Role of Intellectual Property In Emerging Technologies

Dr. P.K. Chakrabarti

John F. Welch Technology Center GE India Technology Center Pvt. Ltd. Bangalore

13 things that don't make sense ...

```
Virtual water?
      Power from Salt?
      Seeding a cloud?
         Flat world?
        Hybrid man?
  Cancer-cure from Gold?
Journey to a seabed volcano?
       Fire from Ice?
    Cells as computers?
    Video game therapy?
    Pretty people richer?
   Knowledge like water?
```

Technology and Intellectual property?

"Any advanced technology is indistinguishable from magic" - Clarke



Human genome:

Detailed genetic mapping of the human race to chart the characteristics



Nano-robot:

Use of miniature machines for special missions such as to alter RNA structures in cells



Tidal power:

Usable power from the kinetic energy of the tides



Tele-presence:

Simulated presence of a person at a remote station - synchronized over a digital network

:Technology:

... the magic wand – the spine of innovation

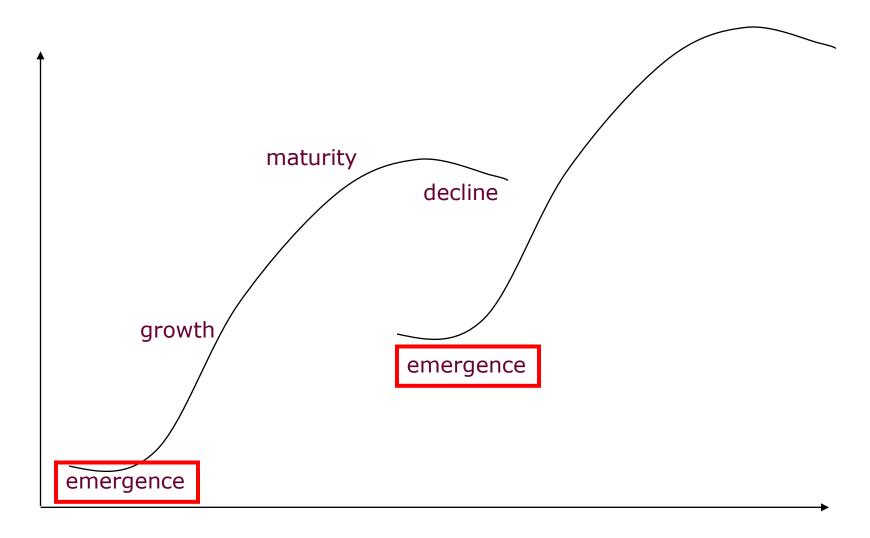


Emerging technology: champion parameter

Tele-presence

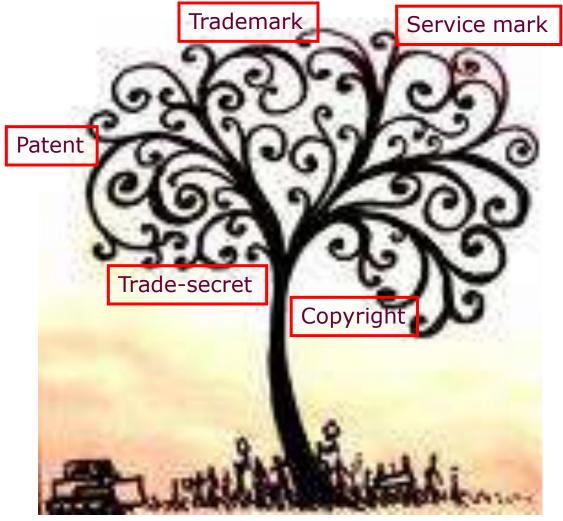
Nano-robot

... the only constant is Change



Technology Champion parameter: S curve

The tree of Intellectual property



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." (Convention Establishing the World Intellectual Property Organization, Signed at Stockholm on July 14, 1967; Article 2, § viii)

Patent:technology

Patent: Any invention that is (1) useful, (2) novel, and (3) nonobvious to a person of ordinary skill in the trade is patentable. It does not need to create a revolution in technology or come in a "flash of genius." An incremental improvement or new combination of off-theshelf components arrived at by trial and error or methodical research may be patentable. Patents can be granted on "anything under the sun made by man".

Examples of Applications:

Cloud seeding
Medical diagnosis based on Nano-particles
Bio-Fuels
Superconductivity
Radio tagging in Car parking

Copyright:technology

Copyright: Anything that is created and not primarily functional is Copyrightable. Original creative expressions are copyrightable. This includes buildings, art, customer lists, drawings, computer software, advertisements, the non-functional shape of a product or container, operations manuals, correspondence, etc

Examples of Applications:

song, poetry, painting, movie private letters, hair style, floral decoration of a bridge, musical fountain, examination papers.

Trade-secret:technology

A trade secret is secret information used by a business that gives it a competitive advantage. Relative secrecy (i.e., not generally known in the trade), not patentable novelty or absolute secrecy, is all that is required.197 The most common successful defenses in trade secret cases are that the matter was not even relatively secret,198 or that the trade secret owner did not take reasonable precautions to keep the information secret.

Examples of Applications:

Coca cola KFC

Trademark:technology

A trademark or service mark (collectively "mark") is the term you use in public commerce to identify and distinguish your goods and services them from those of competing businesses. 7 The only way to acquire the exclusive right to use a mark is to (a) be the first to properly use it in your trade area as a mark8 or (b) file a federal trademark application that issues as a registration.

Examples of Applications:

Words: 'Apple' for computers; Deutsche Bank for a bank,

Arbitrary or fanciful designations: Coca-Cola, Nikon, Sony, NIKE, Easy Jet.

Names: Ford, Peugeot, Hilton (hotel)

Slogans: 'Fly me', for an airline;

Devices: the star for Mercedes Benz, the flying lady for Rolls Royce

Number: the 4711 cologne Letters: GM, FIAT, VW, KLM

Pictures or symbols: Lacoste (small crocodile)

Role of IP in emerging technology:

Protection
Innovation
Licensing
Royalty
Merger and Acquisition