

FUNDAMENTALS of INTELLECTUAL PROPERTY

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WHAT IS INTELLECTUAL PROPERTY?

- Property
 - Ownership
 - Free to use it as owner wishes
 - Exclude others from so using that owned item of property
- Intellectual Property
 - Types of property that results from creations of human mind, the intellect.

WIPO CONVENTION

“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.”

INTELLECTUAL PROPERTY RIGHTS

- Literary, artistic and scientific works e.g. books. Protection of this property is governed by laws concerning **Copyright**.
- Performances, broadcasts e.g. concerts. Protection of this property is governed by laws concerning Copyright's **Related Rights**.
- Inventions e.g. a new form of jet engine. Protection of inventions is covered by laws concerning **Patents**.

INTELLECTUAL PROPERTY

- **Industrial designs** e.g. the shape of a soft drinks bottle.
Industrial Designs may be protected by its own specialized laws, or those of Industrial Property or Copyright.
- **Trademarks**, service marks and commercial names and designations e.g. logos
- Names for a product with unique geographical origin, such as Champagne are protected by **Geographical Indicators**.

INTELLECTUAL PROPERTY RIGHTS

- Technical Designs of electronic devices are protected by **Integrated Circuits**.
- New Plant varieties are protected by **Plant Varieties Protection Act**.
- Confidential information not in public domain can be protected as **Trade Secret**.

Why IP has become Important?

- Development of Global Technological capability
- Reverse Engineering feasible in developing countries
- Follow-up of General Agreement on Trade and Tariffs (GATT)
- Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement)

WHY DO IP RIGHTS MATTER?

- Provide incentive towards various creative endeavors of the mind by offering protections;
- Give such creators official recognition;
- Create repositories of vital information;
- Exclusive rights – high market share
- To protect your own business and inventions from your competitors
- To avoid the risk of being exposed to assertions of patent infringement by competitors/ third parties
- Facilitate the growth of domestic industry and international trade
- Monetisation - Income from licensing
- Attract Investors

WHY IP IS IMPORTANT TO INVESTORS?

- IP is integral part of value creation in a tech-based enterprise
- Investors are faced with considerable uncertainty and therefore rely on patents as signals when trying to assess
- IP is the basis for putting resources to risk
- Appropriate use of the IP system is a powerful tool for competition, stability and mitigation of risks on capital investments.
- Venture capitalists want to maximize returns and minimize risks

IP RIGHTS IMPORTANT FOR STARTUPS

- Patents
- Trademarks and Domain names
- Copyrights
- Design Rights
- Trade Secrets

WHAT IS A PATENT ?

A right granted to inventors to ***prevent*** unauthorized use of an invention, within a ***particular territory***, for a ***limited time***.

Does not guarantee the ***freedom to exploit*** the invention.

PATENT-EXPLANATION

- Negative Right
- Patents are territorial
e.g., an Indian patent has **no force in other countries , just as a foreign patent has no force in this country.**
- Limited Time: 20 years from Date of application.
- Positive right restricted by previous patents
 - Freedom to operate/market/practice

All patents are published 18 months after application

Social Contract

- Patent rights are granted in return for the inventor's full disclosure of the technology to the public
- The patent holder receives the right to prevent anyone else from practicing the invention
- In exchange, the government ensures that the information regarding the invention is publicly disclosed, and the invention itself is available for anyone's use after the expiration of the patent.

REQUIREMENTS OF PATENTABILITY

Substantive Requirements

- Subject matter
- Novelty
- Non-Obviousness
- Utility

Procedural Requirements

- Enablement
- Definiteness
- Best mode

Ideas/concepts cannot be patented

REQUIREMENTS OF PATENTABILITY

SUBJECT MATTER

- MANUFACTURE
- MACHINE
- COMPOSITION OF MATTER
- PROCESS

e.g. GENETICALLY MODIFIED BACTERIA
HUMAN ENGINEERED MICE

UTILITY

MINIMUM DEMONSTRATION

NOVELTY

NOT ANTICIPATED IN "PRIOR ART"

"PRIOR ART"- ANYTHING PREVIOUSLY
PUBLISHED,PATENTED,KNOWN,USED,SOLD

Contd...

REQUIREMENTS OF PATENTABILITY

OBTAINABILITY

KNOWLEDGE AT THE TIME OF INVENTION MUST
NOT BE OBVIOUS TO ONE OF ORDINARY SKILL
IN THAT AREA

DETERMINED BY

SCOPE / CONTENT OF PRIOR ART
AS LEVEL OF ORDINARY SKILL IN TECHNOLOGY
INCREASES, SO DOES THE OBVIOUSNESS OF
ADVANCES

Contd...

REQUIREMENTS OF PATENTABILITY

ENABLEMENT

ABILITY TO USE THE INVENTION WITHOUT
“UNDUE EXPERIMENTATION” (SPECIFICATION)

DEFINITENESS INQUIRY

UNDERSTANDING LIMITS OF INVENTION
BASED ON CLAIM LANGUAGE

BEST MODE

BEST WAY KNOWN TO HIM/HER TO CARRY OUT
THE CLAIMED INVENTION. DISCLOSURE MUST
ALLOW A PERSON OF “ORDINARY SKILL IN THE
ART” TO PRACTICE THE INVENTION.
CONCEALMENT OF BEST MODE RESULTS IN
REJECTION.

TYPES OF PATENTS

Utility Patents-are available for processes, machines, articles of manufacture, or compositions of matter that are deemed new, useful and non-obvious. The traditional subject matter of patents covers tangible, technical inventions, such as improvements to client-server systems, motors, radios, computer chips and various technical product features

TYPES OF PATENTS

Patents for business methods: E.g a method for completing a credit card transaction without the need for the physical presence of the credit card.

- **Design Patents-** to protect ornamental (non-functional) designs. Apple's Patent D 604,305 covering the design of its iPhone interface
- Plant Patents
- Innovation Patents
- Provisional Patents

PROVISIONAL PATENT

- In India, the United States and some other countries, a temporary patent application, to protect invention while work is in progress termed as provisional application, may be filed.
- Must be “completed” within 12 months by the filing of a complete application.
- The legal requirements for a provisional application may be less than those for a complete application, for example, it is not necessary to include claims in a provisional.

WHO CAN QUALIFY AS INVENTORS

- PROVIDER OF THE IDEA/CONCEPT
- MEMBERS OF TEAM WHO MADE SIGNIFICANT CONCEPTUAL CONTRIBUTIONS
- EVERY TEAM MEMBERS SHOULD HAVE HIS OWN NOTEBOOK OR DOCUMENT TO RECORD HIS CONTRIBUTION,DATED,SIGNED AND WITNESSED
- IF YOU DESIGN AN EXPERIMENT FOR SOMEONE ELSE TO PERFORM ENTER YOUR INSTRUCTIONS INTO YOUR NOTEBOOK

INVENTORSHIP Vs. OWNERSHIP

- Organisational IPR policies (work for hire)
- Commercial work of Non-Employees

Artistic Works

Architectural or Engineering Drawings

Computer Software

Reports by consultants or subcontractors

Sponsorships /Grants – Assignments / March in Rights / Shop Rights

COMMUNICATIONS THAT COUNT AGAINST AN INVENTOR

- Printed Publications
 - Papers and Presentations
 - Slides and Drawings
 - Photographs
 - Speeches and Handouts
 - Library Cataloguing (Thesis)
 - Government Research Grant Proposal
- Emphasis on `Accessibility And Dissemination of The Work'
- Invention on Sale
- Invention Available for Public use.
- USA- One Year Grace After Publication

PATENTABILITY UNDER US SYSTEM

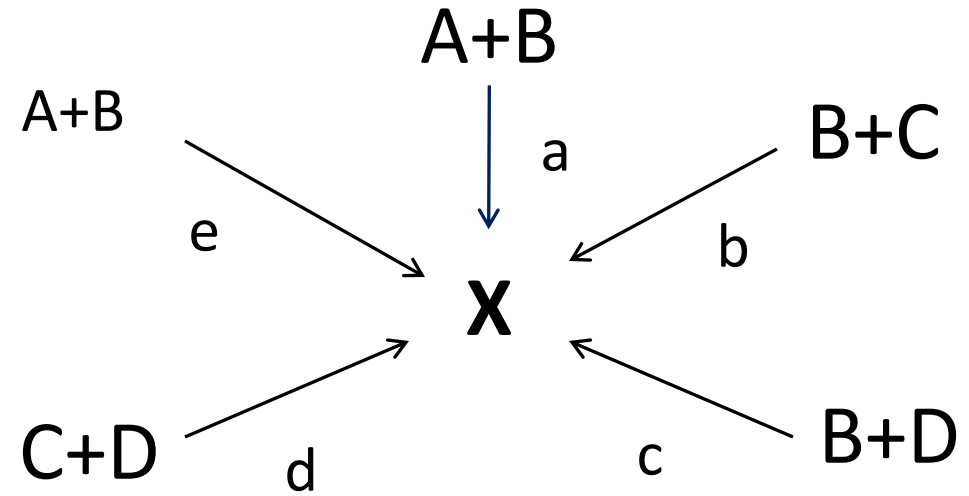
ANYTHING THAT INVOLVES HUMAN
INTERFERENCE CAN BE PATENTED

PLANTS,BUISNESS METHODS,SOFTWARE (ALL
TECHNOLOGY AREAS)

Patent Claim types

- Product claims- Apparatus/Device/ Composition
- Process/ Method claims
- Use/Application claims
- Product-by-process claims
- Biotech claims
- Software claims
- Omnibus claims
- Design claims

Process Vs Product Patent



X – Product

a, b, c, d, e – Processes

A,B,C,D – Raw materials

FOREIGN PATENTS

- Territorial Right- Restricted to Grant Giving Country
- No Concept of World Patent or International Patent
- System of Filing International Patent Application for The Purpose of Priority Date and Examination Exists Under The Patent Cooperation Treaty (PCT) Administered By World Intellectual Property Organisation (WIPO)

ADVANTAGES of PCT

- Simplify the process
- Single Priority date
- **Gain time to make a decision**
- Disseminate more effectively the technical knowledge contained in patent documentation.
- Increased efficiency of national patent offices

European Patent System

- EUROPEAN PATENT CONVENTION
 - EUROPEAN DIRECTIVES
 - NATIONAL LAWS ON THE SUBJECT MATTER
- EUROPEAN PATENT OFFICE (EPO)
 - PATENT VALID IN CONTRACTING COUNTRIES
- NATIONAL PATENTS (GERMAN-DE) ETC.
- AFRICA and MIDDLE EAST TO FOLLOW SIMILAR PRACTICE

Compulsory Licensing

- In certain cases, in fact, the use of the patented invention may be authorized to a third party either by the competent court or by a Patent Office (depending on the law of the country)
- Prevents the abuses which might result from the exclusive rights conferred by a patent. This regime may also be applied in case of non-use of the patented invention within a prescribed period (generally four years from the filing date of application for patent, or three years from the issue of patent).

PATENT PROSECUTION

- EXAMINERS SEARCH
- CITATION OF PRIOR ART
- NORMAL FOR ALL CLAIMS TO BE REJECTED
- GROUNDS ON WHICH CLAIMS HAVE BEEN REJECTED
- INVENTION HAS TO BE OF AN EARLIER DATE THAN CITED PRIOR ART
- ANSWER TO THE OBJECTIONS/AMEND CLAIMS/ WITHDRAW

Commercial exploitation of patents

- Patents to Exclude the Competition - the Pharmaceutical Industry
- Patents for Survival - the Biotechnology Industry
- Patents as Bargaining Chips - the Electronics Industry
- Patents as a Source of Royalty Income - Universities
- Patents as Marketing Tools- National Labs