Intellectual Property Rights and The Digital World

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Every human being is endowed with certain but varying degree of intellect. Each individual is uniquely gifted. The word intellect originates from the root intellects in Latin which means the power of knowing as distinguished from the power to feel. Man has the capacity to acquire knowledge and increase his knowledge bank by gathering more and utilizing it as and when required throughout his life time. An intelligent person makes full use of his intellectual qualities to earn a living by using his creative ideas and thoughts this expression of his ideas is a kind of special property known as intellectual property. The intellectual property is ownership of something intangible. A right as we know is legally protected interest and object of the right is immaterial property.

IPR connotes the right to literary, artistic and scientific work; performances of performing artists; phonographs and broadcast; inventions in all fields of human endeavour; scientific, literary and artistic fields.

The recent development in digital technology has widened the scope in spreading information more briskly and super fast all around the globe. It is much easier to dissemination literary, artistic and scientific work to a very large community of Internet users and users of electronic media.

Around the world there are many franchise as well getting opened to reflect the growing intellectual property rights in a digital world. In this respect, trademarks are widely used to help protect the identities and values of many entities from commercially successful products to open source communities.

Intellectual property has various forms which includes trademarks, patent, copyright and geographical indications, all of which have a wide variety.

Database rights are among the lesser known forms of intellectual property, but can be exceedingly valuable and could apply if there has been a “substantial investment” in obtaining, verifying or presenting the contents of a database.

Patents are among the better known forms of intellectual property. Patents can be particularly beneficial because they can cover wide-ranging technical concepts, including features of products and methods of making, installing and using.

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IPR AND DIGITAL RIGHTS

In the digital age the issue of privacy is an important subject where unauthorized data sharing, data integration, unethical data utilization and unauthorized public disclosure are the major areas of concern. The major issues are to be considered as follows:

1. Is digitization to be considered as similar to reproduction, for example using Xerox machine?

2. Is digitization a creative activity such as translation from one language to another?

3. Can transmission of digitized documents through Internet be considered as commercial distribution or public communication similar to broadcasting?

4. Can we consider database as a special collected work that should be protected by the copyright law? 5. What can be considered as fair use in the Internet environment?

6. What are the concerns of the library community?

7. In the digital context if access restricted by the copyright owner, how could the public exercise fair use with those work?

The above issues are specific to the library. The libraries have allowed their users to read a document, to browse through the whole collection; to search through the library catalogue; to supply Xerox copy for research and education purpose; to procure photocopies of articles from other libraries or clearing centers; to widely distribute the re-produced copies of documents for public awareness and to provide inter library loan service. Whether all these activities will continue in the digital age? If digitization is considered as reproduction work, it is quite clear that in digitization the initial work is merely changed into the digital form and the process of changing is accomplished by a machine, without any creativity.

If it is considered as a translation from one language to another, the digitization is also a change from natural human language in to machine language. However in digitization, there is no creativity involved and it could be considered as a similar activity to reprography. The copyright protects only creative works. Simply transformation in to the digital form of an original document cannot be considered as creative work. The transmission of information on Internet can be considered similar to broad casting; hence copyright law cannot be applied.
WAYS FOR PROTECTION OF DIGITAL / INTELLECTUAL PROPERTY:

Digital Rights Management (DRM) technologies (also known as Electronic Rights Management Systems) ensure copyright through identifying and protecting the content, controlling access of the work, protecting the integrity of the work and ensuring payment for the access. DRM technologies prevent illegal users in accessing the content. Access is protected through user ID and password, licensing agreements.

Another way to protect digital content is through Technical Protection Measures (TPM). These technologies allow publishing companies in securing and protecting content such as music, text and video from unauthorized use. If an author wishes to collect fee for use of his or her work, then DRM technology can be used.

The TPM and DRM technologies are increasingly employed to sell and distribute content over the Internet.

1. Cryptography: Cryptography is the oldest mechanism employed to ensure security and privacy of information over networks. This involves scrambling (or encryption) of the information to render it unreadable or not understandable language, which only the legitimate user can unscramble (or decrypt). However cryptography protects the work during transmission or distribution only. After the work is decrypted, it does not provide any protection.

2. Digital Watermark Technology: A digital watermark is a digital signal or pattern inserted into a digital document. It is similar to the electronic on-screen logo used by TV channels. A unique identifier is used to identify the work. The message might contain information regarding ownership, sender, recipient etc or information about copyright permission. The system consists of a watermark generator, embedded and a watermark detector decoder. The legal user can remove these watermarks with a predetermined algorithm. The watermarking technology is extensively used in protecting multimedia works.

3. Digital Signature Technology: Digital signature includes identity of the sender and/or receiver date, time, any unique code etc. This information can be added to digital products. This digitally marks and binds a software product for transferring to a specified customer. Digitally signed fingerprints guarantee document authenticity and prevent illegal copying.

4. Electronic Marking: In this technique, the system automatically generates a unique mark that is tagged to each of the document copies. This technique is used to protect copyright as well as in electronic publishing where documents are printed, copied or faxed.
5. Security Features of Operating System: For protection of files, data etc the operating system of computer such as Windows 2000 Professional, Windows 2000 Server, MS-SQL Server has some unique special security and integrity features.

**COMPUTER-IMPLEMENTED INVENTIONS**

Many countries like US, UK and Europe excludes patentability of computers across their jurisdictions. The European Patent Office (EPO) will potentially allow a patent if the claimed subject matter is novel and inventive and provides a technical contribution in a technical field – even if the invention is computer-implemented.

Intellectual property can be layered to combine the benefits. For example, copyright provides a degree of protection for computer software code and automatically exists when the code is tangibly fixed and set down. However, the protection afforded by it is generally not as strong as patent protection, because copyright is only infringed by copying – rather than independent creation – which can be difficult to prove.

Also, copyright is intended to cover an expression of an idea, rather than the idea itself. As such, copyright protection generally applies to the code, while patent protection can potentially apply more broadly to the fundamental new ideas and concepts that may lie behind a new piece of software. Essentially, there are a number of mechanisms available to protect intellectual property associated with digital innovation – and it is up to the innovators to make sure that the results of their skill, investment and labour are protected. Given the rapid speed of digital change, it is increasingly important to have a strategy in place to make the most of your intellectual property.

**CONCLUSION**

A number of issues are associated with the usage of digital information i.e. issue of single articles versus full issues of e-journals, user-friendliness, incompatible hardware and software, formatting, graphics, scholarly recognition and obsolescence. While it is important to protect the copyright of the publishers, it is equally important to protect interest of the libraries and the user. In digital environment it is difficult to draw a boundary line between what is permissible, to what extent and what is infringement. Small – scale violations which do not conflict with owner’s rights may be accepted as a part of fair use. In the context of digital information, it is difficult to judge, comprehend fair use, access and control the infringement of copyright law. It is almost impossible for a copyright owner to know which person used his/her work. In this context it is necessary to modify the copyright law. The librarians in the digital environment have some responsibility to collect information and help the readers by giving it even if it is an electronic form. The copyright protection
should be encouraging the creativity and not for creating hurdles in the use of information. The Librarians should work as a catalyst for the free flow of information between the owners of copyright and the users of the information.