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
Overview

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 unchartered 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)