Higher Education, Information Technology and Leadership: Organizational Capacity for Disruptive Times



University System of Maryland Board of Regents October 4, 2013

Outline

- Ours is a time of disruptive change
- Periods of disruption demand changes in the conduct of leadership
- IT is both a catalyst of disruption and an important potential enabler of institutional competitiveness in a disrupted context
- IT is a necessary, but insufficient enabler
- Higher Education generally and the USM particularly need to invest in both organizational capacity-building and in selective "moon shots"
- Present some areas of growing HE interest
- USM has real comparative strength, BUT
 - Real IT enablement is locked in a complex matrix of dependencies that includes incentives, governance, business processes, culture, and other factors outside its control
 - Unlocking the full capacity of IT to meet the challenges and opportunities of disruption will require focused and broad-based leadership attention on USM vision, organizational capacity, synergies, and game-changing innovations
- Structured format designed to promote lively and fun discussion

Higher Education Disruption



"... we are in the middle of a dramatic and broad technological and economic shift in which software companies are poised to take over large swathes of the economy."

Marc Andreessen

IT ON CAMPUS – ENABLER OR DRIVER?



Higher Education Disruption 101



- Unbundle It
- Digitize It
- Brand It
- Scale It (globally, if possible)
- Automate It
- "Consumerize" It
- Build an Ecosystem Around It
- Use New Business Models
- Exploit Private Capital
- Do It Quickly

Higher Education Disruption?



Current State

- A renaissance in pedagogy
- Unprecedented investment in IT to foster learning
- Remarkable expansion of educational access
- Real movement on affordability
- Pain and gain

Discussion

• Is this disruption real?

- How much of this is media hype?

- Are the examples of the recording industry, newspaper industry, publishing ... relevant?
 What can we learn from those examples
- Which segments of higher education are most vulnerable to disruption?
- Who stands to win, and who stands to lose?



Late Stage Cost Disease



"If higher education does not begin to slow the rate of increase in college costs, our nation's higher education system will lose the public support on which it so heavily depends."

Bill Bowen

Contributing Factors

Revenue Challenges



Enrollments 2011-12

Tuition DiscountsState Funding Changes,2000-122011-12

Contributing Factors

The Role of Scale: 2 Views

"Scale is the oxygen feeding the combustible mix of money, ambition, and technologydriven transformation in the [Silicon] valley ... the number of people who are potential customers is quickly moving to the number of people in the world."

Washington Monthly

Contributing

Factors

Enrollments at the two <u>fastest</u> growing (U.S.) public and private research universities grew 6.3 percent per year between 2001 and 2011.

Chronicle of Higher Education Almanac, 2013

Discussion

- While Maryland continues to show remarkable support for its university system, how do these dynamics affect the competitive climate that USM campuses operate in?
- How secure are USM revenues?
- What roles are IT playing today in containing costs or growing revenue?
- Can IT play an important part?
- Do we even talk about this?
- What constrains IT's ability to contribute to USM's competitiveness?

Here They Come



Type of Online Participation	2010	2009	2008
Took an Online Class for School	30%	18%	10%
Took an Online Class for Personal Reasons	8%	9%	4%

High School Students: Online learning supports traditional learning

Class would better fit my schedule (54%)

I could earn college credit (53%)

It would be easier to review class materials as many times as I want (38%)

Take class not offered at my school (33%)

Middle School Students: Online learning supports transformational learning

I would get extra help in a subject that is hard for me (44%)

I would be more comfortable asking my teacher questions (36%)

I would be more motivated to learn (32%)

It would be easier to share ideas with my classmates (27%)

Contributing Factors

Source: Project Tomorrow

Connectivity for Students is like Water for Fish

58% of College or University Students Own 3 or More Internet-Capable Devices



- 38% of students surveyed report that ½ or more of their courses are "blended learning"
- 41% took a "traditional" online course last year
- 76% agreed that information technology helps them achieve their academic outcomes



Source: EDUCAUSE Center for Applied Research, 2013

There They Go Generation Jobless



"We're entering unknown territory in the quest to reduce labor costs. The AI revolution is doing to white collar jobs what robotics did to blue collar jobs."

Brynjolfsson and McAfee, MIT The Race Against the Machine, 2011



Contributing Factors



New Competition Through Changing *Pedagogies*



BE04-Final-partial1.mov_H264_Widescreen_640x360 (1).mov

• Flipped Lectures

• MOOC's

- Online Learning
 - In 2011-12, nearly 620,000

high school students took at least one online course

- Adaptive Learning
- Crowd Sourcing/Social Networking



Has U.S. Higher Ed Reached The Limits of Muddling Through?



Question

- Tuition (and fee) increases
- Travel Freezes
- Across-the-Board Cuts
- Salary Freezes
- Deferred Purchases
- Signature Buildings
- Tuition Discounts
- 'Arms Race' on Amenities

Disruption Requires a Changed Response



- Adaptive Response:
 - Increase and broaden environmental scanning
 - Pilot, experiment, prototype
 - Consider Legacy Projects or "Moonshots"
 - Build a network of strategic partnerships
 - Bolster organizational capacity
- Maladaptive Response:
 - "Do things the way we have always done them because it worked in the past"
 - Disregard information sources that counter "conventional wisdom" or are non-traditional

Discussion

- Do you believe that current or evolving conditions invite (demand?) changed leadership behaviors?
- What skills do we need to rise to the top in periods of discontinuous change like this one?
- How do we regard IT in periods like this one?
 - Necessary cost center?
 - Knight in armor?
 - Public utility?
- What Roles Can Regents Play in Encouraging Innovation at USM?



Strategically, Differentiation will be Key



Minnows and Giants

Thesis

Operationally, Institutional "Capacity" will be Key

- Leadership
- Culture
- Skills
 - Data Management, Analysis,
 Modeling ...
 - Competitive Intelligence
- IT
- Ecosystem Development
- Performance Management
- Process Management
- Talent Management
- Change Management
- Fast Action



Thesis

Discussion

- Do you "buy" this thesis?
- Are educational giants & minnows knocking on Maryland's door?
 - For Profits?
 - MOOCs?
 - Public predators from Other States?
 - Credit aggregators?
 - Google, Facebook, Disney, LinkedIn
- As educational giants and minnows proliferate, does the USM <u>today</u> have the organizational capacity to effectively meet the challenge of disruption?

Questions



What I am seeing



Process Reform: Academic Transformation, Data-Driven Success Initiatives, Shared Services

Transfer and Adoption of Effective Practices

Basic Skills and Infrastructure

Capacity Building

Dominant Threads

- Student Success Management for 'Murky Middle'
 - Big Data
 - Predictive Analytics
 - Dashboards
 - Invigorated Counseling & Advisement
- Application of Improved Tools and Techniques for the Developmentally Challenged
 - Adaptive Learning
 - Boot Camp



What I See



Environmental

Scan

- Institutional Performance Management
 - Strategic Planning
 - Use of Social Media for Engagement and Alignment – and to Accelerate Progress
 - Digital "Landing Place" for Institutional Goals, Metrics, Performance Information
 - Action Tracking
 - Dashboards, Balanced Scorecards
 ...
 - Data Transparency and Rewards for Demonstrated Performance

What I See

Process Reform

- Academic Transformation
 - Student Success
 - Instructional Redesign
 - Outcomes Assessment
 - Articulation and Credit Transfer
- Business Process Reengineering
 - Design/Build for Capital Development
 - Strategic Sourcing
 - Shared Services
- IT Reengineering
 - Campus Data Center Consolidation
 - Cloud Computing for High Performance Computing
 - Support for Consumer Devices (BYOD)



What I See

- Changing Structures and Incentives
 - Responsibility Center Management (RCM)
 - All-Funds Budgeting
 - Multi-Year Budgets and Program Plans
 - Performance Funding
- Changing Curricula and Learning Space Design
- Broadening "Service Areas," including Strategic Uses of IT to extend the "footprint"

Beyond Capacity Building?



Moon Shots

- Duke University and 5
 Schools of Business in 5
 International Capitals
- UT South Texas
- Giant Minnows
- MD Anderson and the Cure for Cancer
- Massive Public-Private
 Partnerships IWU

Childhood's End?



- Higher education is a calling
- It is also a sacred trust
- Digital entrepreneurism is anchored in the credo of 'creative destruction'
- Respect for institutions is waning
- We must ensure that the baby is not thrown out with the bath water ... quickly

Discussion

- At what rate will the disruption of higher education play out?
- If disruption poses a clear and present opportunity and threat to USM component universities, how can the time of USM leaders be "liberated" [to attend to it]?
- How well do our planning processes, goals, and plans account for the possibility of rapid exogenous change?
- Can <u>we</u> lead this next educational epoch?

