

# **Smart Universities**

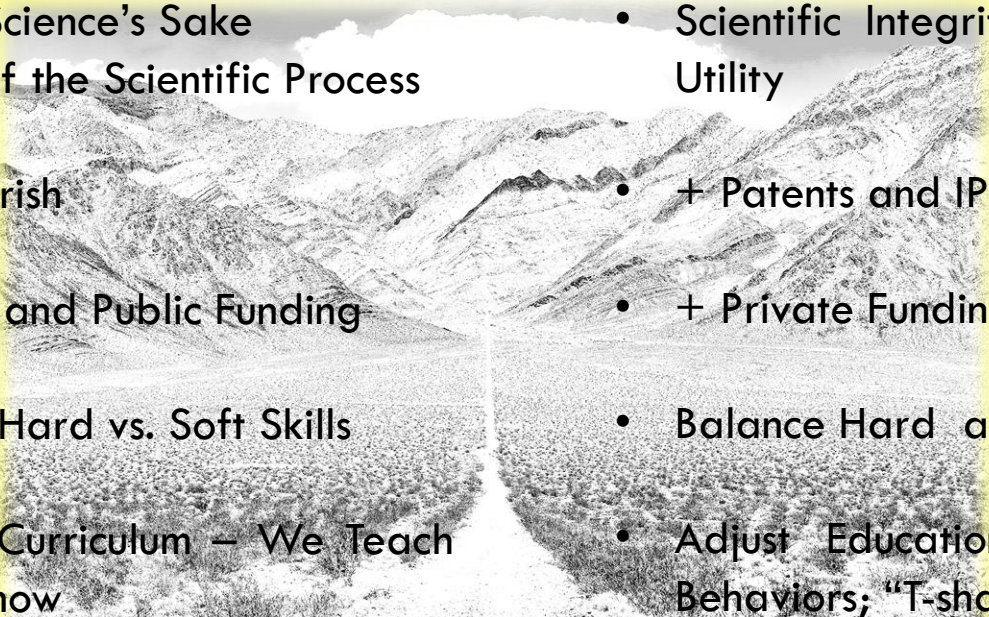
**Charles K. Whitehead  
Cornell University**

# Death Valley → Silicon Valley

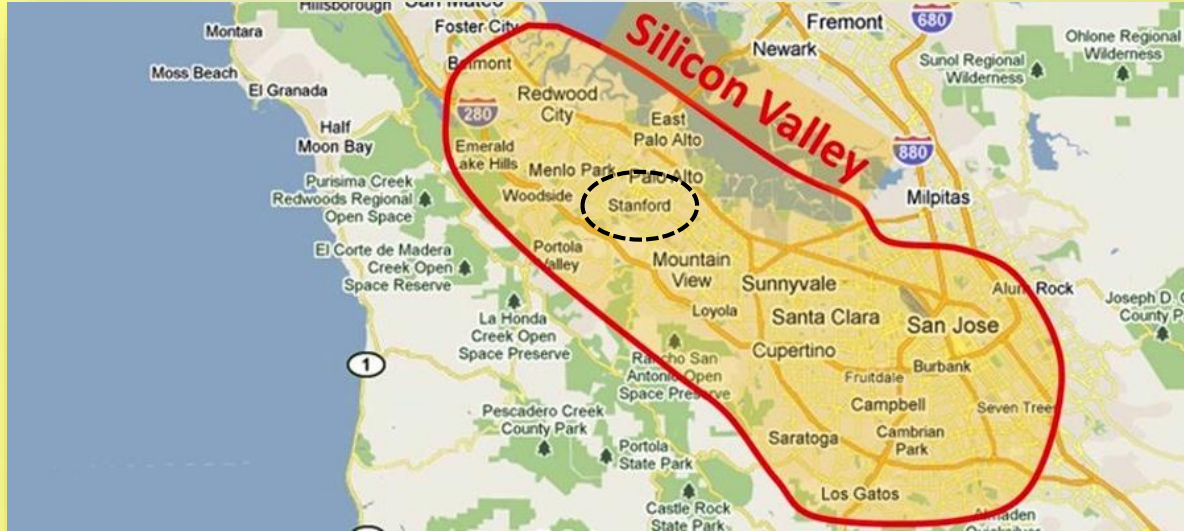
- Science for Science's Sake
  - ✓ Integrity of the Scientific Process
- Publish or Perish
- Government and Public Funding
- Hierarchies; Hard vs. Soft Skills
- Educational Curriculum – We Teach What We Know



# Death Valley → Silicon Valley

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- Science for Science's Sake
    - ✓ Integrity of the Scientific Process
  - Publish or Perish
  - Government and Public Funding
  - Hierarchies; Hard vs. Soft Skills
  - Educational Curriculum – We Teach What We Know
  - Scientific Integrity + Public Benefit/  
Utility
    - + Patents and IP Rights
    - + Private Funding
  - Balance Hard and Soft Skills
  - Adjust Education to Promote New Behaviors; “T-shaped” Students

Stanford → Silicon Valley



# Stanford → Silicon Valley

“At Stanford more than elsewhere, the university and business forge a **borderless community** in which **making money is considered virtuous** and where participants profess a sometimes inflated belief that their work is **changing the world for better**. Faculty members commonly invest in start-ups launched by their students or colleagues. There are probably more faculty millionaires at Stanford than at any other university in the world.”

– The New Yorker, April 30, 2012

# Stanford → Silicon Valley

- Founded in 1891 as a campus that would “qualify its students for personal success, and direct usefulness in life”
- From early days, engineers and scientists attracted government/corporate research funds and venture capital for startups
  - ✓ Federal Telegraph (radios), founded in 1909
  - ✓ First President, David Starr Jordan

# Stanford → Silicon Valley

- Frederick Terman, “father of Silicon Valley,” joined Stanford in 1925
  - ✓ Encouraged William Hewlett and David Packard to construct a new line of audio oscillators
  - ✓ Founded Stanford Industrial Park to lease space to tech firms
  - ✓ Encouraged faculty to become paid consultants to businesses, and encouraged businesses to come on campus

# Stanford → Silicon Valley

Stanford University is “the germplasm for innovation. I can’t imagine Silicon Valley without Stanford University.”

- Partner at VC firm Kleiner Perkins (Google, Amazon)
  - ✓ Regularly visits the Stanford campus to scout for ideas



# Stanford → Silicon Valley

- Concerns that corporate and government funding warp research priorities
  - ✓ Faculty and students have a “gold rush” mentality
  - ✓ Has Stanford struck the right balance between commerce and learning, between intellectual discovery and skills to “make it”?

# Bridging Death Valley

M TECH TRANSFER  
UNIVERSITY OF MICHIGAN

Inventors Industry Startups Explore

← 1 of 8 →

**>150**  
**PATENTS**  
ISSUED EACH YEAR

LEARN MORE

← 2 of 4 →

Fueling economic development.  
Improving our communities and quality of life.

The screenshot displays a website layout for 'M TECH TRANSFER UNIVERSITY OF MICHIGAN'. The top navigation bar includes links for 'Inventors', 'Industry', 'Startups', and 'Explore', along with a search icon. The main visual is a large photograph of two men in a professional setting. A dark blue callout box on the left contains the text 'Fueling economic development. Improving our communities and quality of life.' A prominent blue box on the right features the statistic '>150 PATENTS ISSUED EACH YEAR' and a 'LEARN MORE' link. A secondary navigation bar at the bottom shows a sequence of four small images, with the second one highlighted, and the text '← 2 of 4 →'.

# Bridging Death Valley

## Our Mission

Our mission is to effectively transfer University technologies to the market so as to generate benefits for the University, the community and the general public.

## What We Do

Our tech transfer team offers a full set of services to ensure effective technology transfer:

- Invention Disclosure Facilitation – We work with researchers and faculty to provide advice about potential tech transfer issues during research activities and to assist in the invention disclosure process.
- Patenting and Other Protections – We provide guidance in planning an effective patent, copyright, or trademark strategy and handle all implementation details during the protection stage.
- Start-up Assistance – We provide proactive assistance in analyzing potential opportunities to form a start-up based upon U-M technology and encourage this interaction during the early invention disclosure process. Our skilled New Business Formation Staff also provides hands-on business assistance, project planning and links to funding and people resources.
- Licensing – We assist in technical and market assessments and actively market U-M technologies to industry partners. We create secrecy, evaluation, material transfer, option and license agreements with these industry partners to effectively get our technology into commercial use.
- Legal Support – Our two resident Office of the General Counsel attorneys provide legal guidance and assistance for all of our activities.
- Decision Support – Our business and administrative staff provide information and guidance to conduct our business and expedite decisions by internal and external partners. We also advise interested parties on U-M policies & procedures including conflict of interest issues.

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# Bridging Death Valley


Talent [Funding](#) [Accelerator](#) [Connections](#) [Our Work](#) [Portfolio](#)

The Venture Center has a team of venture specialists experienced in managing a portfolio of projects with the technical and market backgrounds to help assess, develop and launch great U-M startups.



**Venture Center Staff**  
The Venture Center staff make all the difference from assessing to unleashing the value of U-M startups. Our team has diverse backgrounds and experiences to ensure that each technology has the appropriate support, guidance and connections to entrepreneurial and funding partners. . . [Meet the Staff](#)

**Mentors-in-Residence**  
In addition, the Venture Center has a team of Mentors-in-Residence (MIRs) who are seasoned entrepreneurs working within U-M Tech Transfer bringing a wealth of entrepreneurial experiences and connections to your startup project. Each MIR handles a portfolio of projects, providing a rich set of expertise to help create great startups . . . [Meet the MIRs](#)



**Talent Resource Network**  
Tech Transfer's talent network is comprised of:

- Mentors – venture professionals who volunteer to guide the formation and development of a startup project
- Consultants – specialized resources that can be retained to address challenging market, technical or business issues
- Management – pool of candidates for interim or longer-term management roles for a startup who are available to advise and assist on a wide range of subjects

Most members of the network have been referred to U-M Tech Transfer by other network members.

**Get Started**

Let's talk.

Contact us at 734.763.0614 or email [U-M Tech Transfer](#).

[Click here for your team member.](#)

BY THE NUMBERS

**>150**  
PATENTS  
ISSUED EACH YEAR

POWERED BY MICHIGAN

# Cornell Tech → New York City

## MISSION

Reinvent graduate education and research for the digital age, integrating technology, business, law, and design in service of economic impact and societal good

## HISTORY

2011 winner of global competition to establish a new or expanded state-of-the-art applied sciences and engineering campus in New York City

## PARTNERS

Cornell University

Technion-Israel Institute of Technology

# Cornell Tech Campus



# Cornell Tech Campus





# Cornell Tech Campus



# Cornell Tech Campus



# Graduate Curricula

**ONE YEAR**

**Professional Programs**

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**JOHNSON CORNELL TECH  
MBA**

**MASTER OF LAWS (LLM) IN  
LAW, TECHNOLOGY &  
ENTREPRENEURSHIP**

**ONE YEAR**

**Master of Engineering**

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**COMPUTER SCIENCE**

**OPERATIONS RESEARCH &  
INFORMATION  
ENGINEERING**

**ELECTRICAL & COMPUTER  
ENGINEERING**

**TWO YEARS**

**Master  
of Science**

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**CONNECTIVE MEDIA**

**HEALTH TECH**

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