




Engineering Management &
Society

Law of Intellectual Property (RevE)

University of Hong Kong

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What is "property"?

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Products & Property

WHO?

produces

WHAT?

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Who produces What?

- God:
 - Raw material
- Human:
 - Food (Agriculture)
 - Manufactured Goods
 - Services

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How & What we produce?

- Knowledge & Skills
- Tools & Material
- Ideas
- Creation
- Property

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Why Intellectual Property and its laws are of concern to me?

WHY?

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Intangible Assets as Percentage of a Company Total Asset

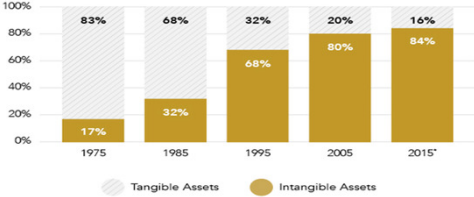
- Most recent report by Ocean Tomo (a capital advisory firm) revealed that:
 - The average intangible asset value of S&P 500 companies **Property** is **84%**.
 - In 1975, that number was **17%**

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Intangible Assets as Percentage of a Company Total Asset

COMPONENTS of S&P 500 MARKET VALUE




1975 1985 1995 2005 2015*

Tangible Assets Intangible Assets

SOURCE: OCEAN TOMO, LLC
JANUARY 1, 2015

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GROSS DOMESTIC INVESTMENT (BN)

	2012	2013	2014
Structures	437.3	457.2	506.1
Equipment	907.6	949.7	1015.6
Intellectual Property Products	625.0	647.1	684.7

SOURCE: US DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS; TABLE 1.1.5

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Intangible Asset: Intellectual Properties

An intangible asset is an asset that is not physical in nature. Corporate intellectual property, including items such as patents, trademarks, copyrights and business methodologies, are intangible assets, as are goodwill and brand recognition.

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The Four Key Forms of Intellectual Property

Patents


Trademarks

Copyrights

Trade Secrets

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Patents

Patents

A patent is a grant from the state government conferring the rights to exclude others from making, selling, or using **your unique** invention for the term of the patent. (see the next slide for a full explanation)

Increasing Interest in Patents

There is increasing interest in patents.

Since Patent #1 was granted in 1790, the U.S. Patent & Trademark Office has granted over six million patents.

The patent office is strained. It now takes an average of 32.2 months from the date of first filing to receive a U.S. patent.

In the PRC, the State Intellectual Property Office has received 6.285 million patent applications and has granted 3.442 million patents as of June 2010.

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Proper Understanding for What a Patent Means

A patent does not give its owner the right to make, use or sell **his unique** invention: rather, the right granted is only to exclude others from doing so.

As a result, if an inventor obtains a patent for a new kind of computer chip, and the chip would infringe **partly or wholly** on a prior patent(s) owned by Intel, the inventor has no right to make, use, or sell the chip.

To do so, the inventor would need to obtain permission from Intel. Intel may refuse permission, or ask that a licensing fee to be paid for the rights to infringe on its patent. **The patent provides Intel the right to ask the court to:**

- force infringer(s) to pay a reasonable **royalty** and/or
- issue an injunction to prevent future infringement.

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Rationale: Why Negative Protection

While this system may seem odd, it is really the only way the system could work. Many inventions are improvements on existing inventions, and the system allows the improvements to be (patented) and sold, but only with the permission of the original inventors, who usually benefit by obtaining licensing income in exchange for their consent.

One should also note that many patents, though issued by the patent office after due diligence check, may be found invalid during the litigation process.

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Three Basic Requirements for Obtaining a Patent

Useful

It must have utility.

Novel

It must be different from what has come before (i.e., not in the "prior art").

Not Obvious

It must be not obvious to a person of ordinary skill in the field.

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Types of Patents in PRC

Type	Type of Invention Covered	Duration
Utility	New or useful process, machine, manufacturer, or composition of material or any new and useful improvement thereof.	20 years from the date of the original application.
Design	Invention of new, original, and ornamental design for manufactured products.	14 years from the date of the original application.
Plant	Any new varieties of plants that can be reproduced asexually.	20 years from the date of the original application.

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Business Method Patents

(Special Utility Patent)

Business Method Patent

A business method patent is a patent that protects an invention that is or facilitates a method of doing business.

The most notable business method patents that have been awarded:

Amazon.com's one click ordering system.

Priceline.com's "name-your-price" business model.

Netflix's method for allowing customers to set up a rental list of movies to be mailed to them.

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Patent Infringement

Patent Infringement

Takes place when one party engages in the unauthorized use of another party's patent.

The tough part (particularly from a small entrepreneurial firm's point of view) is that patent infringement cases are costly to litigate.

A typical patent infringement case costs each side at least \$500,000 to litigate.

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Trademarks

Trademark

A trademark is any word, name, symbol, or device used to identify the source or origin of products or services and to distinguish those product or services from others.

Trademarks also provide consumers with useful information.

For example, consumers know what to expect when they see an Microsoft store.

Think how confusing it would be if any retail store could use the name Microsoft.

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Illustration of the Multifaceted Nature of Trademark Protection

CISCO SYSTEMS



EMPOWERING THE
INTERNET GENERATIONSM

← Name is trademarked

← Symbol is trademarked

← Slogan is trademarked

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Types of Trademarks

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Type	Types of Marks Covered	Duration
Trademark	Any word, name, symbol, or device used to identify and distinguish one company's goods from another. Examples: <i>Dell, Nokia, Apple, Ford, Lenovo (联想), Master Kong (康师傅)</i>	Renewable every 10 years, as long as the mark remains in use.
Service mark	Similar to trademarks; are used to identify the services or intangible activities of a business, rather than a business's physical products. Examples: <i>Amazon.com, Pizza Hut, eBay, HSBC</i>	Renewable every 10 years, as long as the mark remains in use.

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Types of Trademarks

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Type	Types of Marks Covered	Duration
Collective mark	Trademarks or service marks used by the members of a cooperative, association, or other collective group. Examples: <i>Rotary International</i> , <i>International Franchise Association</i>	Renewable every 10 years, as long as the mark remains in use.
Certification mark	Marks, words, names, symbols, or devices used by a person other than the owner to certify a particular quality about a good or service. Examples: <i>Florida Oranges</i> , <i>ISO 9000</i> , <i>Underwriters Laboratories</i>	Renewable every 10 years, as long as the mark remains in use.

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Exclusions From Trademark Protection

Item	Example
Immoral or scandalous matter	Profane words
Deceptive matter	Labeling oranges "Fresh Florida Oranges" that aren't grown in Florida
Descriptive marks	Phrases like "golf ball" and "fried chicken" are descriptive and can't be trademarked
Surnames	Common surnames like "Andersen" or "Smith" can't be trademarked

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Copyrights

Copyrights

A copyright is a form of intellectual property protection that grants to the owner of a work of authorship the legal right to determine how the work is used and to obtain the economic benefits from the work.

A work does not have to have artistic merit to be eligible for copyright protection.

As a result, things such as operating manuals and sales brochures are eligible for copyright protection.

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What is Protected By a Copyright?

Literary works

Musical compositions

Computer software

Dramatic works

Pantomimes and
choreographic works

Pictorial, graphic, and
sculptural works

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Exclusions From Copyright Protection

The Idea-Expression Dichotomy

The main exclusion is that copyright laws cannot protect ideas.

For example, an entrepreneur may have the idea to open a soccer-themed restaurant. The idea itself is not eligible for copyright protection. However, if the entrepreneur writes down specifically what his or her soccer-themed restaurant will look like and how it will operate, that description is copyrightable.

The legal principle describing this concept is called the idea-expression dichotomy.

An idea is not copyrightable, but the specific expression of an idea is.

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Copyright Infringement

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Copyright Infringement

Copyright infringement occurs when one work derives from another or is an exact copy or shows substantial similarity to the original work.

To prove infringement, a copyright owner is required to show that the alleged infringer had prior access to the copyrighted work and that the work is substantially similar to the owner's.

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Copyright Infringement

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- The illegal downloading of music is an example of copyright infringement.
- Copyright infringement costs the owners of copyrighted material as estimated \$20 billion per year in the U.S. alone.

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Trade Secrets

Trade Secrets

A trade secret is any formula, pattern, physical device, idea, process, or other information that provides the owner of the information with a competitive advantage in the marketplace.

Trade secrets include marketing plans, product formulas, financial forecasts, employee rosters, logs of sales calls, and similar types of proprietary information.

The Federal Economic Espionage Act, passed in 1996, criminalizes the theft of trade secrets.

Theft of trade secrets may also constitute a criminal offence under the Crime Law of the PRC (Article 219)

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What Qualifies For Trade Secret Protection?

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Trade Secret Protection

Not all information qualifies for trade secret protection

In general, information that is known to the public or that competitors can discover through legal means doesn't qualify for trade secret protection

Companies protect trade secrets through physical measures and written documents.

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What Qualifies For Trade Secret Protection?

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The strongest case for trade secret protection is information that is characterized by the following

- Is not known outside the company.
- Is known only inside the company on a “need-to-know” basis.
- Is safeguarded by stringent efforts to keep the information confidential.
- Is valuable and provides the company a competitive advantage
- Was developed at great cost, time, and effort.
- Cannot be easily duplicated, reverse engineered, or discovered.

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