the language of the claims defines, and whether or not the alleged infringing structure corresponds to the structure defined in the language of the claims. In attempting to answer the question as to whether a particular structure infringes a particular claim of a patent for invention, the claim should be broken down into its individual elements, and these compared with the elements of the alleged infringement to see whether they fit. If the claim can, in fact, be made to correspond to the alleged infringement without stretching the words of the claim too far, then there may indeed be infringement. If, on the other hand, the claim contains a limitation to something which is not found at all in the alleged infringement, there may be no infringement.

When comparing the individual elements of a claim against the corresponding elements of the alleged infringement, the following questions have to be answered:

1) Are all the elements of the claim present in the alleged infringement?

2) Do all the elements have the same form?

3) Do all the elements perform the same function?

4) Do the elements have the same relationship to the other elements?

If the answer to each of these questions is *"yes",* then infringement is established, depending of course, on whether the claim in question is valid. An infringing product or process must include each and every element of the invention defined in a claim.

Of course, the establishment of infringement is not always clear-cut. For example, changes in form will not avoid infringement if there is no change in the result produced. Further changing the order of steps in a process will not avoid infringement if the result is the same. Moreover the presence of additional elements in an alleged infringement does not avoid infringement if all the elements of the patent claim are also present.

One of the most difficult areas of patent claim interpretation is the determination as to whether or not there has been a substitution of equivalent elements in the alleged infringement. This is the so-called *"doctrine of equivalents"* which is well known in patent litigation practice in many countries. Briefly stated, the doctrine indicates that an infringer should not be allowed to continue his actions where he basically makes use of the patented invention while merely substituting a variant for an element of the invention which is equivalent technically and functionally to the element as contained in the patent claim, irrespective of whether the variant used by the infringer turns out to be an improvement or otherwise. Equivalence is restricted to those cases where the variant or variants used by the infringer function in substantially the same manner and produce substantially the same result as the element or elements contained in the claim or claims.

Remedies Available to the Patent Owner: The remedies which may be available to the patent owner where infringement has been established are usually provided for in the national patent law and are generally in two forms, civil sanctions and criminal sanctions.

Broadly speaking, civil sanctions are available in all cases of infringement while criminal sanctions are available only under particular circumstances, where the infringement was committed intentionally.

Civil sanctions normally available include the award of damages, the grant of an injunction, or any other remedy provided in the general law such as the seizure and destruction of the infringing products or the tools used for the manufacture of those products.

If the patent owner establishes in court that infringement has occurred, or is occurring, he is entitled to damages, which the court will assess. Damages will only be awarded against the infringer for infringements committed since the date of publication of the invention by the Patent Office in the patent application or the granted patent. The amount of damages may be calculated in at least two different ways.

1) to set damages at the amount of the financial loss suffered as a result of the infringement by the patent owner; or

2) use a method of calculation where damages would be based on an account of profits.

This does not mean that the patent owner will necessarily receive all the profits the infringer has made on the infringing articles but, nevertheless, an account of profits can be very near to the actual profits made. Damages may also be assessed by taking into account the royalty being paid by any licensees. In this case a court may decide that damages should be no less than the royalty payments per article and, as they are damages and not royalties, it is likely that damages will be fixed at a higher figure.

Under some national laws, an infringer will not be liable to damages if he proves that at the date of infringement, he was not aware, and had no reasonable ground for supposing, that the patent existed.

An injunction is a prohibition of the infringing act. In such a case the court will issue an order directing the infringer to stop making further copies or infringements of the patented invention. Where the infringing act has not yet been committed but where preparations have been made by a third party with a view to committing an infringing act *("imminent infringement")* the injunction means that infringement may not be started.

Criminal sanctions depend on the structure of the criminal law and the procedures applicable in the country. The usual forms of criminal sanction are punishment by imprisonment or by a fine, or both.

## IV. Exploitation of the Patented Invention

Selling an Invention: It is not enough to assess the product itself; the inventor should also discover whether there is an adequate market for the product covered by his invention.

For some of the more sophisticated technology, research establishments, multinational corporations and the like are showing increasing interest in taking up partially developed technology with the object of completing development and thus gaining from the research effort and securing a significant lead over competitors.

Basically, there are two methods the inventor can use to get his idea into production:

1) He can sell or license his product idea to a company equipped to manufacture it.

2) Alternatively, he can become a manufacturer himself, either establishing a factory or contracting out production to a job or machine shop if appropriate.

Compulsory Licenses: Licenses that are granted by the owner of the patent are considered *"voluntary",* as distinguished from *"compulsory"* or *"non-voluntary"* licenses. The beneficiary of a voluntary license has

the right to perform acts covered by the exclusive right under an authorization from the owner of the patent for invention. The authorization in a contract is generally called a license contract concluded between the owner of the patent for invention and the beneficiary of the license. In contrast, the beneficiary of a non-voluntary license has the right to perform acts covered by the exclusive right under an authorization given by a government authority against the will of the owner of the patent for invention.

Article 5A(2) of the *Paris Convention*[67] specifically provides that countries of the Paris Union may provide for the grant of non-voluntary licenses to prevent abuses resulting from the exercise of patent rights, including failure to work. Article 5A(4)[68] provides that compulsory licenses for failure to work or insufficient working of the invention may not be requested before a certain period of time of non- working or insufficient working has elapsed. This time limit expires either four years from the date of filing of the patent application or three years from the date of the grant of the patent for invention. The applicable time is the one which, in the individual case, expires last.

The time limit of three or four years is a minimum time limit which recognizes that it may take some time for the owner of a patent to begin working the patented invention in each country where he has obtained patent protection. The patent owner must be given a longer time limit, if he can give legitimate reasons for his inaction, for example, that legal, economic or technical obstacles prevent working, or working more intensively, the invention in the country. If that is proven, the request for a compulsory license must be rejected, at least for the time being. The time limit of three or four years is a minimum time limit also in that sense that national law can provide for a longer time limit.

Article 5A(4)[69] further provides that the compulsory license for non-working or insufficient working must be a non-exclusive license and can only be transferred together with the part of the enterprise benefiting from the compulsory license. The patent owner must retain the right to grant other non- exclusive licenses and to work the invention himself. Moreover, because the compulsory license has been granted to a particular enterprise on the basis of its known capacities, it is bound to that enterprise and cannot be transferred separately from that enterprise. These limitations are intended to prevent a compulsory licensee from obtaining a stronger position on the market than is warranted by the purpose of the compulsory license, namely, to ensure sufficient working of the invention in the country.

[67] <https://www.wipo.int/treaties/en/text.jsp?file_id=288514#P123_15283>
[68] < https://www.wipo.int/treaties/en/text.jsp?file_id=288514#P123_15283>

[69] < https://www.wipo.int/treaties/en/text.jsp?file_id=288514#P123_15283>

# V. COMPUTER RELATED INVENTIONS (CRI)

Modern society relies heavily on computer technology. Without software, a computer cannot operate. Software and hardware work in tandem in today's information society. So it is no wonder that intellectual property protection of software is crucial not only for the software industry, but for other businesses as well.

The intellectual property protection of computer software has been highly debated at the national and international level. For example, in the European Union (EU), a draft Directive on the Patentability of Computer-implemented Inventions has been discussed in order to harmonize the interpretation of the national patentability requirements for computer software-related inventions, including the business methods carried out via the computer. These discussions show divergent views among stakeholders in Europe. Furthermore, the Internet raises complex issues regarding the enforcement of patents, as patent protection is provided on a country-by-country basis, and the patent law of each country only takes effect within its own borders.

Until the late 20th century, the functionality of most innovative products, particularly those relying on semiconductors, was primarily embedded in hardware. There was no doubt about their patentability. But today, increasingly sophisticated semiconductor technology and design tools mean that physical objects are no longer the sole basis of innovation. In other words, technical functionality is progressively migrating from hardware to software. And yet in many jurisdictions software-related inventions either do not qualify for patent protection or have a very limited scope of protection.

The huge economic growth and innovative potential of technology companies that develop products that combine hardware and software, and of the software industry in general, suggest the time is ripe to rethink IP statutes and bring them into line with present-day commercial realities.

The great advantage of software is that engineers and designers have more flexibility in developing – and launching, or licensing to others to launch - products with new technical capabilities, and in fixing errors and releasing new software with simple downloadable updates. In many cases, implementing an invention in software rather than in hardware is more rapid and is the faster and more cost-effective way to get a product to market.

Consumers benefit from seamless and affordable access to the latest advances. And the relatively low capital investment involved in creating software solutions makes market entry easier for small businesses

and start-ups. However, these companies still need effective IP protection to secure a reasonable return on their R&D investments.

Historically, IP laws have influenced the success of the software industry by providing software developers with a legal mechanism through which to capture at least some of their innovation's market value. Since at least the 1960s, the software industry has relied on three distinct IP protection regimes: trade secrets, copyright and patent law. The scope of protection offered by each has varied significantly over time, as has the software industry's reliance on them. History shows that patent law offers the most effective framework for protecting an invention's functionality. In many countries, however, a distinction is drawn between inventions implemented in hardware, which are patentable, and inventions implemented in software (i.e. computer programs), which are protected by copyright law. But in a world in which the Internet – and not hardware such as CDs – is the prime channel for software distribution, this legal distinction makes it difficult for inventors of software-related inventions to effectively protect and leverage the commercial value of their inventions through IP systems.

These innovative contributions are no less significant than hardware-based innovations. Computer programs, including software-related inventions, are products in their own right regardless of how they are distributed.

Today, many technological innovations rely on software advances. Take the software-related innovations that have revolutionized the smartphone.

Software-implemented functionality is making an expanding range of everyday products safer and more efficient with higher performance. It is creating entirely new offerings and capabilities, such as intelligent power grids, digital manufacturing, real-time farm management systems, smart cities powered by interconnected (Internet of Things) platforms, and digital healthcare. Estimates suggest that the digital economy – which relies heavily on software-related innovations - already represents 22.5 percent of the global economy.

Global R&D spending on software offerings has also grown rapidly, rising from US$ 86 billion in 2010 to US$ 142 billion in 2015, an increase of 65%. Many technological innovations rely on software advances. Unprecedented software-related innovations resulting from years of high-risk investment in R&D by Qualcomm, for example, have revolutionized the smartphone. Between 2009 and 2013 the total aggregate lines of code on the chips – the brains of the phone – shipped by Qualcomm increased from 330 billion to 3.3 billion. A glance at the international patent landscape reveals a variety of approaches in handling the patentability of software-enabled inventions.

**CRI in US**

Neither software nor computer programs are explicitly mentioned in statutory US patent law. Patent law has changed to address new technologies, and decisions of the US Supreme Court and United States Court of Appeals for the Federal Circuit (CAFC) beginning in the latter part of the 20th century have sought to clarify the boundary between patent-eligible and patent-ineligible subject matter for a number of new technologies including computers and software. The first computer software case in the Supreme Court was in 1972[70]. Since then, the Supreme Court has decided several cases touching on the patent eligibility of software-related inventions.

In the US, patent protection for software-related inventions is limited to those on recordable media, not to computer programs themselves[71]. This protection falls short when it comes to the online distribution of software. Unfortunately, the Supreme Court's decision in *Alice Corp.* v. *CLS Bank International*[72] and some subsequent cases have failed to provide clear boundaries for the patent eligibility of software- related inventions.

For many years, US courts have grappled with where to draw the line dividing unpatentable inventions from patentable ones. In its Mayo[73] and Alice[74] decisions, the Supreme court has recently developed a *"test"* to make this determination. Unfortunately, the word *"test"* must be in placed within quotes, as the test is by no means definite in all cases, and frequently leaves the issue as confused as it was before the test was applied. We do know, however, that this same test applies whether the patent-ineligible concept being evaluated is an abstract idea or a natural phenomenon. We will refer to This test gets referred as the as the *"Alice test"* because it was most clearly articulated in the Alice decision, even though the test properly originates in the Court's Mayo decision from two years earlier.

The Supreme Court has explained that the second step of the Alice test is to determine whether the claim contains an *"inventive concept"* sufficient to transform the claimed abstract idea into a patent- eligible

[70] Gottschalk v. Benson, 409 US 63 (1972)
[71] In re Beauregard, 53 F.3d 1583 (Fed. Cir. 1995).
[72] 134 S.Ct. 2347 (2014).
[73] Mayo Collaborative Services, DBA Mayo Medical Laboratories et.al. v. Prometheus Laboratories, Inc.,. 566 US , 132 S.Ct. 1289 (2012) < https://www.supremecourt.gov/opinions/11pdf/10- 1150.pdf>
[74] Alice Corporation Pty Ltd. v. CLS Bank International et.al., 134 S.Ct. 2347 (2014) <

https://www.supremecourt.gov/opinions/13pdf/13-298_7lh8.pdf>

application. This second step originated in the Mayo decision and was clarified by the Supreme Court in Alice:

> *At Mayo step two, we must examine the elements of the claim to determine whether it contains an "inventive concept" sufficient to "transform" the claimed abstract idea into a patent-eligible application. A claim that recites an abstract idea must include "additional features" to ensure "that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]."*

As was the case with phrase *"abstract idea"*, the fact that we lack any clear definition of what constitutes an *"inventive concept"* makes it more difficult to analyse a claim for its existence. Nonetheless, the Alice decision as interpreted by the Federal Circuit has provided some guidance on how to perform step two.

The Supreme Court has explained that Alice test is applied in two parts:

1) The first step requires a consideration as to whether the claims at issue are, in fact, directed to an ineligible concept (e.g., an abstract idea or natural phenomenon). In making this determination, the Supreme Court has emphasized that it is important to *"tread carefully in construing this exclusionary principle lest it swallow all of patent law"*, since, at some level, *"all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas"*. To determine whether the claims are "directed to" the ineligible concept rather than simply embodying or applying that concept, we are to examine both the claims and the specification to determine the *"claimed concept"* (which can also be referred to as the *"focus"* of the claims or the *"claimed advance").* This claimed concept can then be compared with other inventions that have been found to be directed to abstract ideas or natural phenomenon. If the claimed concept is similar to other inventions previously found to be directed to an ineligible concept, then the claimed concept fails step one and the invention is further analysed under step two. If the claimed concept is sufficiently different, then the invention is patent eligible under step one, and it is not necessary to analyse step two of the test.

*2)* The second step of the Alice test is to *"consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application".*

## CRI in Europe

In Europe, the European Patent Convention (EPC)[75] state that a computer program claimed *"as such"* is excluded from patentability. Computer programs appear as a subject matter excluded from the meaning of invention[76]. However, in 2005, the EPO had already granted over thirty thousand patents related to computer programs and, currently, computer-implemented inventions are the object of approximately 35% of European patent applications.

The determination of the limits of patentability regarding computer-implemented inventions in Europe derives, essentially, from the decisions of the *Technical Boards of Appeal (TBA)* of EPO and the interpretation fixed on them, of the relevant provisions.

Although EPC dates from 1973, EPO only started to receive European patent applications in 1977.Approximately ten years later, a decision from a TBA would arise, which would constitute the foundation of the evolution of EPO's jurisprudence regarding inventions implemented by computer. That decision was taken in case T 208/84 VICOM – computer related Invention[77]. But an appeal by IBM[78] before the Board of Appeals for the EPO provided useful guidance[79]. The Board stated that a narrow reading of the relevant articles meant that not all computer programs should be excluded from patentability to comply with the TRIPS Agreement which deals with patentable subject matter[80]. The Board concluded that *"computer programs as such"* referred only to those that were non-technical in character. It also acknowledged that *"it does not make any difference whether a computer program is claimed by itself or as a record on a carrier".* In other words, as long as a computer program is technical, the medium in which it is recorded is irrelevant and is, in fact, patentable. Given the current widespread online commercial distribution of software, this is an especially important finding.

[75] Articles 2(c) and 3.
[76] Article 52(2)(c) EPC.
[77] Case number T 1173/97 VICOM
The invention object of this patent application no. 79300903.6 (EP0005954), filed July 15, 1986 comprised a method and a device for the digital processing of images in which the dots of an image were represented in two sequences of two-dimensional images that carried a mathematical method and that, particularly, made the mentioned processing faster.

[78] Case number T 1173/97 IBM
The invention object of the European patent application no. 91107112.4 (EP0457112), filed May 02, 1991, consisted in the asynchronous resynchronization of an authorization procedure.
<https://www.epo.org/law-practice/case-law-appeals/recent/t971173ex1.html#q>

[79] <https://www.epo.org/law-practice/case-law-appeals/pdf/t971173ex1.pdf>
[80] Article 27.

The EPO Guidelines 2018[81] were recently published on the European Patent Office (EPO) website. All substantial changes in the new Guidelines relate mainly to sections discussing the *First Hurdle*, the EPO equivalent to patent eligibility. Although the First Hurdle can be overcome simply by adding the presence of a computer, the number, quality of and relationship between technical features are essential in dealing with the Second Hurdle, or inventive step. A thorough analysis of whether each claimed feature is technical, or not, is essential to claim drafting and prosecution of a computer-implemented invention at the EPO and many also believe may help assessing eligibility and patentability before the USPTO.

The new Guidelines entered into force on November 01, 2018. Like the previous edition, this year's Guidelines include substantial and valuable improvements with regard to guidance on the eligibility of computer-implemented inventions. These sections of the Guidelines have been discussed with the *European Patent Institute (epi)*[82], in particular with the *ICT Thematic Group of the European Patent Practice Committee*[83] within the epi.

The changes within the 2018 Guidelines appear mainly in Parts F-IV and G-Vll of the Guidelines and provide further, detailed guidance on well-established practices. Such practice discussed in the guidelines consists of the so-called *"two-hurdles"* approach:

1) *First Hurdle.* The claimed subject-matter must have a technical character, but claims may contain a mix of technical and non-technical features; and

2) *Second Hurdle.* All features contributing to the technical character are taken into account for assessment of inventive step, including mathematical method steps which contribute to the technical character of the invention. The inventive step is assessed by the well-established *"Problem and Solution Approach for claims comprising technical and non-technical features"*[84], which has not undergone substantial changes.

The Guidelines also explain that claims in a patent application concerning a computer-implemented invention may comprise:

a) A method claim;

b) A computer program product claim;

c) A corresponding data carrier signal carrying the computer program product;

[81] < https://www.epo.org/law-practice/legal-texts/guidelines.html>
[82] < https://patentepi.com/en/>
[83] < https://patentepi.com/en/epi-bodies/epi-committees/#/european-patent-practice-committee-eppc>
[84] G-VII, 5.4

d) A computer readable (storage) medium or data carrier.

For the very first time, the Guidelines include new sections on *Artificial Intelligence and Machine Learning, and on Simulation, design or modelling,* among other changes. The new Guidelines address artificial intelligence inventions and clarify that they are subject to the same criteria as the other computer-implemented inventions, by relying on stable jurisprudence. In any event, careful consideration of patenting strategy is critical for obtaining the desired protection.

The case law of the EPO Boards of Appeal is not binding on the EPO member states and different national courts acting on different cases may take a different view of patentability. The decision of EPO (directly or in appeal proceedings) not to a grant a European patent can however not be challenged in national courts. Any European patent issued by the EPO may be revoked in a patent infringement lawsuit or revocation proceedings before a national court if for instance the court judges the invention as non-patentable in view of new prior art evidence or in view of a reconsideration of the available prior art. Furthermore, member states have certain degree of freedom regarding exceptions: the extent to which another party may use a patent, for example to decompile software that would otherwise infringe a European patent.

## CRI in Japan

Computer programs as such cannot be patented, but they may be protected under the Regulations on Computers Software Protection[85], formulated in accordance with the Copyright Law.

An invention containing a computer program may be patentable if the combination of software and hardware as a whole can actually improve the prior art, bring about technical results and constitute a complete technical solution. Japan's Patent Act[86] on the other hand, explicitly refers to computer programs as patentable subject matter. The Act states that the claimed subject matter must be recognized as a *"creation of technical ideas utilizing the law of nature"* to qualify as a patentable invention. In general, according to the Examination Guidelines of the Japan Patent Office, to be patent-eligible, a claim for a software-related invention must demonstrate that software and hardware resources work cooperatively.

## CRI in India

On June 30, 2017, the Office of Controller General of Patents, Designs and Trade marks (CGPDTM) passed Office Order[87], revising the set of Guidelines for Examination of Computer- Related Inventions *("CRI*

[85] < http://www.china.org.cn/english/DAT/214781.htm>
[86] Article 2(3)(i).
[87] Order No. 36 of 2017

*Guidelines")* published earlier in 2016. The most notable amendment involved the deletion of the requirement that patents for software could only be claimed in conjunction with novel hardware. The erstwhile three-step test for patentability (whose third step specifically stated that computer programs in themselves were unpatentable, and could only be claimed in conjunction with novel hardware) was removed, along with the numerous examples of patent-ineligible claims.

The first set of Draft CRI Guidelines were released by the IPO on June 28, 2013 for consultation with stakeholders. The CRI Guidelines clarified that business methods, mathematical methods as well as algorithms are not patentable. However a new term *"technical effect"* was introduced in the CRI Guidelines in order to further explain *"technical advancement"* under Section 2(1)(ja) of the Patents Act.

The second set of CRI Guidelines for examination of computer-related inventions was released by the IPO on August 21, 2015. These Guidelines completely reversed the earlier position with respect to examination of computer programs and mathematical methods and by allowing such patents ran contrary to Section 3(k) of the Patents Act. On September 15, 2015 a group of civil society organizations, industry representatives and academicians to pen a joint letter to the Prime Minister's Office, the related ministries and the Indian Patent Office expressing concern over the CRI Guidelines, requesting therein for urgent steps to recall the Guidelines. The Government swiftly took note of the situation and within a week's time a letter to the IPO, requesting examination of the CRI Guidelines, was issued by the DIPP. In the following months IPO held consultations with representatives from the industry and other civil society organizations.

An open consultation was organized by the IPO on January 19, 2016 where stakeholders provided their comments and inputs on substantial legal issues in the Guidelines and suggested alternate examples and tests for the purpose of examination of computer related inventions.

On February 19, 2016 the Office of Controller General of Patents, Designs and Trade marks (Indian Patent Office or IPO) issued a revised set of Guidelines for Examination of Computer- Related Inventions. The Guidelines come two months after the previous CRI Guidelines, released on August 21, 2015, were put in abeyance following severe criticism from various stakeholders. The revision were in line with the provisions of the Patents Act 1970 that exclude mathematical and business methods, algorithms and computer programmes *per se* from patentability.

The heart of the 2016 guidelines was a three stage test to examine a CRI application, according to which the Examiners may:

<http://www.ipindia.nic.in/writereaddata/Portal/Images/pdf/Office_Order_No_36_of_2017_for_Revised Guidelines_for_Examination_of_CRIs.pdf>

1) Properly construe the claim and identify the actual contribution
2) If the contribution lies only in mathematical method, business method or algorithm, deny the claim
3) If the contribution lies in the field of computer programme, check whether it is claimed in conjunction with a novel hardware and proceed to other steps to determine patentability with respect to the invention. The computer programme in itself is never patentable. If the contribution lies solely in the computer programme, deny the claim. If the contribution lies in both the computer programme as well as hardware, proceed to other steps of patentability.

A three-stage test stipulated previously has been removed in accordance with the latest revision. Of particular interest to patentees is that the requirement of novel hardware in CRIs is no longer mandatory. The guidelines emphasise that the underlying substance of the invention is important and, therefore, require the patent office to examine the invention as a whole and for the technical advancement exhibited by the claimed invention. The Indian Patents Act clearly excludes computer programmes *"per se"* and the exclusion should not be allowed to be avoided merely by camouflaging the substance of the claim by its wording.

It can be inferred that the revised guidelines focus on substance over form instead of novel hardware requirement. That is, while examining an application its substance is considered and a claim is taken as whole, if it does not fall in any of the excluded categories, the Examiner can proceed with other steps to determine patentability with respect to the invention.

The revised guidelines further discuss determination of excluded subject matter relating to CRIs. According to the revised guidelines, it is important to ascertain from the nature of the claimed CRI whether it is of a technical nature involving technical advancement as compared to the existing knowledge or having economic significance or both, and is not subject to exclusion under Section 3 of the Patents Act.

In the view of the foregoing, it can be concluded that as the CGPDTM has done away with the requirement of novel hardware, the patentability criteria is eased out. This not only facilitates the patentability of CRIs but also attracts big software MNCs and start-ups to invest in the area of development of software technologies.

# VI. STANDARDS, SEPs & FRAND

## Standards

Standards influence almost every facet of our lives. They influence the food we eat, our means of communication, travel, work, play and endless other activities. Almost every product available in the marketplace has been developed in compliance with one or more voluntary or mandatory standards. Mandatory standards generally pertain to health, safety or the environment and are set and enforced by, or on behalf of, the relevant government. Most standards are voluntary.

The *International Organization for Standardization (ISO)*[88] defines a formal standard as a document, established by consensus that provides rules, guidelines or characteristics for activities or their results." A standard, therefore, is generally a set of characteristics or qualities that describes features of a product, process, service, interface or material. A standard may also describe how properties are measured, the composition of a chemical, the properties of an interface, or performance criteria against which a product or process can be measured.

Apart from health, safety and environmental concerns, standards are important for a number of other reasons. For example, the existence of standards makes it possible to develop compatible or interoperable products by competing firms. In other words, they ensure the compatibility between complementary products and even between the various parts of a particular product. Product standards are often critical to the effective functioning of markets and play an important role in international trade. For consumers/users, standards provide information and serve a quality assurance function.

Technological standards are a central component of the modern network economy and can have significant welfare effects. As a consequence, mechanisms behind standard development and implementation represent a major policy concern. Most modern standards are created by consensus- driven *Standard Setting Organizations (SSOs)*, and involve the voluntary participation and collaboration of many different entities: firms, government agencies, individuals, academic institutions and research laboratories. Their willingness to disclose and license *Standard Essential Patents (SEPs)*[89] is crucial for standard implementation and its

[88] < https://www.iso.org/home.html>

[89] In the course of the standardization process, there are usually many equally viable paths towards a technological solution, and SSOs often choose only one of them. In doing so, SSOs transform relevant patents into "Standard Essential Patents" and may allow their owners to command high royalties, even when other patents could have offered comparable value, had a different technological path been chosen.

future success. SSOs play a pivotal role in this process by ensuring that concerns about *ex-post* hold-up are minimized through proper disclosure of SEPs and fair, reasonable and non-discriminatory (FRAND) licensing commitments made by patent owners.

Complying with certain standards is generally considered to be in the overall interest of producers of goods and providers of services. By way of illustration, there are unlimited possibilities concerning the shapes and sizes of nuts, screws and bolts which, if they were to proliferate, would mean that no standard screwdrivers or spanners could be manufactured that are fit for their purpose. Similarly, in the digital world, in the absence of standards for CDs, CD-ROMs, DVDs, JPEG and a number of other systems that enable different companies to make products that are compatible, there would be insurmountable problems for products of one company to interface with, connect to, or be used in, equipment made by other companies. Standards for interoperability are particularly important for network markets, such as railroads, electricity, telegraph/faxes, telephones, cellular phones, and the Internet.

## Standards & Patents

In today's competitive context, where companies invest significantly in the development of new technologies and products, which are often protected by intellectual property rights (IPRs), it is not uncommon that the best technology for a technical standard is a proprietary technology, protected by one or more patents. The development of standards more and more frequently anticipates technology rather than following it, leading to conflicts between standards and patents. If patented technology is incorporated into a standard without the patent holder's agreement to share its patent rights, then the patent holder may be the only entity able to comply with the standard.

This raises important questions for companies that own such protected technology, for individuals and companies involved in the standards-setting process as well as for all those enterprises which will then use or adopt the standard for their products or processes. Additionally, several other concerns arises in this regard:

1) Should a technology protected by IPs be incorporated in a technical standard?
2) Do companies willing to adopt a standard need to obtain a license from the IP/patent holder? If so, under what terms and conditions?
3) Do companies involved in the standards-setting process have a duty to disclose information, to the other members of the standards-setting committee, about their patents or patent

applications?

4) What happens if the patent holder(s) refuse(s) to provide licenses for the use of patented technology?

Technical standards are generally developed and revised collaboratively by technical committees of *Standard Development Organizations (SDOs)* comprising a number and variety of stakeholders (including consumer/user interests and experts in the relevant technical fields). The membership of such committees may be open or closed, and is often by invitation only. During the development of technical standards, participants may be required to draw the attention of the committee to the fact that there may be one or more "essential patent(s)" that are needed for meeting the standard, i.e. it would be impossible for someone to comply with the standard without employing the technology protected by the patent(s). So the permission of the patent-holder would be needed and that could mean signing a license agreement and paying royalties to the patent holder.

Obviously, it would not be very productive to adopt a standard if an IP holder can block the implementation of that standard by either refusing to grant a license or requiring such high royalties as to make it impossible for its dissemination and adoption as a standard. Examples of international ISO standards that include patented technologies abound, such as the MPEG-2 standard for visual and audio compression, for which the number of patents required for implementing the standard is of the order of 100s.

Many SDOs discourage the use of proprietary or patented technology in standards; they support it only in *"exceptional cases"* where justified by *"technical reasons".* In such cases, the patent holder of a technology considered to be crucial for meeting the requirements of a standard may be contacted by the technical committee of an SDO and asked whether the patent holder would agree to negotiate licenses with users of such standards on fair, reasonable and non-discriminatory terms and conditions (generally referred to as FRAND terms and conditions). However, IP policies of SDOs generally do not really explain as to what may be considered to be FRAND terms and conditions. Some SDOs go beyond the FRAND terms and conditions, requiring technologies to be licensed on a *royalty-free* basis (generally referred to as RF basis); for example, this is true of certain consortia dealing with Internet standards.

**The SDOs classifies patents into two different types:**

1) Essential/major patents (type H innovations) are depicted in this model by the assumption that there is a single route to implement the corresponding functionality, so the patent cannot be bypassed; actually, we assume that it cannot even be duplicated within the context of the standard setting process. As a consequence, unless an SSO participant comes up with the

relevant IP during the SS process, the functionality will not be embedded in the standard as there might be no reasonable technical solution, in which case compliance with the standard is infeasible.

2) Minor patents (type L innovations) are patents corresponding to an easier innovation, and for which there exists an alternative route. But in order to find this alternative route within the timeframe of standard setting, the SSO must build upon the knowledge embedded in the existing patent; put differently, the SSO cannot find a solution from scratch within the time frame. We further assume that bypass of the patent requires redefining the functionality in such a way that it is consistent with the alternative route; so bypass for simplicity is feasible at the SS stage, but not after the standard has been set.

## Adopting a Standard

Any company, large or small, that plans to adopt a standard for its products, processes or services, should first and foremost verify if there is/are any *"essential"* patent(s) for which a license is required and the broad terms and conditions under which the license will be granted. This information is generally available from or through the relevant SDO. If the license is to be obtained directly from the patent holder, then the patent holder should be contacted and a licensing agreement negotiated and signed prior to taking any concrete steps to adopt the standard for a company's products or process.

There may also be cases in which, in order to comply with a given standard, a company may have the option of choosing from a series of alternative technologies that could be used, some of which may include the use of protected or patented technology. In all such cases, the patents would not be considered to be *"essential patents"* but *"useful patents",* as adopters of the standard have other ways of complying with the standard that do not require use of a patent. Moreover, there may be cases in which there are a number of essential patents which may be pooled by the patent holders (i.e. a *"patent pool"* is established enabling companies to obtain licenses for a group of patents through a single agreement) to facilitate dissemination of the standard. This was the case, for example, in the case of MPEG-2.

In any case, it is crucial to understand that in order to comply with a given standard or technical regulation, a company may have to (or choose to) use one or more patented technologies. In all such cases, the company is required to obtain a license from the patent-holder and this must be done prior to using the patented technology to conform to the requirements of the standard. On occasions, patent- holders may agree to grant royalty-free licenses, but this may not always be the case. It is important to know the rules of the game so

that you are able to negotiate the best possible terms and conditions for use of a proprietary or patented technology that you need for meeting the requirements of a standard.

## Standards-setting Process

In certain cases, the product specifications of a dominant supplier in the market may become the *de facto* standard for all others if they wish to enter the market. In this article, we are not concerned with these type of standards. Here, we focus on development and use of collaboratively developed standards, which are adopted by consensus. On occasions, however, a proprietary *de facto* standard may be adopted by consensus by the relevant standard-setting body to become the *de jure* standard.

Standards are developed at various levels by standards-setting technical committees created by international, regional, national or subnational Standard Development Organizations (SDOs) and/or by professional, industry or trade associations, alliances or consortia. Most countries have a National Standards Body (NSB)[90], which is accredited to the International Organization for Standardization (ISO). The national NSB, in turn, may accredit a number of public and private SDOs that adhere to the criteria of the NSB (generally including on IP matters) for developing voluntary standards. A standards-setting technical committee of an SDO may have an open or closed membership. In addition to ISO, there are other multilateral bodies such as the *International Electrical Commission (IEC)*[91] and the *International Telecommunications Union (ITU)*[92].

Companies, big or small, may wish to participate in a standards-setting committee in order to influence and steer the standards-setting process in the direction that best serves their interests. However, it may not be possible for a company to participate in the standards-setting process if the membership of the standards-setting committee is closed to, for example, members of an association, alliance or consortium. While the use of an open standards-setting process usually lessens antitrust or competition concerns over the exercise of market power, open standards-setting procedures may lessen efficiency because of the need for consensus among competitors, each of whom may have its own proprietary technology. This means that companies would want to ensure that the standard being adopted does not make any of their own technologies irrelevant and, on occasions, companies may seek to have their own patented technology

[90] The term National Standards Body (NSB) generally refers to the one-per-country standardization organization that is that country's member of the ISO.
The term Standards Developing Organization (SDO) generally refers to the thousands of industry or sector-based standards organizations that develop and publish industry specific standards.

[91] < https://www.iec.ch/>
[92] < https://www.itu.int/>

become essential (or useful) to comply with a standard. This may be especially true for a company that has complimentary assets, which could give it a competitive edge.

While there may be no duty to do a patent search of the patent portfolio of the participating company or of any other companies, yet the participants in the standards-setting process may be required to reveal information about IPRs, especially patents (and, in certain cases, also patent applications) that may be owned by the company and are likely to be essential for complying with the proposed standard. The IP policies of SDOs vary widely in this respect and have often been revised over the past years. IPRs or Patent policies of SDOs follow different practices about if, when and how much information on IPRs, especially patents (or patent applications) needs to be disclosed.

Therefore, it is important for a company that plans to participate in the standards-setting process to be well informed about the details of the IP policy of the relevant SDOs. It is important to note that in some cases, non-disclosure of patents or patent applications during the standard-setting process may lead to the patent being unenforceable and/or result in investigations by the anti-trust or competition law enforcement agencies to prevent abusive use of IPs/patents by participants in the standards-setting process.

There may be situations in which mere membership of an SDO (or, more specifically, membership of a technical committee) creates a *"default"* licensing of a company's IPs. It should also be borne in mind that contributions to a standards-setting process are generally not confidential; so, all technical information revealed to the members of a standards-setting committee may be considered "prior art" for the purpose of examining or invalidating a future patent application pertaining to it.

Concerning *copyright*, SDOs also have different policies. Many SDO's policies on IPs are limited to patents and do not deal with other intellectual property rights, such as copyright, which is generally dealt with on an ad hoc basis. The IP policy of some SDOs clearly states that its policy on patents also applies to any works protected by copyright, which may be required to meet the standard. Other SDOs, however, have decided not to have a policy that addresses proprietary copyrighted material, such as source code. An additional issue is copyright ownership over written contributions to the standards- setting process, on which policies also vary significantly between SDOs. Similarly, the issue of copyright over the finalized standard document becomes relevant if the copy of the standard is to be sold as a priced publication; the policies of SDOs vary on this question too.

Whether your company holds patents (or has filed patent applications) that may potentially become essential or useful for meeting a standard, or whether your company intends to manufacture products or deliver services that comply with a given standard, it is advisable to become familiar with the IP or patent policy of the relevant SDO. If there is a need to obtain a license from a holder of an essential patent, it will

generally be necessary to contact the patent holder directly and sign a license agreement under negotiated terms and conditions that are acceptable to both the parties.

The importance of private standard setting is growing in IP management. IP managers have to consider IP laws and antitrust laws as well to avoid the adverse implications in standard setting. The National Telecom Policy (2012) of India intends to increase standardization and intellectual property creation. Standardization has various concerns with respect to competition and IP law. This article analyses the private standard setting organisation's policy in the context of competition law and IP law. It also discusses the role of competition authorities in the standard setting process, IP, the emerging scenarios and suggests an approach for India. Standardization is essential for economic development. There is need of standards based on consensus, openness, due process and transparency. India needs to develop a comprehensive strategy on standards by coordination with government, industry, SSOs, consortia, consumer groups and academia. International standards are must for international trade. The active involvement of government in central and state level is key to successful standards.

## Standard Essential Patent

A standard-essential patent (SEP) is a patent that claims an invention that must be used to comply with a technical standard[93]. Standards organizations, therefore, often require members disclose and grant licenses to their patents and pending patent applications that cover a standard that the organization is developing.

[93] A technical standard is an established norm or requirement in regard to technical systems. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes, and practices. In contrast, a custom, convention, company product, corporate standard, and so forth that becomes generally accepted and dominant is often called a de facto standard.

A technical standard may be developed privately or unilaterally, for example by a corporation, regulatory body, military, etc. Standards can also be developed by groups such as trade unions and trade associations. Standards organizations often have more diverse input and usually develop voluntary standards: these might become mandatory if adopted by a government (i.e., through legislation), business contract, etc.

If a standards organization fails to get licenses to all patents that are essential to complying with a standard, owners of the unlicensed patents may demand or sue for royalties from companies that adopt the standard. This happened to the GIF and JPEG standards, for example.

Determining which patents are essential to a particular standard can be complex. Standardisation organizations require licences of essential patents to be on fair, reasonable, and non- discriminatory (FRAND) terms.

**SSOs & SEPs**

SSOs can be governmental, quasi-governmental or private. These are responsible for setting, developing, coordinating, interpreting and maintaining standards. The *Bureau of Indian Standards*[94] is India's national SSO. In the Information and Communications Technologies sector the *Telecom Engineering Centre34* is the only formally recognized telecom standards/ specification/type approval body in India. *Global ICT Standardization Forum for India*[95]*, Telecommunications Standards Development Society, India (TSDSI)*[96]*, and Development Organization of Standards for Telecommunications in India (DOSTI)*[97] are private SSOs in the Indian ICT sector.

The *Institute of Electrical and Electronic Engineers*[98] and *International Telecommunication Union*[99] are prominent SSOs in the cellular and Wi-Fi space. The TSDSI is the first SSO which was established in India in 2013 with an aim to develop and promote India specific requirements in the field of telecommunications.

The SSO-SEP framework confers considerable power on the SEP holder. An entity that wishes to use a technological standard must obtain permission from an SEP holder, which the latter may choose to withhold by refusing to license its Patent. The FRAND declaration attempts to balance inequalities with the idea that an entity should have the right to obtain a license to desired technology on FRAND terms. However, working out a FRAND encumbered agreement and determining what constitutes a FRAND practice is controversial. Also, in practice, it is almost impossible to determine what a FRAND royalty actually amounts to.

The important conditions with respect to adoption of SEPs are that,

[94] < https://bis.gov.in/?lang=en>
[95] < www.tec.gov.in/>
[96] < https://www.gisfi.org/>
[97] < http://dosti.org.in/>
[98] < https://www.ieee.org/>
[99] < https://www.itu.int/>

1) the members must disclose, prior to the adoption of a standard, IP rights that would be essential to the implementation of a proposed standard, and
2) the members must commit to license their SEPs to third parties at FRAND rates.

These policies have to be adhered to ensure the widespread adoption of standards, the very purpose for which a SSO is made. Therefore, licensing SEP on FRAND terms is a voluntary contract between the SSO and the SEP holder. However, the meaning of FRAND has not been defined by SSOs; it depends upon the nature of the transactions between the SEP holder *("licensor")* and the SEP implementer *("licensee").*

## FRAND

FRAND is the acronym for fair, reasonable and non-discriminatory. It generally arises in antitrust cases where an owner of intellectual property rights (IPR) refuses to grant a licence or refuses to grant a licence on FRAND terms.

Failing or refusing to license IP on FRAND terms can be an infringement according to antitrust rules. For example, the EU Commission recently sent a statement of objections to Motorola Mobility over its attempt to enforce a patent injunction against Apple in Germany (i.e. the Commission has come to the preliminary conclusion that Motorola has infringed the antitrust rules). The patents in question relate to GPRS, a part of the GSM standard, which is used to make mobile phone calls. Motorola accepted that the patents were standard essential patents and had, therefore, agreed that they would be licensed to Apple on FRAND terms. However, in 2011 Motorola tried to take out and enforce an injunction against Apple in Germany based on those patents, even although Apple had said that it was willing to pay royalties, as determined by a German court, to use the patented technology. Samsung has also been the recipient of a statement of objections from the EU Commission. It sought injunctions to prevent Apple infringing patents despite Apple apparently being willing to pay a licence fee and negotiate a licence on FRAND terms.

However, what is fair, reasonable and non-discriminatory to one person, or in one context, may be unfair, unreasonable and discriminatory to others, or in a different context. This means that the exact conditions under which a licence will be FRAND compliant are not a universally accepted norm.

1) **Fair:** it is generally relatively easy to identify licence provisions that are clearly unfair. For example, it would be unfair to demand from a licensee concessions that are independent of the licence deal (e.g. purchase agreements, subcontracted production), or to tie the grant of the

licence to unrelated obligations. What is fair, is subjective and more difficult to define.

2) **Reasonable:** this is also a subjective concept but a good starting point for assessing reasonableness would be to benchmark against widespread industry practice.

3) **Non-discriminatory:** the key issue here is whether all licensees that are in equivalent circumstances are treated in the same way. Where licensees are treated differently, there should be an objective justification for doing so.

**The FRAND commitment typically arises in one of two ways:**

1) as a function of the SSO's by-laws or other governing documents that members agree to, or

2) by separate explicit agreements that SSO members execute in connection with the adoption of each standard. (For instance, the IEEE requires that its members declare patents standard essential through *"letters of assurance"* as part of its process of adopting a standard.)

Either way, the FRAND obligation is a commitment that an SEP owner makes to the SSO, not to the general public. Accordingly, thorny issues arise concerning who can actually enforce a FRAND commitment.

Typically, courts have allowed SSO members to enforce FRAND commitments on the theory that they are third-party beneficiaries of the FRAND agreements between the SEP owner and the SSO; but this body of law is still developing and it remains to be seen whether non-members who use the standards will also be considered third-party beneficiaries of the FRAND commitment[100].

Because the FRAND commitment arises as a contractual obligation, the governing law will not be uniform. They typically are written under the law of an SSO's home jurisdiction, which means the FRAND obligation is not standardized — even assuming the wording is the same from one FRAND commitment to the next (perhaps an unfair assumption), each jurisdiction's law still may be different. In some jurisdictions, for instance, a contract is not enforceable unless all terms are definite, including price; but price is *the* open

[100] Microsoft Corp. v. Motorola, Inc., 854 F. Supp. 2d 993, 999 (W.D. Wash. 2012) ("Microsoft, as a member of both the IEEE and the ITU, is a third-party beneficiary of Motorola's commitments to the IEEE and ITU").;
Apple, Inc. v. Motorola Mobility, Inc., 886 F. Supp. 2d 1061, 1085 (W.D. Wash 2012) ("As a potential user of the standards at issue and a perspective licensee of the essential patents, Apple is a third-party beneficiary of the agreements between Motorola and IEEE and Motorola and ETSI.").

term subject to negotiation under a FRAND obligation. Similarly, some jurisdictions may not recognize that a third-party beneficiary has standing to sue[101].

In addition to third-party beneficiary doctrine, commentators have suggested other possible theories to enforce a FRAND obligation.5 Each has its own infirmity. One theory is promissory estoppel, but to prevail on this theory a potential licensee must show knowledge of the FRAND commitment, reliance on that commitment, and that the SEP owner had reason to know that the user expected to benefit from the owner's FRAND commitment; presumably owner and user will have different mental states about the expectations of the user-infringer. Another theory is implied license, where a court could find that the SEP owner invited the infringing use by agreeing to the FRAND commitment; but this theory requires highly specific supporting facts and generally is hard to satisfy. Similarly, equitable estoppel may apply if the SEP owner's conduct was misleading and the potential licensee shows both reliance and material prejudice; but the FRAND commitment by definition is not misleading because it signals the SEP owner's intent to enforce the patent on FRAND terms. Therefore, third-party beneficiary doctrine is likely to remain the most promising of the proposed avenues of enforcement.

Typically, the existence of the FRAND obligation is not at issue in litigation; the focus is the exact form of relief that may be recovered. Although a district court has authority to award both damages and injunctive relief, courts are increasingly reluctant to issue injunctions when FRAND-encumbered patents are at issue. As the U.S. Court of Appeals for the Federal Circuit recently explained in *Apple Inc. v. Motorola, Inc.*, there is no *per se* rule barring injunctions to enforce FRAND-encumbered patents, but the FRAND obligation does create *"unique aspects of - establishing irreparable harm"*[102]. The International Trade Commission ("ITC") is a regulatory forum that adjudicates patent infringements but can only issue exclusion orders as a remedy - akin to an injunction preventing importation - and cannot award damages. ITC exclusion orders are subject to presidential review, typically delegated to the U.S. Trade Representative (USTR), and the USTR recently vetoed an exclusion order in the *Samsung v. Apple* investigation involving FRAND-encumbered patents. The ITC had found that there was no *per se* bar to an exclusion order if a FRAND-encumbered patent was at issue and granted an exclusion order; according to the ITC, a FRAND obligation only requires good faith negotiation and does not require that a license ultimately issue. The

[101] In the Matter of Certain Electronic Devices, Including Wireless Communication Devices, Portable Music and Data Processing Devices, and Tablet Computers, No. 337-TA-794 (I.T.C. July 5, 2013) ("Samsung v. Apple").

[102] No. 2012-1458, 2014 U.S. App. LEXIS 7757, at *106 (Fed. Cir. Apr. 25, 2014); cf. Realtek Semiconductor Corp. v. LSI Corp., 946 F. Supp. 2d 998, 1006-07 (N.D. Cal. May 20, 2013) ("In promising to license on RAND terms, defendants here admit that monetary damages, namely a RAND royalty, would be adequate compensation for any injury it has suffered as a result of Realtek's allegedly infringing conduct."); see also European Commission Decision No. IP/14/489 (Apr. 29, 2014).

USTR blocked that exclusion order, the first such veto since 1987, stating that while a FRAND obligation is not a *per se* bar to an exclusion order, exclusion orders should only be granted where a potential licensee refused to accept a FRAND license or refused to negotiate at all, but are not available where the negotiations simply were unsuccessful.

Since a FRAND obligation is contractual, enforcement of a FRAND commitment arguably should occur under state law and in state courts (absent another reason for federal jurisdiction) even though such litigation will inevitably affect the underlying patents at issue. In other words, it will be a function of how the complaint is framed - if the SEP owner sues for infringement then it will be a patent lawsuit in federal court and a FRAND *"license"* might be a defence; but if the party user brings a contract- related action based upon the FRAND obligation then the lawsuit could be heard in state court[103].

Moreover, even if there is a basis for federal jurisdiction, parties may not be able to have their appeals heard in the Federal Circuit if they lose at the district court level. As the Ninth Circuit noted in its 2012 *Microsoft Corp. v. Motorola, Inc*. decision*, "not all cases involving a patent claim fall within the Federal Circuit's jurisdiction … Microsoft's complaint sounds in contract and it invokes the district court's diversity jurisdiction"*[104]. Notably, Microsoft had filed its interlocutory appeal concerning Injunctive relief to the Ninth Circuit, but initially appealed the final judgment to the Federal Circuit. In a May 05, 2014 nonprecedential order, however, the Federal Circuit granted Microsoft's motion to transfer the appeal to the Ninth Circuit over Motorola's objection. The Federal Circuit held that since the Ninth Circuit previously considered and *"rejected the position that [the Federal Circuit] had jurisdicion over the matter",* the Ninth Circuit had already decided jurisdiction under the law of the case doctrine.

All of this begs the question of how a court should set a FRAND rate, which was only recently answered. In April 2013 Judge Robart, in deciding *Microsoft v. Motorola*[105] looked to the well- recognized *Georgia-Pacific* factors for that answer[106]. Named for the 1970 *Georgia-Pacific Corp. vs. U.S. Plywood Corp. case*[107], the 15 *Georgia-Pacific* factors quickly became the go-to guidance for courts setting a reasonable patent royalty (the minimum for patent infringement damages[108]. Judge Robart's decision, however, modified the 15 factors for the FRAND setting:

1) The owner of an SEP is *under the obligation to license* its patents on [F]RAND terms, whereas the owner of a patent uncommitted to [F]RAND has monopoly power over its patent and may

[103] Holmes Group, Inc. v. Vornado Air Circulation System, 535 U.S. 826 (2002).
[104] 696 F.3d 872, 881 (9th Cir. 2012).
[105] < https://www.essentialpatentblog.com/wp-content/uploads/sites/64/2013/04/2013.04.25-D.E.-681-Findings-of-Fact-and-Conclusions-of-Law-setting-RAND-royalty1.pdf>
[106] 2013 U.S. Dist. LEXIS 60233 (W.D. Wash. Apr. 25, 2013)
[107] 318 F. Supp. 1116 (S.D.N.Y. 1970).
[108] 35 USC § 284.

choose to withhold licensing.

2) The hypothetical negotiation almost certainly will not take place in a vacuum: the implementer of a standard will understand that it must take a license from many SEP owners, not just one, before it will be in compliance with its licensing obligations and able to fully implement the standard[109].

Other courts setting FRAND rates have further modified the *Georgia-Pacific* factors[110].

The *Georgia-Pacific* factors may also need to be modified based on whether the court is setting a royalty rate range for the jury to apply or is actually finding the FRAND rate itself, and whether the court has already determined that the patents at issue are SEP and/or infringed prior to determining the FRAND rate. If the court has not already made a determination that the patent is essential to practice the standard, for instance, the hypothetical *Georgia-Pacific* negotiation would include skepticism over the patent's essentiality to the standard; if it has already been determined to be an SEP, there is no need to adjust the FRAND rate in light of pre-litigation uncertainty about whether a given patent is or is not standard essential and infringed.

Although there has been much activity in this area in recent years, FRAND licensing and its enforcement remain in flux. With several FRAND litigations pending, and some that have already settled pre-litigation, it remains uncertain how the courts will ultimately determine who can enforce the obligations, what type of relief they can seek, how a FRAND rate should be determined, and in what courts these various issues will be decided.

## Major issues involved in SEP litigation

### *1. Patent holdup*

Once a patent is adopted as a standard and achieves commercial acceptance, it becomes *'locked- in'*. It is necessary for a manufacturer to use the same; otherwise his product would be incompatible with other companies' products and hence unmarketable. Such a situation strengthens the SEP holder's bargaining

[109] 2013 U.S. Dist. LEXIS 60233

[110] In re Innovatio IP Ventures, LLC, No. 11 C 9308, 2013 U.S. Dist. LEXIS 144061 (N.D. Ill. Oct. 3, 2013) (applying the Microsoft v. Motorola modification to the Georgia-Pacific factors; see accompanying table); Ericsson Inc. v. D-Link Sys., No. 6:10-CV-473, 2013 U.S. Dist. LEXIS 110585 (E.D. Tex. Aug. 6, 2013) (instructing jury with all 15 Georgia-Pacific factors without modification, but tacking on a 16th factor: the "obligation to license its technology on [F]RAND terms").

power because the licensee does not have alternatives to the same technology. Patent holdup occurs when a SEP holder takes advantage of a locked- in patent by trying to impose unreasonable royalty rates. Unless constrained by a SSO to comply with FRAND licences, the SEP holder can exploit the locked in position to obtain significantly higher royalties than it would have obtained before the patent was incorporated as a standard. However, even after committing to FRAND such a situation arises due to the vague nature of FRAND.

In the cases of *Micromax and Intex*[111] the CCI noted, "*hold-up can subvert the competitive process of choosing among technologies and undermine the integrity of standard-setting activities. Ultimately, the high costs of such patents get transferred to the final consumers."*

Further, in such cases the licensor binds the licensee by a non-disclosure/confidentiality agreement with respect to the terms of the license which restrains the other licensees from acquiring knowledge of the royalty rates imposed on such previous licenses. This acts as an impediment in the conduct of licensing negotiations between the parties and thus leads to major competition concern in FRAND litigations.

### *2. Royalty Base*

The reasonableness of a royalty amount depends on the correct selection of the royalty base. The SEP holders tend to impose the royalty rate on the net sale price of the final product rather than only on the component which comprises the infringed patent. This means even if SEP is used in a single component of a multi component product, the implementer would be liable to pay the royalty on the components which do not include the SEP. In such cases, the whole idea of FRAND diminishes as calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product.

In *Virnetx Inc. v. Cisco Systems Inc.*[112], the US Court of Appeals for the Federal Circuit held that the royalty base must be closely tied to the claimed invention rather than the entire value of the product.

[111] Micromax v Ericsson, Case No. 50/2013, Competition Commission of India, (November 12, 2013)
[112] < https://www.law.berkeley.edu/wp-content/uploads/2016/05/VirnetX-vCisco767_F.3d_1308.pdf>

### *3. Royalty Stacking*

Royalty stacking is the situation where royalties are layered upon each other leading to a higher aggregate royalty. This happens when different SEP holders impose similar royalties on different components of same multi component product, leading the royalties to exceed the total product price.

This concern was raised by the CCI in the cases of Micromax and Intex[113] wherein the Delhi High Court[114] had ordered Micromax to pay royalty to Ericsson on the basis of net sale price of the phone rather than the value of technology used in the chipset incorporated in the phone which was said to be infringed. CCI noted that *"For the use of GSM chip in a phone costing Rs. 100, royalty would be Rs. 1.25 but if this GSM chip is used in a phone of Rs. 1000, royalty would be Rs. 12.50. Thus increase in the royalty for patent holder is without any contribution to the product of the licensee. Higher cost of a smartphone is due to various other softwares/technical facilities and applications provided by the manufacturer/licensee for which he had to pay royalties/charges to other patent holders/patent developers. Charging of two different license fees per unit phone for use of the same technology prima facie is discriminatory and also reflects excessive pricing vis-a-vis high cost phones."*

### *4. Availability of Injunctive relief*

Threat of injunction becomes a powerful weapon when used by a SEP holder for enforcing its royalty rates, as in such a case an SEP implementer would think that accepting an unreasonable royalty would be less risky than curbing an action of infringement. The use of injunctive relief against willing licensees is prima facie breach of FRAND commitment as the FRAND royalty rates by itself are an adequate remuneration to the SEP. Such an action is also considered to be abusive of dominant position and hence a violation of competition laws. Therefore, an injunction should only be claimed when the licensee is unwilling to pay the judicially determined FRAND royalty or where monetary compensation is not an adequate remedy.

The underlining principle behind granting of injunction is that a party must suffer an irreparable damage if the same is not granted. The law on injunction in India is based on the principles of equity. In the said case, the remedy available to the SEP holder is in the form of royalty. The only thing which is to be determined is whether the quantum of the same is adequate. Further, a SEP holder indulging in setting up a SSO, inevitably accents to license the technology on FRAND terms. In such a case, even if the royalty is low, injunction should not be granted unless there is irreparable injury caused to the SEP holder.

[113] Ericsson v Micromax, CS(OS) 442/2013 (12 November 2014).
[114] < http://lobis.nic.in/ddir/dhc/VIB/judgement/30-03-2016/VIB30032016CW4642014.pdf>

The law with respect to SEP is unclear and judgements with respect to the same have differed from territory to territory. It has to be realised that SEPs are not used by the licensees due to a lack of choice of alternatives, but the same is done in order to maintain operability and compatibility between the symbiotic technologies. It has to be realised that a country such as India cannot afford to lose its global image on the basis of lack of development of IP jurisprudence. While companies must be mandated to pass their technology on the basis of FRAND commitments, it is also pertinent to note that rights of the patent holder are also to be safeguarded. Therefore, in the disputes related to SEP it would be prudent if adequate trial is given to both the parties and rates are determined by the Court without prejudice to any party and keeping in mind the interests of the end consumers at large.

## Patent Pools

In patent law, a patent pool is a consortium of at least two companies agreeing to cross-license patents relating to a particular technology. The creation of a patent pool can save patentees and licensees time and money, and, in case of blocking patents, it may also be the only reasonable method for making the invention available to the public. Competition law issues are usually important when a large consortium is formed.

One of the first patent pools, Sewing Machine Combination, was formed in 1856, by sewing machine manufacturers Grover, Baker, Singer, and Wheeler & Wilson, all accusing the others of patent infringement. They met in Albany, New York to pursue their suits. Orlando B. Potter, a lawyer and president of the Grover and Baker Company, proposed that, rather than sue their profits out of existence, they pool their patents.

Patent pools can be defined as an agreement between two or more patent owners to license one or more of their patents to one another or to third parties. Often, patent pools are associated with complex technologies that require complementary patents in order to provide efficient technical solutions. Generally, these patent pools cover mature technologies. Pools also frequently represent the basis for industry standards that supply firms with the necessary technologies to develop compatible products and services. In that case, they rather concern technologies that are yet to be fully developed.

Patent pools have been the subject of ongoing discussions from both a legal and an economic perspective. On the one hand, patent pools may have positive effects on competition and innovation.

By sharing intellectual property assets, companies may develop new products and reduce their transaction costs. On the other hand, under specific circumstances, patent pools may provide an opportunity for a possible anti-competitive behaviour: like any cooperation among competitors, they involve an inherent risk

of collusive behaviour. In other words, a patent pool may be regarded as a cartel. In addition, there may be competition-related concerns regarding the licensing practices and restrictions they entail. The so-called *'patent thickets'* (i.e., overlapping patent rights controlled by rights holders that require innovators to reach licensing deals for multiple patents from multiple sources) can lead to increased transaction costs and to chilling effects on the development of new products.

Although there is a general consensus on the positive and efficiency-enhancing effects of patent pools, there may be instances where the creation of patent pools may lead to possible competition rules violations depending on the applicable antitrust rules:

(i) The creation of patent pools may distort competition if pro-competitive aspects do not outweigh the (potential) limitations on competition;

(ii) The licensing clauses may limit the rights of the patent holders and therefore infringe applicable antitrust statutes; and

(iii) The patent pool may lead to anti-competitive collusion among competitors.

In a patent pool, patent rights are aggregated amongst multiple patent holders. Then, the pooled patents are made available to member and non-member licensees and typically the pool allocates a portion of the licensing fees it collects to each member in proportion to each patent's value. A patent pool may take the form of a joint venture[115], created by two or more patent holders for the purpose of sharing their intellectual property rights.

Historically, patent pools have been concentrated in Europe and the United States although recently Asian companies increased their participation in patent pools given their growing role in technological innovation. Whether patent pools may trigger antitrust scrutiny depends, among other factors, on the concerned technologies or patents. As for the nature of the pooled technologies/patents, they can be categorized as

a) complementary or

b) substitutes and,

c) in a standard setting environment, as

[115] It is possible that the creation of a joint venture needs to be filed with the relevant competition authority as a merger agreement.

(i) essential or

(ii) non-essential.

Two patents are considered substitutes if they cover alternative technologies and are non-blocking5 . The technologies covered by substitute patents can be used in parallel without infringing the other patent. They are therefore potentially competing with each other.

From a technological point of view, complementary patents must be used together to produce a specific output and are not substitutes for each other. Thus, from a technical point of view it is necessary to use complementary patents together in the production process. Therefore, it is required to either be the owner or a licensee of the complementary patents to produce the desired output. In addition, two mutually blocking patents are complementary from a legal point of view. Mutually blocking patents can be described as two patents that infringe on each other. Hence, patent licensing agreements are necessary to produce the desired output to avoid patent infringement claims. It is also possible that patents are one-way blocking, meaning that one patent infringes another patent while the latter doesn't necessarily infringe the first patent.

Mutually blocking patent rights are the result of cumulative innovation, where no technological component can be marketed individually without the technological complements protected by patent rights of different companies.

Differentiating between complementary and substitute (or competing) patents is important when assessing the effects of patent pools on competition. Substitute patents compete with each other and should therefore, from a competition point of view, not be bundled in a pool because, as a result, competition between such substitute technologies would be eliminated. In general, this concern does not apply to complementary patents because actual or potential competition is not lessened. In line with these considerations, antitrust recommendations in both the US and Europe state that pooling complementary patents is generally pro-competitive.

For instance, in *Summit vs. VISX*[116], two US firms engaged in a patent pool and developed their own technology for performing laser eye surgery. Both companies successfully applied for individual patent protection. This type of technology was not available on the market. The Federal Trade Commission (FTC, one of the US antitrust enforcement agencies) concluded that the patents were substitutes rather than complements. Therefore, the FTC found that the patent pool restricted competition that would have existed otherwise in the absence of the patent pool.

[116] <www.ftc.gov/opa/1998/08/sumvisx.shtm>

This differentiation between substitute and complementary patents, however, is only one aspect of the competitive analysis. While the pooling of complementary patents might not have a negative effect on price competition on the downstream market, it might still adversely affect subsequent innovation. According to some research, patent pools may discourage outside firms to invest in R&D if they increase the threat of litigation. In addition, pools may slow innovation if they redirect R&D by outside firms towards technologies that are not covered by pool patents, especially if those technologies are inferior substitutes to innovation. Adverse effects of pools on innovation is a topic that requires further research, but should be taken into account when assessing the pro- and anti-competitive effects of patent pools.

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## CHAPTER IV

# TRADEMARKS IN CYBERSPACE

## I. Understanding Trademarks

Trademarks already existed in the ancient world. Even at times when people either prepared what they needed themselves or, more usually, acquired it from local craftsmen, there were already creative entrepreneurs who marketed their goods beyond their localities and sometimes over considerable distances. As long as 3,000 years ago, Indian craftsmen used to engrave their signatures on their artistic creations before sending them to Iran. Manufacturers from China sold goods bearing their marks in the Mediterranean area over 2,000 years ago and at one time about a thousand different Roman pottery marks were in use, including the FORTIS brand, which became so famous that it was copied and counterfeited. With the flourishing trade of the Middle Ages, the use of signs to distinguish the goods of merchants and manufacturers likewise expanded several hundred years ago. Their economic importance was still limited, however.

Trademarks started to play an important role with industrialization, and they have since become a key factor in the modern world of international trade and market-oriented economies. Industrialization and the growth of the system of the market-oriented economy allow competing manufacturers and traders to offer consumers a variety of goods in the same category. Often without any apparent differences for the consumer, they do generally differ in quality, price and other characteristics. Clearly consumers need to be given the guidance that will allow them to consider the alternatives and make their choice between the competing goods. Consequently, the goods must be named. The medium for naming goods on the market is precisely the trademark.

By enabling consumers to make their choice between the various goods available on the market, trademarks encourage their owners to maintain and improve the quality of the products sold under the trademark, in order to meet consumer expectations. Thus trademarks reward the manufacturer who constantly produces high-quality goods, and as a result they stimulate economic progress.

### Definitions

**Trademarks:** *"A trademark is any sign that individualizes the goods of a given enterprise and distinguishes them from the goods of its competitors".* This definition comprises two aspects, which are sometimes

referred to as the different functions of the trademark, but which are, however, interdependent and for all practical purposes should always be looked at together.

In order to individualize a product for the consumer, the trademark must indicate its source. This does not mean that it must inform the consumer of the actual person who has manufactured the product or even the one who is trading in it. It is sufficient that the consumer can trust in a given enterprise, not necessarily known to him, being responsible for the product sold under the trademark.

The function of indicating the source as described above presupposes that the trademark distinguishes the goods of a given enterprise from those of other enterprises; only if it allows the consumer to distinguish a product sold under it from the goods of other enterprises offered on the market can the trademark fulfill this function. This shows that the distinguishing function and the function of indicating the source cannot really be separated. For practical purposes one can even simply rely on the distinguishing function of the trademark and define it as *"any visible sign capable of distinguishing the goods or services of an enterprise from those of other enterprises".*

**Service Marks:** In modern trade consumers are confronted not only with a vast choice of goods of all kinds, but also with an increasing variety of services which tend more and more to be offered on a national and even international scale. There is therefore also a need for signs that enable the consumers to distinguish between the different services such as insurance companies, car rental firms, airlines, etc. These signs are called service marks and fulfill essentially the same origin-indicating and distinguishing function for services as trademarks do for goods.

Since service marks are signs that are very similar in nature to trademarks, basically the same criteria can be applied, so service mark protection has sometimes been introduced by a very short amendment to the existing trademark law, simply providing for the application to service marks, mutatis mutandis, of the provisions on the protection of trademarks. It follows from the above principle that service marks can be registered, renewed and canceled in the same way as trademarks; they can moreover be assigned and licensed under the same conditions. Rules devised for trademarks therefore apply equally, in principle, to service marks.

**Collective Marks and Certification Marks:** Trademarks typically identify individual enterprises as the origin of marked goods or services. Some countries provide for the registration of collective and certification marks, which are used to indicate the affiliation of enterprises using the mark or which refer to identifiable standards met by the products for which a mark is used.

The following are the common features in the relevant provisions of national law on this topic.

**Collective Marks:** A collective mark may be owned by an association which itself does not use the collective mark but whose members may use the collective mark; the members may use the collective mark if they comply with the requirements fixed in the regulations concerning the use of the collective mark. An enterprise entitled to use the collective mark may in addition also use its own trademark.

The regulations concerning the use of the collective mark normally have to be included in an application for the registration of the collective mark and any modifications to the regulations have to be notified to the Trademark Office. In several countries (for example, the Federal Republic of Germany, Finland, Norway, Sweden and Switzerland), the registration of a collective mark may be canceled if that mark is used contrary to the provisions of the regulations or in a manner which misleads the public. Collective marks, therefore, play an important role in the protection of consumers against misleading practices.

The Paris Convention contains provisions on collective marks in its Article 7b[117]. Those provisions, in particular, ensure that collective marks are to be admitted for registration and protection in countries other than the country where the association owning the collective mark has been established. This means that the fact that the said association has not been established in accordance with the law of the country where protection is sought is no reason for refusing such protection. On the other hand, the Convention expressly states the right of each member State to apply its own conditions of protection and to refuse protection if the collective mark is contrary to the public interest.

**Certification Marks:** The certification mark may only be used in accordance with the defined standards. The main difference between collective marks and certification marks is that the former may be used only by particular enterprises, for example, members of the association which owns the collective mark, while the latter may be used by anybody who complies with the defined standards. Thus, the users of a collective mark form a *"club"* while, in respect of certification marks, the *"open shop"* principle applies.

An important requirement for the registration of a certification mark is that the entity which applies for registration is "competent to certify" the products concerned. Thus, the owner of a certification mark must be the representative for the products to which the certification mark applies. This is an important safeguard for the protection of the public against misleading practices.

[117] < https://www.wipo.int/treaties/en/text.jsp?file_id=288514#P195_32302>

The definition of *"certification mark"* is not the same in all countries. In the United States of America, for instance, a certification mark may not be used by anybody who complies with the defined standards, but only by enterprises which have been authorized by the owner of the certification mark to use that mark. Thus, in the United States of America, the difference between a certification mark and a collective mark is smaller than in other countries; it only relates to the purpose of those two kinds of marks: the certification mark refers to certain standards of products or services, while the collective mark refers to the membership of its users in a particular organization.

**Signs which May Serve as Trademarks:** It follows from the purpose of the trademark that virtually any sign that can serve to distinguish goods from other goods is capable of constituting a trademark. Trademark laws should not therefore attempt to draw up an exhaustive list of signs admitted for registration. If examples are given, they should be a practical illustration of what can be registered, without being exhaustive. If there are to be limitations, they should be based on practical considerations only, such as the need for a workable register and the need for publication of the registered trademark. If we adhere strictly to the principle that the sign must serve to distinguish the goods of a given enterprise from those of others, the following types and categories of signs can be imagined:

1) Words: This category includes company names, surnames, forenames, geographical names and any other words or sets of words, whether invented or not, and slogans.
2) Letters and Numerals: Examples are one or more letters, one or more numerals or any combination thereof.
3) Devices: This category includes fancy devices, drawings and symbols and also two-dimensional representations of goods or containers.
4) Combinations of any of those listed above, including logotypes and labels.
5) Colored Marks: This category includes words, devices and any combinations thereof in color, as well as color combinations and color as such.
6) Three-Dimensional Signs: A typical category of three-dimensional signs is the shape of the goods or their packaging. However, other three-dimensional signs such as the three- pointed Mercedes star can serve as a trademark.
7) Audible Signs (Sound Marks): Two typical categories of sound marks can be distinguished, namely those that can be transcribed in musical notes or other symbols and others (e.g. the cry of an animal).
8) Olfactory Marks (Smell Marks): Imagine that a company sells its goods (e.g. writing paper)

with a certain fragrance and the consumer becomes accustomed to recognizing the goods by their smell.

9) Other (Invisible) Signs: Examples of these are signs recognized by touch.

As mentioned before, countries may set limits on registrability for practical purposes. The majority of countries allow the registration only of signs that can be represented graphically, since only they can be physically registered and published in a trademark journal to inform the public of the registration of the trademark.

A number of countries allow the registration of three-dimensional trademarks, obliging the applicant either to submit a two-dimensional representation of the three-dimensional sign (drawing, picture or any other representation which can be printed) or a description, or both. In practice, however, it is not always clear what is protected by the registration of a three-dimensional sign. A similar problem exists for audible signs. A sequence of notes can of course be registered as a device mark, but that registration does not normally give protection to the actual musical phrases so expressed. What is protected is the sequence of notes, as registered, against the use of similar devices. Sound marks clearly can serve as trademarks, however, and the United States of America, for example, allows the registration of sound marks. In practical terms, this means that the sound must be recorded, and the cassette submitted to the U.S. Patent and Trademark Office for registration. The United States of America is the first country to have recognized the registrability of a smell mark - fresh floral fragrance reminiscent of Plumeria blossoms for sewing thread and embroidery yarn – TTAB (1990)[118]. In a decision on February 11, 1999, the Board of Appeal of the Office for Harmonization in the Internal Market (Trademarks and Designs) of the European Community[119] supported the registrability of *the smell mark "the smell of fresh cut grass"* for tennis balls (R 156/1998-2).

## Criteria of Protectability

The requirements which a sign must fulfill in order to serve as a trademark are reasonably standard throughout the world. Generally speaking, two different kinds of requirement are to be distinguished. The first kind of requirement relates to the basic function of a trademark, namely, its function to distinguish the products or services of one enterprise from the products or services of other enterprises. From that function it follows that a trademark must be distinguishable among different products. The second kind of

[118] U.S. Reg. No. 1,639,128.
[119] <http://www.copat.de/download/R0156_1998-2.pdf>

requirement relates to the possible harmful effects of a trademark if it has a misleading character or if it violates public order or morality.

These two kinds of requirement exist in practically all national trademark laws. They also appear in Article $6^{quinquies}$ B of the Paris Convention where it is stated that trademarks enjoying protection under Article $6^{quinquies}$ A may be denied registration only if *"they are devoid of any distinctive character"* or if *"they are contrary to morality or public order and, in particular, of such a nature as to deceive the public".*

**Requirement of Distinctiveness:** A trademark, in order to function, must be distinctive. A sign that is not distinctive cannot help the consumer to identify the goods of his choice. The word *"apple"* or an apple device cannot be registered for apples, but it is highly distinctive for computers. This shows that distinctive character must be evaluated in relation to the goods to which the trademark is applied.

The test of whether a trademark is distinctive is bound to depend on the understanding of the consumers, or at least the persons to whom the sign is addressed. A sign is distinctive for the goods to which it is to be applied when it is recognized by those to whom it is addressed as identifying goods from a particular trade source or is capable of being so recognized.

The distinctiveness of a sign is not an absolute and unchangeable factor. Depending on the steps taken by the user of the sign or third parties, it can be acquired or increased or even lost. Circumstances such as (possibly long and intensive) use of the sign have to be taken into account when the registrar is of the opinion that the sign lacks the necessary distinctiveness, that is, if it is regarded as being not in itself distinct enough for the purpose of distinguishing between goods and services.

There are, of course, different degrees of distinctiveness, and the question is how distinctive a sign must be in order to be registrable. In that connection a distinction is generally made between certain typical categories of marks - fanciful or coined trademarks which are meaningless and the others. A famous example of the first category is the KODAK trademark.

These trademarks may not be the favorites of the marketing people, since they require heavy advertising investment to become known to consumers. They inherently enjoy very strong legal protection, however.

Common words from everyday language can also be highly distinctive if they communicate a meaning that is arbitrary in relation to the products on which they are used. The same is true of the corresponding devices. Examples are the famous CAMEL trademark for cigarettes (and the equally famous device mark) and the previously-mentioned APPLE mark (both the word and the device) for computers.

Marketing people are generally fond of brand names that generate a positive association with the product in the mind of the consumer. They tend therefore to choose more or less descriptive terms. If the sign is exclusively descriptive, it lacks distinctiveness and cannot be registered as such as a trademark. However, not all signs that are neither meaningless nor arbitrarily used necessarily lack distinctiveness: there is an intermediate category of signs that are suggestive, by association, of the goods for which they are to be used, and of the nature, quality, origin or any other characteristic, of those goods, without being actually descriptive. Those signs are registrable. The crucial question in practice is whether a trademark is suggestive or descriptive of the goods applied for. This question has to be judged according to the local law and jurisprudence of the country and all the circumstances of the specific case. As a general rule, it can be said that a descriptive term is distinctive for the goods concerned if it has acquired a secondary meaning, that is, if those to whom it is addressed have come to recognize it as indicating that the goods for which it is used are from a particular trade source. In case of doubt as to whether a term is descriptive or suggestive, the very fact that the mark has been used in the course of trade for a certain period of time may be sufficient for accepting it for registration. However, the more descriptive the term is, the more difficult it will be to prove secondary meaning, and a higher percentage of consumer awareness will be necessary.

**Lack of Distinctiveness:** If a sign is not distinguishable, it cannot function as a trademark and its registration should be refused. The applicant normally need not prove distinctiveness. It is up to the registrar to prove lack of distinctiveness, and in the case of doubt the trademark should be registered. Some trademark laws put the onus on the applicant to show that his mark ought to be registered. This practice may be considered strict, however, and sometimes prevents the registration of marks that are demonstrably capable of distinguishing their proprietor's goods. And yet the modern trend, as reflected in Article 3 of the *EC Harmonization Directive* is clearly to treat lack of distinctiveness as a ground for refusing an application for registration of a trademark.

**Generic Terms:** A sign is generic when it defines a category or type to which the goods belong. It is essential to the trade and also to consumers that nobody should be allowed to monopolize such a generic term. Examples of generic terms are *"furniture"* (for furniture in general, and also for tables, chairs, etc.) and *"chair"* (for chairs). Other examples would be *"drinks", "coffee"* and *"instant coffee",* which shows that there are larger and narrower categories and groups of goods, all having in common that the broad term consistently used to describe them is generic. These signs are totally lacking in distinctiveness, and some jurisdictions hold that, even if they are used intensively and may have acquired a secondary meaning, they cannot be registered since, in view of the absolute need of the trade to be able to use them, they must not

be monopolized. For these reasons the High Court of Delhi, India, in 1972 refused registration of the JANTA trademark as in Hindi the word means cheap in price.

**Descriptive Signs:** Descriptive signs are those that serve in trade to designate the kind, quality, intended purpose, value, place of origin, time of production or any other characteristic of the goods for which the sign is intended to be used or is being used. In line with the definition of the distinctive sign given earlier, the test to be applied must establish whether consumers are likely to regard a sign as a reference to the origin of the product (distinctive sign) or whether they will rather look on it as a reference to the characteristics of the goods or their geographical origin (descriptive sign). The term *"consumer"* is used here as an abbreviation denoting the relevant circles to be considered in a specific case, namely those to whom the sign is addressed (and in certain cases also those who are otherwise reached by the sign). The fact of other traders having a legitimate interest in the fair use of a term can therefore be used as a kind of additional ground when making the decisive test of whether consumers are likely to regard the sign as a reference to origin or as a reference to characteristics of the goods. It should not, however, be used on its own as a basis for a decision to refuse the registration of a term when it is not clear that consumers are also likely to regard the term as descriptive.

**Other Signs Lacking Distinctiveness:** Signs may lack distinctiveness for other reasons. This is true of a device which, owing to its simplicity or pure illustrative or ornamental character, may not capture the consumer's attention at all as a sign referring to the origin of the product, but rather as a mere illustrative part of the packaging of the goods offered to him. An example (with regard to words) would be a relatively long advertising slogan recommending the goods to the consumer which, even when reproduced on the packaging, would be much too complex to be understood by consumers as a reference to the origin of the product.

In practice the authorities have to deal with certain other typical categories of cases which in many laws are expressly listed as grounds for refusal, and which are dealt with below.

**Reference to Geographical Origin:** References to geographical origin (as opposed to the origin of the goods in the sense of the origin-indicating function) are basically not distinctive. They convey to the consumer an association with the geographical name, indicated either as the place of manufacture of the goods in question or of ingredients used in their production, or - depending on factual circumstances- with certain characteristics of the goods attributable to their origin. For such an association to be conveyed to

the consumer, the geographical location referred to must of course - at least to a certain extent - be first known to him. Signs referring to practically unknown localities are therefore distinctive. References to areas where nobody would expect the goods concerned to be manufactured are also distinctive.

Even if a geographical area is known to the consumer, a sign that makes a reference to it can either be or become distinctive if there is no other manufacturer or trader in the same field of activity, and no potential for competitors to settle there in the future. A geographical denomination may also, through long and intensive use, be associated with a certain enterprise to such an extent that it becomes distinctive as a trademark for it, even if competitors already exist or establish themselves in the future.

**Letters, Numerals and Basic Geometrical Shapes:** These signs are often regarded as being indistinctive and therefore unregistrable. Some trademark laws (such as the former German trademark law) even expressly excluded them from registration or accepted them only if at least three letters and/or numerals are combined, or in the case of letters, if the sequence is pronounceable.

It is certainly true that consumers will not normally regard letters, numerals or simple geometrical shapes as indications of the origin of the goods. Nevertheless, letters, numerals and their combinations can become distinctive through use and the so-called legitimate interest of other traders in making fair use of them should be no reason for refusal. The recent international trend therefore goes towards accepting the registration of such signs more liberally. Furthermore, even without any use, letters and numerals can be registrable if they are applied for in a fanciful device.

**Foreign Script and Transliterations:** Imagine the use of a Thai script mark in India or Sri Lanka, the use of Chinese characters in Switzerland, Singhala characters in the United States of America or Japanese characters (*Katakana, Kandi*) anywhere but in Japan. For the great majority of ordinary consumers these marks are purely fanciful devices. Consequently, they are in principle distinctive, except where the sign has no more than an ornamental effect, depending on its graphic presentation. Since these marks are distinctive, they are basically registrable. The registrar may, however, ask for a translation (a description of its meaning) in local script.

**Colors:** The use of words and/or devices in colors or combined with colors generally increases their distinctiveness. Consequently, applications for such signs claiming the colors shown or described in the application are easier to register. The first trademark registered in the United Kingdom in 1876 (and still

on the register) was a triangle (a basic geometrical shape) in red. However, protection is then in principle restricted to the actual colors in which the mark is registered. Signs that might have been regarded as confusingly similar to the registered mark, had it been in black and white, may therefore fall outside the scope of protection in view of the use of different colors. Since signs registered in black and white are protected against the registration and use of confusingly similar signs regardless of color, and since the registered owners of such signs can normally use them in any color they may wish to use, the usual practice is not to register signs in color. However, a given color or combination of colors may be an important element of a trademark, constantly used by its owner, and therefore liable to be imitated by competitors. This shows that a trademark owner may have a real interest in registering his mark in the distinctive colors in which it is used, even where the mark was distinctive enough to be registrable in black and white. In order to eliminate the previously-mentioned risk of restricting the scope of protection of such a mark, its owner may register the mark both in black and white and in the colors actually used.

Signs consisting exclusively of individual colors or of color combinations can be registrable trademarks.

It is a matter for practice in the various countries to determine whether they are considered inherently distinguishable or basically descriptive with the possibility of becoming distinctive through use.

**Names, Surnames:** Company names and trade names are registrable, except where they are deceptive or not distinctive. Common surnames are not registrable in some countries, since they are not distinctive. As for less common surnames, it is, in such countries, important to establish whether another meaning in everyday language will be overwhelmingly recognized by consumers. If there is such a dominant meaning, the sign is registrable on the condition that the meaning in question is not descriptive of the goods for which the mark is to be used.

## Exclusions from Registration on other Grounds: Public Interest

**Deceptiveness:** Trademarks that are likely to deceive the public as to the nature, quality or any other characteristics of the goods or their geographical origin do not, in the interest of the public, qualify for registration. The test here is for intrinsic deception, inherent in the trademark itself when associated with the goods for which it is proposed. This test should be clearly distinguished from the test for the risk of confusing customers by the use of identical or similar trademarks for identical or similar goods. It is true that fanciful trademarks or marks with an arbitrary meaning for the goods proposed cannot be deceptive. And yet trademarks that have a descriptive meaning, even if they are only evocative or suggestive and therefore distinctive, may still be deceptive. Such trademarks have therefore to be examined from two

angles: first they must be distinctive, and secondly, they must not be deceptive. As a rule, it can be said that the more descriptive a trademark is, the more easily it will deceive if it is not used for the goods with the characteristics described.

**Reference to Geographical Origin:** Signs that are descriptive or indicative of geographical origin are false for products that do not come from the region described or indicated. In such cases the consumer will be deceived if the reference to the geographical origin has the wrong connotations for him. This is particularly true if the region or locality has a reputation. Famous examples of such signs are *"Champagne"* and *"Swiss Chocolate".*

In practice, such cases of direct reference to geographical origin are relatively rare. More often indirect references are made, and these cases are more problematic. A reference to a famous Swiss mountain for chocolate would still deceive consumers, as would a device mark consisting of a typical alpine landscape. Indeed, even the use of foreign words can, under certain circumstances, be deceptive without any reference to a specific geographical origin. The very fact that a word comes obviously from a particular foreign language may give consumers the impression that the product comes from the country where that language is spoken. Consumers will therefore be deceived if the country concerned has a reputation for the goods concerned.

However, it should be realized that, in addition to being spoken in many different countries all over the world, English is also the modern international marketing language, with the result that many trademarks have an English-language connotation quite independent of the geographical origin of the goods marked with it, and that consumers are generally aware of the fact.

**Partial Deceptiveness:** We have seen that the question whether or not a trademark is inherently deceptive must be examined in relation to the goods in respect of which the application is made. Depending on the list of goods, therefore, an application may be distinctive for some, descriptive for others and/or deceptive for still others. In such cases the examiner has to require a limitation of the list of goods. Should the applicant not agree to such limitation, the examiner refuses the whole application in some countries. In others, he accepts the application only for the goods for which, in his opinion, the mark is not deceptive and refuses it for the others.

**Signs Contrary to Morality or Public Policy:** Trademark laws generally deny registration to signs that are contrary to morality or public policy.

**Signs Reserved for Use by the State, Public Institutions or International Organizations**: A country generally protects its national flag, its official name and the names of official institutions in its own interest. Furthermore, countries are obliged by Article 6ter of the Paris Convention also to protect the notified signs of other member States and international intergovernmental organizations (such as the *United Nations Organization).*

## Protection of Trademark Rights

A trademark can be protected on the basis of either use or registration. Both approaches have developed historically, but today trademark protection systems generally combine both elements. The *Paris Convention* places contracting countries under the obligation to provide for a trademark register. Over one hundred and fifty States have adhered to the Paris Convention. Nearly all countries today provide for a trademark register, and full trademark protection is properly secured only by registration.

Use does still play an important role, however: first of all, in countries that have traditionally based trademark protection on use, the registration of a trademark merely confirms the trademark right that has been acquired by use. Consequently, the first user has priority in a trademark dispute, not the one who first registered the trademark.

## Use Requirements

**Need for an Obligation to Use:** Trademark protection is not an end in itself. Even though trademark laws generally do not require use as a condition for the application for trademark registration, or even the actual registration, the ultimate reason for trademark protection is the function of distinguishing the goods on which the trademark is used from others. It makes no economic sense, therefore, to protect trademarks by registration without imposing the obligation to use them. Unused trademarks are an artificial barrier to the registration of new marks. There is an absolute need to provide for a use obligation in trademark law.

At the same time trademark owners need a grace period after registration before the use obligation comes into effect. This is especially true of the many companies that are active in international trade. In order to avoid loopholes in the protection of their new trademarks of which competitors could take advantage, they

must from the very beginning apply for the registration of their new trademarks in all countries of potential future use. Even in their own countries companies often need several years before they can properly launch a newly-developed product on the market. This is especially true of pharmaceutical companies, which have to make clinical tests and have to apply for approval of their product by the health authorities. The grace period granted in trademark laws that provide for a use obligation is sometimes three years, but more often five years.

**Consequences of Non-Use:** The principal consequence of unjustified non-use is that the registration is open to cancellation at the request of a person with a legitimate interest. There is moreover a tendency to require of the registered owner that he prove use, since it is very difficult for the interested third party to prove non-use. In the interest of removing *"deadwood"* from the register, such reversal of the burden of proof is justified.

The burden of proof should be on the trademark owner not only in cancellation proceedings but also in any other proceedings where the owner is alleged to have taken advantage of his unused trademark right (opposition procedure, infringement action). No evidence of use should be required for the renewal of a trademark registration, however. This is an administrative complication which is unnecessary in view of the fact that an interested person can at any time at all take appropriate action against an unused trademark registration.

Non-use does not always lead to invalidation of the trademark right. Non-use can be justified in the case of force majeure, and any other circumstance that is not due to fault or negligence on the part of the proprietor of the mark, such as import restrictions or special legal requirements within the country.

**Proper Use of Trademarks:** Non-use can lead to the loss of trademark rights. Improper use can have the same result, however. A mark may become liable for removal from the Register if the registered owner has provoked or tolerated its transformation into a generic name for one or more of the goods or services in respect of which the mark is registered, so that, in trade circles and in the eyes of the appropriate consumers and of the public in general, its significance as a mark has been lost.

### Basically, two things can cause genericness:

1) improper use by the owner, provoking transformation of the mark into a generic term, and
2) improper use by third parties that is tolerated by the owner.

In order to avoid improper use, everyone in the company owning the trademark, who is involved in advertising or publicizing the brand, must follow some rules.

The basic rule is that the trademark should not be used as, or instead of, the product designation. By systematically using a product designation in addition to the trademark, the proprietor clearly informs the public that his mark identifies a specific product as one in a certain category. This is especially important if the trademark proprietor has invented a totally new product which at the outset is the only one in the category. Trademarks such as FRIGIDAIRE, CELLOPHANE and LINOLEUM became generic terms because they were the only product in their category, and no additional name was given to the category by its proprietors. When instant coffee, also called soluble coffee, was invented in 1938, the first product marketed by the company that invented it was called NESCAFÉ. However, from the start the company systematically used a product designation such as *"instant coffee"* or *"soluble coffee"* on its labels. A second important rule is that trademarks should always be used as true adjectives and never as nouns, in other words the trademark should not be used with an article, and the possessive *"s"* and the plural form should be avoided. It would be wrong to talk about NESCAFÉ's flavor or about three NESCAFÉs instead of three varieties of NESCAFÉ.

Furthermore, it is advisable always to highlight the trademark, that is, to make it stand out from its surroundings. Finally, a trademark should be identified as such by a trademark notice. Only a few laws provide for such notices and making their use on goods compulsory is prohibited by Article 5D of the Paris Convention. Trademark law in the United States of America allows the use of a long statement (such as *"Registered with the United States Patent and Trademark Office"*) to be replaced by a short symbol, namely, the circled R, or ®. Over the years this symbol has spread throughout the world and become a widely recognized symbol for a registered trademark. Its use is recommended for registered trademarks as a warning to competitors not to engage in any act that would infringe the mark.

However, it is not enough just to follow these rules: the trademark owner must also ensure that third parties and the public do not misuse his mark. It is specifically important that the trademark should not be used as or instead of the product description in dictionaries, official publications, journals, etc.

## Trademark Registration

**Application for Registration:** Applications for registration of a trademark are to be filed with the competent government authority which in most countries is the same as the authority competent for

processing patent applications. Usually, it is called *"Industrial Property Office"* or *"Patent and Trademark Office"* or *"Trademark Office".*

In general, countries provide for an application form, the use of which is mandatory in certain countries. The application form has to be completed with the name and address of the applicant. Foreigners have either to give an address for service in the country or to use an agent holding a power of attorney to be signed by the applicant. Often further formalities are imposed.

The *Trademark Law Treaty* (TLT)[120] contains, in Article 3[121], an exhaustive list of information which Trademark Offices of Contracting Parties may require for a trademark registration, and expressly prohibits certain formalities, such as authentication or legalization, which are considered unnecessary and particularly burdensome. The TLT also provides Model International Forms which contain all relevant information, and which have to be accepted by Offices of Contracting Parties. The sign filed for registration must appear in the application form or in an annex to it. If it is intended that the sign should be registered in color, the colors must be claimed and a specimen in color or the description of the color(s) must be submitted. If a three-dimensional sign is filed for registration, it is necessary to claim protection of the sign in its three-dimensional form. The sign must moreover be graphically represented in a manner that allows it to be reproduced for a twofold purpose: it must be possible to register it (regardless of the form in which the register is established, that is, whether the marks are entered in a book, collected in a card index or integrated in a computerized system). Owners of prior rights must be able to take note of the trademark application, which normally is ensured by its publication in a trademark journal.

The applicant has also to list the goods for which the sign is to be registered. Trademark laws provide generally for a classification of goods for the purposes of registration. In some countries a separate application has to be made for each class, while in others one application is sufficient for several classes. An important treaty for international trade is the *Nice Agreement* Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks, which establishes an international classification of goods and services for the purpose of registration of trademarks. The document in the back flap of this publication shows the Contracting States of this treaty. Finally, one or more lots of fees have to be paid for the registration of a trademark. A country may provide for a single, all-embracing fee or several (application fee, class fee, examination fee, registration fee, etc.). Both systems have advantages and disadvantages. On the one hand, it is simpler and more cost-efficient to charge a single fee. On the other hand, this may lead to unjust consequences for applicants who decide to withdraw the

[120] < https://wipolex.wipo.int/en/text/294358>
[121] < https://www.wipo.int/treaties/en/text.jsp?file_id=294357#a3>

application totally or partially during the registration procedure, for example, because of an objection from the owner of a prior right, or because of insurmountable objections from the registrar.

**Examination as to Form:** Countries generally accept an application for registration of a trademark only if the formal requirements are fulfilled.

**Examination as to Substance:** Most countries examine trademark applications as to substance in the interest of both the public and competitors. One has to make a clear distinction between two types of grounds for refusal. Trademarks may be examined for absolute, objective grounds for refusal, that is, whether they are sufficiently distinctive, not deceptive, not immoral, etc. Such an examination is highly desirable in the interest of consumer protection, but for competitors too, and for the trade in general, it is important that nobody should be able to have an exclusive right in a descriptive or even a generic term by a simple administrative act. The laws of many countries provide also for examination on relative grounds, that is, whether the rights applied for are identical or similar to prior rights that have been applied for or granted for identical or similar goods. Such examination may either be made ex officio and/or on the basis of an opposition procedure.

In general, three typical approaches can be observed internationally.

1. The British system, providing for examination by the office for absolute and relative grounds, and also for an opposition procedure. This system is also applied, in Europe, by countries such as Portugal, Spain and the Northern European countries.
2. Under a second approach the office examines only for absolute grounds, the law provides for no opposition procedure and it is left to the owner of the prior rights to bring a cancellation or infringement action against the registration or use of a more recent sign. This system has been used under the old trademark laws of France and Switzerland—both countries introduced opposition procedures in their new laws.
3. The third system is the German one, which provides for examination by the office for absolute grounds and also for an administrative opposition procedure, in which the owner of prior rights can oppose the infringing trademark application by means of a simplified and not too costly procedure. This system is a compromise between the more extreme systems mentioned before, and follows a modern trend which is reflected in the European Community Trade Mark system.

Industry in general prefers the latter system, since it is less time-consuming and much more flexible. In view of the many trademarks on the registers of countries all over the world, it is in any case advisable to carry out a search for prior rights before applying for registration of a trademark, and even more so before beginning to use it. Most applicants do such searches regularly, while companies have at least their more important registered trademarks watched, either by their trademark agents or by one of the international watching services, in order to keep themselves informed of applications for registration of potentially conflicting similar marks.

The standards to be applied by the registrar when examining whether a trademark application is to be refused because of a prior right are the same, in principle, as those to be applied in an opposition procedure or by a judge in an infringement action, even though in the latter case the factual circumstances of the infringement will play an additional role.

**Refusal of Registration:** Before issuing a total or partial refusal of the application, the office should give the applicant an opportunity to make observations. The decision refusing an application either partly or totally must be open to appeal. Depending on the legal system of the country, the appeal may be lodged with the registrar, with an administrative appeal board or with the court.

**Date of Registration:** If the application leads to registration, the office issues a certificate to the owner. The owner's exclusive right exists from the date of registration. However, the priority of the right should date back to the date of filing for registration. While it is true that the application is not normally a sufficient basis for bringing an infringement action against a later right, it must be a valid basis for an opposition procedure. And, even more importantly, the date of the application for registration will be decisive in a later court case. The time that passes before an application leads to registration varies a great deal, and in certain cases can be very long. A later application can for various reasons lead to registration sooner (for instance where the earlier application was refused by the examiner and finally granted on appeal). Clearly, the owner of the earlier application must have the prior right in relation to the owner of a later application. Furthermore, the applicant can claim the priority of his national registration under Article 4 of the Paris Convention if the application in the foreign country is made within six months of the filing date of the first application.

**Duration and Renewal:** Since trademarks do not grant an exclusive right that could be exploited, there is no need to limit their validity. For administrative reasons, a time limit is generally provided for in trademark

laws, but it is possible to renew registrations when the time limit expires. One of the reasons for imposing such time limits is that the office can charge a fee for renewal, and this is a welcome source of revenue. Furthermore, the registration of trademarks without a time limit would lead to an undesirable amount of trademark registrations that are no longer of any interest to their owners. Even if unused marks may be removed from the register, such a procedure would be costly and time- consuming for the interested party, and not always successful.

Consequently, the requirement of renewal and the payment of a renewal fee is a welcome opportunity for a trademark owner to consider whether it is still worth having his registration renewed, as the trademark may have been superseded in its graphic form, or may even be no longer in use. Excessive fees should also be avoided, however. In any case, renewals should be made simply on payment of the fee, without any new examination of the mark for absolute or relative grounds for refusal. Of course, it

should be possible for the owner to make a voluntary restriction of the list of goods of the original registration, especially if he can save fees by doing so.

## Publication and Access to the Register

It is important for owners of prior rights and the public that all relevant data contained in the register, concerning applications, registrations, renewals and changes of name, address and ownership, should be published in an official gazette. This enables owners of prior rights to take the necessary steps, including opposition (if provided for) or an action for cancellation. The publication of applications and registrations should contain all the important data, such as the name and address of the applicant, a representation of the mark, the goods grouped according to the classification system, the colors claimed, where the mark is three-dimensional a statement to that effect, and where the priority of any other mark is claimed (Paris Convention, Article 4) a statement to that effect.

The register of marks should, moreover, be accessible to the public. To ensure that owners of prior rights are properly informed it is indispensable that the register contain up to date information, namely all recorded data not only on registrations, but also on the contents of pending applications, regardless of the medium on which the data are stored.

## Removal of the Trademark from the Register

The cancellation of a trademark registration is a serious matter for its owner, as it leads to a loss of his rights under the registration. Nevertheless, there are a number of grounds on which a trademark can be removed from the register.

**Removal for Failure to Renew:** It has been shown that, for administrative reasons, a trademark is registered for a certain period of time only. If the owner fails to renew his trademark registration and more specifically fails to pay the renewal fee, this leads to the removal of the trademark from the register. Registries generally allow a period of grace for payment of the renewal fee (usually with a surcharge) in accordance with Article 5bis of the Paris Convention.

If the law permits renewal of the trademark registration for just some of the registered goods (to be encouraged as a means of removing "deadwood" from the register), this leads to a partial cancellation of the trademark registration for all the goods in respect of which it is not renewed.

**Removal at the Request of the Registered Owner:** The registered owner can himself, at any time, renounce his registration for either all or some of the goods for which the mark is registered. At the request of the registered owner, therefore, the authorities will in principle remove the mark from the register either wholly or in part.

**Removal for Failure to Use:** If the owner of a trademark fails to use his mark within the grace period provided for in the law, any interested party can, in principle, ask for its cancellation. If the owner cannot justify the non-use, removal of the registration is ordered by the court. If the owner can prove use or justify the non-use, but only for some of the registered goods, the court orders partial cancellation. Partial cancellation extends either to all registered goods for which use cannot be proved or at least to all those not similar to the goods that the registered owner has used.

This does not mean that the registered owner's rights would be strictly limited to the goods used, or even to a single product on which his trademark has been used. Even if his registration is canceled for all but the one product for which he can prove use, he can still defend his exclusive right to his registered trademark against the registration and use of an identical or confusingly similar trademark by a competitor for all goods that are identical or similar to the product for which his trademark is registered and used.

**Cancellation on Account of Nullity:** If a trademark consists of a sign that should not have been registered, it can be declared null and void by the court at the request of any interested party. Sometimes trademark laws also provide an ex officio procedure for that purpose. As a consequence of the declaration, the trademark is removed from the register.

If the grounds for invalidity exist only with respect to some of the registered goods, the registration is removed for those goods only. Normally, removal from the register is ordered only if the grounds for invalidity already existed when the trademark was registered. Moreover, even if the trademark should not have been registered owing to lack of distinctiveness, its cancellation is excluded if in the meantime it has become distinctive by use. Such acquired distinctiveness cannot, however, prevent the removal from the register of trademarks that consist of generic or deceptive terms. And yet there can be exceptional cases in which the deceptive meaning that would have prevented trademark registration at the outset has been lost in the meantime.

Removal of a Mark that has Lost its Distinctiveness: If the registered owner has provoked or tolerated the transformation of a mark into a generic name for one or more of the goods or services in respect of which the mark is registered, the mark becomes liable for removal from the register.

Rights Arising from Trademark Registration

The registered owner has the exclusive right to use the trademark. This short definition of the specific subject matter of trademark rights encompasses two things:

1) the right to use the trademark and

2) the right to exclude others from using it.

**The Right to Use the Trademark**: This positive right of use belonging to the trademark owner is recognized in most trademark laws. It would indeed be contradictory not to grant such a positive right of use while imposing an obligation to use. Of course, the right of use is subject to other laws and rights, as is any other right provided by law. What is allowed under trademark law may be prohibited under competition law or by public enactment. It means first the right of the owner of the mark to affix it on goods, containers, packaging, labels, etc. or to use it in any other way in relation to the goods for which it is registered. It means also the right to introduce the goods to the market under the trademark. It is important to make a distinction between these two rights, both derived from the right to use a trademark. When the trademark owner has launched a product on the market under his mark, he cannot object to further sales of the product in the course of trade. This is the essence of the so-called principle of exhaustion of the trademark right. Some countries do not allow objections to parallel imports of products marketed in a foreign country by the trademark owner or by a third party with his consent. Other countries do allow such parallel imports to be

objected to, namely by applying the principle of territoriality of rights. Still other countries make the decision on whether the trademark owner can object to parallel imports dependent on whether consumers are likely to be mistaken as to the characteristics or quality of the imported goods.

Apart from this special aspect of parallel imports of goods marketed for the first time in a foreign country, the principle of exhaustion of trademark rights clearly applies within the country. However, it is a principle that applies only to the right to launch the product bearing the trademark on the market for the first time. The owner's exclusive right to affix the trademark on the goods and their packaging, containers, labels, etc. continues to exist. Consequently, he can object to acts that infringe that right, such as the repacking of goods bearing his mark, the destruction of his mark on the goods, or the alteration and subsequent sale of his products under his mark. Altering the product and selling it under the same mark has the same effect as affixing the mark to goods, that is, it gives the consumer the impression that the genuine product has been marketed by the trademark owner under his mark. If that is not true, the trademark owner has a right to intervene.

Finally, a third right out of the series of rights incorporated in the right to use a trademark is the trademark owner's right to use his mark in advertising, on business papers, documents, etc.

The Right to Exclude Others from Using the Mark: It follows from the mark's basic function of distinguishing the goods of its owner from those of others that he must be able to object to the use of confusingly similar marks in order to prevent consumers and the public in general from being misled. This is the essence of the exclusive right afforded to the trademark owner by registration. He must be able to object to any use of his trademark by a third party for goods for which it is protected, to the affixing of the mark on such goods, to its use in relation to the goods and to the offering of the goods for sale under the mark, or the use of the mark in advertising, business papers or any other kind of document. Furthermore, since consumers are to be protected against confusion, protection generally extends to the use of similar trademarks for similar goods, if such use is likely to confuse the consumer. It must be underlined, however, that the trademark owner cannot unconditionally object to the use of his trademark or a similar mark for the goods for which his trademark is registered or for similar goods. His trademark must be protected for the goods specified in the registration. Such protection operates automatically for all registered goods during the user's grace period, which is generally laid down by law. When that period has expired, protection has to be reduced to the goods on which the mark is actually used and goods similar to them. Any goods for which the trademark was registered but which are not in use should no longer be a valid basis for asserting exclusive trademark rights. Depending on the procedural system in the country, the trademark owner may be able to rely on those formal rights for goods for which the mark is registered but not used, but he could face a counterattack leading to partial cancellation of his trademark for non-use.

The exclusive rights of the trademark owner can be exercised by means of an infringement action. The trademark is infringed if, owing to the use of an identical or similar sign for identical or similar goods, there is a risk, or a likelihood of the public being misled. The test is not a hypothetical one but has to deal with the reality of infringement in the marketplace. Many laws not only provide for an infringement action, but also offer an administrative opposition procedure against an application for the registration of a confusingly similar trademark. In that case, the test is much broader, because allowance has to be made for the risk of confusion that could arise from any use that the applicant might possibly make of his trademark if it were registered. The test is in fact the same as is applied by the office in its examination for prior third-party rights.

Together with the question whether a trademark is distinctive, the question whether a trademark is confusingly similar to an earlier right is one of the cornerstones of practical trademark protection.

**Similarity of Goods:** Trademarks are registered for goods in certain classes which have been established for purely administrative purposes. The classification of goods cannot therefore be decisive for the question of similarity. Sometimes totally different goods are listed in the same class (for instance computers, eyeglasses, fire extinguishers and telephones in class 9), while similar goods can clearly be listed in different classes (adhesives may fall into classes 1, 3, 5 and 16). The test of whether goods are similar is based on the assumption that identical marks are used. Even identical marks are unlikely to create confusion as to the origin of the goods if the goods are very different. As a general rule goods are similar if, when offered for sale under an identical mark, the consuming public would be likely to believe that they came from the same source. All the circumstances of the case must be taken into account, including the nature of the goods, the purpose for which they are used and the trade channels through which they are marketed, but especially the usual origin of the goods, and the usual point of sale.

A further aspect is the nature and composition of goods. If they are largely made of the same substance, they will generally be held to be similar, even if they are used for different purposes. Raw materials and finished goods manufactured out of the raw materials are not normally similar, however, since they are generally not marketed by the same enterprise.

**Similarity of Trademarks:** Trademarks can be more or less similar to each other. The test, of course, is whether they are confusingly similar. A trademark is confusingly similar to a prior mark if it is used for similar goods and so closely resembles the prior mark that there is a likelihood of consumers being misled as to the origin of the goods. If the consumer is confused, the distinguishing role of the trademark is not functioning, and the consumer may fail to buy the product that he wants. This is bad for the consumer, but also for the trademark owner who loses the sale.

No intention to confuse on the part of the infringer is necessary, nor is actual confusion. The likelihood of confusion is the test. That is the only way for the system to function. Of course, phrases such *as "likelihood of confusion of the consumer"* (or *"of the public")* have to be interpreted. *"The consumer"* does not exist, and the public as such cannot be confused. Confusion arises, or is likely to arise, always in a section of the public. It has to be determined in the specific case what the relevant part of the public is that has to be considered, in other words who are actually addressed or reached by the trademark.

Since it is very difficult to work in practice with the broad definition of confusing similarity, some rules have been developed which help to define in specific cases whether, in view of the similarity of the two marks, confusion is likely to arise. The most important point is that the consumer does not compare trademarks side by side; he is generally confronted with the infringing mark in the shop without seeing the product bearing the mark that he knows and remembers more or less accurately. He mistakes the products offered under the infringing mark for the genuine product that he actually wants to buy. In this context it must be taken into account that the average consumer also has an average memory, and that it must be sufficient for him to doubt whether the trademark with which he is confronted is the one he knows.

Since the average consumer generally does not at first glance recognize differences between the marks that he might spot if he took his time to study the mark and the product offered under it more carefully, the first impression that he gains must be decisive. This is especially true for mass-consumption goods offered in self-service stores. Furthermore, unsophisticated, poorly-educated consumers and also children are more liable to be confused. The purchaser of a sophisticated and costly machine, car or aircraft will no doubt be more attentive than the consumer in the self-service store. In those fields, therefore, very similar trademarks do coexist, which would probably be easily confused if applied to mass-consumption goods.

Another interesting example of how the category of goods can influence the testing of confusing similarity is to be found in the field of pharmaceuticals. Prescription drugs are normally sold to the consumer (on prescription by doctors) by educated pharmacists, who are less likely to be misled by relatively similar brand names used for medicines for different indications, so the testing of similarity can be more generous. For drugs sold over the counter, the contrary is true. In view of the potentially serious consequences for the uneducated consumer if he buys a wrong product, the testing of similarity must be particularly strict.

The second important point when testing the similarity of trademarks is that they should be compared as a whole, and that more weight should be given to common elements which may lead to confusion, while differences overlooked by the average consumer should not be emphasized. Notwithstanding this basic rule of comparing trademarks as a whole and not dividing them into parts, the structure of the signs is important. Common prefixes are normally more important than common suffixes; if two signs are very similar or

identical at the beginning, they are more likely to be confused than if the similarity is in their endings. Long words with common or similar beginnings are more likely to be confused than short words with different initial letters.

The third important point is that highly distinctive marks (coined or arbitrarily used marks) are more likely to be confused than marks with associative meanings in relation to the goods for which they are registered. The same is true if a mark contains a highly distinctive part (part of the word mark or one of several words forming the mark), and that highly distinctive element is exactly or almost exactly duplicated by the infringing mark. If, on the other hand, the common element of the two signs is descriptive, the consumer's attention tends to focus on the rest of the mark.

When trademarks with a common element are compared, it also has to be established whether there are other trademarks on the register and used by different owners that have the same common element. If so the consumer will have become accustomed to the use of this element by different proprietors, and will no longer pay special attention to it as a distinctive element of the mark.

The situation is different, however, if all marks having such a common element (normally a prefix or suffix) are registered and used by the same proprietor (or with his consent). This is the special case of the series mark, where the consumers may have become accustomed to associate the series with a common source and will tend to make the same assumption about any new trademark containing the same element. However, the mere fact of somebody using a series of trademarks that have a common element is not, as such, sufficient to exclude the use of the same element by a competitor as a component of a mark which on the whole is very different. The use of such a common element can only constitute infringement if consumers really have come to recognize the common element of the series of marks used by the registered owner as indicating the source of the goods offered by him under the different marks containing that element.

The fourth important point is that confusion can arise from similarity in the writing, the pronunciation and in the meaning of the sign, and that similarity in one of those areas is sufficient for infringement if it misleads the public.

With regard to similarity in writing, the graphic presentation of the trademark plays an important part. Similarity in pronunciation is important because trademarks that are written differently may be pronounced in the same way, and pronunciation counts in oral communication: even if similarity in writing is avoided by the use of very different graphic presentations, this does not make any difference when the two trademarks are compared orally.

A totally different meaning can preclude confusion between two marks that would normally be regarded as confusingly similar. Independently of the above rules, some special aspects have to be taken into account for figurative marks (devices).

For purely fanciful marks the graphical impression conveyed by the two marks is decisive. For composite marks the similarity of the word part is normally sufficient, as similarity in pronunciation constitutes trademark infringement. Similarity in the figurative part can only lead to confusion if that figurative part is a distinctive element of the mark. Furthermore, in the case of composite marks any similarity in the word parts of the two marks is likely to be emphasized if the figurative parts of the marks are also similar. Even though the words might not be confused in writing or pronunciation, the marks as a whole can be confusingly similar in view of the similarity of their figurative elements.

A special case is the device that can be named by a word, such as a star device and the word *"star".* The question arises whether the corresponding word as a trademark should be prohibited, and whether the owner of the word mark *"star"* should be able to object to all possible graphic presentations of a star in a device mark. The situation is different when two device marks are compared in which both features, for instance, the same animal. Two such devices, for instance two tiger or lion or cow devices (there are numerous cow devices registered for milk products) must be sufficiently similar for there to be confusion.

Influence of Use and Non-Use: Confusion in the marketplace can only arise from actual use on similar goods. To prevent confusion, however, it is still necessary that the trademark protection system allow the trademark owner to object to an application for registration of a trademark which is based on mere intention to use the mark.

For the same preventive purpose, many trademark laws allow the owner of a registered trademark to object in opposition procedures to the filing, and in infringement actions to the use, of similar marks for goods identical or even similar to all goods covered by the existing registration, regardless of the use of the latter. The defendant who is aware of the total or partial non-use must therefore counterattack by introducing an invalidation action seeking partial or total cancellation of the existing trademark registration for non-use.

More modern conceptions allow the trademark owner, after the grace period has expired, to object by opposition or court action to an application for registration, or to the use, of an identical or similar mark for goods identical or similar only to those on which the owner is actually using his. If the owner is not using his trademark, the opposition is refused, and if he is using it on one or several of the goods for which it is registered, only those on which it is used are taken into consideration for the test of confusing similarity. The burden of proof of use in an opposition procedure is on the owner of the right.

Many laws also allow the defendant in trademark infringement actions to claim non-use of the trademark on which the action is based, and the owner can then only succeed in his infringement action if he can prove use of his mark. If the infringed trademark is being used, the extent of the use can influence the test of confusing similarity. Intensive use increases the distinctiveness of the mark, and confusion with well-known marks is more likely even if the goods on which the infringing mark is used are less similar or if the similarity of the marks is less apparent.

Protection Beyond the Scope of Confusing Similarity: Well-known or famous marks, which are highly reputed, are in some countries given protection that goes beyond the scope of similarity of the goods. Such far-reaching protection should only be given if the use of the same mark or a nearly identical mark for other, dissimilar goods would be prejudicial to its distinctiveness or its reputation. This extended protection does not necessarily cover all possible goods. It could well be that the use of a mark identical to the well-known mark would do unjustified harm in relation to a certain category of goods, whereas the same use on totally dissimilar goods might not be against the interests of the registered owner of the well-known mark. The decision has to be determined by all the circumstances of the specific case, including the extent of reputation of the mark, the type of goods for which it is used by the infringer, the manner in which he presents his goods, and so on.

Yet reputation is not sufficient on its own, of course; broader protection is justified only where the use of a sign without due cause would take unfair advantage of, or be detrimental to, the distinctive character or the reputation of the trademark.

In September 1999 the WIPO General Assembly and the Assembly of the Paris Union adopted a Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks which provides guidance for determining whether a particular mark is well-known, and determines the scope of protection of well-known marks.

Restriction of the Exclusive Right in the Public Interest: In the same way as the owner's right to use his trademark can be restricted by other rights, his right to prevent third parties from using his mark can be restricted by the legitimate interests of others. A provision is contained in many trademark laws which states that the registration of the mark does not confer on its registered owner the right to preclude third parties from using bonafide, for example, their names, addresses, or pseudonyms.

The trademark owner also cannot prevent third parties who are not his competitors from referring to his trademark by acts such as the listing of the mark in a compendium of trademarks, or from using it in newspaper articles or in books or other publications.

## II. Passing Off

In common law countries such as the UK, Australia, New Zealand and India passing off is a common law tort[122], which can be used to enforce unregistered trademark rights. The law of passing off prevents one person from misrepresenting his goods or services as that of another.

The concept of passing off has undergone changes in the course of time. At first it was restricted to the representation of one person's goods as those of another. Later it was extended to business and services. Subsequently it was further extended to professions and non-trading activities. Today it is applied to many forms of unfair trading and unfair competition where the activities of one-person cause damage or injury to the goodwill associated with the activities of another person or group of persons.

The basic question in this tort turns upon whether the defendants' conduct is such as to tend to mislead the public to believe that the defendants' business is the plaintiff's or to cause confusion between the business activities of the two. The tort of passing off is sufficiently wide to give relief to charities engaged in trading type activities. In British Diabetic Association vs Diabetic Society[123], both the parties were charitable societies. Their names were deceptively similar. The words 'Association' and 'Society' were too close since they were similar in derivation and meaning and were not wholly dissimilar in form - permanent injunction granted.

The three fundamental elements of passing off are Reputation, Misrepresentation and Damage to goodwill. These three elements are also known as the *Classical Trinity*, as restated by the House of Lords in the case of *Reckitt & Colman Ltd V Borden Inc*[124]. It was stated in this case that in a suit for passing off the plaintiff must establish firstly, goodwill or reputation attached to his goods or services. Secondly, he must prove a misrepresentation by the defendant to the public i.e. leading or likely to lead the public to believe that the goods and services offered by him are that of the plaintiffs. Lastly, he must demonstrate that he has suffered a loss due to the belief that the defendant's goods and services are those of the plaintiffs.

In the case *Erven Warnink vs. Townend*[125], Lord Diplock gave the essential modern characteristics of a passing off action. They are as follows: -

1) Misrepresentation

2) Made by a person in the course of trade

[122] A tort, in common law jurisdictions, is a civil wrong that causes a claimant to suffer loss or harm resulting in legal liability for the person who commits the tortious act.
[123] [1996] EWCA Civ 839.
[124] [1990] 1 All E.R. 873.
[125] [1979] AC 731, [1980] R.P.C. 31.

3) To prospective customers of his or ultimate consumers of goods or services supplied by him.

4) Which is calculated to injure the business or goodwill of another trader.

5) Which causes actual damage to a business or goodwill of the trader by whom the action is brought.

One of the instances where passing off is actionable is the extended form of passing off, where a misrepresentation as to the particular quality of a product or service causes harm to another's goodwill. An example of this is *Erven Warnink v. Townend & Sons Ltd.,* in which the makers of advocaat sued a manufacturer of a drink similar but not identical to advocaat[126], but which was successfully marketed as being advocaat. The extended form of passing off is used by celebrities as a means of enforcing their personality rights in common law jurisdictions.

The Trademark is providing protection to registered goods and services, but the passing off action is providing a protection to unregistered goods and services. The most important point is that the remedy is same in both the cases but the Trademark is available to only the registered goods and services and passing off is available to unregistered goods and services. To more knowledge of this context we can summaries the case of *Durga Dutt vs. Navaratna Pharmaceutical*[127] - the Supreme Court is set out the distinction between infringement and passing off. The action for infringement is a statutory remedy conferred on the registered owner of a registered Trade mark and has an exclusive right to the use of the trade mark in relation to those goods. And the passing off is available to the unregistered goods and services.

The second most important point is that the use by the defendant of the trade mark of the plaintiff is not essential in an action for passing off, but in the case of an action for infringement this will not applicable.

The third important distinction between these two is that if the essential features of the trade mark of the plaintiff have been adopted by the defendant, the fact that the get up, packing and other writing or marks on the goods or on the packets in which he offers his goods for sale marked differences or indicate clearly a trade origin different from that of the registered owner of the mark would be immaterial; but in case of passing off the defendant may escape liability if he can show that the added matter is sufficiently to distinguish his goods from those of the plaintiff.

It is essential for success in a passing off action based on the use of a mark or get up that the plaintiff should show that the disputed mark or get up has become by user distinctive of the plaintiff's goods so that the use

[126] Advocaat or advocatenborrel is a traditional Dutch alcoholic beverage made from eggs, sugar, and brandy. The rich and creamy drink has a smooth, custard-like consistency.

[127] 1965 AIR 980.

in relation to any goods of the kind dealt in by the plaintiff of that mark or get up will be understood by the trade and the public as indicating the plaintiff's goods.

Another variety, somewhat rarer is so-called *"reverse passing off"* - occurs where a trader markets another's product or service as being his own as in the case of *John Roberts Powers School vs Tessensohn*[128]. It is usually covered by the same court rulings as straight passing off.

## III. Infringement & Remedies

A successful infringement action leads to prohibition of the use of the confusingly similar mark. If the infringing mark is registered, cancellation of the registration is ordered. The trademark owner can also, in principle, ask for compensation for damages. Damages are difficult to prove in trademark infringement cases, however, so this remedy is not very important in practice. The situation is of course different in cases of counterfeiting, which will be dealt with below.

### Trademark Piracy, Counterfeiting and Imitation of Labels and Packaging

Trademark Piracy: Trademark piracy means the registration or use of a generally well-known foreign trademark that is not registered in the country or is invalid as a result of non-use. The Paris Convention provides in its Article 6bis that a well-known trademark must be protected even if it is not registered in the country. Article 6bis is restricted to identical and similar goods, however. Often well-known trademarks are used by pirates on totally different goods, or for services. Furthermore, courts sometimes require a trademark to be well-known in the country where piracy is discovered, and deny protection, even if the true owner of the trademark can prove that it is internationally well-known in a considerable number of other countries. Improved protection against trademark piracy is therefore needed. The Joint Recommendation Concerning Provisions of the Protection of Well-Known Marks which was adopted by the WIPO General Assembly and the Assembly of the Paris Union in September 1999 provides some guidance in this respect.

Counterfeiting: Counterfeiting is first of all the imitation of a product. The counterfeit is not only identical in the generic sense of the term. It also gives the impression of being the genuine product (for instance a LOUIS VUITTON bag), originating from the genuine manufacturer or trader. The offering of such a counterfeit product is only meaningful, of course, if the genuine product is known to the consumer. Consequently, counterfeit goods often belong to the category of luxury goods and bear a well-known

[128] [1995] FSR 947.

trademark. In fact, however, this is only a coincidence: counterfeit goods can just as well be mass-consumption goods, or goods not sold under a trademark but protected by other intellectual property rights such as copyright or design protection. They can also be known to a small group of specialized consumers only, such as brakes to be used for cars, or aircraft, or pesticides known to clients in agriculture. These examples show at the same time how dangerous the use of counterfeit goods can be - a whole year's crop in a large part of Africa was once destroyed by the use of a counterfeit pesticide. Some very typical and widely-known examples of counterfeit goods, have been, for example, the false LOUIS VUITTON bags, the false ROLEX, CARTIER and other luxury watches, the false PUMA and REEBOK sports shoes, the false LACOSTE sports shirts and so on. Worldwide sales of some counterfeit products may exceed those of the genuine products. This shows that counterfeiting is an economic phenomenon of worldwide importance, which can represent an alarming percentage of world trade. Indeed, it is important to recognize that counterfeiting is an economic crime, comparable to theft. Counterfeiters not only deceive the consumer but also damage the reputation of the genuine manufacturer, apart from which they do not pay taxes and other duties to the State.

Legal Protection Against Counterfeiting: Although it is not a condition and not always the case, counterfeit goods generally bear a trademark. This has the advantage of making counterfeiting actionable as trademark infringement, which is generally easier than fighting against infringement of other intellectual property rights, which may also be involved. However, since counterfeiting is an economically serious and important problem, the remedies specified in trademark laws are often not sufficient to serve as an effective deterrent. This is a problem that concerns three areas of law enforcement, all of which are essential if counterfeiting is to be successfully combated.

Laws must provide for severe criminal sanctions, including imprisonment. Most trademark laws provide for criminal sanctions for trademark infringement, but they were often enacted long ago and are no longer realistic. Counterfeiters pay fines, and imprisonment is rarely ordered. Rapid, far-reaching remedies are necessary. Counterfeiters do not operate from a normal business address, and in the event of prosecution are difficult to trace. Often, they can only be found after a long and thorough investigation. There is therefore a pressing need for provisional measures such as interim injunctions: in the United Kingdom the so-called *Anton Piller* order is a very useful measure. By such provisional measures the counterfeit goods may be confiscated and the person who has them in his possession is obliged to inform the genuine trademark owner of their source. Since counterfeiting is a phenomenon that occurs in international trade, it is also necessary to empower the customs authorities to check goods at the border of their country and confiscate counterfeit goods at the request of the owner of the trademark affixed to them.

**Imitation of Labels and Packaging:** The cases discussed in this section lie between normal trademark infringement and counterfeiting, sometimes coming very close to counterfeiting. As in the case of counterfeiting, the label or packaging of the competing product is imitated, but in this case the imitation does not give the impression of being the genuine one. If one compares the genuine product and the imitation side by side, although consumers seldom proceed in this way, one can distinguish them, and the imitator does not usually hide behind the manufacturer of the genuine product; he trades under his own name. He is not a criminal, but rather a competitor who uses unfair methods of competition. Instead of developing at his own expense a label and packaging with an image of his own for his product, the imitator tries to take advantage of the reputation of the competing product by giving his product an appearance so similar to it that confusion arises in the marketplace.

Often the imitator uses a trademark (in the sense of a product name) which is confusingly similar to that of his competitor. If he does that he is committing trademark infringement. In a number of cases the word mark used by the imitator is somewhat, but not confusingly, similar to the one used by his competitor, but may even be totally different from it. In such situations the confusion in the marketplace arises only, or mainly, from the use of colors and graphic elements that are identical or very similar to those of the competitor's label or packaging. Labels and packaging are rarely registered as trademarks, which means that trademark law mostly offers no basis for intervention in such cases. They have to be dealt with under the rules of unfair competition. In principle, it is generally recognized as being unlawful (unfair competition) to pass off one's own goods as being those of a competitor. If a label or the packaging of a product is confusingly similar to that of a competitor's product, this requirement is normally fulfilled.

## Trademark Licensing

It is common practice for trademark owners to license third parties to use their trademarks locally in the country where they exercise their own business. However, the main importance of the possibility of licensing the use of trademarks lies in its usefulness in international business relations. Licensing is indeed the principal means whereby the trademarks of foreign companies are used by local businesses. Such license agreements are very common between partners from different developed countries, and they do exist between partners who both originate in developing countries, or even between a licensor in a developing country and a licensee in a developed country. The most important role they play, however, is in the relations between licensors in developed countries and licensees in developing countries. In these situations, they are not normally simple trademark licenses, but general agreements including the licensing of patents, trademarks, know-how and possibly other intellectual property rights, as well as technical assistance to be

given to the licensee. These agreements are a key factor in the economic development of developing countries and are usually characterized by the transfer of technology, the creation of jobs and the use of local raw materials. They are often regulated by special provisions of local laws which provide for the control or approval of the agreement by a local authority, such as a ministry responsible for technology transfer.

To the extent that such general agreements confer the right to use the licensor's trademarks, they have to comply with the relevant licensing provisions of the trademark law of the licensee's country (even though the above-mentioned special provisions may also apply). The trademark laws of many countries contain provisions on trademark licensing. The general guiding principles of trademark licensing are dealt with hereunder, independently of its foreign ownership and technology transfer aspects.

## Legal Protection

If a trade name or business name is distinctive it is protected by use, whether registered or not. If it is not distinctive, it can be protected after distinctiveness has been acquired by use. Distinctiveness in this context means that the consuming public recognizes the name as being a reference to a particular trade source.

A trade name or a business name can also be afforded protection by registration as a trademark. Usually, both the full corporate name and the short business name can be registered. To safeguard such a registration, it is of course necessary actually to use the trade name as a trademark. This requirement is normally not met by making a reference, somewhere on the label or packaging of a product, to the manufacturing or trading company with its full address in small print, as is often required by labelling regulations. It is therefore more adequate and commoner in practice to register the shorter business name as a trademark, the more so as that name is often at the same time an important trademark (such as the so-called *"house mark"*) of the company.

In the same way as enterprises can register trade names and business names as trademarks, they can and often do use them not only to distinguish themselves but also to distinguish the goods or services that they offer and, as mentioned before, this is even necessary in connection with the obligation to use if the name has been registered as a trademark. It is therefore inevitable that conflicts between trade names, business names and trademarks arise. If a trade name or business name is used as a trademark (whether registered or not), the general rules of priority and the protection of consumers against confusion as to the origin of the goods or services offered under the signs concerned will determine the outcome of any conflict with a similar trademark.

Even if an enterprise uses a business name or trade name as such, in other words not as a trademark for the goods or services it offers, it is nevertheless widely recognized that a prior trademark is infringed if the use of the business name or trade name is likely to create confusion as to the origin of the goods or services that the enterprise offers under its name. Conversely, the use of a trademark, service mark or collective mark can in the same way infringe a prior (registered or unregistered) business name or trade name.

## IV. Trademarks in the INTERNET

Perhaps the most significant reason for the number of trademark allegations involving the Internet is that activity on the Internet and the World Wide Web is so easy to monitor. Previously, a trademark owner in Bangalore would probably be unaware of what an individual or small company may be doing in New Delhi. With the Internet, that same trademark owner can do a complete Internet search for users of its marks in a matter of seconds. As a result, trademark owners are discovering more infringers of trademarks, including both intentional and unintentional infringers.

This ease of discovery, however, is a two-edged sword for trademark owners. Because one of the obligations of a trademark owner is to police use of its mark, the ease of Internet searching may be placing the requirement on trademark owners to police the Internet routinely. If an infringer of a mark is known to the trademark owner (or should have been known through routine diligence) and is allowed to go unchallenged, the trademark owner could lose its trademark.

In addition to the increased discovery of actual trademark infringers, the expansion of the Internet is also leading to an expansion of inappropriate trademark infringement allegations. Typically, a company will assert trademark infringement every time it views one of its trademarks on a web page of a third party. However, the determination of whether trademark infringement has occurred involves an analysis of several factors. For instance, a person who develops a web site that discusses her experience with Microsoft software may use Microsoft's trademarks to refer to specific products without fear of infringement. However, she probably would not be able to use the trademarks in such a way as to cause viewers of her web page to believe that she is affiliated with Microsoft or that Microsoft is in some way sponsoring her web page. The distinction could only be analysed upon seeing how the marks are actually used on the page.

## V. Domain Name Registration

The choice of a domain name[129] has become an important business decision. A domain name is reistered by you to enable Internet users to locate your company's site on the web. Company domain names may be registered in any number of *"top level domains"* called "TLDs". You can choose from the *"generic top level domains"* ("gTLDs"), such as .com, .net, .org and .info. Or one can choose from the specialized and restricted top level domains if you qualify (e.g. .aero for air travel and transport businesses, or .biz for commercial enterprises). One can also register your domain name under a *"country code top level domain"* ("ccTLD"), for example, .in for India, .cn for China, .ch for Switzerland.

The technical management of the domain name system is in the hands of the *Internet Corporation for Assigned Names and Numbers* ("ICANN")[130]. However, in the gTLDs, the registrations themselves are handled by a number of Internet registrars accredited by ICANN, that can be found at ICANN's site[131]. One can also check whether a domain name has already been registered, either by searching via a registrar's site. For registrations in the ccTLDs, one will need to contact the registration authority designated for each ccTLD. To do this, one can consult a ccTLD database set up by WIPO, that links to the web sites of 243 ccTLDs, where one can find information about their registration agreement.

When one chooses a company's domain name, depending on where one register, one may pick a generic or common name, but if one picks a name that is distinctive, users may more easily be able to remember and search for it. Ideally, it could also be distinctive enough to be protected under trademark law, because domain names can be protected as trademarks in some countries. If one picked a very common domain name, the company could have difficulty in building up any special reputation or good will in this name and more difficulty in preventing others from using your name in competition.

One should pick a domain name that is not the trademark of another company, particularly a well- known trademark. This is because most laws treat registration of another person's trademark as a domain name as

[129] A domain name is the address where Internet users can access your website. A domain name is used for finding and identifying computers on the Internet. Because of this, domain names were developed and used to identify entities on the Internet rather than using IP addresses.
[130] The Internet Corporation for Assigned Names and Numbers (ICANN) is an internationally organized, non-profit corporation that has responsibility for Internet Protocol (IP) address space allocation, protocol identifier assignment, generic (gTLD) and country code (ccTLD) Top-Level Domain name system management, and root server system management function.
[131] < http://www.icann.org>

trademark infringement, also known as *"cybersquatting"*[132], and one may require to transfer or cancel the domain name, and also pay damages. Also, all domain names registered in the gTLDs like .com, as well as many registered in the ccTLDs, are subject to a dispute resolution procedure that allows a trademark or service mark owner to stop the cybersquatting of their trademark. There are various databases that can be search on the web to determine if your choice of domain name is a registered trademark in a particular country. WIPO has established a *Trademark Database Portal*[133] for such searches.

Some unscrupulous people have made a practice of cybersquatting, usually to extract money from the rightful owner of the name or to mislead or confuse consumers. If one finds that your trademark or service mark is being cybersquatted, there is a simple online procedure to go through where an independent expert will decide whether the domain name should be returned to you, and the registrars are required to follow this decision. This *Uniform Administrative Dispute Resolution Policy* ("UDRP")[134] was first recommended by WIPO as a result of its Internet Domain Name Processes and then adopted by ICANN[135].

In addition to trademarks, it is wise to avoid domain names that include certain other controversial words such as geographical terms (e.g. Champagne, Beaujolais), names of famous people, generic drug names, names of international organizations, and trade names (e.g. name of another person's business), that might interfere with the rights of others or international systems of protection.

## VI. Domain Name Disputes

A domain name dispute is a conflict that arises when more than one individual or group believes it has the right to register a specific domain name. Most commonly a domain name dispute would occur when a

[132] Cybersquatting refers to illegal domain name registration or use. Cybersquatting can have a few different variations, but its primary purpose is to steal or misspell a domain name in order to profit from an increase in website visits, which otherwise would not be possible. Trademark or copyright holders may neglect to reregister their domain names, and by forgetting this important update, cybercasters can easily steal domain names. Cybersquatting also includes advertisers who mimic domain names that are similar to popular, highly trafficked websites. Cybersquatting is one of several types of cybercrimes. Cybersquatting is also known as domain squatting.

[133] < https://www.wipo.int/amc/en/trademark/index.html>

[134] The Uniform Domain Name Dispute Resolution Policy (UDRP) is a process established by the Internet Corporation for Assigned Names and Numbers (ICANN) for the resolution of disputes regarding the registration of internet domain names.

[135] < https://www.wipo.int/amc/en/domains/index.html>

domain name similar to a registered trademark is registered by an individual or organization who is not the trademark owner. All domain name registrars must follow the ICANN's Uniform Domain-Name Dispute-Resolution Policy (UDRP).

Because of the increasing popularity of the Internet, companies have realized that having a domain name that is the same as their company name or the name of one of their products can be an extremely valuable part of establishing an Internet presence. A company wishing to acquire a domain name must file an application with the appropriate agency. Before doing so, a search is done to see if their desired domain name is already taken. When a company finds that the domain name corresponding to their corporate name or product trademark is owned by someone else, the company can either choose a different name or fight to get the domain name back from its current owners.

The DNS (domain name system) is a way for consumers to easily navigate the Internet. Common domain name violations facing businesses and individuals include:

1) Cybersquatting
   Registering, trafficking in, or using a domain name with bad-faith intent to profit from the goodwill of a trademark belonging to someone else.

2) Reverse cybersquatting
   Occurs when a trademark holder attempts to wrestle a domain name from someone that lawfully registered the name at an earlier point in time.

3) Typosquatting
   Registration of domain names with common typos of major domain names to attempt to divert traffic to sites that benefit the registrant[136].

4) Second Level Domain Names
   A second-level domain (SLD) on the Internet is the name or text directly below (or typically to the left) of a top-level domain (TLD).

5) Subdomain disputes
   Refers to the use of a mark in the very first portion of the domain.

6) Gripe sites
   Where an unhappy domain name owner registers a name to complain about a particular

[136] This practice, also known as “URL hijacking” or “web address hacking” takes advantage of the good name of the domain owner to send visitors somewhere else.

company and their dissatisfaction with that product or service[137].

7) Warehousing

The practice of *"holding"* expired domains instead of releasing them back into the public domain[138].

8) Grace period violations

Occurs when a registrant registers a domain name for a temporary purpose, but then takes advantage of the domain purchase grace period to reject more permanent ownership[139].

In December 1999, the WIPO Arbitration and Mediation Center[140] began offering domain name dispute resolution services under the Uniform Domain Name Dispute Resolution Policy (UDRP). The Center's services include administering second-level domain name disputes for generic Top-Level Domains (gTLDs) to which the UDRP applies. The Center is the leading provider of dispute resolution services under the WIPO-initiated, ICANN-mandated UDRP. The Center also administers disputes under a number of specific policies, adopted by individual gTLD registries.

The UDRP is applicable to second-level domain name registrations in the following gTLDs: .aero, .asia, .biz, .cat, .com, .coop, .info, .jobs, .mobi, .museum, .name, .net, .org, .pro, .tel and travel. The UDRP also applies to all New gTLDs.

Policies and procedures other than the UDRP may also be applicable to some of the above-mentioned gLDs. For example, there are two dispute resolution policies potentially applicable to second-level domain name registrations within the .name space, one being the UDRP and the other the *Eligibility Requirements Dispute Resolution Policy* (ERDRP)[141].

Some registries have also put in place *Rights Protection Mechanisms* (RPMs)[142] such as a *"sunrise"* procedure during their pre-launch phase by which rights holders may defensively register or object to the registration of domain names in certain circumstances. In addition to the above, the Center currently also provides domain name dispute resolution services for 76 country code Top-Level Domains (ccTLDs)[143].

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[137] While there are often related free speech issues, legal action may be taken in cases of so-called "gripe sites".

[138] By preventing certain domains from being released, the registrar hopes to resell the domains to the previous registrant or a new registrant at a higher rate than the market price.

[139] Also known as domain name "kiting" or "tasting".

[140] The WIPO Arbitration and Mediation Center is a neutral, international and non-profit dispute resolution provider that offers time- and cost-efficient alternative dispute resolution (ADR) options. WIPO mediation, arbitration, expedited arbitration, and expert determination enable private parties to efficiently settle their domestic or cross-border IP and technology disputes out of court. The WIPO Center is also the global leader in the provision of domain name dispute resolution services under the WIPO-designed UDRP.

[141] < https://www.icann.org/resources/pages/rules-c0-2012-02-25-en>

[142] < https://www.icann.org/resources/pages/rpm-drp-2017-10-04-en>

[143] < https://www.wipo.int/amc/en/domains/cctld/>

All registrars must follow the UDRP. Under the policy, most types of trademark-based domain-name disputes must be resolved by agreement, court action, or arbitration before a registrar will cancel, suspend, or transfer a domain name. Disputes alleged to arise from abusive registrations of domain names (for example, cybersquatting) may be addressed by expedited administrative proceedings that the holder of trademark rights initiates by filing a complaint with an approved dispute-resolution service provider.

To invoke the policy, a trademark owner should either

1) file a complaint in a court of proper jurisdiction against the domain-name holder (or where appropriate an in-rem action concerning the domain name); or
2) in cases of abusive registration submit a complaint to an approved dispute-resolution service provider.

UDRP also allows trademark and service mark holders to arbitrate certain claims against a domain name registrant before an approved dispute resolution service provider.

Following ICANN's announcement of plans to broadly expand the present number of gTLDs, WIPO has been collaborating with ICANN constituents in seeking to ensure that intellectual property, and in particular trademark law, is appropriately respected in the event the introduction of New gTLDs proceeds as envisioned by ICANN.

This collaboration has *inter alia* taken the form of WIPO's policy input to ICANN including proposals and further input on trademark-based dispute resolution procedures which aim to respect trademark rights while striking a balance with the practical interests and legitimate expectations of the Domain Name System actors.

A domain name dispute concerning the country code TLD (ccTLD) name for India (.in) is governed by the *.IN Dispute Resolution Policy* (INDRP)[144] and is overseen by the *National Internet Exchange of India* (NIXI)[145].

While the INDRP and the UDRP follow similar procedures, the INDRP remains unique and is distinct

from the UDRP. The most significant difference lies in the three criteria which a complainant must satisfy under the respective policies, namely:

[144] < https://www.indrp.com/>
[145] < http://www.nixi.in/>

1) The domain name must be similar to the complainant's trademark;

2) The registrant must not have rights or legitimate interests in respect of the domain name;

3) The domain name must be registered and/or used in bad faith.

The UDRP proceedings are governed by the UDRP Policy, Rules of Procedure and the WIPO supplemental rules, while under the INDRP, the arbitrator has to conduct the proceedings in accordance with the INDRP Policy, Rules of Procedure and the Arbitration and Conciliation Act, 1996[146]. Significantly, a fundamental difference between the policies is that under the UDRP a complainant may combine multiple domain names into one consolidated complaint. However, under the INDRP, the rules clearly stipulate that *"a separate complaint is required to be filed for dispute relating to each domain name"*[147].

It appears that until there is a significant amendment to the INDRP, starting with the abolishment of Rule 3(c), to bring it in sync with the UDRP and court procedure, an aggrieved party must file a separate complaint before NIXI for each domain name bearing in mind that each complaint will be assigned to a separate arbitrator and run the formidable risk of conflicting decisions, thereby defeating the entire process.

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[146] < http://legislative.gov.in/sites/default/files/A1996-26.pdf>
[147] Paragraph 3(c) INDRP Rules of Procedure.

# CHAPTER V

# DATABASES

## I. Understanding Database Management

Database, also called Electronic Database, any collection of data, record or information, that is specially organized for rapid search and retrieval by a computer. Databases are structured to facilitate the storage, retrieval, modification, and deletion of data in conjunction with various data-processing operations.

A database is stored as a file or a set of files on magnetic disk or tape, optical disk, or some other secondary storage device. The information in these files may be broken down into records, each of which consists of one or more fields. Fields are the basic units of data storage, and each field typically contains information pertaining to one aspect or attribute of the entity described by the database. Records are also organized into tables that include information about relationships between its various fields. Although database is applied loosely to any collection of information in computer files, a database in the strict sense provides cross-referencing capabilities. Using keywords and various sorting commands, users can rapidly search, rearrange, group, and select the fields in many records to retrieve or create reports on particular aggregates of data.

Database records and files must be organized to allow retrieval of the information. Queries are the main way users retrieve database information. The many users of a large database must be able to manipulate the information within it quickly at any given time. Moreover, large business and other organizations tend to build up many independent files containing related and even overlapping data, and their data- processing activities often require the linking of data from several files. Businesses and government agencies often employ *"data mining"*[148] software to analyse multiple aspects of the data for various patterns.

Database management systems are designed to work with data. A database management system (DBMS) is a software system that uses a standard method to store and organize data and can extract information from the database in response to queries. The data can be added, updated, deleted, or traversed using various standard algorithms and queries. The power of a DBMS comes from its ability to define new relationships

[148] Data mining, also called knowledge discovery in databases, in computer science, the process of discovering interesting and useful patterns and relationships in large volumes of data. The field combines tools from statistics and artificial intelligence (such as neural networks and machine learning) with database management to analyse large digital collections, known as data sets. Data mining is widely used in business (insurance, banking, retail), science research (astronomy, medicine), and government security (detection of criminals and terrorists).

from the basic ones given by the tables and to use them to get responses to queries. Typically, the user provides a string of characters, and the computer searches the database for a corresponding sequence and provides the source materials in which those characters appear.

There are several types of database management systems. Here is a list of seven common database management systems:

1) Hierarchical databases
   Data is stored in a parent-children relationship nodes and is organized into a tree like structure.
2) Network databases
   Uses a network structure to create relationship between entities and are mainly used on a large digital computers.
3) Relational databases
   SQL[149] databases where data is stored in tabular form of columns and rows where the relationship between data is relational.
4) Object-oriented databases
   Use small, recyclable separated of software called objects. The objects themselves are stored in as piece of data (e.g., sound, video, text, or graphics) and instructions, or software programs called methods,
5) Graph databases
   NoSQL[150] databases that uses a graph structure for sematic queries where the data is stored in form of nodes, edges, and properties.
6) ER model databases
   The relationship between entities is implemented by storing the primary key of one entity as a pointer or *"foreign key"* in the table of another entity.
7) Document databases
   Also NoSQL database that store data in form of documents.

## II. Databases in Information Technology

A database is a collection of data that is saved and organized to allow easy retrieval when needed. It is the collection of schemas, tables, queries, reports, views, and other objects. In order to maintain and access the database you will need a DBMS (Database Management System). This kind of system manages and protects data so that the database is safe and secure. Databases consists of tables that include groups of related data

[149] SQL stands for Structured Query Language. It is designed for managing data in a relational database management system (RDBMS). SQL statements are used to perform tasks such as update data on a database, or retrieve data from a database.
[150] NoSQL, which stand for "not only SQL", is an alternative to traditional relational databases in which data is placed in tables and data schema is carefully designed before the database is built and are especially useful for working with large sets of distributed data.

fields that are known as records. Databases are not limited to only computers; in fact, a phone book is an example of a database.

**There are a number of individuals who create, use, manage, and secure database management systems:**

1) *A Database Designer* is responsible for designing a database. They work with people involved in the system development life cycle, such as systems analysts, to find out what kinds of data are needed and what relationships among the data should be studied, and they design the database based off of these. A database designer may also be referred to as a database architect, database engineer, or database analyst.
2) *Database Developers* create the database based on the work of the database designer, setting up its structure and user interface, typically with the use of the database management system. This may be the same as the database designer, and they work alongside the database programmer, who creates the programs necessary for the database to be developed.
3) *Database Administrators* (DBAs), manage databases within an organization, maintaining them, monitoring user access to them, monitoring their performance, and performing backup.
4) The *Users* are the ones who actually *"use"* the database: they enter data into the database, update data within the database, and retrieve data from the database.

Data security is a must-have, and is required by most industry, business and legal mandates. Data security is what protects data from being breached (e.g. seen by people who should not see it), so that the information it contains cannot be disclosed or leaked. Data security also ensures the integrity of the data, meaning that no unauthorized changes can be made to data, data structures, configuration files, or logs. Data security programs can keep track of the files and monitor the transferring of data to prevent unauthorized access and stop any possible intrusions from occurring.

**Databases are mainly classified as:**

1) Single-User vs. Multiuser Database Systems

   Single-user database systems are located on one computer and they are designed for one user; while a multiuser database system is used for bigger businesses because it is a database that is accessed through a network.

2) Client-Server vs. N-Tier Database Systems

Client-server database systems are servers that contain resources for other computers while n-tier systems or multi layered architecture is a client–server architecture in which presentation, application processing, and data management functions are physically separated.

3) Centralized vs. Distributed Database Systems

Centralized database systems are all located on one computer while distributed database systems share a network and the data is divided between several computers connected to that network.

4) Disk-Based vs. In-Memory Database Systems

An in-memory database (IMDB) is a database whose data is stored in main memory to facilitate faster response times.

## III. Protection of Databases

The data processed by a computer, or the data that result from such processing, may well be protected literary and artistic works. This gives rise to some important questions in relation to the copyright protection of such works, such as:

1) Where the information processed by a computer is expressed in a work protected by copyright, is the use of that work by the computer under the control of the copyright owner?
2) Where a computer has been used to process information in such a way as to produce a work of a kind normally protected by copyright - for example, the processing of statistics so as to produce them in tabulated form designed to serve a particular purpose, or the use of a computer to produce music - who is to be regarded as the "author", and hence the copyright-owner, of the resulting literary or musical work?

Both internationally and nationally, there has been a very large measure of agreement on the answers, and the general consensus is recorded in the *Report of the Second Committee of Governmental Experts on Copyright Problems Arising from the Use of Computers for Access to or the Creation of Works* - convened by WIPO and UNESCO in Paris in June 1982. The major conclusions recorded in the report and the recommendations may be summarized in the following way:

1) the input of a protected work into a computer system includes the reproduction of the work on a machine-readable material support, and also the fixation of the work in the memory of the computer system; both these acts (i.e. reproduction and fixation) are governed by the

international conventions (Article 9(1) of the *Berne Convention*[151]); the output of a protected work from a computer system should be protected under copyright law, irrespective of the form of the output, for example, as a hardcopy printout, a fixation in machine-readable form, a transmission from the database of one system into the memory of another system (with or without an intermediary fixation), or by making the work available to the public by audio or visual images presented on a screen;

2) in amending or modifying national legislation to take account of computer use of protected works, care should be taken to ensure that authors' moral rights should continue to be exercisable in relation to computer use, and that the exemption and limitations on the copyright owner's right of control, which computer technology might render desirable, do not exceed the limits on such exemptions permitted by the Conventions;

3) non-voluntary licenses in relation to the computer use of protected works should only be adopted when voluntary licensing is impracticable, and should, in any case, be in accordance with the convention principles; and where a non-voluntary license is adopted by a national law, its effect should be confined to the territory of the country of that law.

In many countries the existing law appears to be regarded as implementing these general conclusions. But in some countries, there have been specific amendments to the copyright law to put the matter beyond doubt. The general view which emerged from these studies is that no matter how sophisticated a computer may be, it is only a tool, and the author of a work produced by the aid of a computer is the person who conceived the product and who gave the programmer and the technician the instructions necessary to produce it. Neither the programmer who designed the program and needed to operate the computer for the purpose of producing that work, nor the technician who operated the computer when carrying out the task, would be regarded as the author or a joint author; however, where the work of the programmer amounted to collaboration with the originating creative person to such an extent that the programmer contributed creatively in settling the form of the final product, he might be regarded as a co-author.

Article 2(5) of the Berne Convention provides as follows: *"Collections of literary and artistic works such as encyclopedias and anthologies which, by reason of the selection and arrangements of their contents, constitute intellectual creations shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections".* The provision does not indicate any specific category of works to which the level of protection shall be assimilated. Accordingly, it should be assumed that the level of

[151] The Berne Convention for the Protection of Literary and Artistic Works, adopted in 1886, deals with the protection of works and the rights of their authors. It provides creators such as authors, musicians, poets, painters etc. with the means to control how their works are used, by whom, and on what terms.

protection to be granted is that which, in general, is granted to literary and artistic works under the Berne Convention.

The said provision in Article 2(5) of the Berne Convention limits its scope to original collections of literary and artistic works. This does not mean, however, that there is no basis in the Berne Convention for the protection of original collections of other material, such as data.

A basis can be found in Article 2(1) of the Berne Convention, which states, inter alia, that *"The expression literary and artistic works shall cover every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression".* While the list of categories of works that follows the sentence just quoted does not include databases, it is clear that the list is not exhaustive, and a general consensus is emerging that every (original) production in the abovementioned domain must be protected under the Convention.

An explicit provision on the protection of databases was included in Article 10(2) of the TRIPS Agreement[152]. That provision states as follows: *"Compilations of data or other material, whether in machine-readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself".*

The *WCT*[153] contains in its Article 5 a provision on copyright protection of databases, which, under the title *"Compilations of Data (Databases)"* provides as follows: *"Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation".* The Diplomatic Conference which adopted the WCT also adopted, by consensus, the following agreed statement: *"The scope of protection for compilations of data (databases) under Article 5 of this Treaty, read with Article 2, is consistent with Article 2 of the Berne Convention and on a par with the relevant provisions of the TRIPS Agreement".* Article 2 of the WCT, to which the agreed statement refers, states, under the heading *"Scope*

[152] TRIPS (Agreement on Trade-Related Aspects of Intellectual Property Rights) is an international agreement administered by the World Trade Organization (WTO) that sets down minimum standards for many forms of intellectual property (IP) regulation as applied to nationals of other WTO Members.

[153] WCT (WIPO Copyright Treaty) is a special agreement under the Berne Convention which deals with the protection of works and the rights of their authors in the digital environment. In addition to the rights recognized by the Berne Convention, they are granted certain economic rights. The Treaty also deals with two subject matters to be protected by copyright:

(i) computer programs, whatever the mode or form of their expression; and

(ii) compilations of data or other material ("databases").

*of Copyright Protection": "copyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such."*

The originality requirement, for example, as under the WCT, that the database *"by reason of the selection or arrangement"* of its contents, means that some databases are not protected, even if they are of a considerable size and have been expensive to prepare. Such is, for example, the case where a database is exhaustive, that is, it contains all the relevant data without any selection or omission, and the data is arranged according to basic, straightforward rules, such as alphabetically, or in numerical or chronological order. Such bases may, however, still represent substantial investments, and when stored in machine-readable form, they may easily and inexpensively be downloaded, copied and otherwise used.

It has been also argued that such investments should also be protected, for example, by *sui generis* right, covering copying, distribution and communication to the public, albeit for a shorter period than under copyright protection. The possibility of such *sui generis* protection is under discussions.

## US Status

The United States follows what is referred to as a *'sectoral'* approach to data protection legislation. Under this approach, the laws of data protection and privacy rely on a combination of legislation, regulation, and self-regulation rather than governmental interference alone. US has followed a policy geared toward allowing the private sector to lead the way in data protection. This means that companies should implement their own policies, develop their own technology, and individuals should self- regulate to prevent the dissemination of their private data. Pursuant to this policy, the US has not yet developed a single, federal data protection law. As of yet, the United States does not have any centralized, formal legislation at the federal level regarding this issue, but does insure the privacy and protection of data through the *US Privacy Act*[154]*, the Safe Harbor Act*[155] *and the Health Insurance Portability and Accountability Act*[156].

[154] The Privacy Act of 1974, 5 USC § 552a, establishes a code of fair information practices that governs the collection, maintenance, use, and dissemination of information about individuals that is maintained in systems of records by federal agencies.

[155] A safe harbor is a provision in a law or regulation that affords protection from liability or penalty under specific situations, or if certain conditions are met. Sometimes a safe harbor reduces liability if "good faith" is demonstrated.

[156] The Health Insurance Portability and Accountability Act of 1996 (HIPAA), Public Law 104-191, was enacted on August 21, 1996. §§ 261 - 264 of HIPAA require the Secretary of HHS to publicize standards for the electronic exchange, privacy and security of health information.

US doesn't have a database protection law. A collection of data, which lacks creativity, doesn't attract legislative protection in the US. For a long period in the US, many electronic database aggregators, publishers and companies have been lobbying Congress to pass laws on copyright protection to databases. However, no law has been passed till date. The US Copyright Act protects a database. The necessity for a copyright is originality; the courts have from time to time interpreted the meaning of originality and that the requirement is not stringent.

In the US, databases can only be protected by copyright as compilations. 17 US Code § 101[157] defines a compilation as *"a collection and assembling of pre-existing materials or of data that are selected in such a way that the resulting work as a whole constitutes an original work of authorship"*. It is required that the selection involves some creative expression. For example, a top 10 list of famous persons could be copyrighted because of the subjective (and thus original) nature of the selection criterion. The individual names are not protected, and so anyone may copy a particular name from the list. However, copying of the list as a whole (or a substantial portion) is not permitted.

If there is no original/creative selection involved, the database is not protected. A telephone directory (*"white pages"*, i.e. subscriber information) is not protected by copyright, as it represents a collection of facts, compiled without any of the creativity required for copyright protection[158].

Before this Supreme Court decision, several US courts had granted copyright protection to a collection of facts, such as a database, if the creator of the database required a lot of effort to collect the facts (*"sweat of the brow"* protection[159]). Under such protection, it was not even allowed to extract individual facts from the collection. If for example someone had compiled a list of famous persons and gave their birthdate on the list, no one was permitted to copy a single birthdate from the list. This *"sweat of the brow*" protection under copyright law was explicitly set aside in the Feist decision.

Because of the Feist decision, no copyright protection is available for factual information such as stock quotes or scores or other statistics for games. Such factual information can be quite valuable, because they are often time-sensitive (the more recent, the more valuable) and require a large amount of effort to collect. To protect such time-sensitive information anyway, state laws regarding misappropriation can be used. This

[157] <https://www.govinfo.gov/content/pkg/USCODE-2011-title17/pdf/USCODE-2011-title17.pdf>
[158] Feist Publications, Inc. v. Rural Telephone Service Co., 499 U.S. 340, 1991.
[159] "Sweat Of The Brow Doctrine" is one of the well-known doctrines in Copyright Law. The doctrine protects factual compilations. The rationale behind the Sweat of the Brow Doctrine was to award the person who expended his sweat and effort in compiling the facts.

is known as the *"hot news"* doctrine[160]. Under this doctrine, the collector of such time- sensitive information can stop its competitors from copying their *"hot news"*[161].

Two bills are currently pending in the House of Representatives that would introduce database rights comparable to the European Union's Database Directive:

1) HR 354 and 2) HR 1858.

HR 354 was introduced in the House Judiciary Committee by Coble in January 1999. This bill is oriented towards database producers and prohibits uses which could harm the primary or related market of the database. The other bill, HR 1858 introduced by Bliley in May 1999, is more oriented toward database users. HR 1858 allows all uses of databases, except commercial uses meant to compete directly with the original database.

## European Status

Databases in the European Union are protected under European Law. The current Directive on the legal protection of databases was adopted in February 1996. It has been evaluated for the second time in 2018. The Directive of the European Parliament and of the Council of March 11, 1996[162] protects databases by copyright if they are original. Non-original databases such as compilations of legal cases and laws, listings of advertisements or databases of scientific publications can also be protected if the investment in obtaining, verifying and presenting the data was substantial. This protection is known as the "*sui generis*" right, i.e. a specific property right for databases that is unrelated to other forms of protection such as copyright. The Directive's provisions apply to both analogue and digital databases.

The European Commission has published two evaluations of the protection EU law gives to databases since the directive came into force in 1996. The first of these evaluations was made in 2005. The second evaluation of the Database Directive was published on April 25, 2018[163], as part of the third data package. The main purpose of the evaluation was to assess the effectiveness, efficiency, relevance, coherence and EU added value of the Directive, and in particular of the "sui generis" right, analysing whether it remains

[160] The doctrine of "hot news" is a judicially evolved phenomenon which applies to written material and live televised events containing "facts" that have value for a short duration, and which will soon move into the "public realm" losing their value completely.
[161] NBA v. Motorola, Inc., 105 F. 3d 841, 2d Cir. 1997.

[162] Directive 96/9/EC.
[163] <https://ec.europa.eu/digital-single-market/en/news/staff-working-document-and-executive- summary-evaluation-directive-969ec-legal-protection>

fit for purpose in the new legal, economic and technological environment. The evaluation was supported by an external study[164]. This supporting study also provided considerable evidence to back up the Commission's evaluation of the Directive. It contained a legal and an economic analysis, an online survey, in-depth interviews with legal experts and practitioners, and the results of a stakeholder workshop.

In addition to harmonizing the standard of copyright protection for databases, the Directive created a controversial new right in Article 7[165]. For example, the test for protection under the database right is whether a substantial investment has been made in obtaining, verification or presentation of the contents. No creativity is required in this process. Similarly, copyright confers protection on the labour invested in collecting, presenting or verifying data and does not require any creativity in relation to the selection and creativity of the information.

In the EU for a database that is accessible by electronic or other means – one may choose to protect:

1) the content, via a *sui generis* right;

2) its structure, via a copyright

If the database meets the requirements for copyright and sui generis right protections, one can apply for both.

If the database is an original intellectual creation, one can protect it through copyright, which guarantees exclusive rights to reproduce, adapt, distribute the database or any variation of it. With copyright, one can further protect the structure of the database and not its content.

If the structure of the database is not an original creation, one can still protect its content under *the sui generis* right. To benefit from the *sui generis* database right, the maker of the database must be EU nationals or residents in the EU. To obtain sui generis protection one need to prove that a substantial investment (financial, material and/or human) has been made in either, obtaining, the verification or the presentation of the database content. The *sui generis* database right protects the content of the database. The maker of the database can prevent the extraction and/or reuse of the whole or a substantial part of the database's content. When one creates the database and it meets the requirements for the sui generis protection, oneis

[164] < https://ec.europa.eu/digital-single-market/en/news/study-support-evaluation-database-directive>

[165] Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.

automatically granted this protection for 15 years, starting either from the creation date or from when the database was first made publicly available.

The initial case law in individual EU jurisdictions concerning the Directive was anything but *"harmonizing"* in its effect. Different courts went their different ways in interpreting the transposing legislation of their respective jurisdictions. The end result of the early decisions was that the new right was not applied in a consistent manner and the goal of harmonization was therefore some distance away.

Some harmony has now been introduced into the interpretation and application of the database right by few early decisions of the ECJ[166]:

1) The English decision was the first instance decision in *British Horseracing Board v William Hill*[167], which was subsequently referred to the ECJ by the Court of Appeal[168]. The British Horseracing Board developed and maintained a comprehensive database of information about the horse races it conducted. The defendant used a significant amount of that information in its business of betting with its customers on the outcome of races. In finding for the plaintiff at first instance, Justice Laddie rejected the argument that the data taken must be taken in the same form as it appears in the plaintiff s database. This decision was later reversed by the Court of Appeal in the light of the ECJ decision in the same case.

2) In Mars *UK Ltd. v. Teknowledge Ltd.*[169], the defendant conceded that the plaintiff had a database right in a data table contained within the computer program that controlled a vending machine. The table consisted of information about the dimensions and weights of coins intended for the machine so that a comparison could be made between an inserted coin and the data in the table. The court held that the defendant's reproduction of the table constituted an infringement of the database right even though the reproduction involved reconfiguring the existing table to incorporate new data relating to new coins issued by the government.

3) A French decision[170] that applied French unfair competition principles to the point where relief was denied under the transposing legislation but granted under existing unfair competition law

[166] The ECJ (European Court of Justice), officially just the Court of Justice (French: Cour de Justice), is the supreme court of the European Union in matters of European Union law.
[167] British Horseracing, [2001] EWHC 517.
[168] [2001] EWCA (Civ) 1268 (Eng.) (Case No A3/2001/0632).

[169] [2000] FSR 138, [1999] All ER 600.
[170] Groupe Moniteur v. Observatoire des Marches Publics, Cour d'appel Paris, June 18, 1999.

principles. The basis of this decision was that the relevant investment by the plaintiff was not sufficient to justify conferring the database right but the defendant's parasitical actions in copying the plaintiff's information contravened unfair competition principles.

In 2010, the European Commission circulated a document[171] to the European Parliament, The Council of Europe, The Economic and Social Committee and The Committee of the Regions containing a draft strategy for improvements in data protection, including a set of proposals to change the EU Data Protection Directive. The key components of the new strategy appear to include:

1) The establishment of EU-wide registration forms for databases

2) New rules on privacy notices, including the promulgation of EU *"standard form privacy information notices"* and special rules with respect to minors

3) New rules that strengthen and clarify the concept of consent to the collection, use and transfer of data

4) New rules on data minimization

5) The creation of a *"right to be forgotten"* by giving a right to demand deletion of data no longer needed for the purpose for which it was collected

6) The creation of a right of *"data portability"*, allowing individuals to take his/her photos, medical records or a list of friends from an application or service and transfer them into another one

*7)* New rules on what constitutes *"sensitive data"*

8) New remedies for violations of privacy, including expanded criminal sanctions and empowering data protection authorities with the right to go to court

9) The establishment of security breach notification rules

10) Clarification on the legal rules that will attach to data stored in the cloud, regardless of the geographic location of the controller

11) The possible introduction of an *"accountability"* principle to ensure compliance with data protection laws

[171] < http://www.statewatch.org/news/2010/oct/eu-com-draft-communication-data-protection.pdf>

12) New rules that make the appointment of corporate Data Protection Officers mandatory, along with privacy impact assessments and the employment of privacy by design principles

13) The encouragement of self-regulatory schemes and privacy seals

14) Improvements in current procedures for international data transfers, in order to ensure a more uniform and coherent EU approach *vis-à-vis* third countries and international organizations

15) Clarification of the Commission's adequacy procedure and improved specification of the criteria and standards for assessing the level of data protection in a third countries

16) A re-definition of standard data protection clauses to be used in international agreements, contracts, binding corporate rules or other legally binding instruments.

*17)* Clarifying and strengthening the status and the powers of the national Data Protection Authorities in the new legal framework, including the concept of *"complete independence"*

18) Exploration of ways to improve the cooperation and coordination between Data Protection Authorities and to ensure better enforcement of EU rules, particularly on issues having a cross-border dimension.

19) Enhancing international privacy enforcement in a cooperative fashion.

## India Status

Recently there is a spurt of database theft reported in India especially from the BPO (Business Processing Outsourcing) sector by employees in India. Database protection and data protection is not distinguished in any legislations in India clearly. Compilation of data is not protected in India under

any *sui generis* legislation unlike in the developed country like EU. Now the protection can be given under *"literary work"* under the *Copyright Act* of 1957[172]. Courts in India held that compilation of databases are protected under the Copyright Act as *"literary work"* as held by the Delhi High Court in *Himalaya Drug Company v. Sumit*[173].

[172] < http://www.copyright.gov.in/Documents/Copyrightrules1957.pdf>
[173] 126 (2006) DLT 23, 2006 (32) PTC 112 Del.

In India there is no separate legislation for the protection of general database rights as is the case in the European Union (EU Data Protection Directive 1995) or in Singapore (Personal Data Protection Act 2012[174]). The limited protection available to database rights in India is as follows:

1) Article 21 of the Constitution[175] guarantees every citizen the fundamental right to personal liberty which includes the right to privacy and by extension private data not available in public domain.

2) Copyright to a database (rights associated with the labor and investment involved in compiling data, verifying it and presenting and using it in a format which creates a value in such data) is protected under the Copyright Act, 1957.

3) Section 66E[176] of *Information Technology Act, 2000* ("IT Act")[177] extends the rights to data in electronic forms and deals with punishment for violation of privacy, facilitates protection of such data.

4) The provisions of the IT Act further deals with protection of data along with penal provisions dealing with compensation and violation of the same act as a deterrent in respect of a person seeking to divulge the data without the express consent of the person whose data has been provided.

5) The *Indian Contract Act*, 1872[178] can be invoked by incorporating a separate clause in the contract for confidentiality of the database.

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[174] < https://www.pdpc.gov.sg/Legislation-and-Guidelines/Personal-Data-Protection-Act-Overview>

[175] "No person shall be deprived of his life or personal liberty except according to a procedure established by law."

[176] Punishment for violation of privacy. -Whoever, intentionally or knowingly captures, publishes or transmits the image of a private area of any person without his or her consent, under circumstances violating the privacy of that person, shall be punished with imprisonment which may extend to three years or with fine not exceeding two lakh rupees, or with both. Explanation. -For the purposes of this section-
(a) "transmit" means to electronically send a visual image with the intent that it be viewed by a person or persons;
(b) "capture", with respect to an image, means to videotape, photograph, film or record by any means;
(c) "private area" means the naked or undergarment clad genitals, pubic area, buttocks or female breast;
(d) "publishes" means reproduction in the printed or electronic form and making it available for public;
(e) "under circumstances violating privacy" means circumstances in which a person can have a reasonable expectation that;-
(i) he or she could disrobe in privacy, without being concerned that an image of his private area was being captured; or
(ii) any part of his or her private area would not be visible to the public, regardless of whether that person is in a public or private place.

[177] < https://indiacode.nic.in/bitstream/123456789/1999/3/A2000-21.pdf>

[178] < http://comtax.up.nic.in/Miscellaneous%20Act/the-indian-contract-act-1872.pdf>

6) The *Indian Penal Code* (IPC), 1860[179] prevents data theft, and the definition of movable property includes corporal property, thereby information stored on a computer is included in the definition. Hence any theft, misappropriation or criminal breach of trust are punishable under the IPC.

Other important Provisions of IT Act related to Data Protection include:

1) Section 43A[180] of the IT Act explicitly provides that whenever a corporate body possesses or deals with any sensitive personal data or information, and is negligent in maintaining a reasonable security to protect such data or information, which thereby causes wrongful loss or wrongful gain to any person, then such body corporate shall be liable to pay damages to the person(s) so affected.

2) Section 72A[181] provides for the punishment for disclosure of information in breach of lawful contract and any person may be punished with imprisonment for a term not exceeding three years, or with a fine not exceeding up to five lakh rupees, or with both in case disclosure of information is made in breach of lawful contract.

With the phasing out of the traditional means of data retention in physical paper form like telephone directories, yellow pages and instead a switch to data being retained in electronic form, it has become easier for a person to copy the data of another and distribute the same for commercial gain. With the absence of a specific legislation on database, companies have to rely on the interpretation of the Copyright Act by the

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[179] <https://indiacode.nic.in/handle/123456789/2263?view_type=browse&sam_handle=123456789/1362>

[180] Compensation for failure to protect data. - Where a body corporate, possessing, dealing or handling any sensitive personal data or information in a computer resource which it owns, controls or operates, is negligent in implementing and maintaining reasonable security practices and procedures and thereby causes wrongful loss or wrongful gain to any person, such body corporate shall be liable to pay damages by way of compensation to the person so affected. Explanation. -For the purposes of this section,-
(i) "body corporate" means any company and includes a firm, sole proprietorship or other association of individuals engaged in commercial or professional activities;
(ii) "reasonable security practices and procedures" means security practices and procedures designed to protect such information from unauthorised access, damage, use, modification, disclosure or impairment, as may be specified in an agreement between the parties or as may be specified in any law for the time being in force and in the absence of such agreement or any law, such reasonable security practices and procedures, as may be prescribed by the Central Government in consultation with such professional bodies or associations as it may deem fit;
(iii) "sensitive personal data or information" means such personal information as may be prescribed by the Central Government in consultation with such professional bodies or associations as it may deem fit.

[181] Punishment for disclosure of information in breach of lawful contract. -Save as otherwise provided in this Act or any other law for the time being in force, any person including an intermediary who, while providing services under the terms of lawful contract, has secured access to any material containing personal information about another person, with the intent to cause or knowing that he is likely to cause wrongful loss or wrongful gain discloses, without the consent of the person concerned, or in breach of a lawful contract, such material to any other person, shall be punished with imprisonment for a term which may extend to three years, or with fine which may extend to five lakh rupees, or with both.

courts, especially those pertaining to how database is a literary work and thus protected under the Copyright Act. In the case of *V. Govindan v. E.M Gopalakrishna*[182] the court held that the Copyright Act only protects slavish imitation of data. This interpretation would not adequately check the menace of copying another person's database with slight modifications. The court in *Burlington Home Shopping v. Rajnish Chibber*[183] has gone further and have recognized that compilation is also a literary work and thus protected under the Copyright Act. The reason for the protection being that, considerable amount of effort, money and time is spent on putting together a compilation. However, the essence of copyright protection extending to compilations has been captured in *Eastern Book Company v. D.B. Modak*[184]. In this case the court held that unless a work has been prepared by own labor, skill and there is originality and creativity in its generation, it will not be a protected work. It recognized that compilation may have nothing original on their part but it is the whole work which constitutes an original work as considerable skill and labor are put in. The court also observed that changes like spelling, corrections of typographical errors, additions or eliminations of quotation do not constitute a significant work to warrant a copyright protection in a compilation. Database, especially when it pertains to assimilation of data may not necessarily constitute an original work, additionally with the extensive amount of data possessed by companies, correction and verification of it also require significant effort and therefore has the ability to be distinguished from an earlier work.

Multinational companies take pride in the database of the clients they possess. The value of the right in database and its association with the companies' goodwill is increasingly leading to actions by companies for their protection. In fact some franchising and marketing agreements mandate sharing of data and defines ownership at dissolution of the arrangement. When such agreements propose to deal with personal data, particularly the physical condition or sexual orientation as most traditional forms filled by customers of marketing companies, restaurants, retail chains require, a duty is enjoined upon them to formulate a privacy policy which should be intimated to the information provider.

The Department of Information Technology (Reasonable Security Practices and Procedures and *Sensitive Personal Data* or Information) Rules 2011 Rules on April 11, 2011. These Rules only apply to bodies corporate and persons located in India[185]. Rule 3 of the 2011 Rules provides a list of items that are to be treated as "sensitive personal data", and includes inter alia information relating to passwords, credit/ debit cards information, biometric information (such as DNA, fingerprints, voice patterns, etc. that are used for authentication purposes), physical, physiological and mental health condition, etc. It is further clarified that

[182] AIR 1955 Mad 391.
[183] 61 (1995) DLT 6.
[184] Appeal (Civil) 6472 of 2004.
[185] Clarified by a press note dated August 24, 2011 issued by the Ministry of Communication and Information Technology wherein it was stated the 2011 Rules were applicable to a body corporate or any person located within India.

any information that is freely available or accessible in the public domain is not considered to be sensitive personal data.

The US needs to enact a separate legislation to provide for the protection of database and the enforcement of related rights about database.

The European Union has created the Directive to resolve the issues about the database in 1996. The Directive provides for two forms of protection – copyright and a sui generis right specific to database. The Copyright protects the author's intellectual creation whereas, a sui generis protection is against unauthorized use of the database n any form when such a database is not a new creation but involves a substantial investment. Thereby the EU countries provide a larger protection of rights and enforcement mechanisms.

In India, the database rights are recognized through different legislations and has scope for further improvement and a consolidated piece of legislation solely for the purpose of protecting the database to keep up with the changing digital world.

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**ANNEXURE I**

सत्यमेव जयते

# Guidelines for Examination of Computer Related Inventions (CRIs)

INTELLECTUAL PROPERTY INDIA

**Office of the Controller General of Patents, Designs and Trade marks**



**2017**

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# 1. Introduction

**1.1** Information Technology has gained special significance in the past two decades. It has emerged as a vital tool for scientific development. The term "Information Technology" encompasses the whole gamut of inputting, storing, retrieving, transmitting and managing data through the use of computers and various other networks, hardware, software, electronics and telecommunication equipment. Industry has witnessed rapid growth due to the computerization of activities which were hitherto carried out manually or mechanically. The advent of the internet and the World Wide Web (www) coupled with the exponential growth of processing and storage power has led to capabilities previously unheard of. The core elements in the application of Information Technology are computers and their peripherals. Computer Related Inventions (CRIs) comprises inventions which involve the use of computers, computer networks or other programmable apparatus and include such inventions having one or more features of which are realized wholly or partially by means of a computer programme or programmes.

**1.2** Creators of knowledge in the domain of Computer Related Inventions (CRIs) have consistently endeavored for appropriate protection of their IPRs. The patent regimes have to cope up with the challenges of processing of patent applications related to computer related inventions and other related technologies. Major patent offices across the world are confronted with the issue of patentability of CRIs. They have developed examination guidelines/ manuals for examination of patent applications from these areas of technology so as to achieve uniform examination practices.

**1.3** The aim of this document is to provide guidelines for the examination of patent applications in the field of CRIs by the Indian Patent Office so as to further foster uniformity and consistency in the examination of such applications. The objective of this document is to bring out clarity in terms of exclusions expected under section 3(k) so that eligible applications of patents relating to CRIs can be examined speedily.

**1.4** The guidelines discuss various provisions relating to the patentability of computer related inventions. The procedure to be adopted by the Patent Office while examining such applications and the jurisprudence that has evolved in this field has also been discussed. Various examples and case laws relating to Computer Related Inventions (CRIs) have also been incorporated for better understanding of the issues involved from the perspective of the Patent Office.

**15** However, these guidelines do not constitute rule making. In case of any conflict between these guidelines and the provisions of the Patents Act, 1970 or the Rules made there under, the said provisions of the Act and Rules will prevail over these guidelines. The guidelines are subject to revision from time to time based on interpretations by Courts of law, statutory amendments and valuable inputs from the stakeholders.

## 2. Legal Provisions relating to CRIs

**21** The Patents (Amendment) Act 2002 (No. 38 of 2002) came into effect on 20th May, 2003. It amended the definition of invention[1] under section 2(1)(j) as "Invention" means a new product or process involving an inventive step and capable of industrial application;

and as per section 2(1)(ja)[2] "inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art;

Further, section 2(1)(ac)[3] states that ""capable of industrial application", in relation to an invention, means that the invention is capable of being made or used in an industry;"

Section 2 (1) (l)[4] defines "new invention" in The Indian Patents Act, 1970 as follows:

"New invention" means any invention or technology which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification, i.e. the subject matter has not fallen in public domain or that it does not form part of the state of the art;

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[1] *Definition of Invention u/s 2(1)(j) under The Patents Act 1970 , after 2002 Amendments*

[2] *Definition of 'Inventive Step' under The Patents Act 1970, after 2005 amendments*

[3] *Definition of 'Capable of Industrial Application' under The Patents Act 1970*

[4] *Definition of 'New Invention' under The Patents Act 1970, after 2005 amendments*

**2.2** The Patents (Amendment) Act, 2002 also introduced explicit exclusions from patentability under section 3 for Computer Related Inventions (CRIs) as under:

(k) a mathematical or business method or a computer programme per se or algorithms;
(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;
(m) a mere scheme or rule or method of performing mental act or method of playing game;
(n) a presentation of information;

(o) topography of integrated circuits;

## 3. Terms/Definitions

The terms/definitions often used while dealing with computer related inventions are summarised hereunder. The terms which are defined in any of the Indian statutes have been construed accordingly and those which have not been given any statutory definition are normally construed in accordance with their use and ordinary dictionary meaning.

### 3.1 Algorithm

The term "algorithm" is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used.

The Oxford Advanced Learners Dictionary defines „algorithm" as "a set of rules that must be followed when solving a particular problem ".

### 3.2 Computer

The term "computer" is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "any electronic, magnetic, optical or other high-speed data processing device or system which performs logical, arithmetic, and memory functions by manipulations of electronic, magnetic or optical impulses, and includes all input, output, processing, storage, computer software, or communication facilities which are connected or related to the computer in a computer system or computer network."

## 3.3 Computer Network

The term "computer network" is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "the interconnection of one or more computers through -

(i) the use of satellite, microwave, terrestrial line or other communication media; and

(ii) terminals or a complex consisting of two or more interconnected computers whether or not the interconnection is continuously maintained;"

## 3.4 Computer Programme

The term computer programme has been defined in the Copyright Act 1957 under Section 2(ffc) as "computer programme" means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result;"

## 3.5 Computer System

The term "computer system" is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "a device or collection of devices, including input and output support devices and excluding calculators which are not programmable and capable of being used in conjunction with external files, which contain computer programmes, electronic instructions, input data and output data, that performs logic, arithmetic, data storage and retrieval, communication control and other functions;"

## 3.6 Data

The term "data" is defined in the Information Technology Act, 2000 (No. 21 of 2000) as "a representation of information, knowledge, facts, concepts or instructions which are being prepared or have been prepared in a formalised manner, and is intended to be processed, is being processed or has been processed in a computer system or computer network, and may be in any form (including computer printouts, magnetic or optical storage media, punched cards, punched tapes) or stored internally in the memory of the computer;"

## 3.7 Firmware

The term "firmware" is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used.

The Oxford Advanced Learners Dictionary defines "firmware" as "a type of computer software that is stored in such a way that it cannot be changed or lost"

## 3.8 Function

The term "function" is defined in the Information Technology Act, 2000 (No. 21 of 2000) as ""function", in relation to a computer, includes logic, control arithmetical process, deletion, storage and retrieval and communication or telecommunication from or within a computer."

## 3.9 Hardware

The term "hardware" is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used. The Oxford Advanced Learners Dictionary defines "hardware" as "the physical and electronic parts of a computer, rather than the instructions it follows".

## 3.10 Information

The term "information" is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "information" includes data, message, text, images, sound, voice, codes, computer programmes, software and databases or micro film or computer generated micro fiche."

## 3.11 Manual

The term "Manual" as hereafter appears means "Manual of Patent Office Practice and Procedure" issued by CGPDTM, as may be amended from time to time, unless there is anything repugnant in the subject or context.

### 3.12 Per se

The term "per se" is not defined in Indian statutes including the Patents Act, 1970 and hence, for interpretation of this term, the general dictionary meaning is being used.

The general dictionary meaning of "per se" is "„by itself" or "in itself" or "as such" or "intrinsically" - to show that you are referring to something on its own, rather than in connection with other things.

### 3.13 Software

The term "software" is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used. The Oxford Advanced Learners Dictionary defines "software" as "the programs, etc. used to operate a computer".

## 4. Examination Procedure

The examination procedure of patent applications relating to CRIs is the same as that for other inventions to the extent of consideration of novelty, inventive step, industrial applicability and sufficiency of disclosure etc. The determination that the subject matter relates to one of the excluded categories requires greater skill on the part of the examiner and these guidelines focus more on this aspect.

### 4.1 Novelty

Novelty is the foremost requirement to determine the patentability of any invention. No invention can be held patentable if the subject matter as described and claimed was disclosed before the date of filing, or before the date of priority, as the case may be. The determination of novelty in respect of CRIs is no different from any other field of invention.

The novelty criterion is judged under various provisions of the Patents Act and Rules made thereunder and also based on the procedures laid out in chapter 08.03.02 of the Manual.

## 4.2 Inventive step

Inventive step is decided in accordance with the provisions of section 2(1)(ja) of the Indian Patents Act, 1970. The determination of inventive step with regard to CRIs is carried out in like manner as in other categories of inventions.

> As per 2(1)(ja), "inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art;

**Hon'ble Supreme Court of India on inventive step:** In Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd[5] it was held that "The expression "does not involve any inventive step" used in Section 26(1) (a) of the Act and its equivalent word "obvious", have acquired special significance in the terminology of Patent Law. The 'obviousness' has to be strictly and objectively judged. For this determination several forms of the question have been suggested. The one suggested by Salmond L. J. in Rado v. John Tye & Son Ltd. is apposite. It is: "Whether the alleged discovery lies so much out of the Track of what was known before as not naturally to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what was previously known."

"Another test of whether a document is a publication which would negative existence of novelty or an "inventive step" is suggested, as under:"Had the document been placed in the hands of a competent craftsman (or engineer as distinguished from a mere artisan), endowed with the common general knowledge at the 'priority date', who was faced with the problem solved by the patentee but without knowledge of the patented invention, would he have said, "this gives me what I want?" (Encyclopaedia Britannica; ibid). To put it in another form: "Was it for practical purposes obvious to a skilled worker, in the field concerned, in the state of knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned ?"[6]

[5] *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*

[6] *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*

In the F.Hoffman la Roche v Cipla[7] case the Hon"ble Delhi High Court had observed that the obviousness test is what is laid down in Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444) [8]and that "Such observations made in the foreign judgments are not the guiding factors in the true sense of the term as to what qualities that person skilled in the art should possess. The reading of the said qualities would mean qualifying the said statement and the test laid down by the Supreme Court."

Hon"ble High Court further added "From the bare reading of the afore quoted observations of Supreme Court, it is manifest that the Hon'ble Supreme Court has laid down the test for the purposes of ascertaining as to what constitutes an inventive step which is to be seen from the standpoint of technological advancement as well as obviousness to a person who is skilled in the art. It is to be emphasized that what is required to be seen is that the invention should not be obvious to the person skilled in art. These are exactly the wordings of New Patents Act, 2005 u/s Section 2(ja) as seen above. Therefore, the same cannot be read to mean that there has to exist other qualities in the said person like unimaginary nature of the person or any other kind of person having distinct qualities…….. Normal and grammatical meaning of the said person who is skilled in art would presuppose that the said person would have the knowledge and the skill in the said field of art and will not be unknown to a particular field of art and it is from that angle one has to see that if the said document which is prior patent if placed in the hands of the said person skilled in art whether he will be able to work upon the same in the workshop and achieve the desired result leading to patent which is under challenge. If the answer comes in affirmative, then certainly the said invention under challenge is anticipated by the prior art or in other words, obvious to the person skilled in art as a mere workshop result and otherwise it is not. The said view propounded by Hon'ble Supreme Court in Biswanath Prasad (supra) holds the field till date and has been followed from time to time by this Court till recently without any variance….. Therefore, it is proper and legally warranted to apply the same very test for testing the patent; be it any kind of patent. It would be improper to import any further doctrinal approach by making the test modified or qualified what has been laid down by the Hon'ble Supreme Court in of Biswanath Prasad (supra)."

[7] *F. Hoffmann-La Roche Ltd vs Cipla Ltd., Mumbai Central, ... on 7 September, 2012*

[8] *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*

The "obviousness" must be strictly and objectively judged[9]. While determining inventive step, it is important to look at the invention as a whole. It must be ensured that inventive step must be a feature which is not an excluded subject itself. Otherwise, the patentee by citing economic significance or technical advance in relation to any of the excluded subjects can insist upon grant of patent thereto. Therefore, this technical advance comparison should be done with the subject matter of invention and it should be found it is not related to any of the excluded subjects.[10]

Accordingly, the following points need to be objectively judged to ascertain whether, looking at the invention as a whole, the invention does have inventive step or not:

1. Identify the "person skilled in the art", i.e competent craftsman or engineer as distinguished from a mere artisan;

2. Identify the relevant common general knowledge of that person at the priority date;

3. Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

4. Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

5. Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of inventive ingenuity?

## 43 Industrial Applicability:

In patent law, industrial applicability or industrial application is a patentability requirement according to which a patent can only be granted for an invention

[9] *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*

[10] *IPABin Yahoo Inc.(Formerly Overture Service Inc.) v. Assistant Controller of Patents and Designs & Rediff.com India Limited (OA/22/2010/PT/CH dated 8th December, 2011)*

which is capable of industrial application, i.e. for an invention which can be made or used in some kind of industry.

It has been defined in section 2(1)(ac) of Indian Patents Act, 1970 as follows:

> "capable of industrial application", in relation to an invention, means that the invention is capable of being made or used in an industry;
>
> The requirement of workability and usefulness are both connected to the requirement of industrial applicability. If an invention is not workable, it means that it is also not industrially applicable. The patent specification must disclose a practical application and industrial use for the claimed invention wherein a concrete benefit must be derivable directly from the description coupled with common general knowledge. Mere speculative use or vague and speculative indication of possible objective will not suffice.

## 4.4 Sufficiency of Disclosure:

Grant of patents is quid pro quo[11] to disclosure. It is for the disclosure of invention by the applicant that the patent rights are granted to him for a limited period of time, if all criteria of patentability is fulfilled. The Patents Act, 1970 requires the applicant to specify „what" is the invention and „how" to perform it. The invention shall be described fully and particularly to satisfy the „what" requirement and further the best method of performing the invention known to the applicant to satisfy the „how" requirement. The complete specification should therefore disclose the invention completely to meet the requirement of the Patents Act and should also enable a person skilled in the art to work the invention without any assistance of the patentee or any further experimentation. The description must be unambiguous, clear, correct and accurate. It must not contain any statements which may mislead the person skilled in the art to whom the specification is addressed. While the requirements of sufficiency of disclosure is considered generally in all fields of invention; in cases of patent application concerning computer related inventions (CRIs), these requirements are considered as fulfilled if the specification addresses the following:

[11] "something for something" or "this for that" in Latin

### 4.4.1 Fully and particularly (What):

1. If the patent application relates to apparatus/system/device i.e. hardware based inventions, each and every feature of the invention shall be described with suitable illustrative drawings. If the invention relates to „method", the necessary sequence of steps shall clearly be described so as to distinguish the invention from the prior art with the help of the flowcharts and other information required to perform the invention together with their modes/means of implementation.

2. The working relationship of different components together with connectivity shall be described.

3. The desired result/output or the outcome of the invention as envisaged in the specification and of any intermediate applicable components/steps shall be clearly described.

### 4.4.2 Best Method of performing the invention (How):

The best mode of performing and/or use of the invention shall be described with suitable illustrations. The specification should not limit the description of the invention only to its functionality rather it should specifically and clearly describe the implementation of the invention.

### 4.4.3 Claims:

1. The claims should clearly define the scope of the invention and should take care of unity of invention requirements as defined under section 10(5) of the Patents Act, 1970.
2. The claim(s) of a complete specification should be clear and succinct and should be fairly based on the matter disclosed in the specification.
3. The claims in the field of Computer related inventions need to be construed to ascertain the substance of the claim without wholly relying on the forms and types of the claims.

### 4.4.4 Form and substance:

The sub-section 3(k) excludes a mathematical or business method or a computer programme per se or algorithms from patentability. While the

judgment of mathematical methods or business methods is comparatively easier, it is the computer programme per se or algorithms related inventions that require careful consideration of the examiner. Computer programmes are often claimed in the form of method claims or system claims with some „means" indicating the functions of flow charts or process steps. The algorithm related claims are even wider than the computer programmes claimed by themselves as a single algorithm can be implemented through different programmes in different computer languages. If, in substance, claims in any form such as method/process, apparatus/system/device, computer program product/ computer readable medium belong to the said excluded categories, they would not be patentable.

Even when the issue is related to hardware/software relation, the expression of the functionality as a „method" is to be judged on its substance. It is well-established that, in patentability cases, the focus should be on the underlying substance of the invention, not the particular form in which it is claimed. The Patents Act clearly excludes computer programmes per se and the exclusion should not be allowed to be avoided merely by camouflaging the substance of the claim by its wording.

### 4.4.5 Means plus Function:

The claims concerning CRIs are often phrased in means for performing some function such as means for converting digital to analog signal etc. These types of claims are termed as means +function format. The „means" mentioned in the claims shall clearly be defined with the help of physical constructional features and their reference numerals to enhance the intelligibility of the claims. The claims in means plus function form shall not be allowed if the structural features of those means are not disclosed in the specification.

Further, if the specification supports performing the invention solely by the computer program then in that case means plus function claims shall be rejected as these means are nothing but computer programme per se.

Where no structural features of those means are disclosed in the specification and specification supports performing the invention solely

by the software then in that case means in the "means plus function" claims are nothing but software.

## 4.5 Determination of excluded subject matter relating to CRIs:

Since patents are granted to inventions, whether products or processes, in all fields of technology, it is important to ascertain from the nature of the claimed Computer-related invention whether it is of a technical nature involving technical advancement as compared to the existing knowledge or having economic significance or both, and is not subject to exclusion under Section 3 of the Patents Act.

The sub-section 3(k) excludes mathematical methods or business methods or computer programme per se or algorithms from patentability. Computer programmes are often claimed in the form of algorithms as method claims or system claims with some „means" indicating the functions of flow charts or process steps. It is well-established that, while establishing patentability, the focus should be on the underlying substance of the invention and not on the particular form in which it is claimed.

What is important is to judge the substance of claims taking whole of the claim together. If any claim in any form such as method/process, apparatus/system/device, computer program product/ computer readable medium falls under the said excluded categories, such a claim would not be patentable. However, if in substance, the claim, taken as whole, does not fall in any of the excluded categories, the patent should not be denied.

Hence, along with determining the merit of invention as envisaged under Sections 2(1) (j), (ja) and (ac), the examiner should also determine whether or not they are patentable inventions under Section 3 of the Act.

**4.5.1 Claims directed as "Mathematical Method":** Mathematical methods are a particular example of the principle that purely abstract or intellectual methods are not patentable. Mathematical methods like method of calculation, formulation of equations, finding square roots, cube roots and all other similar acts of mental skill are therefore, not patentable. Similarly mere manipulations of abstract idea or solving purely mathematical problem/equations without specifying a practical application also attract the exclusion under this category.

However, mere presence of a mathematical formula in a claim, to clearly specify the scope of protection being sought in an invention, may not necessarily render it to be a "mathematical method" claim. Also, such exclusions may not apply to inventions that include mathematical formulae and resulting in systems for encoding, reducing noise in communications/ electrical/electronic systems or encrypting/ decrypting electronic communications.

**4.5.2 Claims directed as "Business Method":** The term „Business Methods" involves whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. The claims drafted not directly as "business methods" but apparently with some unspecified means are held non-patentable. However, if the claimed subject matter specifies an apparatus and/or a technical process for carrying out the invention even partly, the claims shall be examined as a whole. When a claim is "business methods" in substance, it is not to be considered a patentable subject matter.

However, mere presence of the words such as "enterprise", "business", "business rules", "supply-chain", "order", "sales", "transactions", "commerce", "payment" etc. in the claims may not lead to conclusion of an invention being just a "Business Method", but if the subject matter is essentially about carrying out business/ trade/ financial activity/ transaction and/or a method of buying/selling goods through web (e.g. providing web service functionality), the same should be treated as business method and shall not be patentable.

**4.5.3 Claims directed as "Algorithm":** Algorithms in all forms including but not limited to, a set of rules or procedures or any sequence of steps or any method expressed by way of a finite list of defined instructions, whether for solving a problem or otherwise, and whether employing a logical, arithmetical or computational method, recursive or otherwise, are excluded from patentability.

**4.5.4 Claims directed as "Computer Programme *per se*":** Claims which are directed towards computer programs per se are excluded from patentability, like,

(i) Claims directed at computer programmes/ set of instructions/ Routines and/or Sub-routines.

(**i**) Claims directed at "computer programme products" / "Storage Medium having instructions" / "Database" / "Computer Memory with instruction" stored in a computer readable medium.

The legislative intent to attach suffix per se to computer programme is evident by the following view expressed by the Joint Parliamentary Committee while introducing Patents (Amendments) Act, 2002:

> "In the new proposed clause (k) the words "per se" have been inserted. This change has been proposed because sometimes the computer programme may include certain other things, ancillary thereto or developed thereon. The intention here is not to reject them for grant of patent if they are inventions. However, the computer programmes as such are not intended to be granted patent. This amendment has been proposed to clarify the purpose." [12]

### *4.5.5 A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions*

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.11 of the Manual.

### 4.5.6 A mere scheme or rule or method of performing mental act(s) or a method of playing game(s)

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.12 of the Manual.

### 4.5.7 Presentation of information

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.13 of the Manual.

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[12] *Report of the Joint Committee presented to the Rajya Sabha on 19th December, 2001 and laid on the table of Lok Sabha on 19th December 2001*

### 4.5.8 Topography of integrated circuits

The above criterion is to be judged as per the procedures as laid out in chapter 08.03.05.14 of the Manual.

## 5. Replacement of Provisions of Manual

Chapter 08.03.05.10 of the Manual, containing provisions pertaining to section 3(k) of the Patents Act, 1970 shall stand deleted with coming into force of these Guidelines for examination of CRIs.

## 6. Applicability of Guidelines:

These Guidelines shall be applicable with immediate effect.

--END OF DOCUMENT--

**ANNEXURE II**

Annex B

**ICANN Uniform Domain Name Dispute Resolution Policy**

# Uniform Domain Name Dispute Resolution Policy

Policy Adopted: August 26, 1999
Implementation Documents Approved: October 24, 1999

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**Notes:**

**1. This policy is now in effect. See** www.icann.org/udrp/udrp-schedule.htm **for the implementation schedule.**

**2. This policy has been adopted by all accredited domain-name registrars for domain names ending in .com, .net, and .org. It has also been adopted by certain managers of country-code top-level domains (e.g., .nu, .tv, .ws).**

**3. The policy is between the registrar (or other registration authority in the case of a country-code top-level domain) and its customer (the domain-name holder or registrant). Thus, the policy uses "we" and "our" to refer to the registrar and it uses "you" and "your" to refer to the domain-name holder.**

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## Uniform Domain Name Dispute Resolution Policy

(As Approved by ICANN on October 24, 1999)

**1. Purpose.** This Uniform Domain Name Dispute Resolution Policy (the "Policy") has been adopted by the Internet Corporation for Assigned Names and Numbers ("ICANN"), is incorporated by reference into your Registration Agreement, and sets forth the terms and conditions in connection with a dispute between you and any party other than us (the registrar) over the registration and use of an Internet domain name registered by you. Proceedings under **Paragraph 4** of this Policy will be conducted according to the Rules for Uniform Domain Name Dispute Resolution Policy (the "Rules of Procedure"), which are available at **www.icann.org/udrp/udrp-rules-24oct99.htm**, and the selected administrative-dispute-resolution service provider's supplemental rules.

**2. Your Representations.** By applying to register a domain name, or by asking us to maintain or renew a domain name registration, you hereby represent and warrant to us that (a) the statements that you made in your Registration Agreement are complete and accurate; (b) to your knowledge, the registration of the domain name will not infringe upon or otherwise violate the rights of any third party; (c) you are not registering the domain name for an unlawful purpose; and (d) you will not knowingly use the domain name in violation of any applicable laws or regulations. It is your responsibility to determine whether your domain name registration infringes or violates someone else's rights.

**3. Cancellations, Transfers, and Changes.** We will cancel, transfer or otherwise make changes to domain name registrations under the following circumstances:

a. subject to the provisions of **Paragraph 8**, our receipt of written or appropriate electronic instructions from you or your authorized agent to take such action;

b. our receipt of an order from a court or arbitral tribunal, in each case of competent jurisdiction, requiring such action; and/or

c. our receipt of a decision of an Administrative Panel requiring such action in any administrative proceeding to which you were a party and which was conducted under this Policy or a later version of this Policy adopted by ICANN. (See **Paragraph 4(i)** and **(k)** below.)

We may also cancel, transfer or otherwise make changes to a domain name registration in accordance with the terms of your Registration Agreement or other legal requirements.

**4. Mandatory Administrative Proceeding.**

This Paragraph sets forth the type of disputes for which you are required to submit to a mandatory administrative proceeding. These proceedings will be conducted before one of the administrative-dispute-resolution service providers listed at **www.icann.org/udrp/approved-providers.htm** (each, a "Provider").

**a. Applicable Disputes.** You are required to submit to a mandatory administrative proceeding in the event that a third party (a "complainant") asserts to the applicable Provider, in compliance with the Rules of Procedure, that

(i) your domain name is identical or confusingly similar to a trademark or service mark in which the complainant has rights; and

(ii) you have no rights or legitimate interests in respect of the domain name; and

(iii) your domain name has been registered and is being used in bad faith.

In the administrative proceeding, the complainant must prove that each of these three elements are present.

**b. Evidence of Registration and Use in Bad Faith.** For the purposes of Paragraph 4(a)(iii), the following circumstances, in particular but without limitation, if found by the Panel to be present, shall be evidence of the registration and use of a domain name in bad faith:

(i) circumstances indicating that you have registered or you have acquired the domain name primarily for the purpose of selling, renting, or otherwise transferring the domain name registration to the complainant who is the owner of the trademark or service mark or to a competitor of that complainant, for valuable consideration in excess of your documented out-of-pocket costs directly related to the domain name; or

(ii) you have registered the domain name in order to prevent the owner of the trademark or service mark from reflecting the mark in a corresponding domain name, provided that you have engaged in a pattern of such conduct; or

(iii) you have registered the domain name primarily for the purpose of disrupting the business of a competitor; or

(iv) by using the domain name, you have intentionally attempted to attract, for commercial gain, Internet users to your web site or other on-line location, by creating a likelihood of confusion with the complainant's mark as to the source, sponsorship, affiliation, or endorsement of your web site or location or of a product or service on your web site or location.

**c. How to Demonstrate Your Rights to and Legitimate Interests in the Domain Name in Responding to a Complaint.** When you receive a complaint, you should refer to Paragraph 5 of the Rules of Procedure in determining how your response should be prepared. Any of the following circumstances, in particular but without limitation, if found by the Panel to be proved based on its evaluation of all evidence presented, shall demonstrate your rights or legitimate interests to the domain name for purposes of Paragraph 4(a)(ii):

(i) before any notice to you of the dispute, your use of, or demonstrable preparations to use, the domain name or a name corresponding to the domain name in connection with a bona fide offering of goods or services; or

(ii) you (as an individual, business, or other organization) have been commonly known by the domain name, even if you have acquired no trademark or service mark rights; or

(iii) you are making a legitimate noncommercial or fair use of the domain name, without intent for commercial gain to misleadingly divert consumers or to tarnish the

trademark or service mark at issue.

**d. Selection of Provider.** The complainant shall select the Provider from among those approved by ICANN by submitting the complaint to that Provider. The selected Provider will administer the proceeding, except in cases of consolidation as described in **Paragraph 4(f)**.

**e. Initiation of Proceeding and Process and Appointment of Administrative Panel.** The Rules of Procedure state the process for initiating and conducting a proceeding and for appointing the panel that will decide the dispute (the "Administrative Panel").

**f. Consolidation.** In the event of multiple disputes between you and a complainant, either you or the complainant may petition to consolidate the disputes before a single Administrative Panel. This petition shall be made to the first Administrative Panel appointed to hear a pending dispute between the parties. This Administrative Panel may consolidate before it any or all such disputes in its sole discretion, provided that the disputes being consolidated are governed by this Policy or a later version of this Policy adopted by ICANN.

**g. Fees.** All fees charged by a Provider in connection with any dispute before an Administrative Panel pursuant to this Policy shall be paid by the complainant, except in cases where you elect to expand the Administrative Panel from one to three panelists as provided in **Paragraph 5(b)(iv)** of the Rules of Procedure, in which case all fees will be split evenly by you and the complainant.

**h. Our Involvement in Administrative Proceedings.** We do not, and will not, participate in the administration or conduct of any proceeding before an Administrative Panel. In addition, we will not be liable as a result of any decisions rendered by the Administrative Panel.

**i. Remedies.** The remedies available to a complainant pursuant to any proceeding before an Administrative Panel shall be limited to requiring the cancellation of your domain name or the transfer of your domain name registration to the complainant.

**j. Notification and Publication.** The Provider shall notify us of any decision made by an Administrative Panel with respect to a domain name you have registered with us. All decisions under this Policy will be published in full over the Internet, except when an Administrative Panel determines in an exceptional case to redact portions of its decision.

**k. Availability of Court Proceedings.** The mandatory administrative proceeding requirements set forth in **Paragraph 4** shall not prevent either you or the complainant from submitting the dispute to a court of competent jurisdiction for independent resolution before such mandatory administrative proceeding is commenced or after such proceeding is concluded. If an Administrative Panel

decides that your domain name registration should be canceled or transferred, we will wait ten (10) business days (as observed in the location of our principal office) after we are informed by the applicable Provider of the Administrative Panel's decision before implementing that decision. We will then implement the decision unless we have received from you during that ten (10) business day period official documentation (such as a copy of a complaint, file-stamped by the clerk of the court) that you have commenced a lawsuit against the complainant in a jurisdiction to which the complainant has submitted under **Paragraph 3(b)(xiii)** of the Rules of Procedure. (In general, that jurisdiction is either the location of our principal office or of your address as shown in our Whois database. See **Paragraphs 1** and **3(b)(xiii)** of the Rules of Procedure for details.) If we receive such documentation within the ten (10) business day period, we will not implement the Administrative Panel's decision, and we will take no further action, until we receive (i) evidence satisfactory to us of a resolution between the parties; (ii) evidence satisfactory to us that your lawsuit has been dismissed or withdrawn; or (iii) a copy of an order from such court dismissing your lawsuit or ordering that you do not have the right to continue to use your domain name.

**5. All Other Disputes and Litigation.** All other disputes between you and any party other than us regarding your domain name registration that are not brought pursuant to the mandatory administrative proceeding provisions of **Paragraph 4** shall be resolved between you and such other party through any court, arbitration or other proceeding that may be available.

**6. Our Involvement in Disputes.** We will not participate in any way in any dispute between you and any party other than us regarding the registration and use of your domain name. You shall not name us as a party or otherwise include us in any such proceeding. In the event that we are named as a party in any such proceeding, we reserve the right to raise any and all defenses deemed appropriate, and to take any other action necessary to defend ourselves.

**7. Maintaining the Status Quo.** We will not cancel, transfer, activate, deactivate, or otherwise change the status of any domain name registration under this Policy except as provided in **Paragraph 3** above.

**8. Transfers During a Dispute.**

**a. Transfers of a Domain Name to a New Holder.** You may not transfer your domain name registration to another holder (i) during a pending administrative proceeding brought pursuant to **Paragraph 4** or for a period of fifteen (15) business days (as observed in the location of our principal place of business) after such proceeding is concluded; or (ii) during a pending court proceeding or arbitration commenced regarding your domain name unless the party to whom the domain name registration is being transferred agrees, in writing, to be bound by the decision of the court or arbitrator. We reserve the right to cancel any transfer of a domain name

registration to another holder that is made in violation of this subparagraph.

**b. Changing Registrars.** You may not transfer your domain name registration to another registrar during a pending administrative proceeding brought pursuant to **Paragraph 4** or for a period of fifteen (15) business days (as observed in the location of our principal place of business) after such proceeding is concluded. You may transfer administration of your domain name registration to another registrar during a pending court action or arbitration, provided that the domain name you have registered with us shall continue to be subject to the proceedings commenced against you in accordance with the terms of this Policy. In the event that you transfer a domain name registration to us during the pendency of a court action or arbitration, such dispute shall remain subject to the domain name dispute policy of the registrar from which the domain name registration was transferred.

**9. Policy Modifications.** We reserve the right to modify this Policy at any time with the permission of ICANN. We will post our revised Policy at <URL> at least thirty (30) calendar days before it becomes effective. Unless this Policy has already been invoked by the submission of a complaint to a Provider, in which event the version of the Policy in effect at the time it was invoked will apply to you until the dispute is over, all such changes will be binding upon you with respect to any domain name registration dispute, whether the dispute arose before, on or after the effective date of our change. In the event that you object to a change in this Policy, your sole remedy is to cancel your domain name registration with us, provided that you will not be entitled to a refund of any fees you paid to us. The revised Policy will apply to you until you cancel your domain name registration.