

# INTELLECTUAL PROPERTY

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# Objectives

- ☐ Intellectual Property and Changing Technology
- ☐ Copyright Law and Significant Cases
- ☐ Copying and Sharing
- ☐ Search Engines and Online Libraries
- ☐ Free Software
- ☐ Issues for Software Developers

# Intellectual Property and Changing Technology

## What is Intellectual Property?

- Intellectual Property means the rights resulting from the creations of the human mind.  
i.e. 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.
- The term refers to a range of intangible rights of ownership in an asset such as a software program.
- Value of intelligence and artistic work comes from creativity, ideas, research, skills, labor, non-material efforts and attributes the creator provides

# Intellectual Property and Changing Technology ...

## What is Intellectual Property? ...

- It generally embraces the rights relating to
  - a) literary and artistic works such as novels, poems and plays, films, musical works, computer programs, databases, drawings, paintings, photographs and sculptures, and architectural designs;
  - b) performances of performing artists, sound recordings and broadcast;
  - c) inventions;
  - d) industrial designs;
  - e) trademarks, service marks, commercial names and designations
  - f) protection against unfair competition
  - g) all other rights resulting from intellectual activity in the industrial, scientific, literary and artistic fields such as lay-out designs of integrated circuits, new varieties of plants (breeder's rights), Geographical Indications and undisclosed information including trade secrets.

# Intellectual Property and Changing Technology

## What is Intellectual Property? ...

- Intellectual Property is traditionally divided into two categories:
  - i. Industrial Property which includes patents for inventions, trademarks and service marks, industrial designs and Geographical Indications
  - ii. Copyright which covers literary and artistic works.
- The rights of performing artists, producers of sound recordings and broadcasting organizations are known as the related rights or neighboring rights.
- Intellectual Property rights share the characteristics of other property rights – they can be owned, alienated and licensed.
- They allow the creator or owner of a patent, trademark, or copyright etc. to benefit from his or her own creative work.
- These rights have been recognized in several international conventions on Intellectual Property.

# Intellectual Property and Changing Technology

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## What is Intellectual Property? ...

- The followings are the types of intellectual property rights relevant to software:
  - Copyrights
  - Patents
  - Marks
  - Designs
  - Trade Secrets

# Intellectual Property and Changing Technology

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## Why promote and protect intellectual property ?

- Human creativity is the foundation of human civilization, progress and well-being.
- The protection of creative efforts encourage further creations, enhances investment and stimulates transfer of technology and spurs economic growth, creates new industries and employment, and enhances the quality and enjoyment of life.
- Thus, an efficient and equitable intellectual property system can effectively contribute to the economic, technological, social and cultural development.
- The intellectual property system attempts to achieve a balance between the rights of the creators and the interest of society as a whole, thereby introducing an environment where the creativity in every sphere of human endeavor can flourish, to the benefit of all.

# Intellectual Property and Changing Technology

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## International Dimensions

- The World Intellectual property organization (WIPO), a specialized agency in the United Nation's System, is mandated to promote the protection of Intellectual Property rights in all the member states.
- WIPO administers 23 international conventions on Intellectual property at present.
- WIPO is based in Geneva, Switzerland and its website is at:  
<http://www.wipo.int>
- In addition, there are some other international organizations, which administer certain areas of Intellectual Property such as
  - UNESCO (Universal Copyright Convention)
  - World Trade Organization (the Agreement on Trade related aspects of Intellectual Property rights- the TRIPS Agreement)
  - The International Union for the protection of New Varieties of Plants (International Convention for the protection of New Varieties of Plants).



# Intellectual Property and Changing Technology

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## In Sri Lanka

- The current Intellectual Property system in Sri Lanka is governed by the *Intellectual Property Act No 36 of 2003* which makes provisions for a variety of Intellectual Property rights and their acquisition , management and enforcement.
- The **National Intellectual Property Office of Sri Lanka** established under this law is the government department, which is responsible for the administration of the intellectual Property System in Sri Lanka.

# National Intellectual Property Office of Sri Lanka

## Services offered by NIPO

- Protection for
  - Copy rights
  - Patents
  - Marks
  - Industrial Designs
- Situated at :  
3rd Floor, "Samagam Medura", 400, D.R.Wijewardena Mawatha  
Colombo 10.
- Web - [www.nipo.gov.lk](http://www.nipo.gov.lk)

# **National Intellectual Property Office of Sri Lanka...**

## **Vision**

To Become a leading development oriented agency offering quality based services with enhanced productivity.

## **Mission**

To actively contribute to the development of the country by ensuring that the Intellectual Property system fosters an environment conducive to innovate and creative activity, investment and entrepreneurship.

# Copyrights

- **What is copyright?**

Rights given by law to the creators for their literary & artistic works.

- Two forms

- Economic rights

- include the right to reproduce, sell, rent, distribute, communicate to the public, translate etc

- Moral rights

- cover the right to claim the authorship and oppose distortion or mutilation of the work.

# Copyrights

- In the case of software, copyright would protect the source and object code, as well as certain unique original elements of the user interface.
- The owner of a copyrighted software program has certain exclusive rights (with some exceptions):
  - The right to copy the software, create derivative or modified versions of it, and distribute copies to the public by license or sale.
- Anyone exercising any of these exclusive rights without permission of the copyright owner is subject to liability for damages or statutory fines.
- Copyright law also protects against indirect copying, such as unauthorized translation of the code into a different programming language.
- Regulations made under the Intellectual Property Act have been published in Gazette Numbers 1415/18 of 10th October 2005

# Copyrights

- **Why protected?**

- † Copyright protects the rights of the authors of literary and artistic works and ensures them the economic benefits and recognition thereby promoting creativity in literary and artistic fields and investment.
- † Such creations enhances economic development, education, culture, and enjoyment of life

- **What is covered?**

Copyright covers original literary and artistic works: writings such as books, computer programs, articles, oral works such as speeches and lectures, dramas, musical works, films, drawings, paintings and photographs. The works such as databases and translations are also protected.

# Copyrights

- **Formality free**

- Protection is accorded (granted) without any formality such as registration in Sri Lanka.

- **Who owns**

- The author is the owner of economic rights but there are some exceptions such as a work created by an employee generally belongs to the employer.
- The economic rights can be assigned or licensed.
- The moral rights always belong to the author.

- **Duration**

Copyright in Sri Lanka is generally protected during the life of the author and 70 years after his death.

# Copyright Law and Significant Cases

## Significant Cases :

- Reverse engineering: game machines
- Sega Enterprises Ltd. v. Accolade Inc. (1992)
- Atari Games v. Nintendo (1992)
- Sony Computer Entertainment, Inc. v. Connectix Corporation (2000)
- Courts ruled that reverse engineering does not violate copyright if the intention is to make new creative works (video games), not copy the original work (the game systems)



# Marks

- A mark- trademark or service mark- is a visible sign that is capable of distinguishing the goods or services of different enterprises.
- A mark may consists of a word, a symbol, a device, letters, numerals, a name, surname or geographical name, a combination or arrangement of colors and shapes of goods or containers etc.
- The visible sign must always be capable of distinguishing the goods or services of different enterprises (it must be distinctive)

# Marks

- There are four kinds of marks:
  - **Trademark** : Trademark relates to goods.
  - **Service mark**: Service mark relates to service.
  - **Certification marks**: A certification mark is a mark which meets a defined standard of the goods or services as certified by the owner of the mark who licenses others to use it.
  - **Collective marks**: A collective mark is a mark serving to distinguish the origin or any other common characteristic of goods or services of different enterprises which use the mark under the control of the registered owner.

# Marks

- **Functions of a Mark**

- Distinguishes the goods or services of its owner from those of others
- Indicates the source of the goods or services
- Individualizes the goods or services of the owner
- Enables the owner to reach the customers
- Helps the consumers to make the choice in the market etc.

# Trade Secrets

- A trade secret is any formula, pattern, compound, device, process, tool, or mechanism that is not generally known or discoverable by others, is maintained in secrecy by its owner, and gives its owner a competitive advantage because it is kept secret.
- The classic example of a trade secret is the formula to Coca-Cola.
- A trade secret can theoretically last forever - for as long as its owner uses reasonable efforts to keep it secret and someone else doesn't independently create or "discover" it.
- Many features of software, such as code and the ideas and concepts reflected in it, can be protected as trade secrets.
- This protection lasts as long as the protected element retains its trade secret status.

# Trade Secrets

- Unlike patents, trade secret protection will not extend to elements of software that are readily ascertainable by lawful means, such as reverse engineering or independent development.
- Trade secrets are not subject to being "infringed," as with patents and copyrights, but are subject to theft.
- Their legal status as a protectable intellectual property right will be sustained if the owner can prove the trade secret was not generally known and reasonable steps were taken to preserve its secrecy.

# Patents

- **What is a Patent?**

- The State grants the inventor, by means of a patent, the right to exclude others from making, using and selling the qualified invention for a period of 20 years from the date of application for patent.
- This legal monopoly is considered a reward for the time and effort expended in creating the invention.
- The owner of the patent can use, sell or license the patented technology and derive financial benefits.

- **What is an invention?**

- An Invention is a practical solution to a problem in technology.
- An invention may relate to a product or a process.

- **Why Patents?**

- Protect inventions & ensure inventors benefits resulting from inventions thereby providing incentives for creativity, encouraging further inventions & promoting investment.
- Encourage economic and technological development.
- Describe newly invented technologies & are available for anyone to refer
- They contain vital information for researchers, inventors and enterprises etc. who want to keep up with new developments, carry out R&D activities and use new technologies.

- **What can be patented?**

- an invention is patentable if it

- † is new ( not known in the body of existing knowledge)

- † industrially applicable ( functional and operative)

- † involves an inventive step ( the development or improvement is not obvious to a person of average skill in the particular field. )

- May be granted to an improvement of a valid patented invention but if you use it sometimes you may infringe rights of the owner of the first patent.



- **What is not patented:**

- Discoveries, scientific theories and mathematical methods
- Plants, animals micro organisms other than transgenic micro organisms and an essentially biological process for the production of plants and animals other than non biological and micro-biological processes
- Schemes, rules or methods for doing business, performing purely mental acts or playing games
- Methods for treatment of human or animal body by surgery or therapy and diagnostic methods practiced on human or animal body
- Inventions which are necessary to protect public order, morality including human animal or plant life, health, or to avoid serious prejudice to environment.

- Software patents can be extremely powerful economic tools.
- They can protect features of a program that cannot be protected under copyright or trade secret law.

E.g. patents can be obtained for ideas, systems, methods, algorithms, and functions embodied in a software product:

- ‡ editing functions
- ‡ user-interface features
- ‡ compiling techniques
- ‡ operating system techniques
- ‡ program algorithms
- ‡ menu arrangements
- ‡ display presentations or arrangements
- ‡ programming language translation methods.

- **How a patent is granted?**

- Make an application to the Intellectual Property Office using a prescribed form.
- Submit a document with the application form describing your invention clearly and completely and the claims.
- Pay the prescribed fee. ( refer to the regulations for fees). You must submit a search report prepared by an international searching authority or alternatively request the IP Office to forward your invention to a local examiner for search and report.

- **Renewal**

- A patent is valid for 20 years from the date of application.
- Must be renewed annually from expiration of 2<sup>nd</sup> year from the date of grant paying a fee

# Free Software

- **Free software** - idea, an ethic, advocated and supported by large, loose-knit group of computer programmers who allow people to copy, use, and modify their software
- Free means freedom of use, not necessarily lack of cost
- **Open source** - software distributed or made public in source code (readable and modifiable)
- **Proprietary software** - (commercial) sold in object code (obscure, not modifiable) (E.g.: Microsoft Office)

# Free Software...

## Should All Software Be Free?

- Would there be sufficient incentives to produce the huge quantity of consumer software available now?
- Would the current funding methods for free software be sufficient to support all software development?
- Should software be covered under copyright law?
- Concepts such as copyleft and the GNU Public License provide alternatives to proprietary software within today's current legal framework

# Issues for Software Developers

## Patents for Software?

- Patents protect inventions of new things or processes
- The Supreme Court said that software could not be patented; however a machine that included software could
- Patents are not supposed to be given for things that are obvious or are already in common use

# Issues for Software Developers (cont.)

## Patents on Web Technologies:

- Amazon agreed to pay IBM who holds patents for online catalogs and targeted advertising
- Microsoft was fined \$1.5 billion for violating MP3 patents. The decision was voided; the case continues.
- Friendster applied for a patent on its social-networking Web techniques. While the patent was pending, sites such as MySpace sprang up. Friendster's patent was granted and it may now charge licensing fees to businesses using the technology.