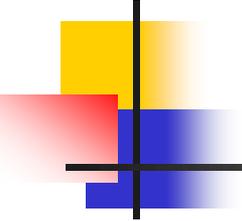


# **Workshop for High Court Justices on IPR**



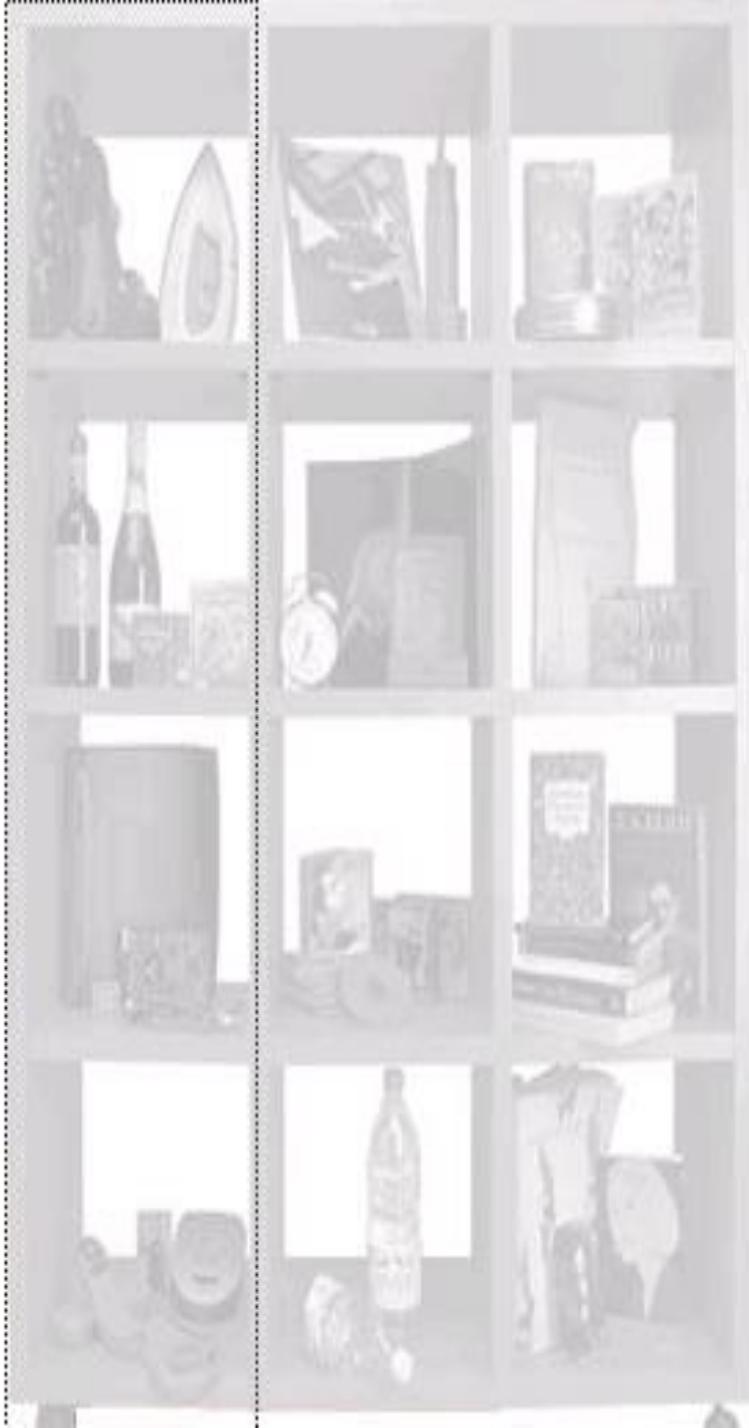
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## ***IPR: Genesis, Benefits and Importance***

***Pushpendra Rai***

**National Judicial Academy, Bhopal  
November 2 and 3, 2019**

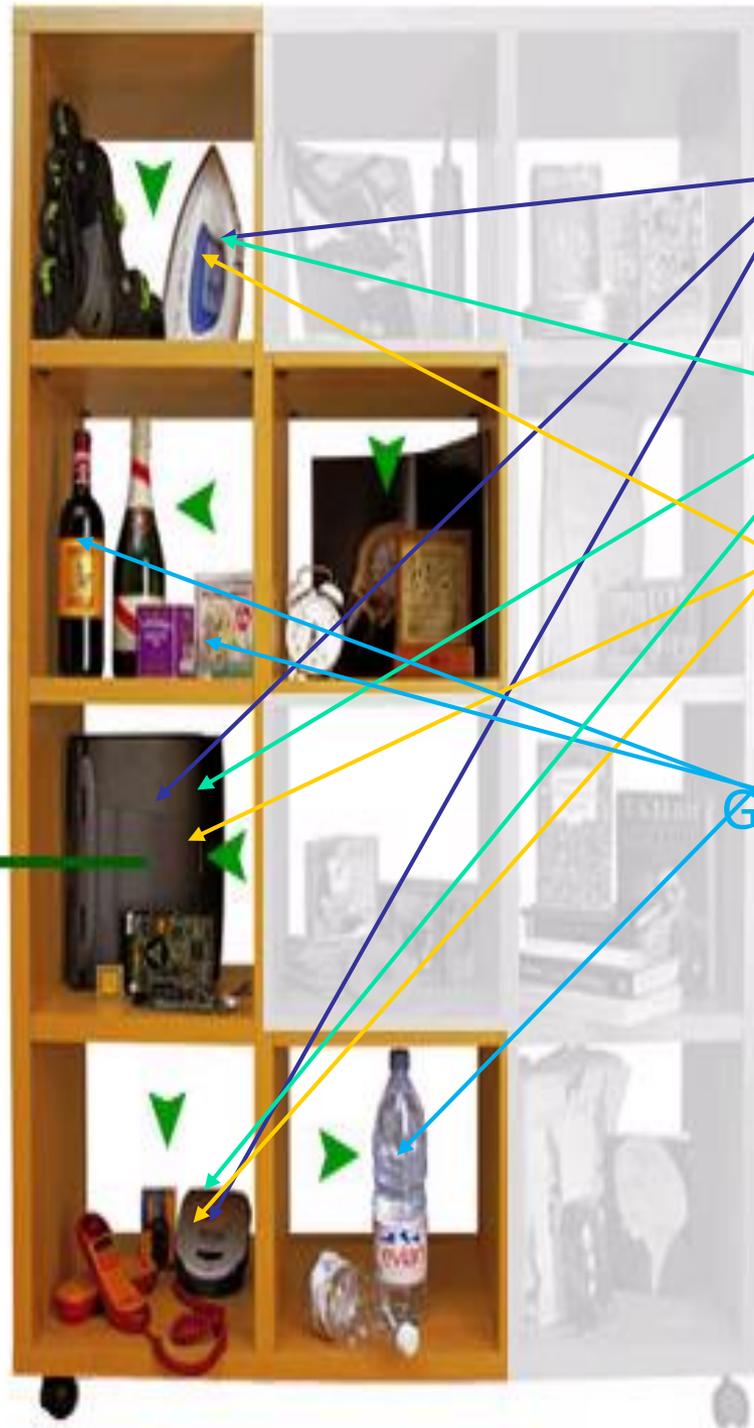
INDUSTRIAL  
PROPERTY



COPYRIGHT

Intellectual property - the fruits of human creativity and invention - is divided into two categories. The first is **industrial property**, which includes inventions, trademarks, industrial designs, and geographic indications of source.

INDUSTRIAL  
PROPERTY



Patent

Trademark

Industrial Design

Geographical Indications

COPYRIGHT

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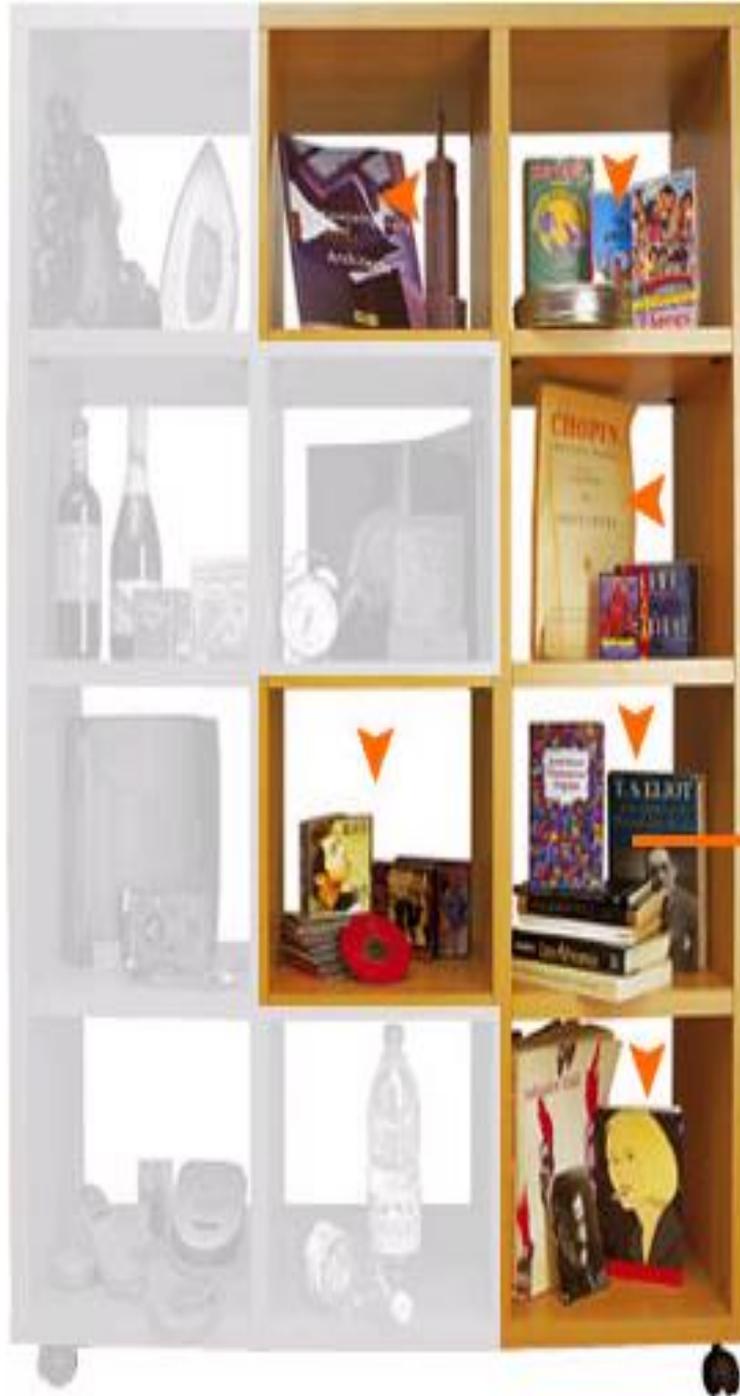
Industrial Design

Geographical Indications

COPYRIGHT

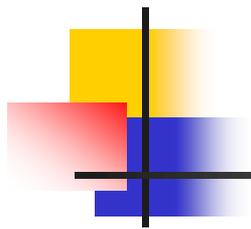


# INDUSTRIAL PROPERTY

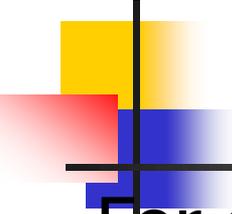


The second category of intellectual property is **copyright and related rights**, which includes a broad array of literary and artistic works, ranging from newspaper articles to novels, from drawings to paintings to architectural works, from music to dance, from photographs to films, as well as artistic performances.

# COPYRIGHT



# ***The Genesis***



# Down the ages

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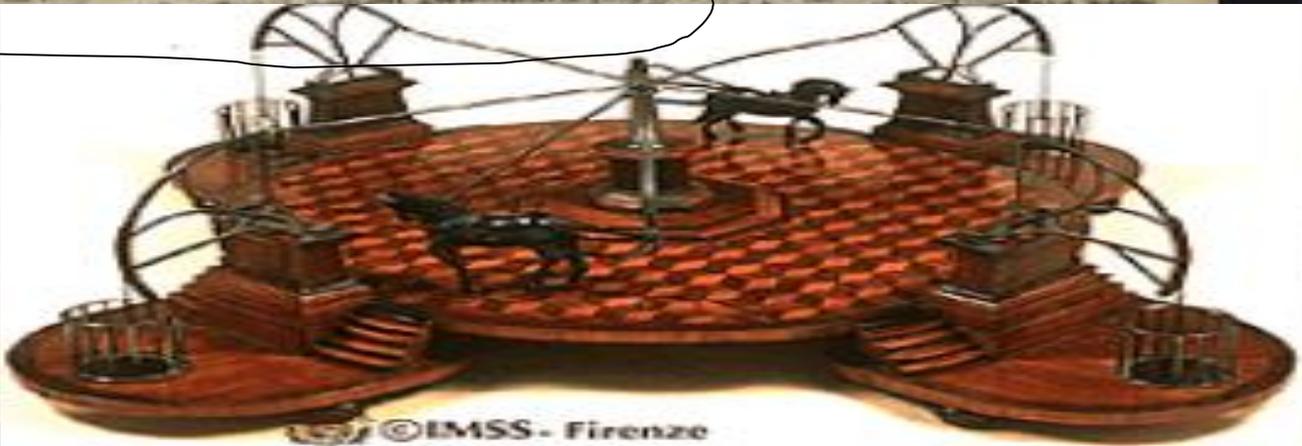
- For several centuries world has acknowledged need to protect knowledge
- Initially creativity, talent and inventiveness rewarded by the state; sustained by grants from the Crown or State
- Subsequently, with increasing commercialization and stratification of professions, creator left to invent and nurture his creation
- Recompense available through the market, only if the product considered of worth and that too later
- National protection.... Origins...

**1324 AD:** King Edward II of England granted letters of protection to German miners to get them to England

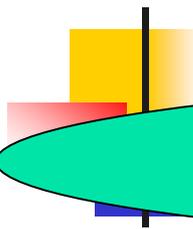
**1449:** John of Utynam awarded 20-year monopoly for a glass-making process previously unknown in England (supplied glass for the windows of Eton College Chapel). In return was required to teach process to native Englishmen

## HISTORY OF PATENTS

*Handwritten text from a historical document, likely a patent or legal record, written in a cursive script.*



# International Protection



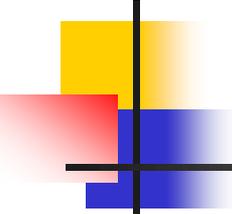
**1883:** Paris Convention for the Protection of Industrial Property Rights

**1886:** Berne Convention for the Protection of Literary and Artistic Works

**20<sup>th</sup> century:** Several treaties were adopted in different areas of intellectual property rights - substantive law, facilitation of the process and classification systems

**1994:** Agreement on the Trade Related Aspects of Intellectual Property Rights (TRIPS) – first multilateral agreement establishing *binding minimum standards*

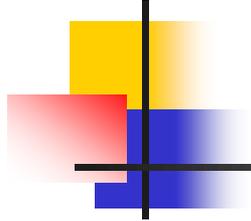
**Since then:** Several Plurilateral and Bilateral agreements concluded, and under negotiation, to institute TRIPS plus standards



# India

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- First Act relating to patent rights passed in 1856 - granted exclusive privileges to inventors of a new manufacture - term 14 years
- Amended by the Act of 1859 and later by the Acts of 1872, 1883 and 1888
- **Indian Patents and Designs Act, 1911** replaced all the previous acts - established a patent system and administrative framework for the first time
- After Independence, the **Patents Act, 1970**
- 1999 onwards several acts to conform to **TRIPS**

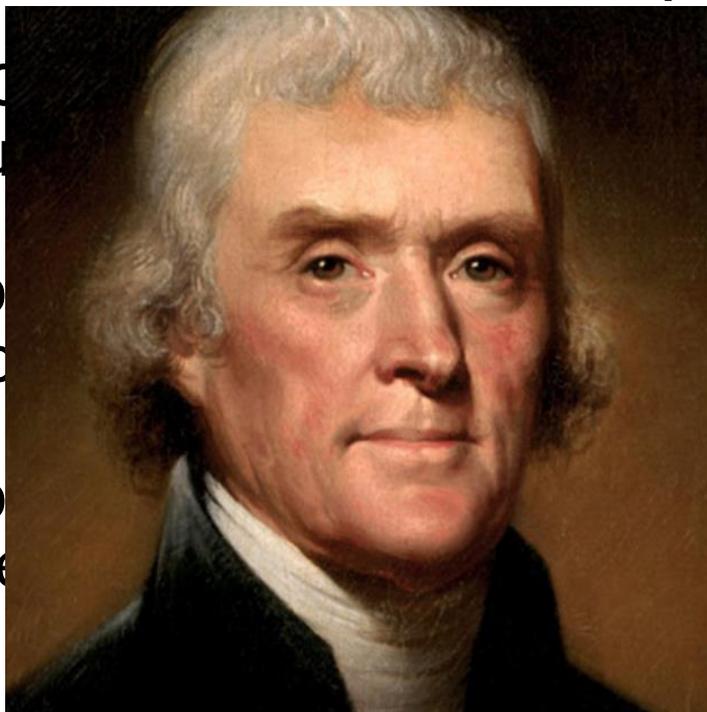


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# ***Why Protect?***

# Distinctive Economic Characteristics of Intellectual Property

- Non-rivalrousness:
  - simultaneous use by multiple entities
  - no bottlenecks or capacity constraints

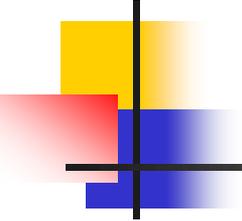


"He who receives an idea from me, receives instruction himself without lessening mine; as *he who lights his taper at mine, receives light* without darkening me.

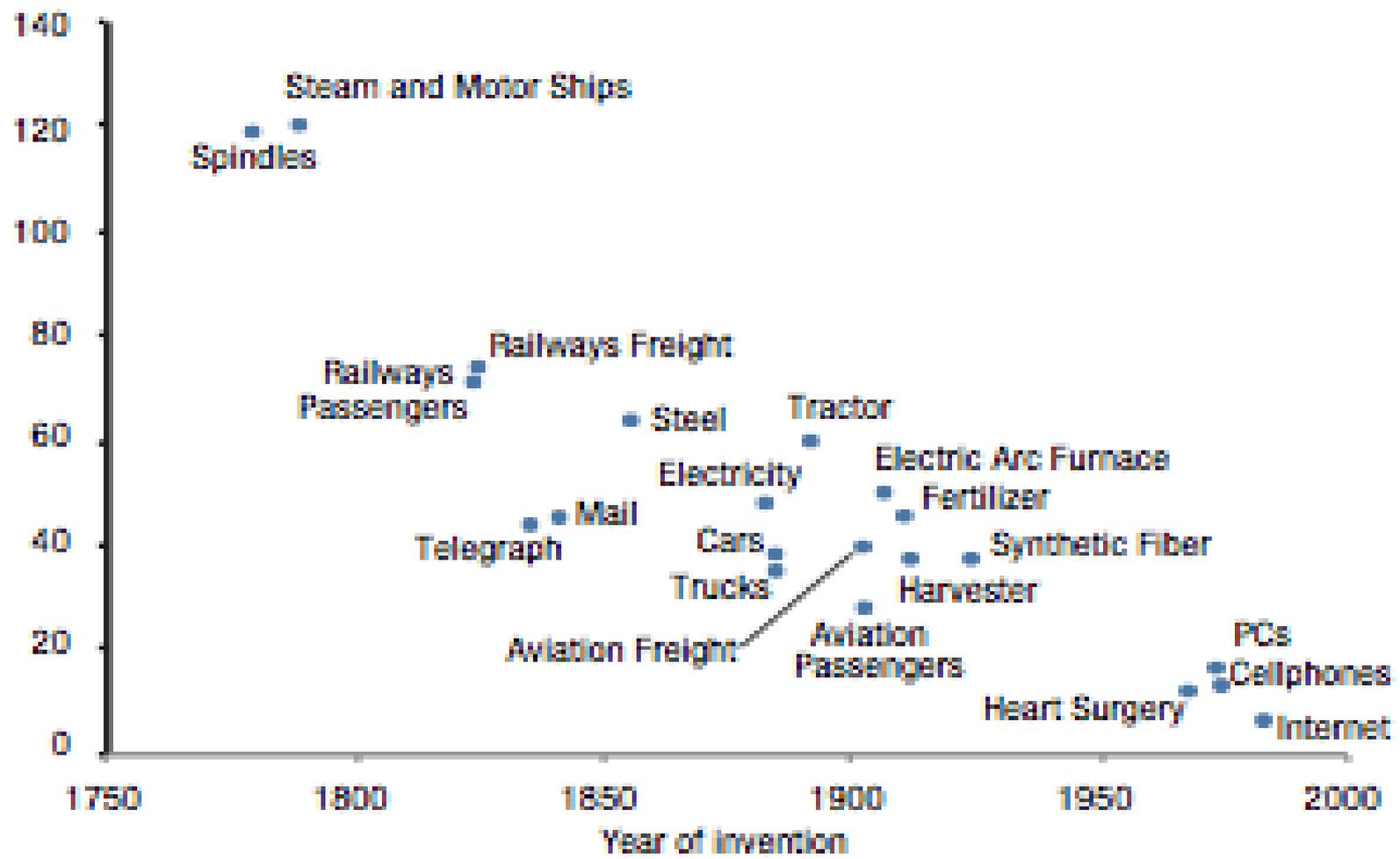
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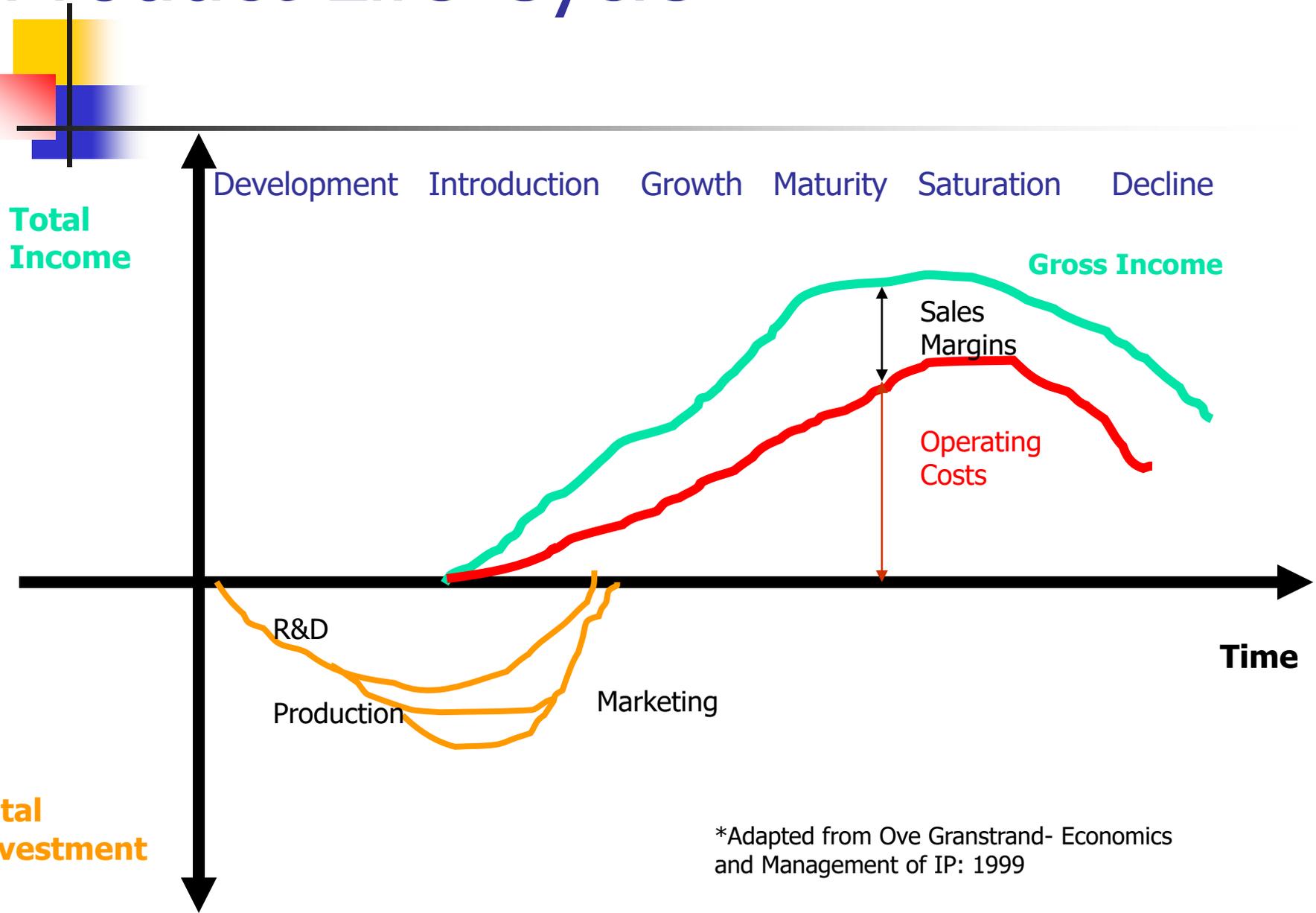
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- Therefore, societies faced with fundamental trade-off between two market distortions
  - Excessively **weak IPRs**, satisfy the static goal but inadequate incentives to create, leading to slower growth, limited culture, lower product quality
  - Excessively **strong IPRs**, consistent with dynamic goal but generate insufficient access, inadequate dissemination
  - Balance is imperative – diffusion process

Adoption lag since first invention, in years



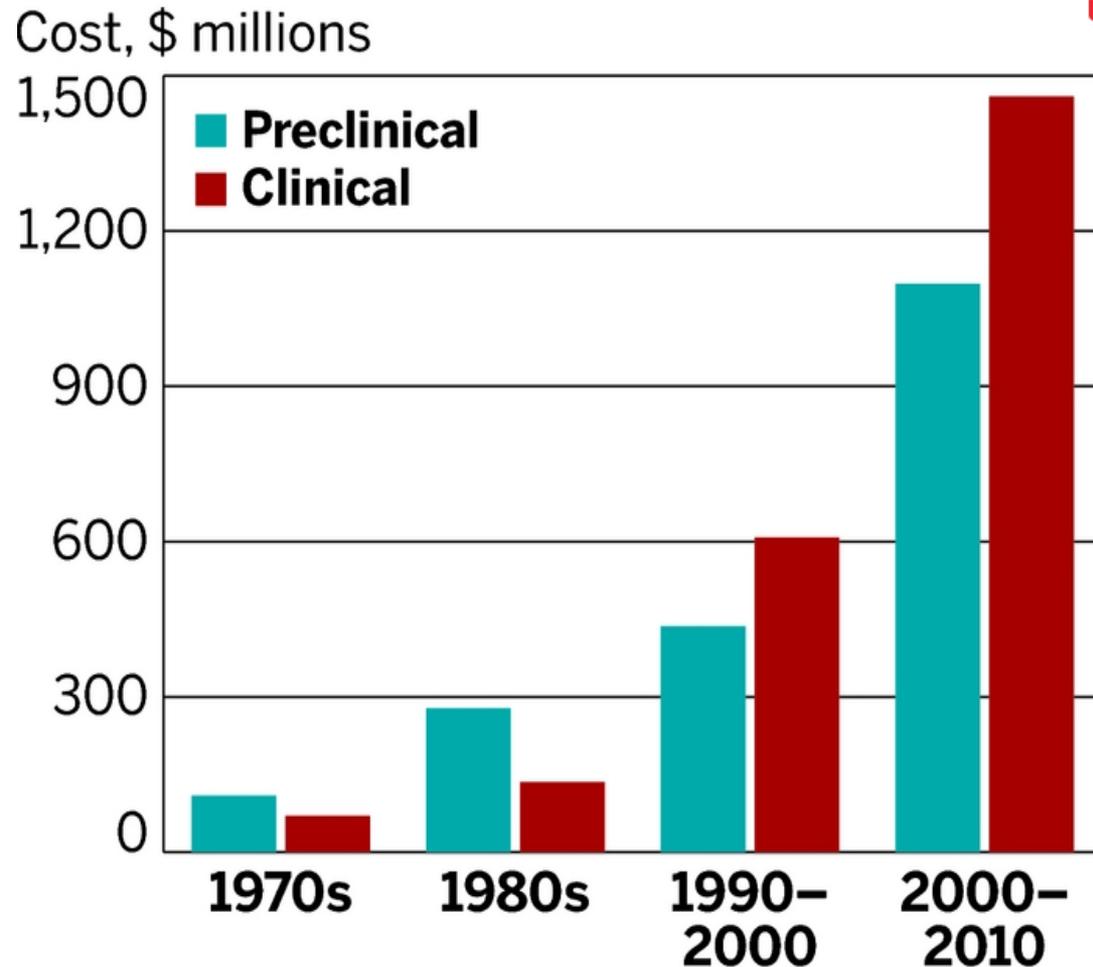
# Product Life-Cycle\*

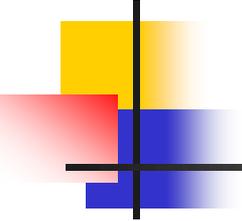


\*Adapted from Ove Granstrand- Economics and Management of IP: 1999

# Estimated Costs on Developing a Drug: Tufts Center for the Study of Drug Development

- The R&D costs of 106 randomly selected new drugs - survey of 10 firms
- Data to estimate average pre-tax cost of new drug
- Based on average **out-of-pocket cost of \$1.4 billion** and an estimate of **\$1.2 billion in returns** investors forego during the period drug candidate develops
- \$312 million on post-approval development - studies to test new indications, formulations, and dosage strengths

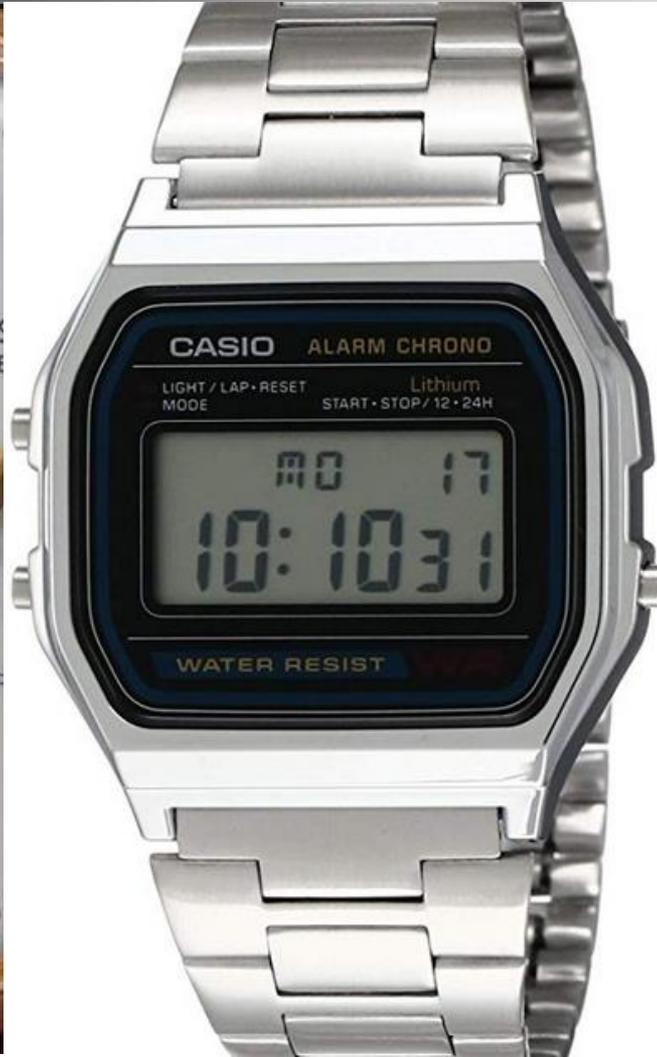




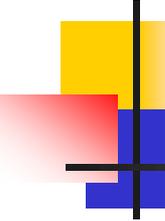
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***Benefits and  
Importance***

# Patents and Technological Development



# Trade Marks and Economic Value



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- Increase sales volumes and price
- Stabilize demand through consumer relationships
- Earn royalties through licensing and franchising
- Transfer brand equity to new product categories
- Attempt to move customers from
  - brand awareness, via brand recognition, to
  - brand preference and finally to
  - brand insistence
- *Interbrand* – Valuation of Brands

Brand Values (US \$ million)

# VALUABLE INDIAN BRANDS

Brand value of top five brands in India





# Copyright and Economic Development

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- Protects creativity and ensures adequate recompense for creators and producers
- Balances public with private interest
- Preserves cultural heritage
- Prevents creation from being reproduced elsewhere and competing with original
- Enhances economic growth

# CR Industries – Contributing to Development

## III. THE COPYRIGHT INDUSTRIES

In nine of our fourteen prior economic reports, we divided the copyright industries into four groups: core, partial, distribution, and copyright related; these are the sectors we developed and defined in our first report issued in 1990. Beginning with the 2004 report, we still used four categories, but in order to conform to the international standard, we relied upon the four copyright categories defined by WIPO: core, partial, non-dedicated support, and interdependent.

The **core** industries include those industries whose primary purpose is to create, produce, distribute or exhibit copyright materials. These industries include books, newspapers and periodicals, motion pictures, recorded music, radio and television broadcasting, and software in all formats, including video games.

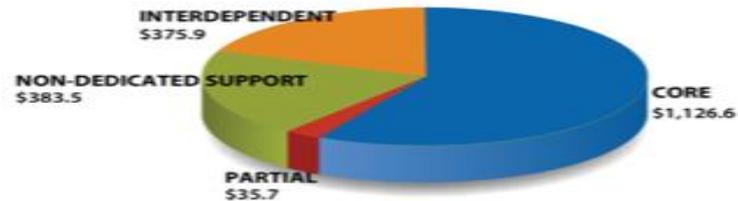
**Partial** copyright industries include industries in which only some aspect or portion of the products they create qualify for copyright protection. These industries range from fabric to jewelry to furniture to toys and games.

**Non-dedicated** support industries include those that distribute both copyright and non-copyright protected materials to businesses and consumers. Examples here include transportation services, telecommunications and wholesale and retail trade. As in past studies, only a portion of the total value added by these industries is considered to be part of the copyright industries.

**Interdependent** industries include those that produce, manufacture, and sell equipment whose function is primarily to facilitate the creation, production, or use of works of copyrighted matter. These industries include manufacturers, wholesalers and retailers of CD players, TV sets, VCRs, personal computers and usage dependent products including blank recording material and certain categories of paper.

We refer to the four groups together – core, partial, non-dedicated support, and interdependent – as the **“total”** copyright industries.

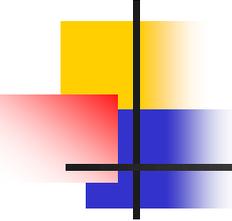
**COPYRIGHT INDUSTRIES IN THE US ECONOMY  
(VALUE ADDED IN BILLIONS OF DOLLARS) 2013**



Cancel



Done



# Contribution of Copyright Industry (%)

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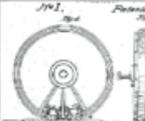
	Gross Domestic Product	Employment
USA	12.00	8.41
Canada	5.38	6.90
Singapore	5.70	5.80
Latvia	4.00	4.50

# 200 Years of Innovation and Growth

\$2,000  
GDP per person  
(in 1990 US\$)

Mankind's pursuit of innovative solutions has powered human progress and transformed our world. Two centuries of breakthrough innovations have seen a 15-fold growth in per capita incomes in frontier economies. WIPO's **2015 World Intellectual Property Report** looks at six transformative technologies, and explores the role of intellectual property in innovation.

**1836 Steam Locomotive**  
1<sup>st</sup> numbered US patent on the locomotive steam-engine



**1856 Plastics**  
1<sup>st</sup> man-made plastic invented, patented and trademarked as Parkesine



**1866 Scientific Plant Breeding**  
Mendel's scientific publication on plant hybridization



**1905**  
First successful high-yielding wheat hybrid

**1879 Automobiles**  
Benz patents Vehicle with gas engine



**1908**  
Ford mass-produces the Ford T

**1906 Airplanes**  
Santos-Dumont flies his 14-bis  
Wright brothers patent the Flying machine



**1837 Electric Telegraph**  
Cooke and Wheatstone patent the Five needle telegraph



**1858**  
1<sup>st</sup> transatlantic telegraph message

**1856 Industrial Steelmaking**  
Bessemer patents an Improvement of the manufacture of iron and steel



**1876 Telephone**  
Bell patents Improvement in telegraphy



**1879 Electric Lamp**  
Edison patents the Electric lamp



**1897 Radio**  
Marconi patents Transmitting electrical signals



**1911 Nuclear Energy**  
Marie Curie wins her 2<sup>nd</sup> Nobel Prize



**1954**  
Nuclear plant APS-1 generates electricity for commercial use

**1929 Pharmaceuticals**  
Fleming discovers Penicillin



**1947**  
Mass production of Penicillin

**1950 Semiconductors**  
Bell Labs' Semiconductor patent

**1977**  
1<sup>st</sup> Commodore PET sold



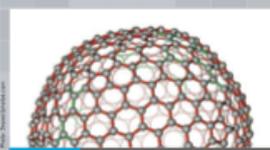
**1954 Robotics**  
1<sup>st</sup> industrial robot

**1996**  
Deep Blue beats chess master Kasparov




**1969 Internet**  
ARPANET network deployed

**1991**  
WWW is created at CERN



**1981 Nanotechnology**  
Scanning probe microscopy developed

**2005**  
Bicycle with nanotubes frame in the Tour de France



**1925 Television**  
Jenkins patents "Transmitting pictures by wireless"

**1952 Supply Chain Innovation**  
Barcode patented



**1953 Just-in-time Manufacturing**  
Toyota implements Kanban for lean production

**1957 Sustainable Energy**  
Solar cells are patented




**1973 Mobile Phone**  
1<sup>st</sup> mobile telephone call

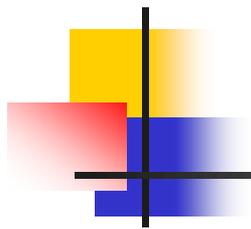
**1992**  
1<sup>st</sup> SMS sent



**1987 3D Printing**  
Industrial 3D printers commercial

**2009**  
Low-cost 3D printers commercial

Source: World Intellectual Property Report 2015  
Infographic: InfographicWorld/WIPO



***Thank you***