

Building the 21st Century Iowa Economy: Dare Mighty Things



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THE UNIVERSITY
OF IOWA

Discussion roadmap

Dan Reed précis

Accelerating, disruptive change

A few lessons I've learned and their economic implications

University of Iowa economic development practicum

My commitment to you



Dan Reed synopsis



- University professor and leader
- Research institute director (NCSA, RENCi)
- National and international science and technology policy (PITAC, PCAST, ...)
- **NCSA Private Sector Program (PSP)**
- **RENCi statewide engagement centers**



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL



- Corporate Vice President
- Radical technology incubation at scale
- Technology policy and implications
- **Innovation Outreach Program (IOP)**

Faster, faster, faster ...

Rapid, unrelenting globalization

- Social, economic and technological disruption
- Economic disintermediation and consumerization
- Supply chain optimization and cost management

Mobile, global workforce

- Freelancers follow the opportunities, often working remotely
- Rising educational attainment needs and expectations
- Global competition for the most talented and well educated

Emerging economies in the East

- Majority of middle class expansion is in China and India
- Huge global debt saddling the U.S. and the EU
- Slow and painful recovery from massive deleveraging

Rising natural resource competition

- Emerging economies driving scarcity
- Global environmental and economic impact

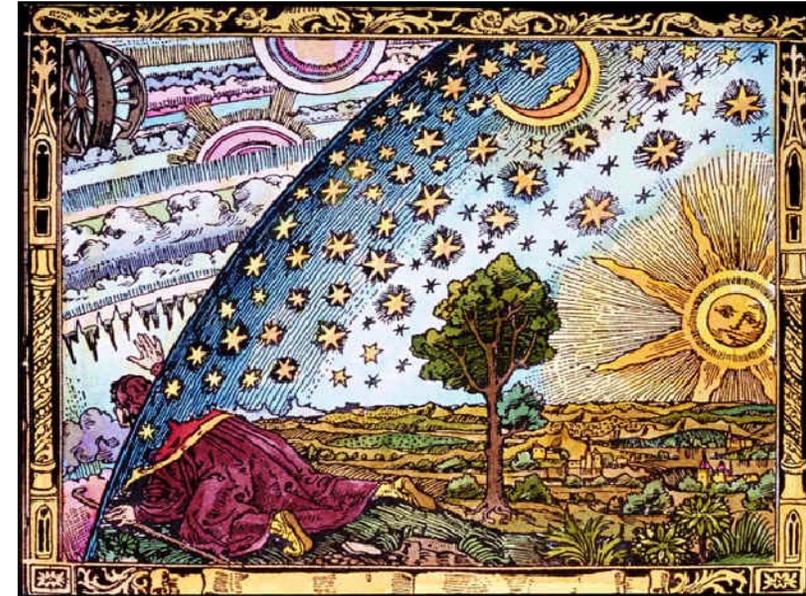


Disruption brings opportunity

Perpetual, “generational” change – every five years

The challenges and opportunities

- Increasing competitiveness
- Translating research into practice
- Fostering entrepreneurship and creating jobs
- Training and educating our workforce
- Addressing critical societal problems



We can do this. We can build the 21st century Iowa economy – *together*.

My message to the Regents, the state and the business community

- A new, more muscular engagement from the University of Iowa

A few transferrable lessons from the IT world

Focus the paranoia

Only the paranoid survive.

*Success breeds complacency.
Complacency breeds failure.
Only the paranoid survive.*



Andy Grove
Intel

Play a new game

*The only big companies that
succeed will be those that
obsolete their own products
before somebody else does.*



Bill Gates
Microsoft

Build a moat (sustainable advantage)

Let me Google it.



Eric Schmidt
Google

Beat cheap with better

And one more thing ...

Insanely great!



Steve Jobs
Apple

A few transferrable lessons from the IT world

Understand wholesale transfer pricing

We didn't call it NetDVDs.

On the Internet you get continuous innovation, so every year is a little better.



Reed Hastings
Netflix

Embrace failure as a teacher

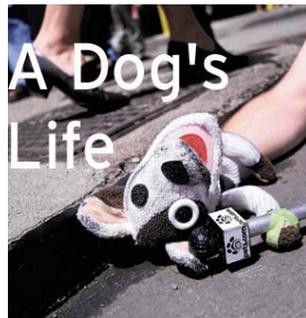
*Don't worry about failure.
You only have to be right once.*



Drew Houston
Dropbox

Reality trumps marketing

Good judgment comes from experience. Experience comes from bad judgment.



Bet on people

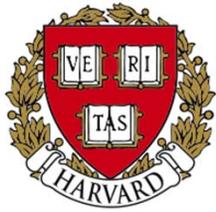
*Once you're lucky,
Twice you're good.*



Max Levchin

Elon Musk

Public research universities: punctuated equilibrium



Nine "Colonial Colleges"



Servicemen's Readjustment Act of 1944 (GI Bill)

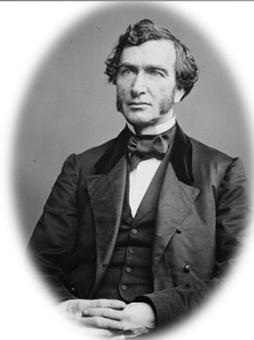


National Defense Education Act of 1958



Civil Rights Act of 1964

Quo Vadis



Agricultural College Act of 1890 (HBCUs)



1945-1950

Science: The Endless Frontier
Federal Research Programs

Higher Education Act of 1965



Title IX 1972

Morrill Act of 1862
(Land Grant Act)

Smith-Lever Act of 1914
(Cooperative Extension)



Public research universities: a new compact



Government



Academia



Industry

Knowledge creation and global reach
Lifelong education and skills refresh
Economic development and innovation

Global and regional competitiveness
Complex problems collaboration & insights
New partnerships with business

Bridging university and business cultures for Iowa

Research universities

- Education and ideation
- Longer time scales

Business (large and small)

- Implementation and execution
- Shorter time scales

Students are one bridge, but not enough

- They carry ideas and enthusiasm

We need *practical, engaged* partnerships

- Professional, intellectually bilingual staff
- Appropriate reward metrics and mutual commitment
- Translational R&D, applying new ideas to meet business challenges



Rethinking university economic development

Embrace business sensibilities

- Recognize the value of money, business cycles and timelines
- Implement business metrics/processes for economic development
- Educate faculty/staff/students appropriately
- Distinguish economically valuable from intellectually interesting

Enhance technology transfer

- Coordinate licensing/patents and entrepreneurship
- Rebalance shallow and deep intellectual property development
- Increase creation of rapidly commercializable intellectual property
- Triage licensable technology lists and make assessable and connected
- Recognize the value of grouped licenses and patent fences



Rethinking university economic development

Accelerate entrepreneurship

- Encourage faculty/staff/student startups via culture and policy
- Leverage incubation facilities and UI Research Park
- Increase cross-fertilization across assets

Build applied R&D partnerships

- Target real world business problems
- Develop staff and trade secret protections
- Support student internships and company evaluation of students

Take the engagement across the state

- Project skills, expertise and information
- Partner with local, state and regional economic development organizations



Building a 21st century Iowa economy

Play a new game

- Unique assets combined in innovative ways

Believe and be bold

- Embrace change and act at transformative scale

Think globally, act locally

- Success is not defined just by the borders of Iowa

Collaborate and share credit

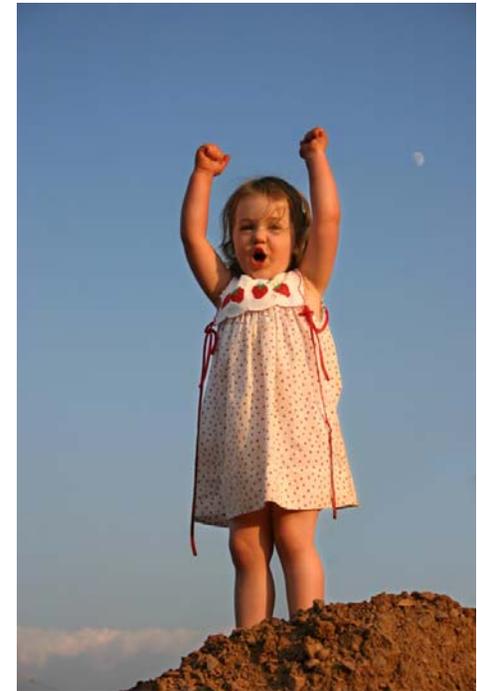
- Coordinated state, university and private partnerships

My commitment to the state

- A new, more muscular engagement from the University of Iowa

My open invitation

- Let's work together and dare mighty things



Remember, it's for her

Discussion

