

Designing 21st Century Schools

Bob Hughes

Kansas State High School Activities Association
United School Administrators

January 26, 2007

Other Trends:


Ray Kurzweil

- Author, Inventor, Entrepreneur, Futurist
- BOOK - *The Singularity is Near: When Humans Transcend Biology*
- Audio keynote – T+L 2006 - NSBA Conference (www.toysrbob.com)

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Mega Trends - 1982


- A Nation At Risk (1983)
- Education Reform (1984)
- Strategic Planning (1984-2001)
 - Project 2001
 - Project 2020
 - FutureScape
- SCANNs Report
- CEO Forum (1996)
- Partnership for 21st Skills (2002)



23 years ago

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Mega Trends - 1982



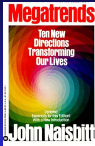
23 years ago

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NCLB (Jan 8, 2002)

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Megatrends 1982




23 years

World Is Flat 2005



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World Is Flat 2005



- Flattener #1 ----11-9-89 Walls+ /Widows +
- Flattener #2 ---- 8-9-95 Netscape Public
- Flattener #3 ----Work Flow Software
- Flattener #4 ----Open Sourcing
- Flattener #5 ----Outsourcing
- Flattener #6 ----Offshoring
- Flattener #7 ----Supply-Chaining
- Flattener #8 ----Insourcing
- Flattener #9 ----In-forming
- Flattener #10----The Steroids

A Technology
Technology Enabled

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Trends - Globalization of Jobs

India (Bangalore)

IRS 1040 forms processed for US accounting firms

- 2003 - 25,000
- 2004 - 100,000
- 2005 - 400,000

70,000 accounting graduates per year
 250,000 Call Center employees
 CAT scan/MRI interpreted
 Personal Assistant for \$1500 per month (B2K company)

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Trends - Globalization of Jobs

“Natural talent has begun to trump geography”

Bill Gates

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Chapter Six... Untouchables

- Highly Specialized skills:
 - Madonna, Elton John, Michael Jordan, J.K. Rowlings
- Localized – faces to face – “anchored”
 - Plumber, waitress, chef, lawyer, nurse, security, police, etc
 - Very large group of workers
- Old middle class jobs –
 - assembly line, data entry, securities analyst, accountant, radiologist,
 - slowly going away due to “flatteners”

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Trends - Globalization of Jobs

China (1.4 billion population)

- Produces 3.1m university graduates (US =1.3m)
- They will work at one fifth the wage of a US worker.
- In China Bill Gates is Britney Spears
(in the US Britney Spears is Britney Spears)

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USA - Societal Trends

- Middle class is shrinking,
- Growth in number of industrialized nations,
- Everything from the neck down is moving toward minimum wage,
- Standard of living in US may be slipping...

More jobs, lower average pay

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What Skills Do Students Need?

What is a Knowledge Worker

Microsoft Corporation

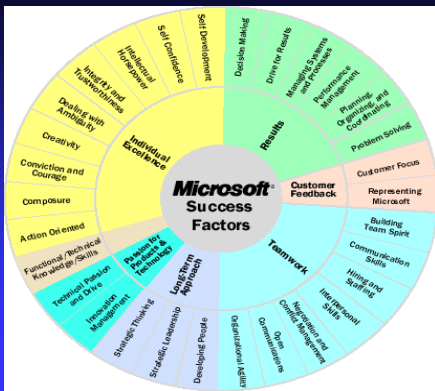
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The Fundamentals

- The Basics
Reading, writing, and math skills
- Good work habits
Reliability, dependability, hard working
- Problem solving skills...
Approaches, as well as fearlessness
- Computers and technology
At least some exposure
(It matters for everyone)

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Microsoft Competency Wheel



img: 14

Microsoft Competency Wheel



www.microsoft.com/education/competencies © Educational Technology Exchange 15

Skills for the 21st Century:

- Basic, scientific, & technology literacy
- Visual & information literacy
- Cultural literacy and global awareness
- Adaptability/managing complexity
- Curiosity, creativity & risk taking
- High order thinking & sound reasoning
- Teaming, collaboration & interpersonal skills
- Personal & social responsibility
- Interactive communication
- Prioritizing, planning and managing results
- Effective use of real-world tools
- Relevant, high quality products

Source: www.esoforum.org - Report 4

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What Should 21st Century Schools Look Like?

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What Should 21st Century Schools Look Like?

- Design an environment where kids are not a discipline problem...

- Sports, Athletics
- Summer camp,
- School newspaper / Year book
- Performing arts
- Debate, Speech
- Music
- Student Council

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Source: www.ceoforum.org - Report 4

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Source: www.ceoforum.org - Report 4

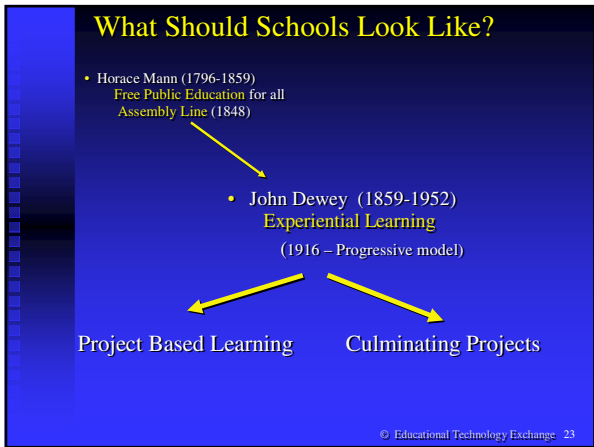
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What Should Schools Look Like?

- Bill & Melinda Gate's Foundation
Small Schools Study
<http://www.gatesfoundation.org/Education/TransformingHighSchools/>
- Paul Allen Study
 - High Tech High <http://www.hightechhigh.org/>
 - C.A.R.T. <http://www.cart.org/>
 Center for Advanced Research and Technology
(Clovis Unified School District – CA)

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A Little (more) History



In the coming era, "...is it more important to have kids leave school with 21st century skills or to leave school having (state defined) minimum proficiency levels?"

Dr. Chris Dede,
Professor
Harvard Graduate School of Education
October 28, 2005 – T+L2 Conference Keynote

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“Ladies and gentlemen, forgive me.”
 “Your schools have become museums and
 we’ve become curators.”

Willard Daggett, quoted in the St. Petersburg
 Times, January 15, 2007

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Math and Science vs Broader Skill Base

- US Chamber of Com
3000 chapters
3 million businesses
- Partnership for 21st Century Skills
- NEA - Nat'l Education Assoc
- American Federation of Teachers
- American Assoc of School Librarian
- Business Roundtable
Washington DC based
165 CEO's
- NCEE- Nat'l Center for Ed and Econ
Report "Tough Choices or Tough Times"

Source: Education Week - October 18th & Dec 14, 2006
 Business Gears up to Influence Reauthorization of NCLB

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21st Century Skills
State Standards Basics

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“We reformed the US Postal Service 40 years ago and now only at-risk mail goes through the post office.”

(...everything important goes FedEx, FAX, Airborne, UPS, etc.)

Philip Schlechty , 1991

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Resource List

- A. The World Is Flat – Thomas Friedman – 2005 – 479 pages
- B. Partnership For 21st Century Skills – Report “Results that Matter”
<http://www.21stcenturyskills.org/>
- C. Cable in the Classroom – Spring 2006 – Threshold – Changing Course: New Thinking About High School Reform
- D. Schools
 - Philadelphia’s School of the Future www.phila.k12.pa.us
<http://www.microsoft.com/education/schooloffuturedownloads.msp>
 - Chicago Academy High School
<http://websiteworx.com/ChicagoAcademy/>
 - Digital Age Literacy – Lawrence Township, Indiana (16,000 students)
<https://district.itschools.org/initiatives/literacy.php>
<http://www.ncrel.org/engage/> North Central Regional Educational Library
 - <http://www.metri.com> Matric Group (Cheryl Lemke)
 - High Tech High – San Diego, CA – Charter School
<http://www.hightechhigh.org/>

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Resource List

- E. George Lucas Educational Foundation – edutopia magazine
http://www.edutopia.org/php/interview.php?id=art_977#
- F. Technology Access Foundation – Seattle
Event last month w Ken Kay
<http://tools21.techaccess.org/>
- G. The Met- A network of 6 public high schools in metropolitan (Providence) Road Island
<http://www.themetschool.org/>
- H. Microsoft – School of the Future web resources
<http://www.microsoft.com/education/sof>
- I. Ray Kurzweil – Future trends
Book “Singularity is Near”
Audio Keynote 11/9/06 – Dallas NSBA T+L Conference
<http://www.toysrbob.com>

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