The New Guide
To University Innovation

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• It’s not enough to just publish
• Tech transfer: maximize impacts
• Innovation: more than licensing IP
• Rules of the game will change again
Opportunity and Need

- US: $50B university research
- Almost no support for programs
- Publicly-funded research critical to innovation
Annual impact of inventions*

• 648 new commercial products
• 595 new companies
• 3,381 startups still operational
• 72% startups within home state

*AUTM 2008 university licensing survey
Universities focusing more...

• Proof of concept funds
• Translational research programs
• Mentoring
• Incubators and research parks
• University-wide entrepreneurship
Service

Revenue

Impact
University Innovation 1.0: Maximizing Impacts of Tech Transfer
Measuring Economic Impact

Source: Lori Pressman
Measuring Economic Impact

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Measuring Economic Impact

- Research Funding
  - Invention Disclosures
  - Issued U.S. Patents
  - Licenses
    - New Companies
    - New Products
  - Induced Investment
  - Licensing Revenues
  - $ to Inventors Personally

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Measuring Economic Impact

- Research Funding
- Invention Disclosures
- Issued U.S. Patents
- Licenses
- New Companies New Products
- Induced Investment
- Product Sales
- Licensing Revenues
- Jobs
- Payroll, Sales, CG Taxes
- $ to Inventors Personally

Source: Lori Pressman
Measuring Economic Impact

New Companies
New Products =
PUBLIC BENEFIT

Research Funding → Invention Disclosures → Issued U.S. Patents → Licenses → Induced Investment

Licenses → Product Sales

Product Sales → Jobs

Jobs → Payroll, Sales, CG Taxes

Licensing Revenues

$L$ to Inventors Personally

Source: Lori Pressman
Service

Revenue  Impact
University Innovation 2.0: Beyond Licensing
Consider the impacts of...

- Linux
- MOSIS IC fabrication platform
- Human Genome Project
- OpenCourseWare
- World Wide Web
“Patents are a relatively small channel for the transfer of knowledge out of the university”

- Agrawal and Henderson 2002
University Knowledge Channels

- Patents and licenses: 7%
- Collaborative research: 12%
- Co-supervising: 9%
- Recruit grads: 17%
- Publications: 18%
- Conversations: 6%
- Conferences: 5%
- Consulting: 26%
- Patents and licenses: 7%

Agrawal and Henderson 2002
2008 USC student survey

• ~50% have business idea
• 57% expect to start new venture
• 42% expect to start non-profit
Average age of successful tech entrepreneur when founded business? 40
INNOVATION
Innovation is not always IP owned by the university
Innovation is not always best served by patenting
Innovation is not always stemming from faculty
Innovation is not always solely based on technology.
Innovation is not always for profit
Scale
Sustainability
Impact
Innovation: educational mission

- Student interns
- Commercialization teams
- Academic programs
- Co-curricular opportunities
- Mentoring
Service

Revenue   Impact
Service = no complaints?

Revenue  Impact
Service = patent everything?

Revenue  Impact
Service = education ecosystem

Revenue Impact
Developing lifelong innovators
What we could measure

• Number of entrepreneurs “created”
• Diversity of participation
• Rules and processes changed
• Programs / best practices copied
I met so many interesting people, and had my mind completely blown by some of the talks.
TEDx is a new program that enables local communities such as schools, businesses, libraries, neighborhoods or just groups of friends to organize, design and host their own independent, TED-like events. Learn more »
Challenge:
How does this get funded?
University Innovation 3.0: Beyond the Horizon
• Grand challenges
• Interdisciplinarity
• New collaboration tools
• Globalization
• Open access
• New IP landscape
• Social Innovation
• Digital scholarship
• Open access
• New IP landscape
• Social Innovation
• Digital scholarship
• Shift in research funding
• New financing models
• Strategic university partnerships
Empowering University Innovation

Create a robust ecosystem

Nurture a culture of innovation

Effectively transfer ideas

Develop lifelong skills for innovation
How to drive more innovation...

• Measure impacts broadly

• Create lifelong innovators

• Adapt to (and help drive) changing landscape

...TTOs should be supported and central (not marginalized) in all these activities
Thank you!

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