# Interaction between Intellectual Property and Innovation Systems

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#### The U.S. Intellectual Property System

- Held in High Respect Within and Outside the U.S.
- ☐ IP Rights Being Aggressively Extended, Asserted & Enforced
- Coincides With a Period of Economic High Productivity
- □ How Well Does It Support Invention?

#### Concerns and Criticisms

- □ Concern for patent quality
- □ Difficulty negotiating patent thickets especially in cumulative technologies
- □ Increase in defensive patenting
- □ Rising transaction costs
- □ Incursions on public domain of ideas
- □ Impediments to research

### Contrasting Different Forms of IP

	Copyrights	<u>Patents</u>	Trade secrets
Can you go there?	YES – except for software's hidden "source code"	YES – upon publication	NO
Can you stay there?	NO – except for "fair use" of short quotes	NO – not without licensing	NO
Can you do it yourself?	YES – express the ideas differently	NO – the basic ideas are protected	YES – come up with the ideas on your own

#### Economics of the Patent System

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Effects on:	Benefits	Costs
Innovation	<ul> <li>□ Creates an incentive for research and new product/process development.</li> <li>□ Encourages the disclosure of inventions.</li> </ul>	<ul> <li>□ Impedes the combination of new ideas and inventions.</li> <li>□ Raises transaction costs for follow-on inventions.</li> <li>□ Provides an opportunity for rent seeking.</li> </ul>
Competition	□ Encourages the entry of new (small) firms with a limited asset base or in early stages of financing.	<ul> <li>□ Creates short-term monopolies that may become long-term network industries.</li> <li>□ May be used to maintain a cartel.</li> </ul>

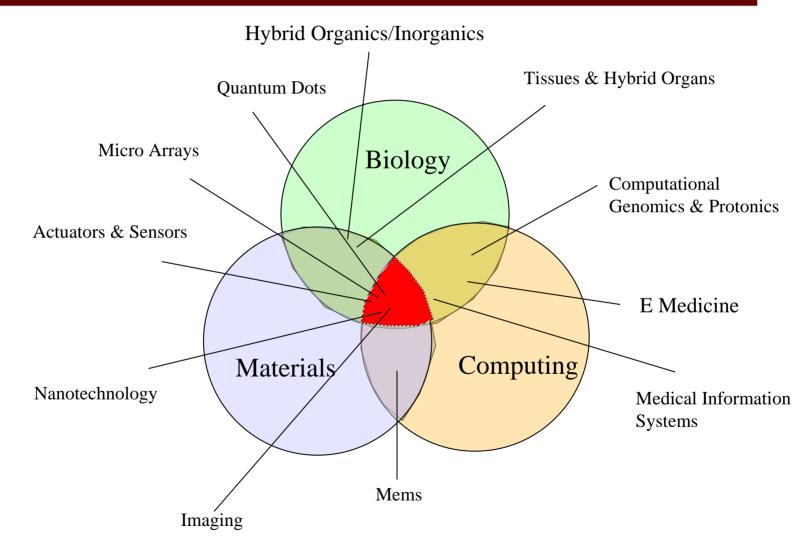
#### Incentives and Rewards for Invention

- □ The Inventor:
  - Solving Important Technology in Use Problems
  - **■** Professional Reputation, Recognition and Advancement
  - Altruism
  - Financial Gain
  - Intellectual "Currency Within Organization
- **□** Patents Are a Secondary Incentive for Invention
  - Increased Innovation → Increases in Patents
  - Importance Highly Sector Dependent
  - Only 10% are Important and 1% Are Seminal

#### Incentives and Rewards for Patents

- □ However for the Inventor/entrepreneur Patents Support:
  - Opportunity to Start Companies
  - Early Stage Funding
- □ A Form of Insurance
  - 10% of US Patent Applications Challenged
  - 2 % of Patents Litigated
  - Threat can be extremely high for small firm
- □ A New Form of Currency for Exchange
  - Patents can provide access to needed technology
- □ A Qualified Option for Future Investment

#### Hot Spots of Confluence



## Continuing Issues

- 1. U.S. Patent Reform Act 2005
- 2. Biotechnology Patent Boundaries
- 3. Harmonization
- 4. Developing Nations
- 5. Science Exemption
- 6. Proprietary v.s Open Source Software
- 7. Free Use of IP?