



North American Council for Online Learning

Education, Innovation and Online Learning



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North American Council for
Online Learning



North American Council for Online Learning

- **NACOL** is the premier K-12 nonprofit organization in the field of online learning.
- Provides leadership, advocacy, research, training and networking with experts in K-12 online learning. 350-1300 members
- “Ensure every student has access to the best education available regardless of geography, income or background.”




The World Is Flat

- Intel Science Competition
- World Economic Forum Global Competitiveness Rankings



International View of Online Learning

- Mexico
- China – Digital content; 1% (100 Million kids)
- Singapore has 100% of their secondary schools and junior colleges using online learning
- India 20 years ago math and science



What Students Need to Know: 21st Century Skills and ICT literacy

The future will demand people who can express themselves effectively with images, animation, sound, and video, solve real world problems that require processing and analysis of thousands of numbers, evaluate information for accuracy, reliability, and validity; and organize information into valuable knowledge, yet students are not learning these skills in school.

Defining 21st Century ICT Literacy


- The Partnership for 21st Century Skills defined 6 key elements of 21st Century Learning
 1. Emphasize core subjects.
 2. Emphasize learning skills.
 3. Use 21st Century tools to develop learning skills.
 4. Teach and learn in 21st century context.
 5. Teach and learn 21st century content.
 6. Use 21st century assessments that measure 21st century skills.



Innovation

World Future Society

- By the year 2020, computing power will come closer to matching the human brain, enabling artificial intelligence, capabilities in smart robots, speech recognition, intelligent agents, and other uses that will permit huge advances in telemedicine, virtual education, e-government and all other facets of life.”
- ”Technology’s Promise: Highlights from the TechCast Project” William Halal



•The Futurist: Top 10 Breakthroughs Transforming Life over the next 20-30 years

Best forecast data ever assembled

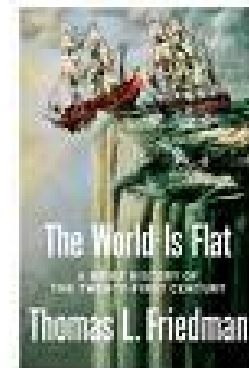
1. Alternative energy
2. Desalination
3. Precision farming
4. Biometrics
5. Quantum computers
6. Entertainment on demand
7. Global access
8. Virtual education or distance learning
9. Nanotechnology
10. Smart Robots

How quickly will innovations evolve?

- E-learning training accounts for 30% of corporate training and is expected to exceed 50% soon
- Virtual Education will enter mainstream about 2015.
- 2010: Intelligence – advanced in information systems and e-commerce (sets the stage)
- 2020: Breakthrough – computing power matches the brain
- 2030: Challenge. Industrialization in most developing nations. Next Gen quantum/optical computing should emerge; society's ongoing problems will persist.
- 2040-2050: Maturity. Challenges facing globalization are likely to be resolved into a fully modernized, fairly harmonious globe.


Tom Friedman

- The World is Flat
- Breakfast with Tom Rabon, Red Hat in Bethesda
- People worried about India and China
- Drew an equation on a napkin
- $PQ + CQ > IQ$
- *What are you passionate about?*
- *What are you curious about?*





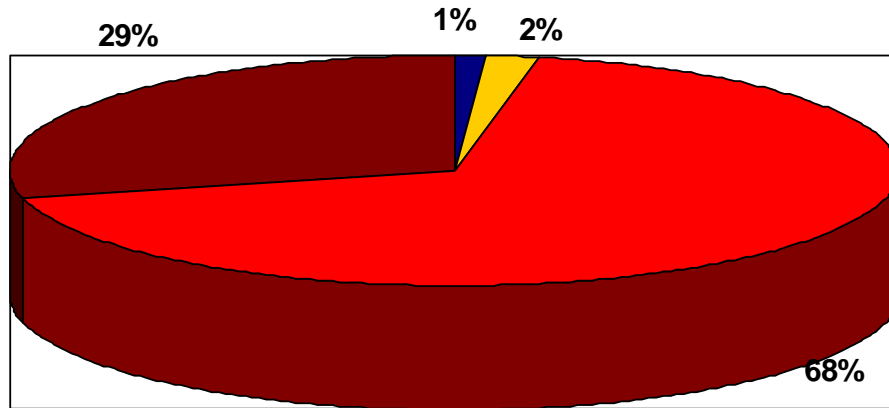
Explosion in E-Learning and Virtual Schools

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- K-12 online learning is a new field consisting of an estimated \$50 million market, which is growing at an estimated annual pace of 25% annually
 - 38 states have established e-learning initiatives (including virtual schools, cyber charter schools, online testing and internet-based professional development).
 - There are 24 state-wide or state-led virtual schools in the United States.
 - There are 147 virtual charter schools with 65,354 students in 18 states.

Distance Education in K-12 Public Schools 2002-2003 (NCES 2005)

- 328,000 enrollments in 2002-2003
- 36% of public school districts have students enrolled in distance education courses
- Of these districts, 72% plan to expand their distance education courses
- Distance education provides more course options to public school students
- 50% of districts offered Advanced Placement or college-level courses
- 80% cited the most important reason as offering courses not otherwise available at the school

Percentage Distribution of Enrollments in Distance Education Courses: 2002-03



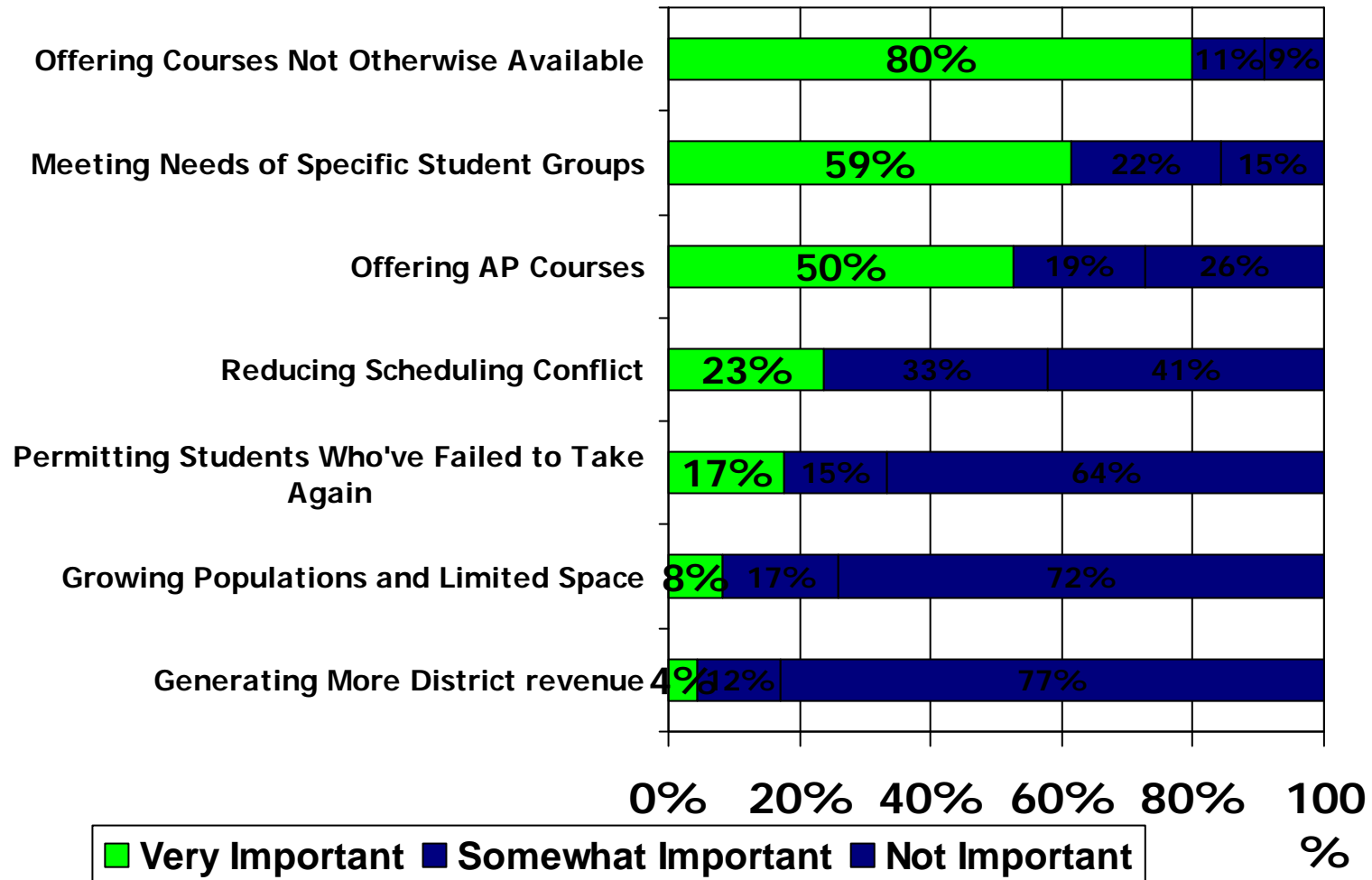
■ Elementary Schools (1%)

■ Middle or Junior High Schools (2%)

■ High Schools (68%)

■ Combined or Ungraded Schools (29%)

Reasons for Offering Distance Education Courses



Sharing Research to Inform Policy



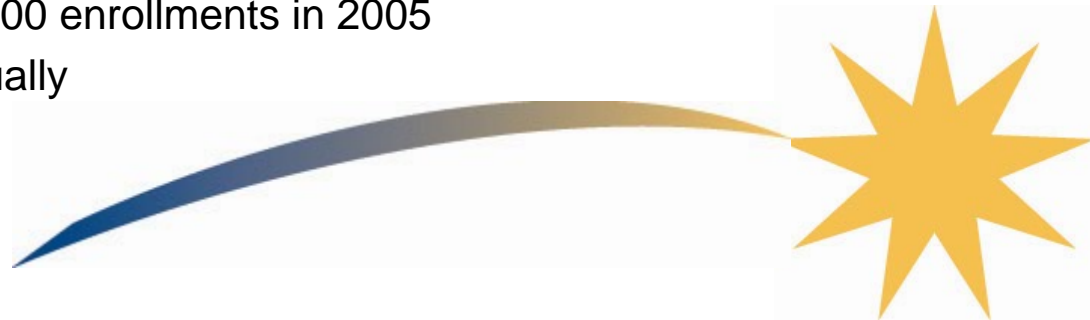
What Leaders Need to Know: Four Key Ideas

■ #1 Online Learning Expands Options

- “The first impetus to the growth of K-12 distance education was an interest in expanding educational options and providing equal opportunities for all learners.” (p.7)

■ #2 Online Learning Is Rapidly Growing

- “Recent Surveys show that K-12 online learning is a rapidly growing phenomenon.” (p.4)
 - Clark: 40,000-50,000 enrollments in 2000-2001
 - Eduventures: 300,000 K-12 enrollments online 2002-3
 - USED/NCES: 328,000 enrollments in distance ed 2002-3
 - Peak Group: 500,000 enrollments in 2005
 - Growing 30% annually



Online Learning Works

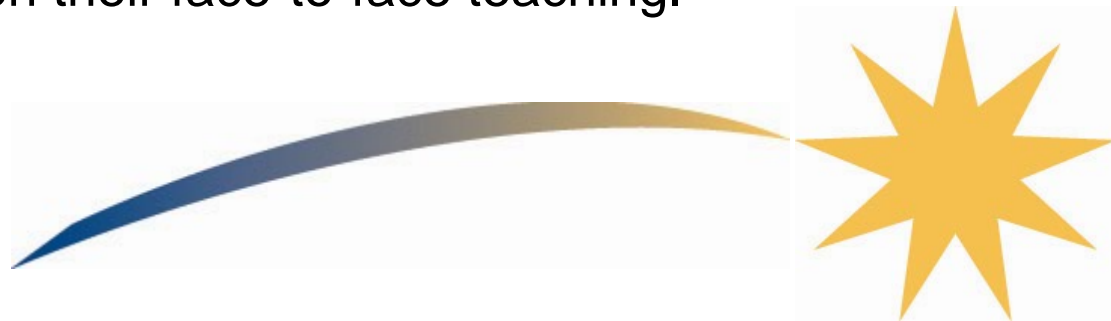
■ #3 Is Effective: “Equal or Better”

- “One conclusion seems clear: On average, students seem to perform equally well or better academically in online learning.” (p. 17)

■ #4 Improves Teaching

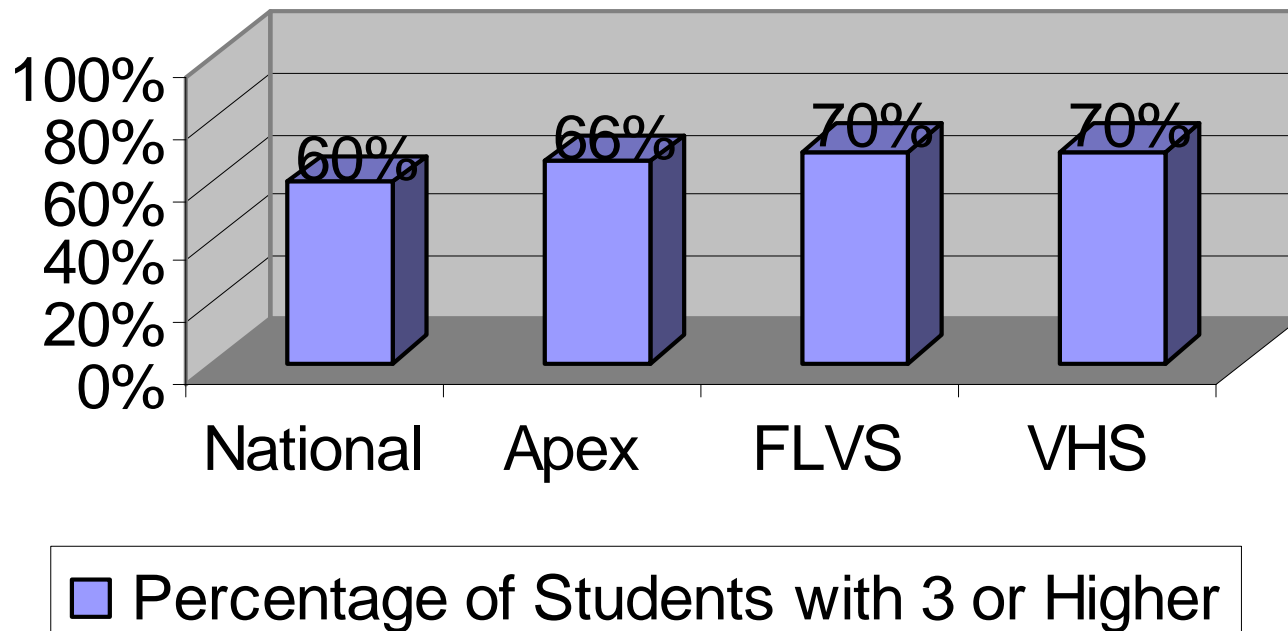
- Teachers who teach online reported positive improvements in face-to-face, too.
- “Of those who reported teaching face-to-face while teaching online or subsequently, three in four reported a positive impact on their face-to-face teaching.”

(p. 25)



Are Online Students Learning?

AP Pass Rates



Apex= Apex Learning, Inc

FLVS= Florida Virtual School

VHS=Virtual High School



Online Learning – National Education Technology Plan

- Goals related to E-Learning (pages 8-9)
 - Provide every student access to e-learning
 - Enable every teacher to participate in e-learning training
- www.NationalEdTechPlan.org

Michigan April 2006

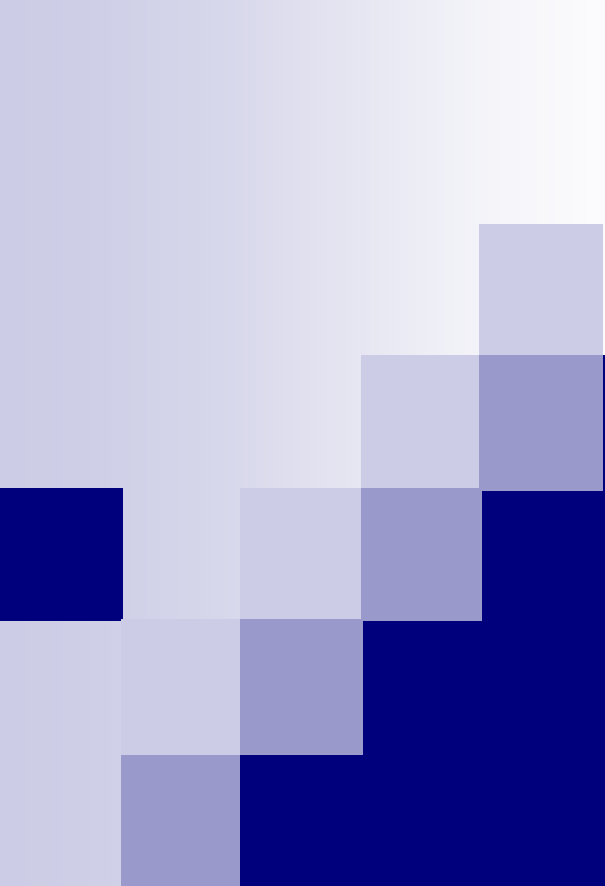
- First state to require “online learning”
- In new high school graduation requirements: “every student must have an online learning experience or course”
- Need for online learning is greatest with students to access skills they will need to get ahead and compete in an increasingly technological workplace

1952



T.S. ST. TUDNO

2,326 gross tons. Length 319 ft. Speed 19 knots. 2,491 passengers.



Threat of Investing in the Status Quo



68% H.S. Graduation Rate

- Prepare them for the world they are entering
 - 68% graduate high school
 - 26% make it to sophomore year
 - 80% of jobs require postsecondary education
- U.S.
 - 31% proficiency in reading at the 3rd grade



System Design

- System is doing what it was designed to do
- Industrial goal for education: 25% of students to college
- Today's students with 2 years of college: 26%
- Time and motion studies in the factory age
- Prisoners of Time (national report)



Graduation Rates in US

- 57% Native American students
- 56% African American students
- 52% Hispanic/Latino students
- 78% White Students
- 70% overall



■ “Silent Epidemic”

- Gates Foundation commissioned first study of high school drop outs
 - 88% had passing grades
 - 66% would have worked harder if more had been demanded of them
 - 81% called for more real world learning opportunities



Transformation vs. Integration: Innovation Challenge



Need for Leadership and Innovation

- Biggest barrier “memory”
- System is resistant to change
- Culture resists change
- Innovation and change difficult

Today's Students





What Are They Telling Us?

“We have technology in our blood.”

-- High School Student



Leadership = TIP

- Trust
- Integrity
- Passion



Oliver Wendell Holmes

- “The mind stretched to a new idea never returns to its original dimension.”



Thank you!