

"Stretching the Edges of Technology-Enhanced Teaching: From Tinkering to Tottering to Totally Extreme Learning"

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Tinkering, Tottering, or Totally Extreme?

Timeline of Technology for Teaching, NY Times, September 15, 2010
<http://www.nytimes.com/interactive/2010/09/15/magazine/classroom-technology.html?ref=magazine>

Old companies teach new tricks

Microsoft, Dell, Apple face up to 19th-century age of 30

Some Notable Moments in Recorded Life

- 1839: The first camera takes photographs.
- 1840: Typewriter.
- 1845: Phonograph.
- 1871: Motion picture.
- 1895: Phonograph.
- 1901: Phonograph.
- 1903: Phonograph.
- 1905: Phonograph.
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- 2001: Phonograph.
- 2003: Phonograph.
- 2005: Phonograph.
- 2007: Phonograph.
- 2009: Phonograph.

Vannevar Bush

Charles Wedemeyer, University of Wisconsin

Learning at the Back Door
 REFLECTIONS ON NONTRADITIONAL LEARNING IN THE LIFESPACE
 Charles & Abbeeyan

More Heroes: John Dewey, Seymour Papert, John Seely Brown, Ivan Illich, Stephen Heppell, Henry Jenkins

Our New Heroes are not Theoretical or Psychological

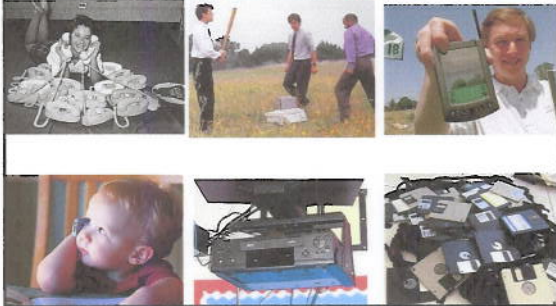


Technology of the 1980s



Things That Became Obsolete This Decade

December 11, 2009, Silicon Alley Insider



Gadgets that Changed Everything This Decade

December 9, 2009, Jay Yarow, Silicon Alley Insider



June 9, 2010

Force is with new GPS units

TwitterPeek: Restricted to Twitter.

WikiReader: Updating can be a pain.

iBand Rocks Christmas Tunes on iPads and iPhones, Dec 10, 2010

<http://www.podcast.com/2010/12/10/iBand-rocks-christmas-tunes-on-ipads-and-iphones/>
http://www.youtube.com/watch?v=DcxzQH-8W0I&feature=player_embedded



Mark Zuckerberg, Time Meg Person of the Year, Dec 15, 2010

The image shows a collage of screenshots from the TIME magazine website. The central focus is the 'Person of the Year 2010' feature, which has selected Mark Zuckerberg. The text on the page discusses his impact on the world through Facebook and his role in the social networking revolution. Other screenshots show various photo galleries and magazine covers.

Social Networking Gaming (e.g., Farmville) For social networks, it's game on, USA Today, Jon Swartz

This block contains a screenshot of a USA Today article titled 'For social networks, it's game on'. The article discusses the rise of social networking games like Farmville and CityVille. The image includes a 'PLAY NOW' button for CityVille and a small screenshot of the Farmville game interface, showing a virtual farm with various animals and crops.

Skype for iPhone adds two-way video calling cnet Reviews, December 20, 2010

http://reviews.cnet.com/8301-19512_7-20026803-233.html

The image shows the Skype for iPhone interface. A video call is in progress with a contact named 'Ralph Taylor'. The interface includes a camera, microphone, and an 'End Call' button. A smaller inset shows the same call from a different perspective, possibly a screenshot from a review article.

The year we stopped talking Sharon Jayson, USA Today, Dec 30, 2010

http://www.usatoday.com/printedition/news/20101230/1ayear30_cv.art.htm

This block features a screenshot of a USA Today article titled 'The year we stopped talking'. The article discusses the impact of mobile devices on communication. The image includes a hand holding a smartphone, a laptop, and a magazine cover with the same title. The magazine cover features a cartoon character and the text '7 teams battle for final playoff spots'.

Week after holidays, e-book sales outdo print, USA Today, January 5, 2011, Bob Minzesheimer and Carol Memmott

http://www.usatoday.com/life/books/news/2011-01-05-1aebooksales05_ST_N.htm

The image shows a screenshot of a USA Today article titled 'Week after holidays, e-book sales outdo print'. The article discusses the surge in e-book sales compared to print books. The image includes a person reading a book, a Kindle device, and a screenshot of the Amazon website showing Kindle books.

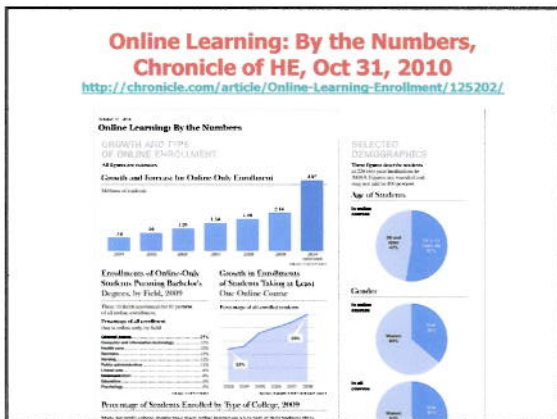
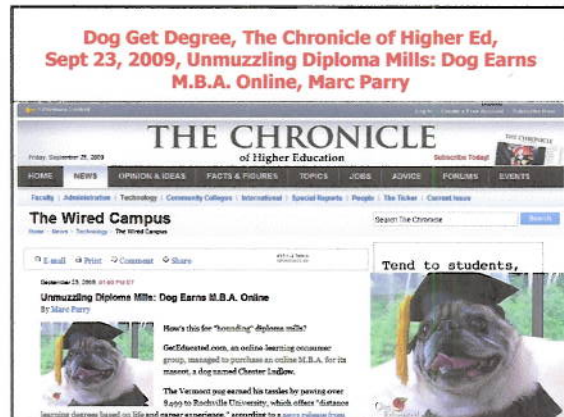
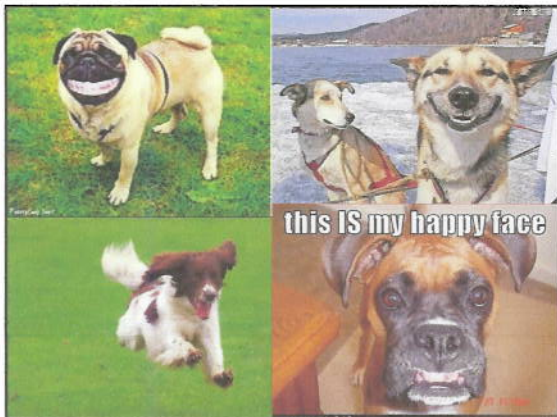
As the Web Goes Mobile, Colleges Fail to Keep Up, Chronicle of Higher Ed, Josh Keller, January 23, 2011

<http://chronicle.com/article/Colleges-Search-for-Their/126016/>

This block contains a screenshot of a Chronicle of Higher Education article titled 'As the Web Goes Mobile, Colleges Fail to Keep Up'. The article discusses the challenges colleges face in keeping up with mobile technology. The image includes a bar chart showing the percentage of students who use mobile devices daily to access the Internet.

Year	Percentage
2008	10.2%
2009	28.8%
2010	42.2%

"I used it to sign up for classes. I used it to check e-mails," says Laura Patterson, a junior at Nevada State College, about her iPhone. "I used it all the time, for everything." More than 40 percent of all college students, like Nevada State's Laura Patterson, used mobile devices to get on the Internet every day last year, compared with 10 percent in 2008.



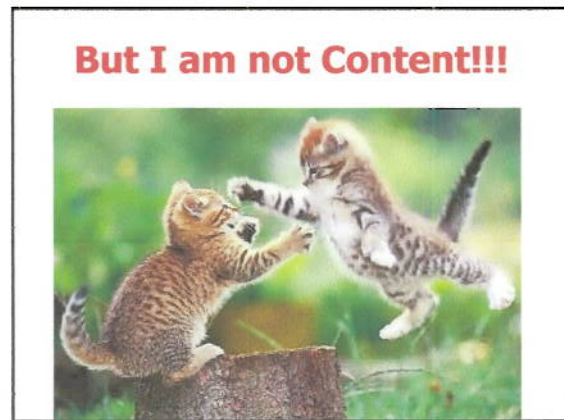
U.S. DEPARTMENT OF EDUCATION

Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies

Prepared by
 Barbara Means
 Yukie Toyama
 Robert Murphy
 Marlene Bakia
 Karla Jones

Center for Technology in Learning

Revised September 2010



Study: Online learning might be less effective for some, eSchool News, Dennis Carter, September 15, 2010

Classroom students scored 84.5 percent on the first exam in the economics course, and online students scored 83.3 percent.

July 25, 2010, Professors' Use of Technology in Teaching, Jeffrey Young, Chronicle of Higher Education

Technology	Never use it	Use it at least once	Use it every time
Course management systems (Blackboard, Canvas, etc.)	2%	38%	60%
Plagiarism detection tools (Turnitin, iParagon, etc.)	4%	39%	57%
Collaborative editing software (News, Google Docs, etc.)	5%	38%	57%
Blubs	1%	38%	61%
Student response systems (Clicker, iClicker, etc.)	5%	38%	57%
Videoconferencing or Internet phone chat (Zoom, WebEx, etc.)	1%	38%	61%
Video games, simulations, or virtual worlds (Second Step, etc.)	1%	38%	61%

Faculty Views About Online Learning

This set of charts shows results of a survey in 2008-9 of 10,720 faculty members at 69 colleges and universities, Chronicle of HE, Oct 31, 2010, <http://chronicle.com/article/Faculty-Views-About-Online/125200/>

Faculty Member Who Has Ever Taught an Online Course	Never	Some	Often
Male	12%	48%	40%
Female	15%	45%	40%

May 24, 2010 Author Nicholas Carr, The Web Shatters Focus, Rewires Brains, Wired

http://www.wired.com/magazine/2010/05/ff_nicholas_carr/

Clay Shirky, NYU: How cognitive surplus will change the world, TED, June 2010

http://www.ted.com/talks/clay_shirky_how_cognitive_surplus_will_change_the_world.html

Marissa Mayer

Marissa Mayer leads the company's product management efforts on search products — web search, images, news, books, products, maps, Google Earth, Google Toolbar, Google Desktop, Google Health, Google Labs and more. She joined Google in 1999 as Google's first female engineer and led the user interface and web server teams at that time. Her efforts have included designing and developing Google's search interface, internationalizing the site to more than 100 languages, defining Google News, Gmail, and Orkut, and launching more than 100 features and products on Google.com

Brewster Kahle, and Aaron Swartz, Open Library the Internet Archive

Mobile Learning
April 10, 2010: Seton Hill University, 2,100 students an iPad and freshmen a 13-inch MacBook laptop.

Samsung: Galaxy Tab has leg up on Apple iPad, By Stephen Shankland, CNET, September 3, 2010

An iPad for Everyone

July 23, 2010
India unveils \$35 computer for students, CNN World, Harmeet Shah Singh

http://www.cnn.com/2010/07/23/india.35dollar.laptop/index.html?hpt=hp_tech_1
http://www.cnn.com/2010/07/23/india.35dollar.laptop/index.html?hpt=hp_tech_1

TERMINATING TEXTBOOKS

California Governor Arnold Schwarzenegger

Online Education vs. Traditional Learning: Time to End the Family Feud, Mark David Milliron, Chronicle of HE, Oct 31, 2010

http://chronicle.com/article/Online-vs-traditional/125135?cid=prn&utm_source=prn&utm_medium=en

August 9, 2010, Bill Gates Predicts Technology Will Make 'Place-Based' Colleges Less Important in 5 Years, By Jeff Young, Chronicle of HE

http://chronicle.com/article/Bill-Gates-Predicts-Technology-Will-Make-Place-Based-College-Less-Important-in-5-Years/124922?cid=prn&utm_source=prn&utm_medium=en

Wired Campus

Bill Gates on in-person vs. online edu.

Salmon Khan (Khan Academy) (videos on math, bio, trig, chemistry, money and banking, economics, statistics, etc.; <http://www.khanacademy.org/>)

Which of these video sharing sites do you use?

1. BBC News Video and Audio
2. CNN.com Video
3. MSNBC.com
4. Google Video, Yahoo Video
5. Current TV
6. For a TV
7. MIT World
8. YouTube, YouTube Edu
9. TeacherTube
10. Link TV, Explore, Global Pulse, Latin Pulse
11. Howcast, Big Think, WonderHowTo, Explo.TV, NASA TV, ClipChef, TV Lesson, BookTV, Edutopia videos, MonkeySee, doFlick, the Research Channel, Videosong

Academic Earth

Free online video courses from leading universities.

Link TV: Global Link of World Educators (GLOWE)

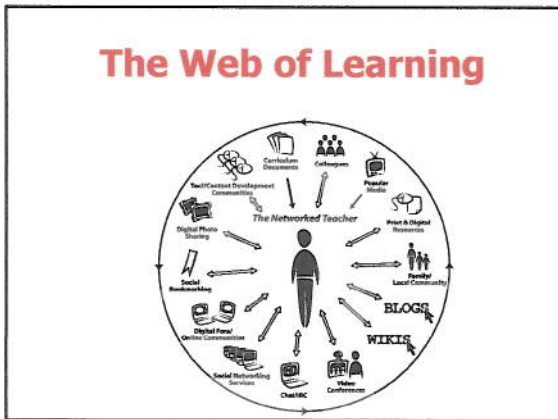
Question:
What is the Web?

- An entertainment system?
- A writing aid?
- A communications system?
- A means to handle commercial transaction?
- A social networking device?

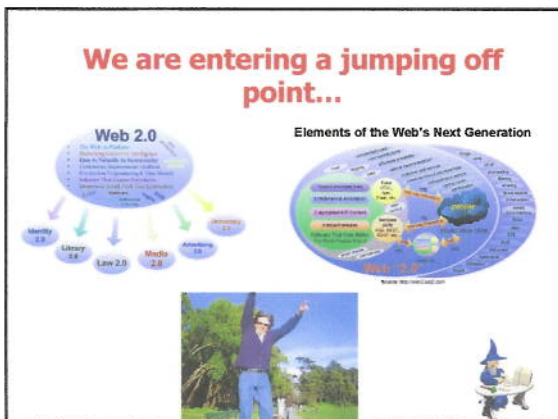
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No, it is a learning tool!

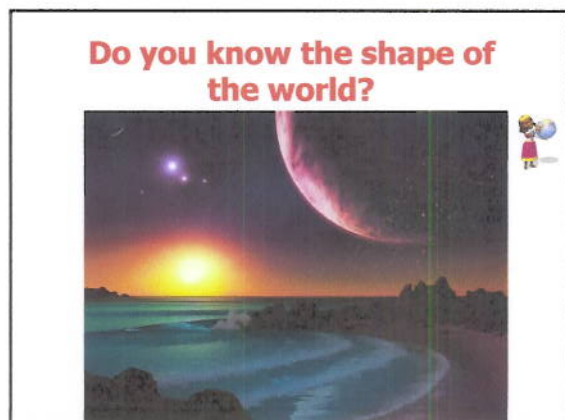
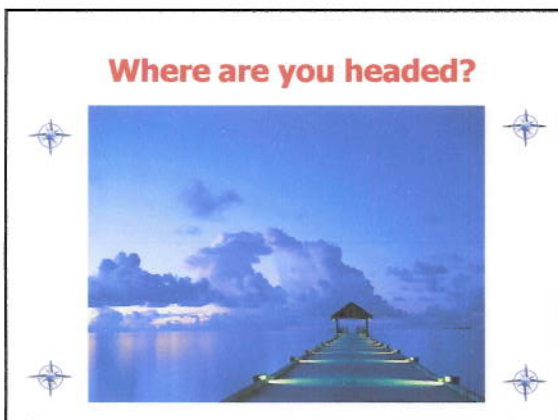
Answer:
The Web of Learning



Today we have the Web 2.0



Life in the Cloud...?



Is the World Flat?

Is the World Flat?
A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY
Thomas L. Friedman

The World Is Flat Broke
A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY
Thomas L. Friedman

Is the World Curved?

THE WORLD IS CURVED
HIDDEN DANGERS TO THE GLOBAL ECONOMY
The Mortgage Crisis Was Only the Beginning...
DAVID M. SMICK

Is it spiky?

WHO'S YOUR CITY?
RICHARD FLORIDA

Or is it Open?

OPENING UP EDUCATION
The Collective Advancement of Education through Open Technology, Open Content, and Open Knowledge
James Taylor

The Flat World Swung Open at Roundup: How Web Technology is Revolutionizing Education

Curis J. Shank, Professor, Indiana University
President, CurisShank, LLC
curis@curishank.edu
http://www.indiana.edu/~cshank



WE-ALL-LEARN: Ten Forces that Opened the Learning World

- **W**eb Searching in the World of e-Books (i.e., Darwin)
- **E**-Learning and Blended Learning
- **A**vailability of Open Source and Free Software (e.g., Moodle)
- **L**everaged Resources and OpenCourseWare (e.g., MIT)
- **L**earning Object Repositories and Portals (i.e., shared content)
- **L**earner Participation in Open Info Communities (YouTube)
- **E**lectronic Collaboration and Interaction (sync and async)
- **A**lternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- **R**ead-Time Mobility and Portability (e.g., iPhone)
- **N**etworks of Personalized Learning (Blogs, RSS)



"Video Primers in an Online Repository for e-Teaching and Learning" V-PORTAL, TravelinEdMan (27 free/open YouTube videos), September 2010

<http://www.youtube.com/user/TravelinEdMan>



Audience Participation!

1. **WE**
2. **ALL**
3. **LEARN!!!**








Triple Learning Technology Convergence of "WE-ALL-LEARN"

1. **Pipes:** The availability of tools and infrastructure for learning.
2. **Pages:** The availability of free educational content and resources (OER—Open Educational Resources).
3. **Participatory Learning Culture:** A move towards a culture of open access to information, international collaboration, and global sharing.





Magic #2: The R2D2 Model

Empowering Online Learning
100+ Activities for Reading, Reflecting, Displaying & Doing

The R2D2 Method

1. **Read (Auditory and Verbal Learners)**
2. **Reflect (Reflective Learners)**
3. **Display (Visual Learners)**
4. **Do (Tactile, Kinesthetic, Exploratory Learners)**



1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.

Read 1. Wikibook or Wikipedia Editing or Critiques

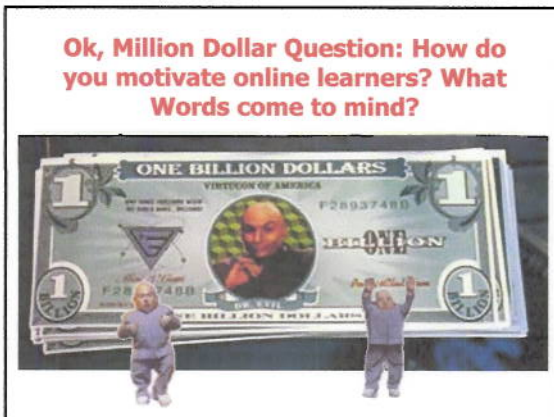
- Ask students to critique a wikibook or page from Wikipedia

Reflect 2. Analyze Online Cases (problems, solutions, etc.)

Display 3. Concept Mapping and Timeline Tools (VUE, Bubbl.us, Cmap, Freemind, Glify, Mindmeister, or Mindomo)

Do 4. Create Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)

We are not motivating students with the technologies that they love!



Magic #1: TEC-VARIETY Model for Online Motivation and Retention

1. **Tone/Climate:** Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback:** Responsive, Supports
3. **Curiosity:** Fun, Fantasy, Control
- ...
4. **Variety:** Novelty, Intrigue, Unknowns
5. **Autonomy:** Choice: Flexibility, Opportunities
6. **Relevance:** Meaningful, Authentic, Interesting
7. **Interactive:** Collaborative, Team-Based, Community
8. **Engagement:** Effort, Involvement, Excitement
9. **Tension:** Challenge, Dissonance, Controversy
10. **Yields Products:** Goal Driven, Products, Success, Ownership

1. Tone/Climate: A. Video Course Intros
 (examples from Northern Virginia Community College and Indiana University KD (online MBA) program)
 Yun Yun Chow, Open U Malaysia, Making Art Lessons Come Alive with Web 2.0
<http://www.youtube.com/watch?v=BO9rqJD1GXo>

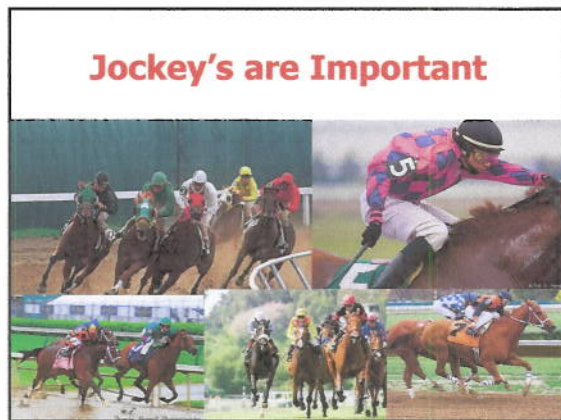
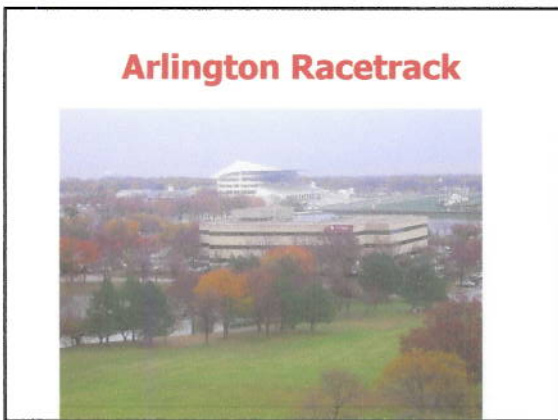
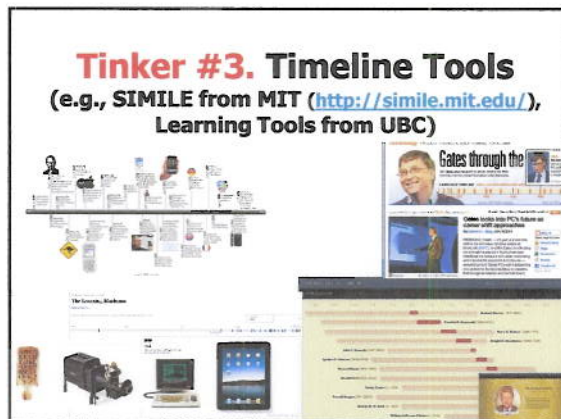
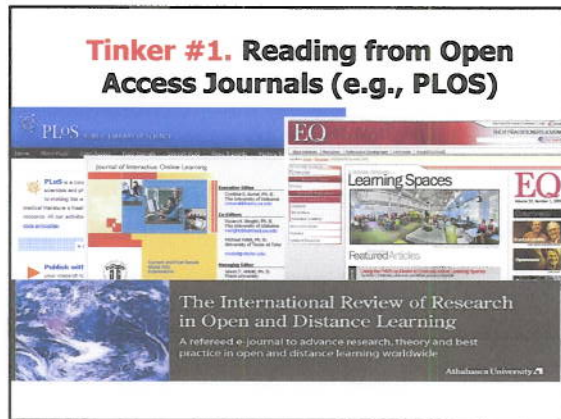
2. Encouragement, Feedback, etc.:
A. Online Self-Testing (e.g., self study in accounting, vocabulary, anatomy, chemistry, dissection, etc.)

6. Relevance, Meaningfulness:
A. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)

TEC-VARIETY Model for Online Motivation and Retention

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products



**Tinker #4. Online Literature Search
(Class Google Jockeys)**
(links to text, soundtracks, video clips, etc.)

**Tinker #5. Video Animations and
Self-Testings**

Tinker #6. Pubcasts.
(videos of authors of scientific papers and science; e.g., SciVee)

Tinker #7. Collaborative Groups
(Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)

**Tinker #8. Track Life of a Scientist or
Famous People (e.g., Brian J Ford,
independent scientist)**
<http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKjaSr>

Tinker #9. Online Portals of Rich Data
United Nations Opens World Digital Library, Turning
the Pages from the British Library, etc. (history,
culture, literature, writing, art, etc.)

Tinker #10. Online Experiments (e.g., psychology)

A collage of online psychology experiment resources. It includes a 'perception lab' interface with a grid of faces, a 'PSYCHEXPERIMENTS' website with the tagline 'Psychology Experiments on the Web', a 'Top Ten Online Psychology Experiments' article by Sandra Horst from Psych Central, and a 'BLUE' experiment interface.

Tinker #11. Open Ed Resources & OpenCourseWare (e.g., MIT OpenCourseWare)

Screenshots of open educational resources. The top part shows the MIT OpenCourseWare website with a 'Courses by Department' list. Below it is a YouTube video player showing a lecture titled 'Lec 3 | MIT 18.06 Linear Algebra, Spring 2005' with a professor standing in front of a chalkboard.

Tinker #12. Educational Simulations

A collage of educational simulation interfaces. It features a 3D rendering of a classical building with columns, a 3D molecular model of a protein structure, a virtual classroom with students at computers, and a simulation interface with a map and data points.

Tinker #13. Online Role Play (e.g., Tulane University, Exercise for Renewable Energy, Freeman Sch. of Business, roles include power traders and utility dispatchers, etc.)

A photograph showing students in a computer lab engaged in an online role-play exercise. They are seated at desks with computers, looking at screens and interacting with each other.

Tinker #14. Podcast Reflections

A collage of podcast covers and logos. It includes 'nature REVIEWS CANCER', 'Medicast' with a silhouette of a person, 'NursingShow.com', 'CVMD The Cardiovascular Medicine Education Network', and 'ENGLISH IN THE REAL WORLD weekly podcasts'.

Tinker #15. Expert and Domain Specific Blog Reflections (English, Health, Business, etc. blogs)

A collage of various expert and domain-specific blog posts and reflections. It includes a blog post titled 'THIS IS IT' with a person running, a blog post with a person's face, and a blog post titled 'ER Nurse' with a stethoscope.

Tottering

August 5, 2010
Remaking the College Campus,
 Bridget McCrea, Campus Technology

<http://campustechnology.com/Article.aspx?ArticleID=20100805Remaking-the-College-Campus.aspx> (Paper)

CAMPUS TECHNOLOGY

Should I Tot This? Click here to share your PPT subscription to Campus Technology.

Are students required to use mobile devices in your institution as part of their education?

Did You Know? Business

Remaking the College Campus

An e-learning campus can take a college campus of the future where physical space, technology, and collaboration blend.

By Bridget McCrea • 2010-08-05

Yonsei University Library, Seoul, Korea

Totter #1. Digital Textbooks

(What South Korean Schoolchildren Can Teach Colleges About E-Textbooks; Jeff Young, Chronicle of HE, Korea E-Learning Week, Coex, Seoul, Sept. 16-17, 2010.)

Totter #2. Bridges to World of Expert and Practitioners (e.g., Watch or Listen to Online Conferences, Expert blogs, chats, interviews)

Totter #3. Famous Expert Via TED (shared online video), Fast Company, Anya Kamenetz, September 1, 2010

Chris Anderson: The entrepreneur bought TED in 2001. "It felt like something you could devote your life to," he says

Totter #4. Real World Problems (PBL online): Real-time Cases

Totter #5. Class Synchronous Sessions and Archives (Breeze/Adobe Connect Pro, Elluminate, WebEx, Dim Dim)

Totter #6. Global Class Videoconferencing

On Wisconsin, Fall 2010

Dissolving Borders

Course puts distances aside to explore the dairy industries in Wisconsin and Mexico.

Michael Wattiaux PhD'00 must perform some major technological gymnastics during the hour before the students arrive. He battles with the backup, projection, and video-conferencing software needed to establish live, two-way video feeds with a handful of sister classrooms in Mexico. As each new link is made, he gives a wave and a nod: "Hola, ¿Cómo está?" To Wattiaux, this extra effort is well worth it. By the time students start to trickle in, the Pyle Center conference room has been transformed into a truly international lecture hall, with dairy science professors and students from across Mexico in virtual attendance, projected on the large screen at the front of the room. Dairy Science 3375: Evaluation of Dairy Agroecosystems in Wisconsin and Mexico is now in session. "This class offers a window into a different world."

Totter #7. Synchronous and Asynchronous Events (e.g., Breeze + Video + Online Forum + Online Papers)

Totter #8. Online Language Learning and Conversations (e.g., PalTalk, iTalki, Palabea, Babbel)

Totter #9. Course Announcements
 (e.g., Teaching with Twitter; Course announcements and following people (e.g., microblogging))

The image shows a Twitter interface with a search bar, a list of tweets from users like Stuart Brown, and a 'Follow me!' graphic with a penguin icon. The word 'education' is visible at the top right of the page.

Totter #10. Wikibooks, Wikipedia editing, wiki syllabi, wiki glossaries
 (Ron Owston, York University, Toronto)

The collage includes a person editing a page, a 'Web 2.0' graphic with social media icons, a person's portrait, and the Wikibooks logo. The text 'Web 2.0 and Emerging Learning Technologies' is at the top right.

Totter #11. Student YouTube Products
<http://www.youtube.com/watch?v=xiwS1ryPzsQ>
http://www.youtube.com/watch?v=x3FJy4Pn_E
<http://www.youtube.com/watch?v=eD1awpaSuPQ>

The image shows several YouTube video thumbnails and player interfaces, including one with the word 'FREEDOM' and another with a person speaking.

Totter #12. Podcast Productions and Virtual Performances for students of pronunciation class
 (e.g., Tzu-Su Chen, Taiwan)

The collage features a 'podomatic' podcast cover with the text 'Hey Juice, don't make it bad. Take a sad song and make it better.', a 'News' podcast cover, and several video thumbnails including one for 'TWELFTH NIGHT'.

Totter #13. Video Blogging

The image shows a YouTube video player with a video titled 'Reflections: Tech In Education' by Justin Mering. The video shows two people sitting at a table. The YouTube interface includes search, share, and like buttons.

Totter #14. YouTube as Class


The collage includes several YouTube video thumbnails, a classroom scene with students at desks, and a video titled 'Juliett Final Video'.

Totter #15. Learn Anytime, Always On/Mobile. Will Technology Kill the Academic Calendar? Online, semesters give way to students who set their own schedules, Marc Parry, Chronicle of HE, October 10, 2010




Robert Johnson, who championed the open-format Learn Anytime program at a two-year college in Louisville, Ky. (above) checks students' e-mail while waiting for a flight. "Everything I need to do today, I can do on my phone," says Robert Johnson, who led the self-paced Learn Anytime program at Jefferson Community & Technical College, in Louisville, Ky. He often grades papers and communicates with students from a cafe near his home.

Totally Extreme Learning




Totally Extreme #1. Free Online Degrees
IS MART: Integration of Science, Mathematics, and Reflective Teaching (IS MART), University of Houston

You see the big picture. You find the connections. Make it official - become IS MART.




Jen Chauvot and Mimi Lee, Univ of Houston

Totally Extreme #2. Live Science
 (e.g., Human brain dissections, colossal squids discovered and investigated)



December 11, 2009 12:00 PM EST
 Human Brain Dissected Today in a Live Webcast

Totally Extreme #3. Immediate Science
Ida (a transitional species) 47-Million-Year-Old Fossil the Missing Link? (May 20, 2009)



Ida's World
 Look for the missing link with the remains of the Eocene 47 million years ago

UNCOVERING OUR EARLIEST ANCESTOR


Dr. Jörn Weigmann
 University of Göttingen

Totally Extreme #4. Live Expeditions
 (Oceanographer touts deep sea web surfing; Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms as discoveries made, eSchool News, June 2010, Deep-sea images reveal colorful life on ocean's floor, Sept. 2010))




NAUTILUS LIVE

Totally Extreme #5. Adventure Learning, GeoThentic, GoNorth (National Geographic) (Aaron Doering, Univ of Minnesota)



Earthducation, Aaron Doering and Charlie Miller, The University of Minnesota
<http://lt.umn.edu/earthducation1/>



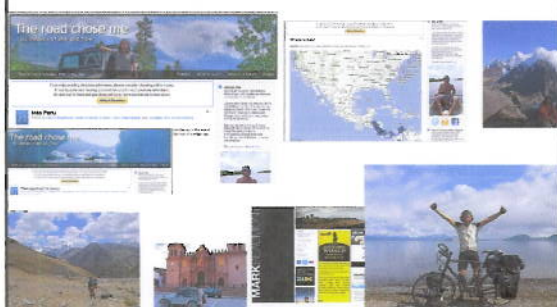
Explorer Blogging and Interaction, e.g., Cassandra Brooks, Ice Stories



THE LAST OCEAN, The Last Ocean Project
<http://www.lastocean.com/> and <http://lastocean-project.org/>
Cassandra Brooks



Adventure Learning (cars and bikes)
Dan Grec and Mark Beaumont



Totally Extreme #6. Armchair Archeology
UCLA Summer Digs Program



Totally Extreme #7. Google Earth Archeology (David Thomas, Archeologist, La Trobe University, Australia)

The screenshot shows a Discovery News article titled "Google Earth Archeology". It features several images: a person in a field, a close-up of a stone structure, and a landscape view from Google Earth. The text discusses how Google Earth is used to study ancient sites.

Totally Extreme #8. Teen Solo Sailing.
 May 2010, Jessica Watson became the youngest person ever to sail solo, non-stop and unassisted around the world.

The screenshot shows a blog page for Abby Sunderland's solo sailing. It features a large image of Abby, a world map showing her route, and several smaller photos of her on the boat. The text describes her journey around the world.

Totally Extreme #9. South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011
<http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2>

The image shows two screenshots of a CNN article titled "South African teens get virtual mentoring from all over the world". The left screenshot shows a young woman wearing a headset, and the right screenshot shows a grid of video feeds from various participants.

South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN
 January 14, 2011 3:44 p.m. EST
<http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2>

The image shows two screenshots of a CNN article titled "South African teens get virtual mentoring from all over the world". The left screenshot shows a young man at a computer, and the right screenshot shows a woman speaking.

Totally Extreme #10. On-Demand Multi-Participant Synchronous Conferencing

The screenshot shows a multi-participant video conference interface. It features a grid of video feeds for several participants, a central chat window, and a presentation slide with the text "WE ALL LEARN".

Totally Extreme #11. Robot Teachers
 Another Benefit of Robot Teachers: No 'Moral Problems', Chronicle of Higher Ed, eff Young, Sept 15, 2010

The screenshot shows a video about robot teachers. It features a grid of video feeds showing students interacting with a robot teacher. The text discusses the benefits of robot teachers, specifically mentioning "No 'Moral Problems'".

Totally Extreme #12. International and Global Education and Competitions
 (e.g., Global Game Jams, online role play, Global Videoconferencing)

Totally Extreme #13. Pocket School and Videoconferencing in Developing World
 (Paul Kim, Stanford, Rwanda, August 2010, Kigali Institute of Education linking up with universities in India and Cameroon through Satellite Internet video conferencing system. They were discussing Java programming.)

Totally Extreme #14. Second Life
 (business, law, education, English, medicine)

Totally Extreme #15. Telepresence and Teleportec Systems (e.g., Cisco and HP)

Final Poll: How many ideas did you get?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.
7. More than 10.

Any Extreme Questions and Comments?

Note: Bonk papers and talks at:
 Slides at: TrainingShare.com
 Papers: PublicationShare.com
 Book: <http://worldisopen.com/>