

# Entrepreneur-Professor Partnership: Issues, Challenges and Suggestions



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These slides are available at:

<http://www.cse.wustl.edu/~jain/talks/tie1103.htm>



1. Paradigm Shifts: With and Without Universities
2. Issues: Entrepreneur vs. Professor
3. Professors: Challenges and Advice
4. Advice to Entrepreneurs

# Paradigm Shifts from Universities

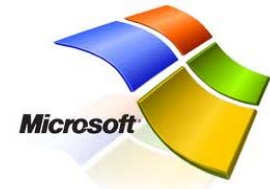
- ❑ Internet (from ARPAnet)
- ❑ Minicomputing  
(from Lincoln Labs/MIT)
- ❑ Google  
(Page Rank from Stanford)
- ❑ 3COM Ethernet  
(Dr. Robert Metcalf/MIT/Parc)
- ❑ Qualcomm CDMA  
(Dr. Irwin Mark Jacobs/UCSD)

Note: Just random examples,  
not the top 5 list.



# Paradigm Shifts Not from Universities

- ❑ Microsoft (personal computing)
- ❑ Apple (personal computing, smart mobiles)
- ❑ Facebook (Social Networking)
- ❑ YouTube (Video Sharing)
- ❑ Twitter (Micro blogging)



# Paradigm Shifts with Entrepreneur + Professor Partnerships

- Netscape (James Clark+UIUC)
- Genentech (Robert Swanson VC  
+ Dr. Herbert Boyer)



# Entrepreneur vs. Professor: Issues



Laxmi: Goddess of Wealth      Saraswati: Goddess of Knowledge

Different Belief Systems

# Entrepreneur vs. Professor: Issues (Cont)



- ❑ Different Motivators: Money vs. publications
- ❑ Different requirements: customers vs. citations
- ❑ Different Languages: English vs. Greek  $\lambda$ ,  $\mu$ ,
- ❑ Different Playgrounds: Business vs. Technical Conf.
- ❑ Different time scales: Short-term vs. Long Term

# Professors: Challenges



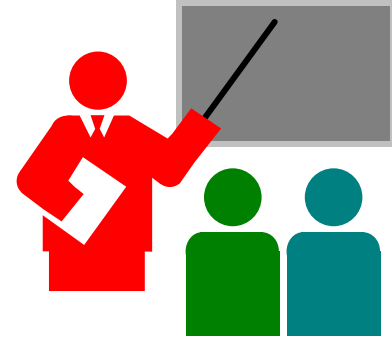
- ❑ Success measured by publications
- ❑ NSF mostly funds long-term research
- ❑ Most professors have no "real-world" experience
- ❑ Get too deep in one area  
⇒ Can't move with fast changing world
- ❑ No topics remains hot for 5 years (Time for a PhD)



# Advice to Professors

- ❑ Balance your research investment:
  - Long term
  - Medium Term
  - Short Term
- ❑ Measure your success not by publication but by industry adoption
- ❑ Go an extra mile: Take your research to industry forums (Standards bodies)
- ❑ Attend industry forums (TIE meetings, Business shows)

# Advice to Entrepreneurs



- ❑ Find technology cheap (Netscape)  
⇒ Visit universities: Midwest is best  
Current Possibilities: Delay Tolerant Networks (DTN),  
Content Centric Networks (CCN),  
Service Delivery Networks (SDN)
- ❑ Attend technical conferences to find uncharted territories
- ❑ Easier to deal with professors that participate in industry forums: Standards bodies, TIE meetings
- ❑ Try SBIR/STTR with university collaboration
- ❑ Get credibility by having an advisory board of leading professors

(VCs need to help connect Entrepreneurs with professors)