Disrupting the Future

Disrupting the Future of Higher Education
Evolving Learner-Center Environments

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The State University System of Florida
Board of Governors
June 16, 2015 Tampa, FL

Questions to be addressed

1. From your perspective, what is the most strategic role online learning could play in public higher education over the next decade?

2. Are there any pitfalls the Florida Task Force should consider?

3. Are you aware of any other states that have a sound online learning strategic vision for their system of higher education?

4. The Florida Task Force is framing its strategic plan around three areas: access, quality, and affordability. Are there other major factors we should consider?

5. Are there any specific initiatives or actions you would recommend the Florida Task Force to consider in our strategic plan?

6. Florida universities seem to have two online strategies: (a) using online courses as a complement to face-to-face courses for students within driving distance, and (b) expanding access to students at a distance, such as out-of-state and international students. What advice would you give regarding these two strategies working together, and how could or should they affect future enrollment projections?

To address questions 1, 2, and 5 first

- 1. Strategic Role 2. Pitfalls 5.Strategic planning

- I need to set the context for the **forces** that are transforming higher education in a major and sometimes painful way.

- We can look at strategies that have been successful.

- We should also look closely at strategies that have NOT been successful.
    - o This actually may be more important.

- Then issues of access, affordability, and quality gain new dimensions.

- For example: today affordability DEMANDS revenue generation and not just cost cutting.

- Access DEMANDS multiple paths for students of various ages and demographics.

- Quality DEMANDS that students have robust technology and personally mediated interactions with professors and peers.

Technology Changes Society

- ## Creative Destruction
    - Joseph Schumpeter, Austrian Economist 1934
    - new products and technologies make old products and technologies obsolete
        - Videotape ->DVD-videodisc -> network delivery of digital video

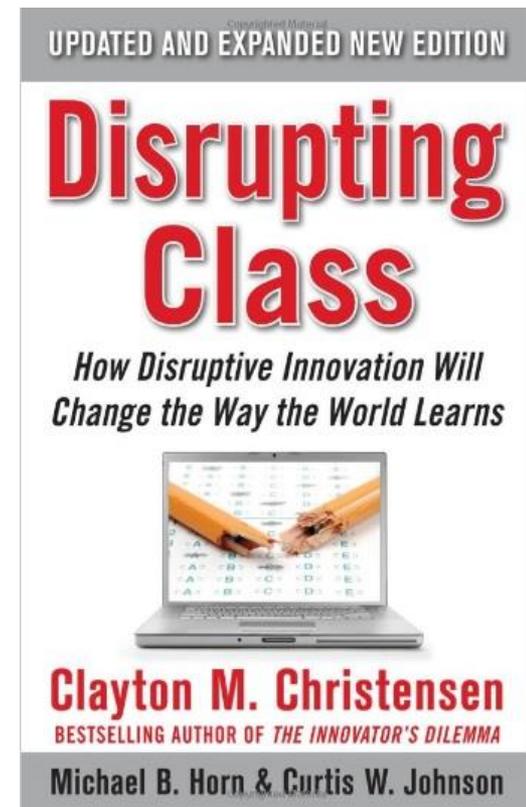- ## Disruptive Innovation
    - Clayton Christensen, Harvard, 1997
    - new products begin in new, unexplored markets but grow in quality and capability to displace older markets.
        - Mini-computer disrupted mainframes and were in turn disrupted by PC's.
        - Steel mini-mills created poor quality steel at low prices to take the least profitable part of the steel market. They then grew to displace the old-line steel companies.

Forces on Higher Education

- The Five C's - "Using the Computer in Teaching Physics," J.M. Wilson, Physics Today 42(1) (Jan. 1989).
  - Computing,
  - Communication,
  - Cognition
  - Community
  - Contemporary Issues
- Financial Change
  - Government disinvestment
  - Unsustainable price escalation
  - Consumers (students and parents) seek value
    - Value = Desired results/total cost
    - See: http://www.payscale.com/college-education-value-2013

Disruptive Innovation

- Clayton Christensen manages to write an excellent treatise on how technology is disrupting higher education.

  o He "gets" the general pattern of disruption (as expected) while missing most of the details due to a lack of understanding of some of the fundamentals of higher education marketing, branding, and pedagogy.
  (I really did come to praise him instead of burying him.)

- Missing: the cognitive science of how students learn and how learning environments need to be constructed.

- Automating ineffective technologies like lectures and other non-interactive and non-engaging activities will not do it. MOOCs are not the answer.

UPDATED AND EXPANDED NEW EDITION

Disrupting Class

How Disruptive Innovation Will Change the Way the World Learns

Clayton M. Christensen
BESTSELLING AUTHOR OF *THE INNOVATOR'S DILEMMA*

Michael B. Horn & Curtis W. Johnson

Focusing on the three C's

- For purposes of this discussion, we will consider the three C's
  - o Computers, Communication, and Cognition
- Many of the innovations that catch the eye of the public do a good job on the first two and a lousy job on the third.
  - o Cognition: The research on how student's learn is absolutely critical in creating successful learning environments.
- We know much more about how students learn, and learning environments need to change to create the engagement that leads to student learning.
- But too little of what we have learned about how students learn has been incorporated in our mainstream classes.
- Worse: we continue to use pedagogical techniques that have marginal effectiveness. In many cases the bulk of time on task is spent in marginal activity.

- "Evidence indicates that the physics community remains in a traditional mode where the primary purpose of physics education is to create clones of the physics faculty."

- "Over the past several decades, active research by physicists into the teaching of their subject has yielded important insights about what can be done to heighten the quality of students understanding of their universe, at all levels. "

- "But this new knowledge is slow to find significant adoption, nor is it fully understood by physics faculty."

    o http://www.nap.edu/openbook.php?record_id=18312&page=1
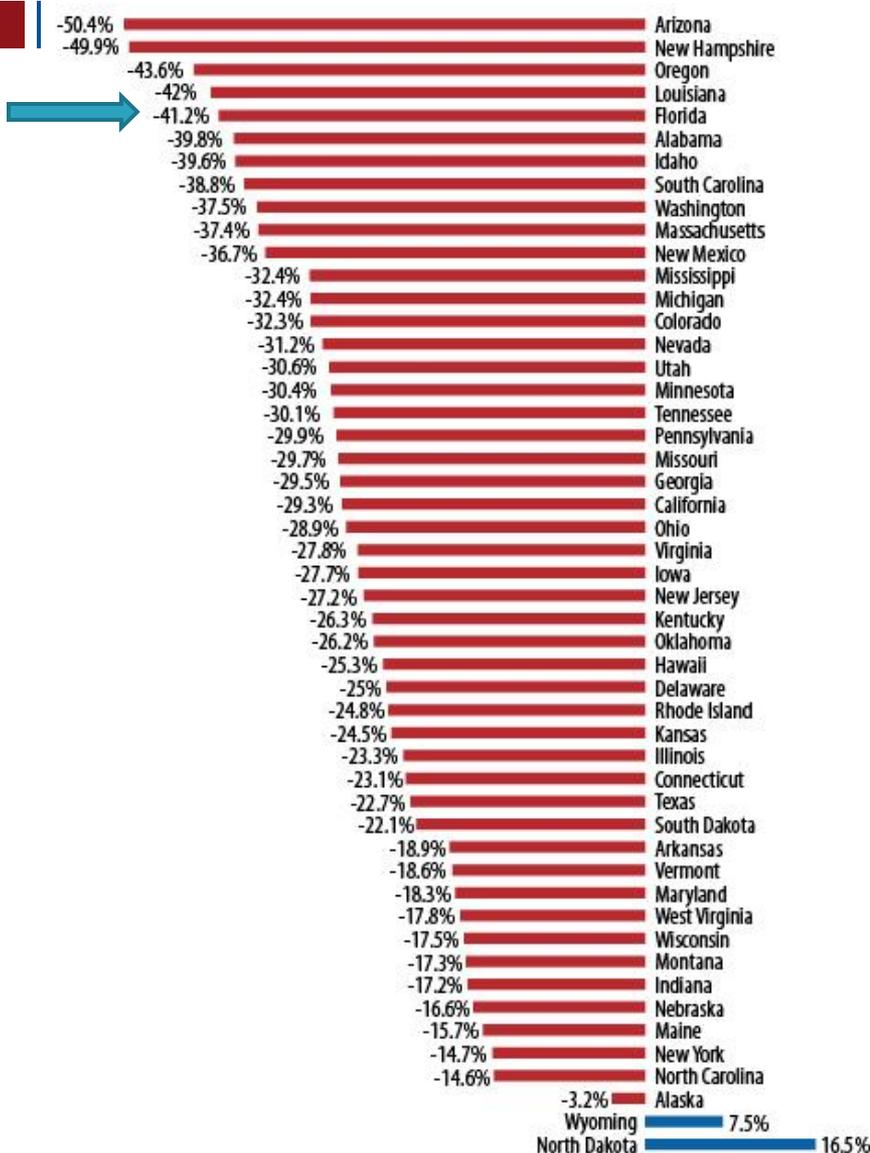
Cognition

- Physics is but one example of a general challenge.

- My involvement with the recent NRC report reminded (and saddened) me to note that educational innovation often reinvents the wheel rather than advancing our understanding –based upon the research on the way students learn.

- There are notable exceptions like:
  - o The National Center for Academic Transformation
  - o The Rensselaer Studio Courses
  - o Carnegie Mellon Open Learning Initiative (OLI).
  - o Many others but not enough.

And then there are finances…….

- The need is clear, but the support is not there

- Most states have been through a period of disinvestment in higher education that began in 2008 and has only begun to flatten recently.

- Even over the longer term, the relative share of the cost of education that is born by the state has declined.

- California has perhaps been the most watched, since it HAD been the exemplar of public support in the past.

  o My bad joke at a national conference: how UMass become more like California, but not the way we wished.

States Have Cut Higher Education Funding Deeply in Recent Years

Percent change in state spending per student, inflation adjusted, FY08 – FY13

State	Percent
Arizona	-50.4%
New Hampshire	-49.9%
Oregon	-43.6%
Louisiana	-42%
Florida	-41.2%
Alabama	-39.8%
Idaho	-39.6%
South Carolina	-38.8%
Washington	-37.5%
Massachusetts	-37.4%
New Mexico	-36.7%
Mississippi	-32.4%
Michigan	-32.4%
Colorado	-32.3%
Nevada	-31.2%
Utah	-30.6%
Minnesota	-30.4%
Tennessee	-30.1%
Pennsylvania	-29.9%
Missouri	-29.7%
Georgia	-29.5%
California	-29.3%
Ohio	-28.9%
Virginia	-27.8%
Iowa	-27.7%
New Jersey	-27.2%
Kentucky	-26.3%
Oklahoma	-26.2%
Hawaii	-25.3%
Delaware	-25%
Rhode Island	-24.8%
Kansas	-24.5%
Illinois	-23.3%
Connecticut	-23.1%
Texas	-22.7%
South Dakota	-22.1%
Arkansas	-18.9%
Vermont	-18.6%
Maryland	-18.3%
West Virginia	-17.8%
Wisconsin	-17.5%
Montana	-17.3%
Indiana	-17.2%
Nebraska	-16.6%
Maine	-15.7%
New York	-14.7%
North Carolina	-14.6%
Alaska	-3.2%
Wyoming	7.5%
North Dakota	16.5%

Source: CBPP calculations using data from Illinois State University's annual Grapevine Report. Illinois data is provided by the Fiscal Policy Center at Voices for Illinois Children. Because enrollment data is only available through the 2012 school year, the enrollment data for 2013 used in these calculations is estimated based on enrollment trends from past years.

Center on Budget and Policy Priorities | cbpp.org

- Median Cuts were 27.7%
- Press reports like to focus on two numbers for effect:
  - The high posted price of privates
    - Which are often deeply discounted
  - The large percentage increases of publics
    - Which are applied to much lower costs and driven by state cuts.
    - Actual cost increases are only 1.2% over many years.

- While all of the colleges and universities have become less stable, the problem is particularly acute at those institutions without large endowments.

- Until recently institutions could use a "price signaling strategy" (high prices signal high quality?)which works if:
  - o Other information about the quality is hard to obtain.
  - o Consumers tend to equate price with quality.
  - o There is a context in which the price quality relationship appears to hold true.

- These conditions have been largely present in higher education.

- The first condition is probably the most important:
  - o In the absence of other information, consumers will conflate price with quality.

Breaking the price-quality lever

- It is very difficult to find indicators of the quality of a higher education experience.

- Universities resist comparative testing at all costs,
  - o   and private universities resist the most.
  - o High cost private universities rely upon the consumer perceiving them as higher quality –in the absence of other information.

- Universities resist and denigrate efforts to compare the success of their graduates.

- "We Need to Sever the Iron Bond Between Price and the Perceived Quality of Colleges" Chronicle of Higher Ed. –Feb. 29, 2008
  - o Long recognized, but hard to do.

- But that is changing –and has dire implications for all of higher education

ROI: Return on Investment

- Increasingly colleges are being ranked on value or return on investment. Payscale.com is the most quoted example.
  - o http://www.payscale.com/college-roi/full-list
  - o This rewards institutions that graduate students who get higher salaries and penalizes those schools with the highest net tuition.

- This is quite a change from the time when higher education was seen as being price insensitive.

- Selected Examples: MIT – 8.2%, Stanford-7.8%, Harvard-7.2%, Georgia Tech.-11.9%, Columbia University-6.8%, UMass Lowell-9.8%, Tufts University 6.3%, Boston College-6.1%, UMass Amherst 8.5%, USC-5.2%, Northeastern University- 5.3%

ROI- Payscale -http://www.payscale.com/college-roi/

© Dr. Jack M. Wilson 2015 ff   http:www.jackmwilson.net
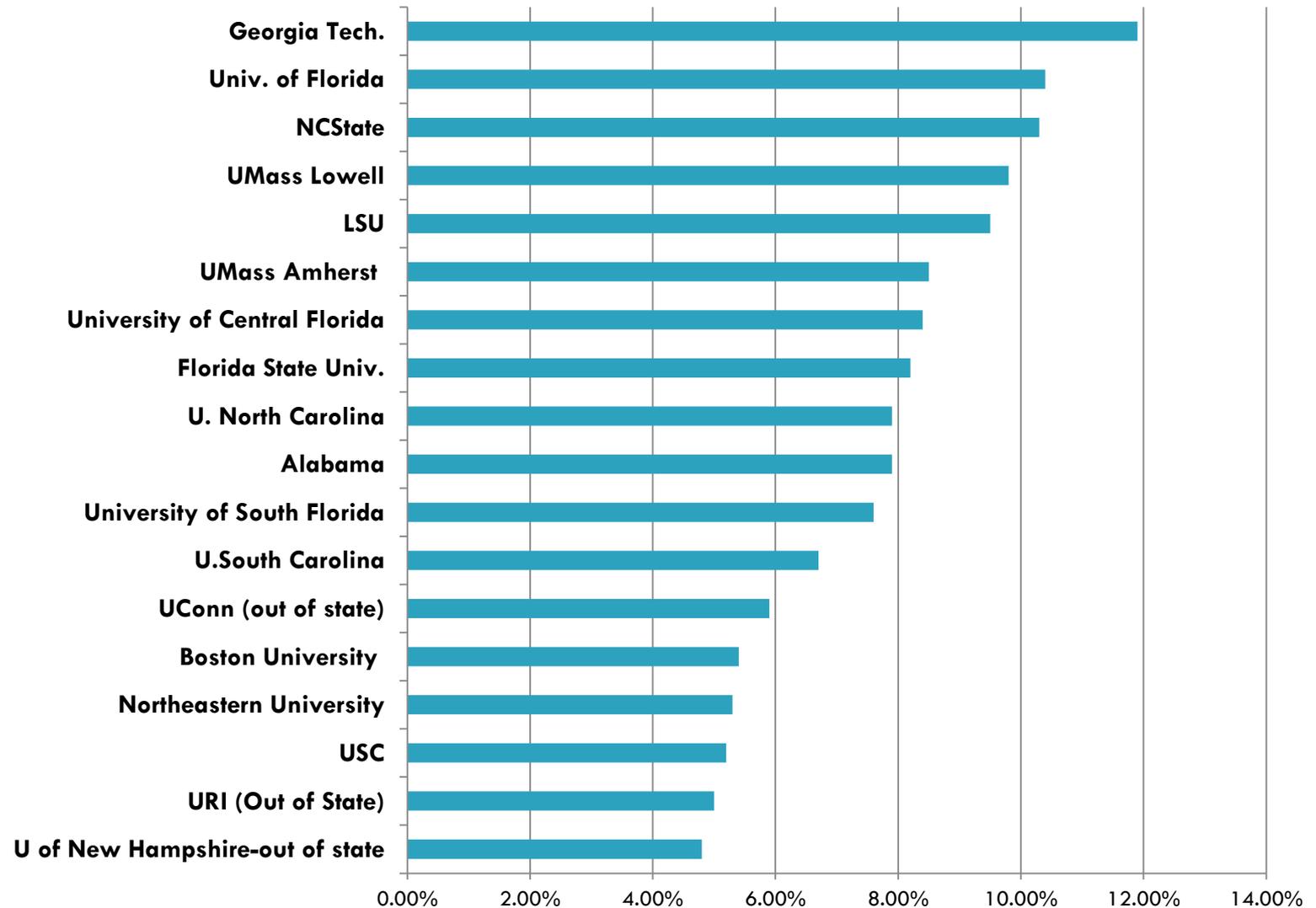
Strategies for the Future

- Challenges:
    - Public disinvestment
    - Curtailed growth in research funding
    - End of growth in potential students

- Universities must become more entrepreneurial
    - Find new sources of revenue
        - Online education, fund raising, international students, enrollment growth, joint programs with industry, etc
    - Constrain expense growth
        - Online education, blended learning, MOOCs?, etc.

Financial Challenges: The Paradox

- At the same time that Universities are facing extraordinary financial pressures due to a collapse of state revenue and endowments

- Everyone is looking to Universities to lead us out of the economic decline

- Creating futures for students and communities

- And solving social challenges like
  - improving college readiness
  - Reducing disparities (racial, economic, gender,etc)
  - Increasing graduation rates
  - Attracting students into STEM fields
  - Better matching workforce needs

Not everyone believes!

- Higher Education costs too much?

  o This widely held political position is most notable for the lack of understanding of why this might be –if indeed it really is!

  o Nonetheless- we should buckle our seatbelts for a ride to drive down the cost of higher education -and many of the "well meaning" efforts will be far more damaging than helpful.

But far too many in universities are in denial

- While change has actually been rather large scale, the conventional wisdom is that there has been little change.

- It is also probably accurate to say that even the large scale changes have not penetrated the culture of higher education nearly as much as necessary.

- There is no shortage of contrarian voices that decry even those changes that HAVE occurred.

- The disparity is creating a vacuum into which politics is inevitably drawn.

Evolution is demanding

- Species either adapt or die
- Universities are facing a very difficult period of adaptation.
- Some will not survive.
  - I have visited campuses that have closed or been sold.
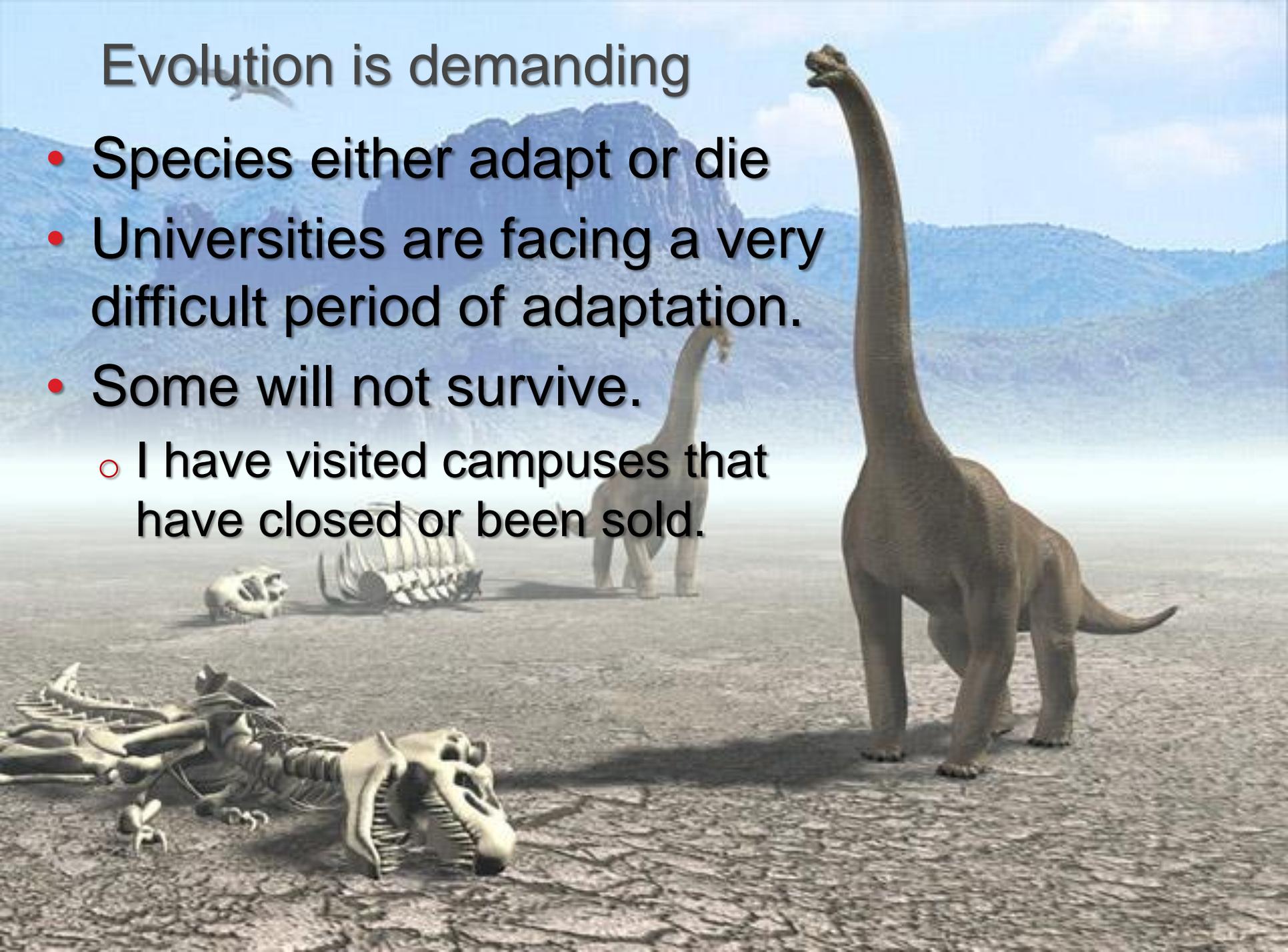
What are key viable strategies?

- Online Education (not so much MOOCs)
  - Increase access, reduce cost, increase revenues, develop a global market presence
- Educational Engagement
  - Maker Spaces, Flipped Classrooms, Studio Classrooms, Emporia, Peer learning, "clickers," etc.
- Technology Enhanced Learning
  - Blended learning, MOOCs as part of a more engaging environment, flipped classrooms, studio classrooms, etc.
- Global recruitment of students.
  - Companies like Navitas, World Education Group,
    - (http://www.nacacnet.org/international/documents/intlstudentrecruitment.pdf)
  - Provides a welcome revenue stream of full pay students to cross subsidize local students –but there are limits.

Strategies for Online Education

- Revenue enhancement to support traditional campus
  - o Focused on revenue generating students outside the campus
- Course enhancement for traditional students
- Allowing an institution to accommodate growth without having to over invest in facilities.
  - o One classroom accommodates two sections of the same course by alternating face to face and online. (UCF is a good example)
- Improving access and service by allowing employed students to gain education and degrees without going to campus and/or disrupting their business and private lives.
- Communicating your brand to important constituencies and making the statement that you are ahead of the curve.
  - o That is the main function of many MOOCs –particularly EdX.

The Reality of Online Education transcends

- If one reads the traditional press coverage of online education it is dominated by either
  - Skepticism
    - Can students learn?
    - Cheating
    - etc
  - Hype
    - MOOCs will change the world and make higher education obsolete
    - The hyper prestigious universities drive the change
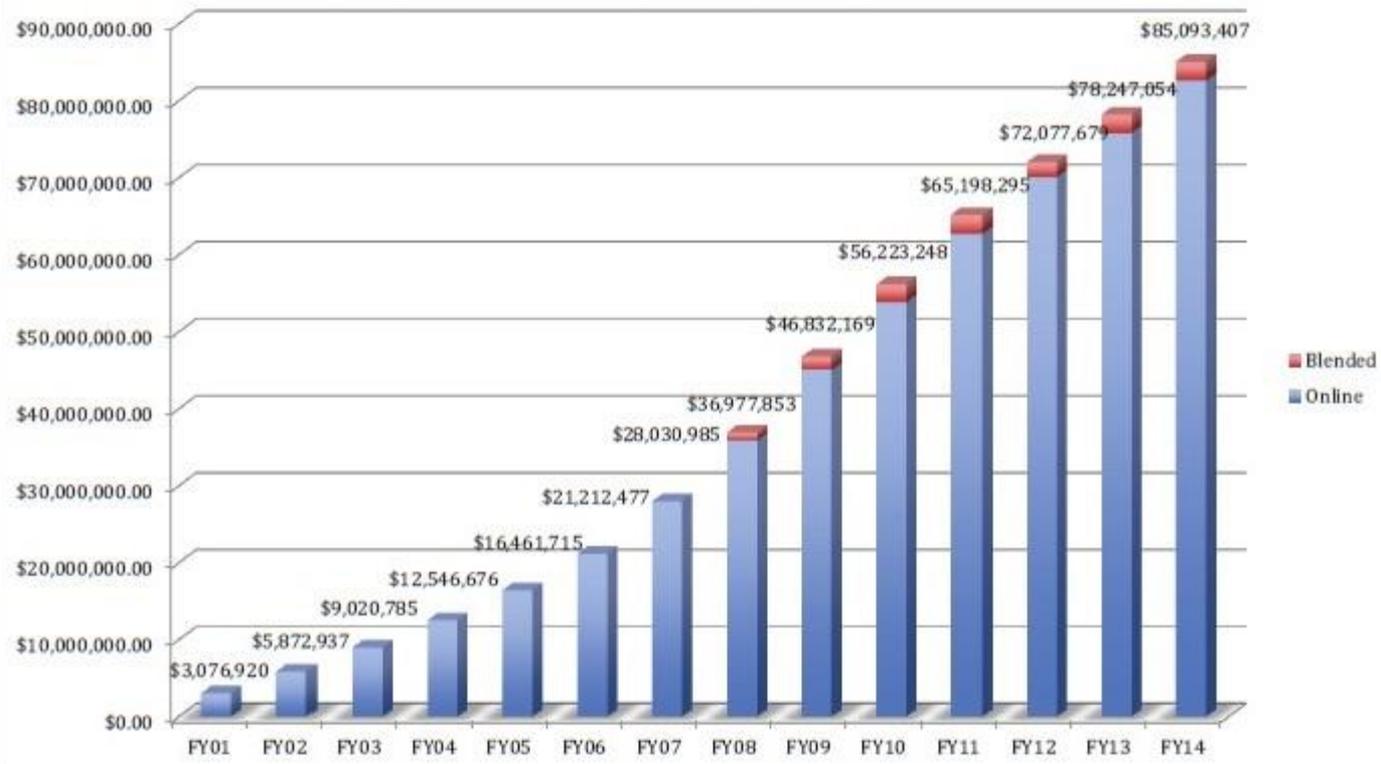- **Not!**
- So what is the reality and the future?

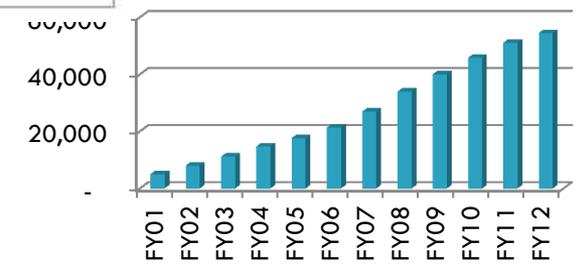# Relentless Growth of Online Education

Sloan Alt C- Growth in Online
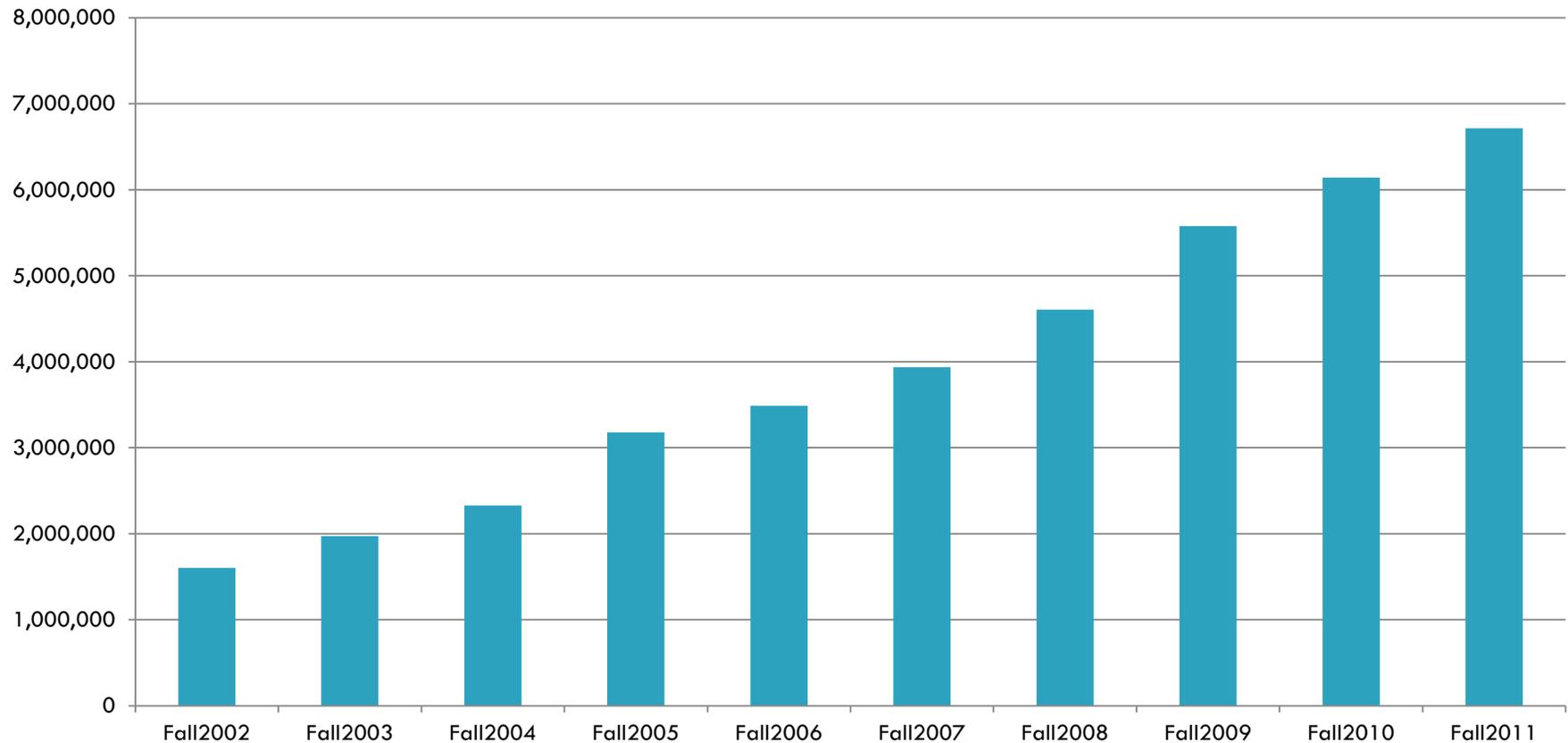
UMassOnline Growth 2001-2012

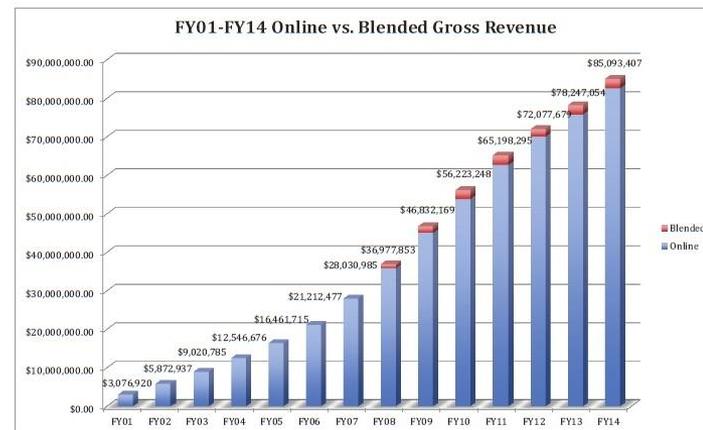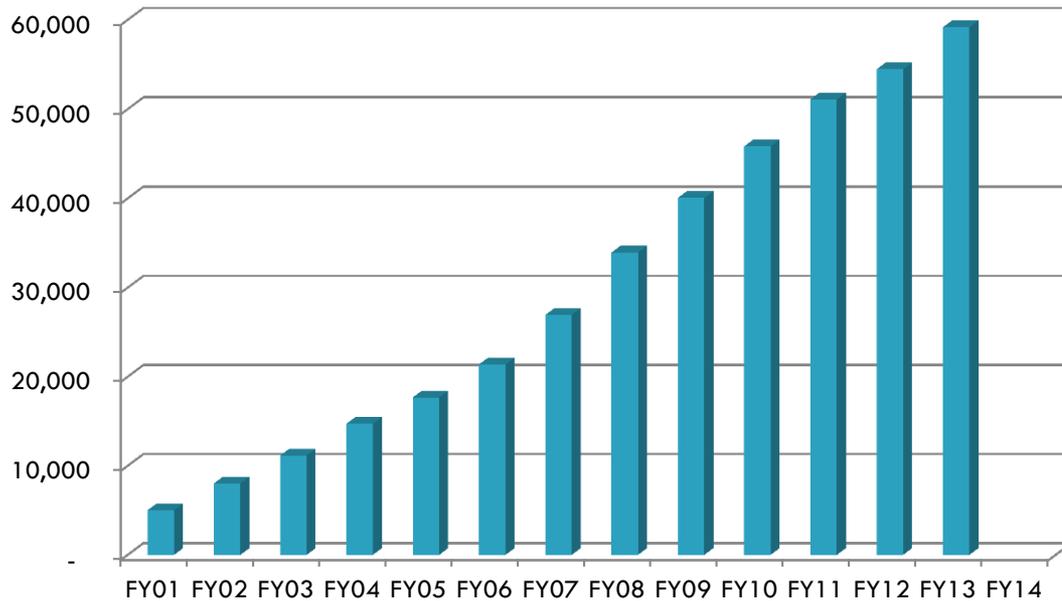

FY01-FY14 Online vs. Blended Gross Revenue

|		Revenue
FY01	$3,076,920	
FY02	$5,872,937	
FY03	$9,020,785	
FY04	$12,546,676	
FY05	$16,461,715	
FY06	$21,212,477	
FY07	$28,030,985	
FY08	$36,977,853	
FY09	$46,832,169	
FY10	$56,223,248	
FY11	$65,198,295	
FY12	$72,077,679	
FY13	$78,247,054	
FY14	$85,093,407	

Legend: Blended, Online

Enrollment

UMassOnline Growth 2001-2012

Enrollment

FY01-FY14 Online vs. Blended Gross Revenue

A Relentless Force that Will **Not** Be Denied

Hype

Online Education

Luddites
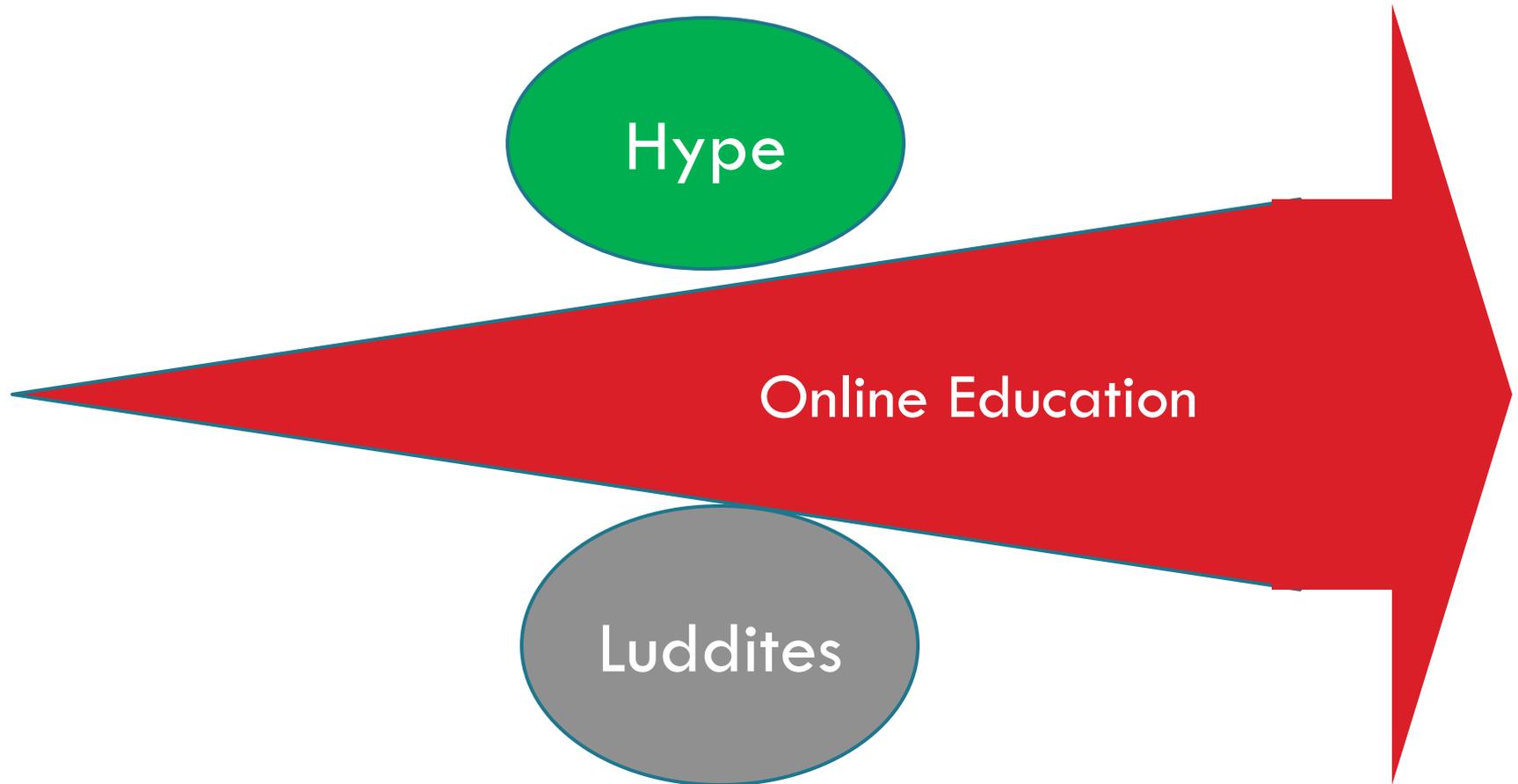
What we learned

- We do not compete with for-profit universities on their terms. We compete on our own.

- UMassOnline positioning statement:
  - Same Curriculum
  - Same faculty
  - Same admission requirements
  - Same educational standards
  - Same degrees
  - Courses interchangeable on campus or online.

- A very different market position than U Phoenix
  - Legal Seafood to McDonalds.

- Faculty (and faculty union) –very supportive.

- California has failed on three attempts.

Example Failures

- Several consortia (Cardean, Fathom, Universitas, Virtual Temple, etc) have failed because they did not understand that content is a commodity and that it is the brand, recognizable credentials, and quality that attracts students –not great content.

- MOOCs have failed as actual learning environments due to lack of faculty and peer interaction and due to completion rates that are below 5%.
  - o They have value to allow content to be delivered to casual learners –many of whom are not in the country. They are more like an interactive encyclopedia than they are a classroom or learning environment.

- Failure to use good pedagogical techniques (cognitive science) leads to experiences with very poor retention and lack of learning.
  - o MOOCs are a prime example.

- You will never get all faculty to be supportive, but you need to get a critical mass of key quality faculty.

Are MOOCs going to change the world?

- Too late. The world already changed without MOOCs even if Stanford, Harvard, MIT and others had not noticed!
  - "the vast majority of people who sign up for MOOC's don't complete their courses, yet MOOC creators are hailed as visionaries rather than being denounced for their 10-percent completion rates" –Kevin Carey –Chronicle Blog
- MOOCs are interesting and valuable experiments, but they are not on the critical path of online education –at least in their current form.
- "The Myth of MOOCs;" by J. M. Wilson; 2013.
  - http://www.jackmwilson.net/MOOCMyths.html
- "The MOOC Hype Fades, in 3 Charts;" 2015
  - http://chronicle.com/blogs/wiredcampus/the-mooc-fades-in-3-charts/55701

Massive Open Online Courses MOOCs

- Kahn Academy -2006
  - o Salman Kahn –non-profit -2006
- Udacity -2012
  - o Sebastian Thrun, Stanford - for-profit
  - o In 50 years there will be only 10 institutions in the world delivering higher education and Udacity has a shot of being one of them. Sebastian Thrun- Udacity Founder
- Coursera -2012
  - o For-Profit – Andrew Ng, Daphne Koller, Stanford
- edX (MITx -2011 and edX in 2012)
  - o Harvard, MIT, Berkeley –non-profit
- Udemy -2010
 - o Eren Bali and Gagan Biyani –for profit

The dangers of hype

- Students get hurt by well meant, but poorly designed experiments.

- Money gets wasted at a time when every dollar is precious in higher education

- Good ideas get discredited by over-reaching and then failing.

- To anyone in the audience that I offend, I offer this prior apology but…..

- I hope that it encourages you to adopt a position of scientific skepticism and innovative optimism.

"Online Learning as a Strategic Asset"

- The Association of Public and Land Grant Universities (APLU)
  - An Association of Presidents and other leaders
    - (Florida Presidents are active)
  - Task Force on Online Learning –I chaired
- APLU-Sloan Benchmarking Study: Online Learning as a Strategic Asset
- First survey of Presidents and Chancellors regarding their attitudes and experiences regarding online learning. A significant study:
  - Surveyed more than 850 people, including more than 300 Presidents/Chancellors.
  - Institutions in this study represent more than 1 million students and more than 100k online enrollments.
- The Overarching Question: Are Universities equipped to respond to this challenge?
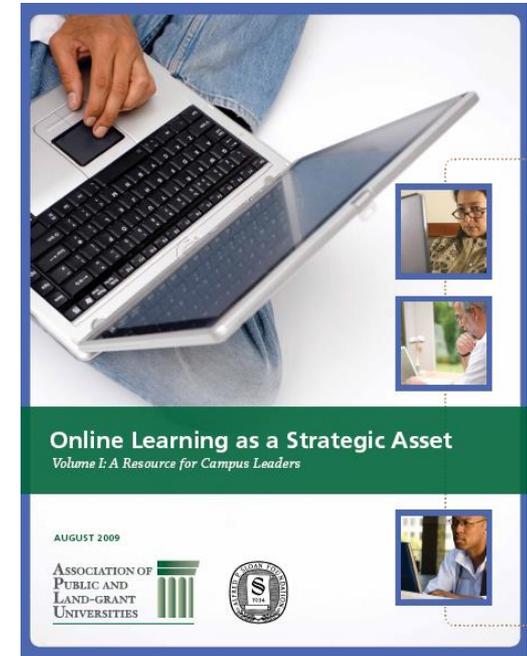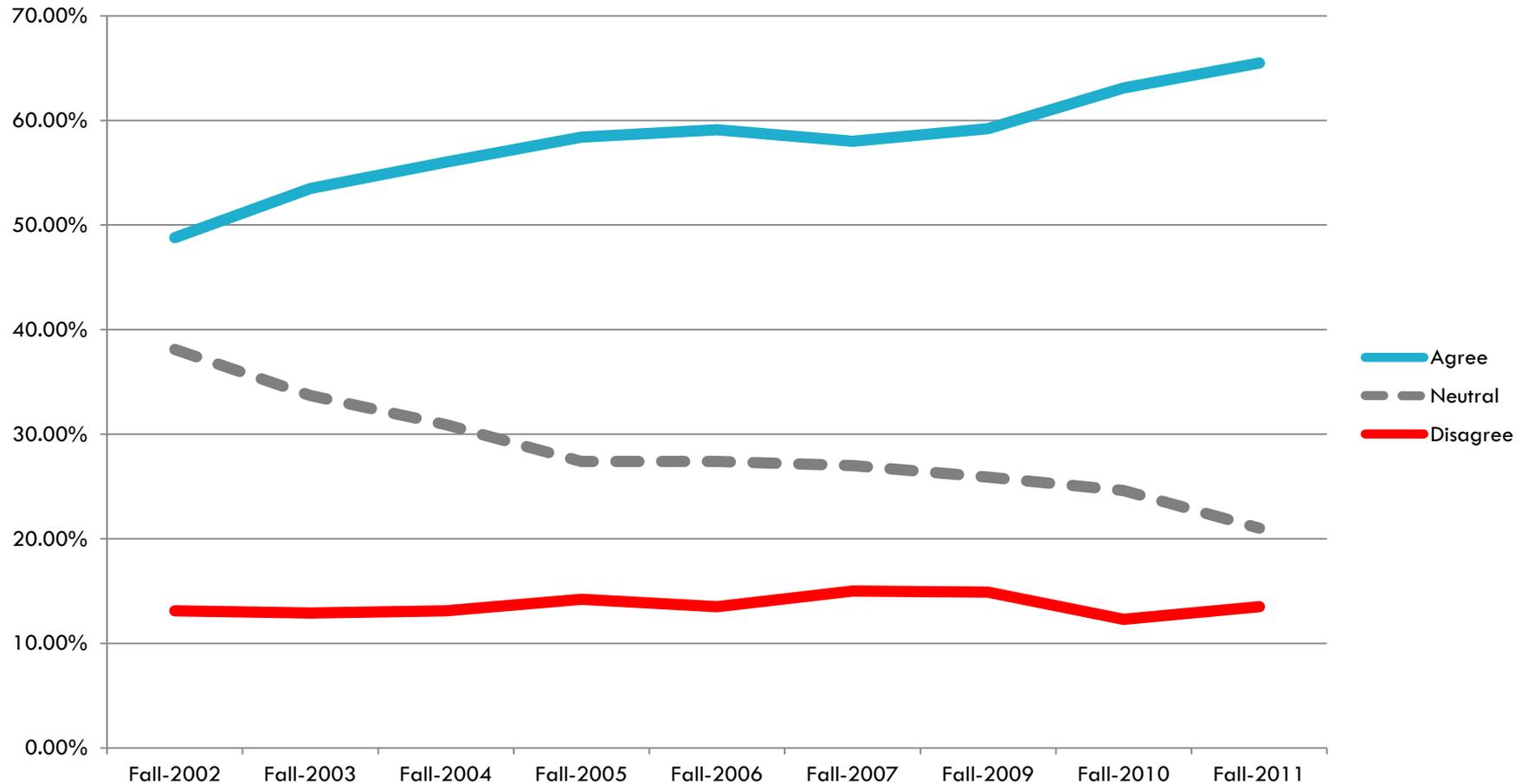
There IS a disconnect!
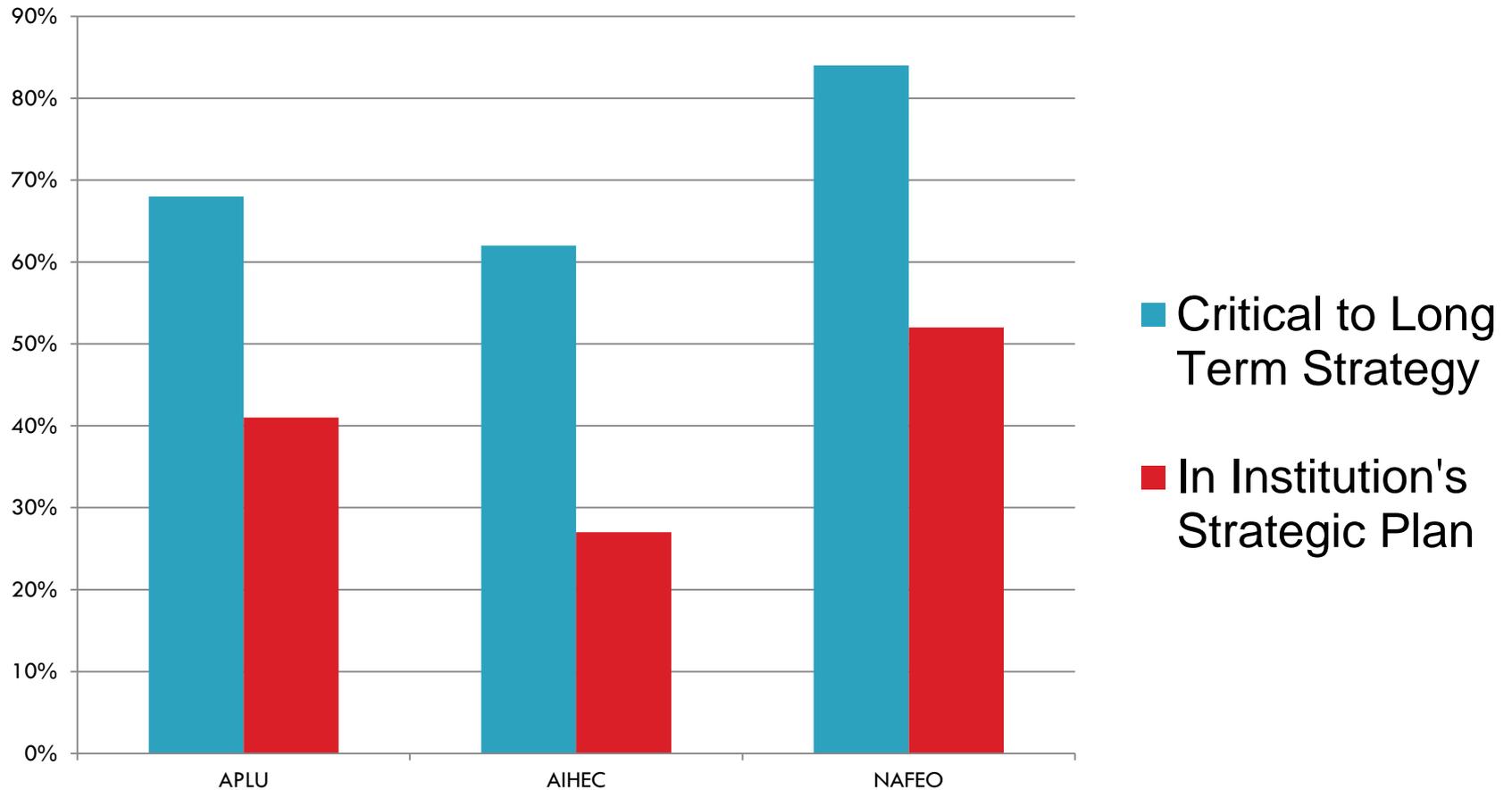
Online Learning as a Strategic Asset

- Survey revealed that President's know that distance learning needs to part of the strategic plan,

- However, many of them **were not well equipped by past experience** to understand how these programs, once considered peripheral, could become an **integral tool of their institutions strategic plans**.

Online Learning as a Strategic Asset
Volume I: A Resource for Campus Leaders

AUGUST 2009

ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

The online/traditional boundary -disappearing.

- In 1997, I was asked to write an article entitled:
- "Will the Ivory Tower Survive the Electronic Village?"
  - o EDUCOM Review, Vol. 32, No. 2, pp. 12-16, March/April 1997.
- My conclusion is an emphatic "YES," but it will be a far more engaging university that educates students in new and exciting learning environments.
- The boundary between online and traditional classes is disappearing quickly.

Summary

- Universities have changed rather radically in many ways.
  - Meteoric rise of online learning
  - Involvement in economic development
  - Deployment of 2 of the 3 C's
  - Some deployment of more engaging research based courses.
  - Disinvestment by government
- Online learning has become an indispensable tool for top universities.
  - Revenue generation
  - More efficient use of facilities
  - Better service to students.
- Hype, especially around MOOCs, often detracts and distracts from serious innovation.
  - MOOCs could be helpful as long as they are used in context.
- The future will continue to be quite a challenge for leaders of higher education.

Thank You!

- Jack M. Wilson
  - President Emeritus and Distinguished Professor of Higher Education, Emerging Technologies, and Innovation.

  - http://www.jackmwilson.net