Change in Higher Ed
Is Inevitable

AASCU

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A Structural Transformation Is Underway

COMMUNICATIONS

RETAIL

HEALTHCARE

GOVERNMENT

EDUCATION

MANUFACTURING

FINANCE

ENERGY
Carlota Perez Model

The Five Great Technology Revolutions of “Modern Times”

- Industrial Revolution
- Age of Steam and Railways
- Age of Steel
- Age of Oil and the Automobile
- Age of IT and the Internet

1771  1830  1875  1908  1971  2012  2030?
The Network Is Increasingly the Platform for Many Aspects of Our Lives

Business
- Wireless
- Storage
- Voice

Consumer
- Video
- Security
- Networked Home

Industrial (Internet of Things)
- Education
- Real Estate
- Physical Security
- Transportation, Utilities, Healthcare
- Government

The Network Is the Platform
Give a man a fish and you feed him for a day

Teach a person to use the Internet, and he won’t bother you for weeks
Three Main Drivers of Tomorrow

Video

Mobility

Cloud
The Consumerization of IT

By 2015 there will be more than 15B devices connected to the Internet.
Exponential Increase in Computing Power

According to ARM, a British company that designs chips for the iPhone and other portable devices, chips today are 40 times more powerful than in 2000.

Source: The Economist
Exponential Improvement in Storage

In 1980

one gigabyte (GB)

cost about $200,000

In 2011

one terabyte (1,024 GBs)

cost about $100
Exponential Growth of Apps and Content

**No. of app downloads**

*Worldwide, bn*


**Most popular categories**

*% of users†, Q2 2011*

- Games: 64
- Weather: 60
- Social networks: 56
- Maps/search: 51
- Music: 44
- News: 39

Source: The Economist
More data was created during any 48-hour period last year than by ALL of humanity over the past 30,000 years.

By 2020 it will be every hour
Big Data data sets:

- Very big
- Time-sensitive
- Many formats
- Many sources
What This Means for Educators

Rising Expectations
Students demand personalized, on-demand service they are used to in their personal lives

Market Velocity and Volatility
Technology is enabling new competitors and learning models – and increasing the need for speed and agility

Innovation Everywhere
Innovation can come from ANYwhere, ANYone, and at ANY time … from your teams, students, communities, partners

Financial Pressures
Ever greater demand for quality learning at a lower cost
So What Does 21\textsuperscript{st} C Education Look Like?

Virtual \textit{and} bricks-and-mortar

Wired \textit{and} wireless

Content-intensive \hspace{1cm} Video-intensive \hspace{1cm} Collaborative Platforms \hspace{1cm} Location Independent \hspace{1cm} Device Independent

One teacher, many classrooms, global delivery
Blended Learning
Teaching Geology Tomorrow

Norwegian University of Science and Technology – Trondheim

From AR Overview website
To Compete in the Global Economy You Need Three Things…

A Good Idea

A Good Education

And a Good Internet Connection
Big Challenges, Huge Opportunities

- AASCU can both drive and benefit from technology-driven transformation.
- The right policies and technologies today can give your students and your community a competitive edge tomorrow.

Educators worldwide are finding that they need to get on the train... or be run over by it.
Six Actions You Can Take Today

1. Assess your infrastructure
2. Build on the assets you already have
3. Revisit the definition of the classroom
4. Optimize your policies and procedures for 21st Century education
5. Partner with industry to prepare graduates for 21st Century professions
6. Tightly connect vision, strategy, execution, and metrics
The Real Goal: Transformation of Education – Worldwide
“The Fates guide those who go willingly; those who do not, they drag.”

SENeca, Roman Philosopher
A man’s REACH should exceed his GRASP, or what’s a heaven for?

Robert Browning