

# Cyberspace Law & Protection of IPRs

## 'CHALLENGES FOR THE FUTURE'

G. VENKATESH RAO

The advent of technology, which enables the transmittal of voice, data, image, and video information, has been called an "information superhighway." This new technology constitutes a brand new route for the exchange of goods and services that has yet to be fully examined. Whereas much has been written on how the Information Superhighway affects legal issues, such as defamation and patent infringement, substantial questions have yet to be answered in regard to how this new trade route will be treated by various laws of taxation.

An Internet or network of computers can operate without the constraints of space or borders. Though they are only a medium for storage, analysis and communication of information, they virtually create a world of their own - a medium in which business can be transacted without any of the inhibitions that the real world imposes.

The new Shorter Oxford Dictionary explains the expression 'Cyberspace' as, 'the notional environment within which electronic communication occurs, especially when represented as the inside of a computer system; space perceived as such by an observer but generated by a computer system, and having no real existence; the space of virtual reality'.

'Cyberspace' is a computer-governed environment which does not exist in reality but yet serves many of the purposes that the visible, tangible word serves.

The main functions of the Internet have thus emerged as providing :

- ⊗ a cheap, fast, relatively insecure means of international communication of text, sounds and images;
- ⊗ a method of publishing information internationally, and of making it available to those looking for it;



- ⊗ a method of hosting bulletin board services through which like-minded people can converse and conduct debates and inquires have access beyond national boundaries; and
- ⊗ an information resource without political or content boundaries, limited only by [the] extent to which information providers are willing to disclose their materials and the fruits of their own writing and research.

The distinctive feature of the Internet is that it knows no jurisdictional barriers. The website of a fund management company can be visited by a potential customer from anywhere in the world. This creates for-

*The author is Advocate, Supreme Court & Member Executive Council Indian Society of International Law. He can be reached at Email:gvr@justice.com)*

midable problems for securities regulators. The securities laws of most countries seek to protect investors in their own jurisdiction by prohibiting the dissemination of promotional material within the jurisdiction concerning financial services that have not been licensed for sale within that jurisdiction or by product providers or intermediaries who have not been licensed to provide financial services within that jurisdiction.

The Internet arguably renders such a philosophy redundant and ineffectual. Even if a regulator clings to the principle that material is to be regarded as issued within his jurisdiction when an investor situated there chooses to access an offshore mutual fund operator's website, how can that regulator enforce his laws against such an operator? These issues have to be examined in greater detail with a view to alerting business / commercial concerns as to the legal and regulatory issues raised by promoting mutual funds in cyberspace and provoking regulators into considering how their policies might be adapted to meet the realities of the global electronic market place.

We live in a society in which existing legal frameworks are constantly challenged by technological advancements. This creates a need to constantly update and adapt the way in which we organize ourselves in order to maintain the state's overall control of its domestic affairs and national interest. The advent of technology, which enables the transmittal of voice, data, image, and video information, has been called an "information superhighway." This new technology constitutes a brand new route for the exchange of goods and services that has yet to be fully examined. Whereas much has

been written on how the Information Superhighway affects legal issues, such as defamation and patent infringement, substantial questions have yet to be answered in regard to how this new trade route will be treated by various laws of taxation.

### INTELLECTUAL PROPERTY RIGHTS (IPRs)

'What is worth copying is *prima facie* worth protecting' is the genesis of intellectual property rights. These rights refer to the property that is a creation of the mind: inventions, literary and artistic works, symbols, names, images, and designs used in commerce. It is broadly divided into two categories :

- Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, drawings, paintings, photographs, sculptures, and architectural designs.
- Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source.

In India, IPRs are protected under different Acts namely :-

- The Copyright Act, 1957,
- The Design Act, 2000,
- The Geographical Indications of Goods (Registration and Protection) Act, 1999,
- The Patents Act, 1970,
- The Protection of Plant Varieties and Farmers' Rights Act, 2001,
- The Semiconductor Integrated Circuits Layout Design Act, 2000,
- The Trade Marks Act, 1999

Apart from the aforesaid Acts, IPRs are dealt with in two more areas namely, the Trade Secret and the Indian Contract Act. These two

areas along with the Copyright Act and the Patent Act have a bearing on computer software. There have been some changes in these because of the World Trade Organization (WTO) and Agreement on Trade Related Aspect of Intellectual Property Rights (TRIPS).

Broadly, earlier GATT (General Agreement on Trade & Tariffs) dealt with reducing tariffs and improving trade among the nations, though there wasn't any dispute settlement mechanism. Few more rounds of negotiations were held and it was the 8th round, started in 1986 with a meeting in Uruguay, that led to the creation of the World Trade Organization (WTO). It was in this round that the US sought inclusion of a few more items, amongst others :

- Trade related to Intellectual Property Rights,
- Trade related to Investment Measures,
- Trade related to Service,
- Agricultural subsidy,
- Dispute settlement mechanism.

All the WTO agreements (except for a few plurilateral agreements) apply to all WTO members. Among other agreements is an Agreement on Trade Related Aspect of Intellectual Property Rights (TRIPS). This has an impact on the protection of computer software.

### IPR Issues in Digital Technology

Digital technologies and the Internet, in particular, have far-reaching impact on intellectual property (IP) and the international IP system. Digital technology enables anyone to make perfect copies. Works can be made available to the public in large numbers almost

instantaneously. When, for instance, the Nobel Prizes are announced on the Internet at a given date and time, millions of viewers across the globe come to know as to who the winners are, instantaneously.

**Previously, the user had difficulty in modifying the work created by someone else. No more so. Digital technology makes it possible for the users to alter the works with ease. Furthermore, equipment needed to do all this exists not only in commercial establishments but also in millions of private homes across the globe.**

The ease with which works in digital form can be replicated or modified is a good news for the user. But it poses difficulties for the law. There is a general perception that making copies for personal or private use is fair use and lawful. In the digital domain, perfect multiple copies can be generated by the same technology, which is employed for making use of the digital product. Hence, it has become more difficult for copyright owners to exercise control over replication of their works and to obtain compensation for such replication.

Works in digital form are amenable to easy and quick modifications by users. Through digital sampling techniques, sound recordings can be mixed and combined with others to produce a new sound recording, different from the original works. Photographs and video recordings in digital form can be manipulated to add, delete and combine elements from different works.

Computer programs can, by processing through some re-engineering tools, be transmuted into unrecognizable forms. The user can sell all these products as new works. **Under the ‘first sale rule,’ owners of copies of protected works have the personal property rights, which authorize them to exercise control over the derivative work. Now lawmakers will have to amend the copyright statutes to provide some authority for exercising suitable control over what users can do with a copyrighted work in digital form.**

In multimedia works it is possible to combine text, sound, still and moving images, into a single medium. Works protected by copyright will become less differentiated by type and more equivalent to one another because they will now be in the same medium. **The equivalence of works in digital form will make it easier to create a difficult-to-classify work by combining what has previously been thought of as separate categories of works for copyright purposes. Therefore, another emerging challenge will be that of categorization.**

Digital economy will flourish only with safe and secure digital asset management methods. Protection of digital IP can be achieved by applying legal, administrative as well as technological measures.

## **Copyright Protection**

### **● Copyright Infringement**

Significantly, an infringement need not necessarily be an exact or verbatim copy of the original but its resemblance with the original in a considerable measure is sufficient to indicate that it is a copy. The law will consider copyright infringed if any one without permission from the

owner of the copyright holder or the Register of copyrights does anything that is against rights of the owner. Additionally, the work cannot be created for sale or hired or distributed for trade of any purpose that will affect the rights of the owner by any one. The law is very clear about the parameters that bind a licensee as well. A computer programme license does not have the right to lend or otherwise transfer programme copy, unless authorized by the copy right owner.

The protection of copyright covers a wide array of human creativity. Under the most important international copyright convention, the Berne Convention, copyright protection covers all “literary and artistic works.” This term encompasses diverse forms of creativity, such as writings, computer programmes, databases that are original due to the selection or arrangement of their contents, musical works, audiovisual works, works of fine art, including drawings and paintings and photographs. ‘Related rights’, within the framework of copyright, protect the contributions of others who add value in the presentation of literary and artistic works to the public, like performing artists such as actors, dancers, singers and musicians; the producers of phonograms; and broadcasting organizations.

Generally, the various rights included under copyright are the rights of authorship, reproduction, distribution, communication to the public, broadcasting, adaptation and translation. These rights allow the copyright owner to control the use of these protected works. **In India copyright is governed by the Copyright Act, 1957, as amended in 1999, the Copyright Rules, 1958 as amended in 1995**

**and the International Copyright Order, 1999 as amended in 2000.**

● **Copyright and digital technologies**

While the shape of copyright law has always been drawn by the developments in the technological world, the emergence of digital technologies towards the concluding decades of the twentieth century as the defining paradigms of new age communication have raised a whole new set of challenges to copyright regimes. All works can now be digitized whether they comprise texts, images, sound, animation, photograph and once digitized the various elements are all 'equal' and can be merged, transformed, manipulated or mixed to create an endless variety of new works. Earlier rights of repro-

duction and distribution affected only tangible physical copies of a work. Some characteristics of the digital media that have a bearing on copyright are described below.

There are several mechanism for copyright protection among them, the award of a patent services to confer upon the successful applicant of a monopoly in respect of the exploitation of its subject matter. The copyright owner possesses only the exclusive right to perform certain acts in respect of the work. These comprise the rights:

- To copy the work or any substantial part of it,
- To issue copies of the work to the public,
- To perform show or play the work in public,
- To broadcast the work or

include it in a cable programme service, and

- To make an adaptation of the work or do any of the above in relation to an adaptation.

In respect of computer programmes, it is provided adaptation means an arrangement or altered version of the programme or a translation of it.

**Copyright protection of content of Web sites**

The Web sites are soaked in information, much of it with varying degrees of copyright protection. In fact, the reality is that almost everything on the Web is protected by copyright law. E-business Web sites are a composition of materials, often consisting of words, graphics, audio, and video, that are expressed to the con-

sumer as information contents. The owners and Web site developers carefully select the content to sell the company's product or service. The subject matter expressed in the site is an electronic publication of this content.

Since, designing, producing, and maintaining a sophisticated Web site is very expensive, protecting content ownership is extremely important. As Web sites become more and more interactive with consumers, their creation, design, and maintenance place enormous demands on innovative marketing techniques that should be legally protected.

**Never before has it been so easy to violate a copyright owner's exclusive right to copy the material. Everyone with a computer and an Internet connection creates his own Web pages and thus becomes a publisher. Hence the rules that once applied to only a few companies bind million of people now.**

### ● Linking

Historically, sites have welcomed links from others. To date, web site owners have made money primarily from the sale of advertising at their sites. The advertising rate is set by the number of people who travel to the site. From a revenue perspective then, web site owners are indifferent as to how a person accesses the site – whether directly or by linking to it from another site. Both types, access revenue. The conventional view then has held that sites welcome linking from others

because it increases traffic, advertising rates, and, by inference, revenue. Inlining is also another method of providing linking or providing links to sites during search functions of browsers, some entities have had objection to inlining also and litigation has arisen in this area also.

However, under the copyright law, the user's act of linking is unlikely to constitute infringement because it is probably protected either by an implied license or under the copyright doctrine of fair use. Because the user's act would not be infringing, the party – here, Microsoft – who enables the user to link, could not be guilty of contributory infringement. This result may seem incongruous in light of the objections detailed above. However, countervailing policy considerations including netiquette, the site owner's ability to combat unwanted linking technologically and the First Amendment interest in maintaining the free flow of ideas and information on the Internet support this result.

### ● Framing

Unlike linking, framing is a relatively recent phenomenon, introduced by Netscape in Version 2 of its Navigator product. A framing site, by virtue of certain commands in its HTML code, links to another site, displaying that site within a window or frame. The frame itself is comprised of content from the framing site. In contrast to generic hyperlinking, in the case of framing, the user remains at the framing, site and views content from both sites. The address that the user's browser displays may continue to be that of the framing site. The user may be unaware that the content in the frame comes from another site. This difference between linking and fram-

ing may make trademark liability more likely for sites that frame rather than merely hyperlink.

## Trademark

### ● Trade secrets

The protection of trade secrets is in many countries covered by unfair competition law. The protection of trade secrets in a network environment relies heavily on technological measures for information security, especially because after a trade secret has been stolen and posted on the Internet; courts sometimes experience difficulty finding the "secrecy" element of a trade secret. Secrecy issues are therefore of particular importance in electronic commerce.

### ● Domain names

Domain names are a simple form of Internet address, designed to serve the function of enabling users to locate sites on the Internet in an easy manner. Domain names may be registered in spaces known as "generic top-level domains" (gTLDs), such as .com, .org or .net, or in the "country code top-level domains" (ccTLDs), such as .ch (Switzerland), .fr (France) or .za (South Africa).

As commercial activities on the Internet have increased, domain names have acquired increasing significance as business identifiers and, as such, have come into conflict with the system of business identifiers that existed before the arrival of the Internet and that are protected by intellectual property rights, namely, trademarks and other rights of business identification, geographical indications and the developing field of personality rights.

**The tension between domain names and intellectual property rights has led to numerous problems that raise challenging policy questions. One system – the DNS – is largely privately administered and gives rise to registrations that result in a global presence, accessible from anywhere in the world. The other system – the intellectual property rights system – is publicly administered on a territorial basis and gives rise to rights that are exercisable only within the territory concerned.**

The tension that exists between the two systems has been exacerbated by a number of predatory and parasitical practices that have been adopted by some parties to exploit the lack of connection between the purposes for which the DNS was designed and those for which intellectual protection exists. These practices include the deliberate, bad faith registration as domain names of well-known and other trademarks in the hope of being able to sell the domain names to the owners of those marks, or simply to take unfair advantage of the reputation attached to those marks.

#### ● **Unfair Competition**

The failure of existing law to address the practices in which parties engage by using previously unknown technology may lead many plaintiffs to place less reliance on statutory causes of action in copyright and trademark and more on the common law tort of unfair competition. Unfair competition is a more

malleable cause of action than either copyright or trademark infringement, since, as its name suggests, it can address a wide range of conduct. However, a recent Second Circuit decision may have significantly limited its viability, at least with respect to claims of misappropriation, the essence of unfair competition claims based on hyperlinking and framing.

#### **Patents**

##### ● **Definition of a patent**

In India, whose laws are fairly typical in key respects, a patent is a :

- (i) right granted by the government;
- (ii) to exclude others;
- (iii) from engaging in activities such as making, using, importing, offering to sell or selling an invention.

##### ● **Patented software**

Computer software falling under some categories is being patented. There is no clause in the US Patent law, which permits the fair use of patented items as is the case in the Copyright law. In India also there is no provision in the Patent Act, similar to section 52 of the Copyrights Act. Reverse engineering may not be legal so far as the patented items are concerned.

Reverse engineering – so far as interoperability of computer programme or understanding its working is concerned – increases sphere of activity. It creates more users. Perhaps, it may be a good idea to permit reverse engineering on software on the same lines as it has been for copyrighted computer software under section 52 of the Copyright Act.

##### ● **Patent Protection in India**

During the past several years, India has not taken any major initia-

tive in the direction of protection of IPRs, in tune with the global developments. Recently, the Government has introduced a series of legislations on Patent Law. These have the following implications:

- Better patent protection will facilitate technology transfer.
- By establishing patents over their exclusive products, companies will try to ward off competition. Patents will be used as strategy for entry-barrier against rivals.
- Indian companies will increase R&D budget and the emphasis will shift from technology-seeking to technology-providing.
- More fruitful collaboration between universities / research laboratories and corporates.
- Multinational companies will be tempted to set-up more R&D centers in India due to cheap intellectual man power and better patent protection.
- Patent protection will promote original product development and violation of patent laws will become increasingly difficult.
- Patents will be powerful instruments for converting knowledge into wealth. Commercialization of research will start earning royalties. The shift from process patents to product patents will transform the pharmaceutical and biotechnology industries. Under the Indian Patent Act, 1970 no suit for the infringement of a registered trade mark or any right relating theeto or for passing off arising out of any trade mark can be instituted in any court inferior to a district Court.

#### **Technological measures of protection**

Intellectual Property (IP) nur-

tures a huge business activity. In this market, many modern products are sold. The costs of these products are not determined by the material value, but by the costs involved in extensive research, remuneration for ingenious ideas and creativity in making the product, etc. The revenue generation by IP is threatened by the new digital age; 'piracy' being the main danger. In this context, Electronic Copyright Management Systems which protect digital works have gained great importance. Techniques are emerging to custom-build ECMS to fit into the various business models.

➤ The purpose of a ECMS is to aid enforcing the copyrights owned by the author, publisher, etc., and to keep track upon the actions performed by an end user so that the appropriate royalties can be provided to the copyright owner.

### ● Legal Remedies

An individual or a corporate entity/Organization whose copyright, patent Trademark, rights are infringed or suffers on account of unfair trade practices could resort to civil remedies in a court of law or proceed for criminal action or initiate proceedings, under the Information Technology Act, 2000 accordingly.

### ● Civil Remedies

A civil court can be approached by way of a civil suit for any of the following remedies:

- Temporary and permanent injunctions,
- Impounding and distinction of all infringing copies including master copies,
- Actual monetary damages plus the infringer's profits,
- Statutory damages,

**Offenders – in the past – almost always used the slow pace of the judicial system to good effect. But the authorities have started using an effective weapon to deal with this problem with the Anton Piller action order. Anton Piller order allows a local commissioner appointed by the court and sometimes accompanied by the copy right owners representatives to enter the premises of the suspected counter fcit or and assist in identifying the infringing goods. The commissioner is the eyes and ears of the court. This has improved results.**

➤ Court costs and reasonable attorney's fees.

The potency of Anton Piller order is the recent action by the National Association of Software and Services Companies (NASSCOM) in conjunction with the Business Software Alliance against two well known computer training centers in Delhi. These were the first set of anti-piracy actions against an end user by NASSCOM and BSA. The settlement included the payment of damages to the BSA and an agreement to legalize all software used at the centers. The infringes provided an undertaking that they would not in future use, copy, sell, offer for sale, or deal in any NASSCOM and BSA member software illegally.

### ● Remedies under IT Act., 2000

Under the Information Technology Act, there is protection granted under sections 43, 65, 66, 72 for damage to computer sys-

tems, tampering with Computer source documents, Hacking computer systems, Breach of confidentiality and privacy. On Complaint to the concerned adjudicating officer, the matter will be investigated into and the code of criminal procedure is also applicable and confiscation and penalties could be levied in addition to imprisonment and fine.

### The Role of International Bodies in dispute resolution: WIPO, ICANN etc

At the international level, neither the Revised Berne Convention directed at authors, nor the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations dating from 1960, contained provisions tailored specifically towards the exploitation of works in digital form. A need was felt to update the copyright laws because of the exigencies of the digital medium. The concerted effort of the international community to respond to the challenges of digital technologies took place under the aegis of World Intellectual Property Organization (WIPO). This specialized agency of the United Nations Organization, responsible for the promotion of the protection of intellectual property throughout the world, began in 1989 to examine the revisions needed in the multilateral conventions, specifically in the Berne Convention in the light of the new technologies. WIPO organized a Diplomatic conference in December 1996 and con-

cluded two new treaties, namely, the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms treaty (WPPT). These treaties are popularly known as Internet treaties as they are intended to address the issues of copyright protection on the Internet.

### ICANN

It is this one context that one ought to appreciate the birth of the Uniform Domain Name Dispute Resolution Policy (UDRP), a policy which was adopted by the Internet Corporation of Assigned Names and Numbers (ICANN) on 24<sup>th</sup> of October, 1999. The policy offers an expedited administrative proceeding for trademark holders to contest “abusive registrations of domain names”, and may result in the cancellation, suspension of transfer of a domain name by the registrar.

### ● WIPO Arbitration and Mediation Center

In order to make the advantages of ADR widely available to intellectual property owners, WIPO has established, in 1994; the WIPO Arbitration and Mediation Center (the Center). The procedures offered by the Center under the WIPO Mediation Rules, the WIPO Arbitration Rules and the WIPO Expedited Arbitration Rules are particularly appropriate for technology, entertainment and other disputes involving intellectual property. Parties can draw upon a growing list of more than 1,000 independent arbitrators and mediators from some 70 countries covering the entire legal and technical spectrum of intellectual property.

### ● Alternative Dispute Resolution Procedures

Putting a stop to harmful activity on a global and fast-moving medium such as the Internet through judicial enforcement mechanisms that are territorial might increasingly prove to be a challenging task. To supplement available court procedures, Alternative Dispute-Resolution (ADR) procedures may usefully be employed to provide rights owners with procedures for fast and effective remedial action, reflective of the ease with which intellectual property infringements can occur on the Internet.

### ● On-line dispute-resolution procedures

Such procedures may serve to enhance access to dispute settlement mechanisms, while increasing the speed and efficiency with which the proceedings are conducted and reducing the corresponding costs. Many parties involved in disputes arising from commerce over the Internet may not have had significant exposure to legal proceedings and the attendant formalities. Enabling them to initiate or to defend a claim by accessing a web site and completing electronic forms guiding them through the various stages of the process is expected to reduce entry barriers to any available procedures. Furthermore, internet-based document filing systems may allow parties to submit instantaneously a significant number of documents over any distance, at virtually no cost.

### Conclusion

While commerce on Internet has paved way for a global trade, some of the potential IPR issues that arise with regard to electronic

copyrights are:-

- The liability of on-line service providers
- Fair uses of copyrighted material, effective management of copyright information
- An effective patent system
- International standards for determining the validity of patent claims
- Litigation that may arise due to Trademarks
- Similarity of Internet domain names and registered trademarks

To address these issues our Government should improvise the IPR Laws according to international agreements, in such a way that our national interests are protected and preserved.

### References:

- ◆ *Cyber Law Text & Cases* : Ferrera, Lichenstein, Reder, August, Schiano
- ◆ *Intellectual Property and Competitive Strategies in the 21<sup>st</sup> Century*: Shahid AliKhan and Raghunath Mashelkar.
- ◆ *Guide to Cyber Laws* : Rodney D.Ryder
- ◆ *Law relating to Computers, Internet & E-commerce*: Nandan Kamath
- ◆ *Intellectual property* : David Lange, Mary Lafrance, Gary Myers
- ◆ *Information Technology and Cyber Law*: V.D.Dudeja
- ◆ *Intellectual Property*: Margreth Barrett
- ◆ *Cyber Laws*: Justice Yatinder Singh
- ◆ *Legal Dimensions of Cyberspace* : S.K. Verma & Raman Mittal
- ◆ *The Indian Cyber Law*: Bharat Publications. ■