

# **WIPO Day**

## **India Patent Office, Chennai**

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### **Software Patents**

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**DISCLAIMER! NOT LEGAL ADVISE!!**

# Patents: Some Numbers

- **Comparison of Number of US patents by Countries of Origin**  
- **Definition: Based on first named inventor**

Country	2000 Patents	2001 Patents
USA	97,014	98,666
Japan	32,924	34,891
India	131	179
Taiwan	5806	6545

Table I

## Patents: Some Numbers (Continued)

- Prolific Patentees in US

Company	Patents in 2001 (Rank)	Patents in 2000 (Rank)
IBM	3411 (1)	2886 (1)
NEC	1953 (2)	2021 (2)
Micron	1643 (4)	1304 (7)
Samsung	1450 (5)	1441 (4)
Sony	1363 (7)	1385 (6)
HP	978 (15)	901 (16)
TI	799 (17)	686 (21)
Fujitsu	1166 (10)	1147 (10)

Table 2

# **Patents: Policy Considerations**

**- Initially: Encourage Public Disclosure in Return for Limited Monopoly**

**-Now: Cost of Bringing Idea to Market Place vs. Restraint on Free Flow**

**-India:**

**- ‘Bangalore’ an extension of ‘Silicon Valley’**

**- Barriers disappearing for equal opportunity in creation of wealth**

**= Literate vs. illiterate**

**= Location**

**= Access to capital**

**= Access to markets**

# Software Patents – US Perspective

- **‘Everything under the Sun’ Standard**
  - **Limited by Obviousness/usefulness**
  
- . **Considerations**
  - = **Minimum difference from prior art**
  - = **‘Direct infringement’**
    - **Understand the channels of trade**
  - = **Helping examination**

# Claims in Information Technology

## - Apparatus

- = **Component**
- = **Computer readable medium**
- = **'Means for'**
- = **Memory storing a data structure**
- = **Medium carrying a signal**
- = **Computer programmed to operate a specific way**
- = **Vonneumann architecture**

## - Method

- = **Even in circuit technologies**
- = **Method implemented in computers**
- = **Business Methods: Computer implemented methods**

# Patents: What Can Be Patented

## . Approach

- **HOW YOU ADVANCED YOUR BUSINESS SPACE**
- **Patent even simple stuff, not necessarily just complex ideas**
- **In technology companies, potentially limited only by budgets**
- **Necessity is the mother of invention**

## • Typical Questions to Ask

- **Marketing/sales: Product/Service Differentiation**
- **Technologist: Why is your product/service cheap/fast  
/consumes less power/better**

# Patents: What Can Be Patented

- **Define Process for Identifying Patentable Ideas**
  - **Integrate with your business process**
  - **Potentially as soon as the feature is identified**
  - **Conduct product reviews**
  - **ANTICIPATE THE SPACE AND FILE CONCEPT PATENTS**
- **Broad Categories**
  - **Product features**
  - **Architectures**
  - **Circuit Designs**
  - **User interfaces**
  - **Technology Enabled Business Models**



# Patents: What Can Be Patented

- **Software is PATENTABLE with proper characterization**
  - **Computer configured to provide specific features/functions patentable**
  - **Focus on the technical aspects enabling a feature**
  - **LIMITED ONLY BY PRIOR ART/OBVIOUSNESS Considerations**
- **Obviousness**
  - **Fairly complex question, but a lot of guidance from case law**
  - **If different from prior art and motivation not in prior art, likely non-obvious**
  - **If solves a long-felt need (but not solved/recognized), likely non-obvious**
- **Hypothetical: Windows**
  - **Assumed Prior art: Text-based user interface, which is not user friendly**
  - **Von Neumann architecture associating an action with an icon display and executing the action when the icon is selected**

# Patents: What Can Be Patented

- **Hypothetical: Power-point**
  - **Assumed Prior Art: Competing products did not recognize need to rehearse timings**
  - **Processors which enable slides to be viewed and displays a counter representing the amount of time elapsed**
- **Simplicity does NOT translate to obviousness**
  - **Motivation to modify or combine prior art should be shown of record for obviousness**
- **Hypothetical: Micro-wave Oven with a one-touch button**
  - to increase 'time' by 30 seconds
  - **Assumed Prior art: Need to touch several buttons to start/add time!!**

# Patents: What Can Be Patented

- **Hypothetical: An option in notebook touch-pad configuration which disables response to tapping while TYPING**
  - **Assumed Prior Art Problem: hand on the pad leads to unintended cursor movements**
- **Observe industry trends and patent the future advancements**
  - **Need to describe ‘how to make and use the invention’**
- **Lemelson’s Inventions**
  - **Robotics and MANY MORE**
- **Katz inventions**
  - **Applications (calling cards, ordering flowers, etc.) based on DTMF**
- **Design Choices for backward compatibility**

# Patents: What Can Be Patented

- **Patents for Business Methods**
  - **State Street Case: Hub and Spoke Mechanism to manage fund inflow-outflow using computers**
  - **One way to state US patent office position at one point: A well-known business process does not necessarily render obvious similar process implemented using the web**
  - **Possibly more scrutiny under obviousness criteria**
- **Focus on technology in the patent application**
- **Ensure claims directed to infringing activities + desired infringers**
  - **User interface claims**
  - **Computer Program Product Claims**
  - **Medium Claims**
- **Related question - Do I need to patent the business methods**
  - **E.g., banks**

# Patents: What Can Be Patented

- **New combination of old elements patentable**
  - Look for a new use/utility from the combination
- **Old concept in a 'new' area potentially patentable**
  - Some Relevant Questions: How dissimilar are the two areas?  
Is the problem in the new area recognized?  
How similar are the problems addressed in the two areas?
  - Example: A cache to speed-up a micro-processor may not render obvious the use of a buffer to speed-up accesses to a disk

# Patents: General

- **Patents ONLY PRESUMPTIVELY valid**
  - **In US Laws, burden on the alleged infringer to invalidate the patent**
  - **Transaction cost to invalidate could be high (a barrier)**
- **Hard to design products in IT without infringing patents**
  - **Practically what do we do?**
- **Prior art searches**
  - **Looking at information at least 18 months old**
  - **Business Considerations: Why are we doing this?**

# THANK YOU!!!