



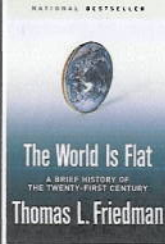
Stretching the Edges of Technology-Enhanced Teaching: From Tinkering to Tottering to Totally Extreme Learning

Curtis J. Bonk, Professor, Indiana University
 cjbonk@indiana.edu
<http://mypage.iu.edu/~cjbonk/>

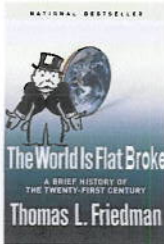


Is the World Flat?







The World Is 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



Or is it Open?





OPENING UP EDUCATION

The Collective Advancement of Education Through Open Technology, Open Content, and Open Knowledge

Edited by
John Hays and M. S. Vijay Kumar

CNN Heroes, List of Top 10 Heroes

CNN, December 11, 2011

The Heroes: http://www.cnn.com/PEOPLE/Spec/heroes/index.html?hp_hp_11







Illiterate until his 90s, Jim Henry is now an author

Janice Lloyd, USA TODAY, Dec 27, 2011

<http://www.usatoday.com/story/news/nation/2011/12/27/illiterate-until-90s-jim-henry-is-now-an-author/1111111>





Unbroken: A World War II Story of Survival, Resilience, and Redemption (2010)

(Louis Zamperini, age 93, online interview)

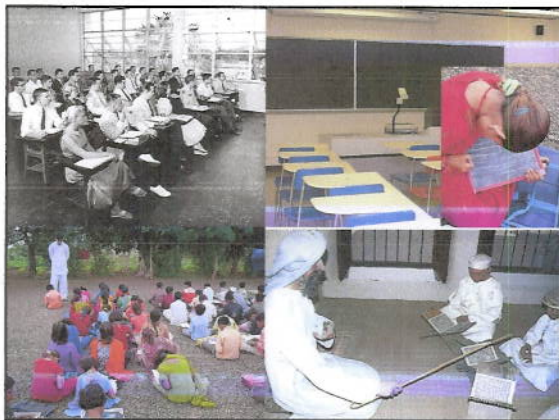
<http://www.amazon.com/Unbroken-Louis-Zamperini/dp/0312384467>













Yonsei University Library, Seoul, Korea

Aces of Spaces, Campus Technology, June 2011, Jennifer Demski

Framework #1: 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)

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.

Question: What is the Web?


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

=====


No, it is a learning tool!



Answer: The Web of Learning





The Web of Learning



We are entering a jumping off point...

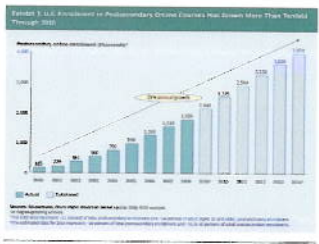
Elements of the Web's Next Generation

August 11, 2011


Unleashing the Potential of Technology in Education, The Boston Consulting Group, Allison Bailey, Tyce Henry, Lane McBride, & J. Pucket

<http://www.bcq.com/documents/file82603.pdf>



September 2010

Meta-Analysis Update: Blended and Fully Online Still Best!



U.S. Department of Education
Office of Planning, Evaluation, and Policy Development
Policy and Program Studies Service

Prepared by
Barbara Means
Yukie Toyama
Robert Murphy
Marianne Bakia
Katie Jones

Center for Technology in Learning

Revised September 2010

But when do we embrace online learning?
 (Katrina, August 2005; Ike, Sept 2008; Irene, August 2011)

After earthquakes!

**During Snowmegeddon,
 Washington, DC (winter of 2010)**

**When there are
 diseases and
 outbreaks...(SARS,
 2003; H1N1, 2009-
 2010)**

We should not be content!

I am not Content!!!

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

A Vision of Today's Students

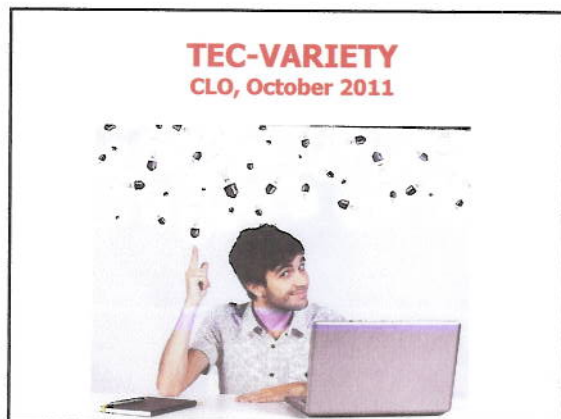
Jumbo Motivation is Needed!

Ok, Million Dollar Question: How do you motivate online learners? What Words come to mind?

Motivation Research Highlights
(Jere Brophy, Michigan State University)

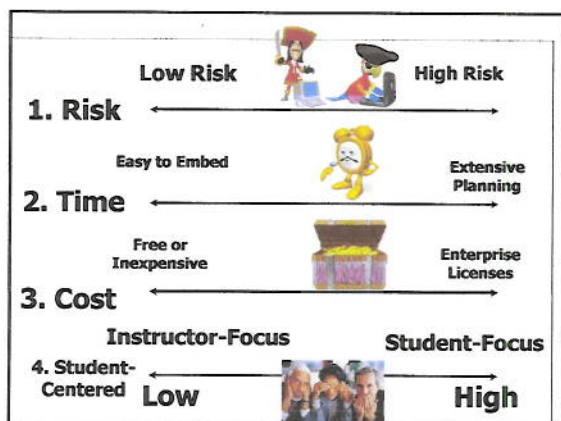
1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
3. Offer rewards for good/improved performance.
4. Novelty, variety, choice, adaptable to interests.
5. Game-like, fun, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback, advance organizers.
9. Show intensity, enthusiasm, interest, minimize anxiety.
10. Make content personal, concrete, familiar.

I even reflected on this for a moment...and then something magical happened...



Framework #2: TEC-VARIETY 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: Social Ice Breakers

A. Public Commitments:
Have students share how they will fit the coursework into their busy schedules

B. Favorite Websites

- Everyone posts 1-2 of their favorite Websites and explain why.
- Peers comment on or rate them.

1. Tone/Climate: Social Ice Breakers

C. 8 nouns (adjectives, verbs)

- List of nouns: (e.g., pirate, computer, traveler, roadrunner, wind, bookworm, musician, mentor, etc.)
- <http://www.momswhothink.com/reading/list-of-nouns.html>
- List of adjectives: (e.g., lazy, powerful, shy, bored, exotic, cooperative, sloppy, rebel, etc.)
- <http://www.momswhothink.com/reading/list-of-adjectives.html>
- List of verbs: (e.g., coordinate, entertain, amuse, push, unite, beg, dream, publicize, etc.)
- <http://www.momswhothink.com/reading/list-of-verbs.html>

1. Tone/Climate: D. 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 vocabulary, anatomy, chemistry, dissection, etc.)

Upper Extremity Muscles

Which of the following are ANTONYMS for the word MAXIMUM?

A. low, underdeveloped, fatigable, unstable

B. un-phony, useful, porous

C. certain, withheld, lumpy, bald

D. make happy, cheer, assure, please

E. smaller, less, minimum, direct

A B C D

1 / 20

2. Encouragement, Feedback, etc.:
B. Tutorials with Screen Capture (e.g., Jing, Screencr, GoView, etc.)

Jing

Download Jing to free

Record video of computer action

Share instantly over the web, IM, email

screencr

Instant screenshots for Twitter

2. Encouragement, Feedback, etc.:
C. Vocab Sushi (\$25 for 3 months)
<http://www.vocab sushi.com/>

Vocab Sushi

for each word you get right, we donate 10 grams through the United Nations to help feed world

Rice

1435

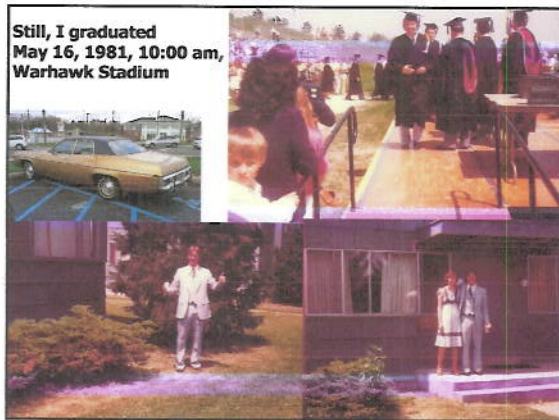
38

2. Encouragement, Feedback, etc.:
D. Online Accounting Lessons (e.g., Lyryx; <https://lifa.lyryx.co>)

lyryx

INCORRECT X

Lyryx Interactive Financial Accounting



2. Encouragement, Feedback, etc.:
E. Blog and Website Polling (e.g., BlogPolls, BlogPoll, MicroPoll, etc.)

blogpolls

Welcome to Blog Polls!

blogpoll

Set up your custom poll in minutes, for FREE!

Poll Questions (page 1 of 2)

3. Curiosity, Fun: A. Online News (Politics, Giant jellyfish, Tiny T. rex, and Ardi)

3. Curiosity, Fun: B. Online Social Networking Games (e.g., scrabble, hangman, etc.)

Google takes swing at Facebook in social games

3. Curiosity, Fun: C. Online Database Activities (e.g., WolframAlpha)

<http://www.wolframalpha.com/>

3. Curiosity, Fun: D. Track a Scientist, Scholar, Celebrity, Writer (e.g., Biography.com, biography online, FamousPeople.com)

3. Curiosity, Fun: E. Music Videos of Content History for Music Lovers, Washington Post

The French Revolution ("Bad Romance" by Lady Gaga)
Trojan War ("Tainted Love" by Soft Cell)
Charlemagne ("Call Me" by Blondie)

<http://www.youtube.com/watch?v=78iend8aob9&pbj=8&pr=12&JULC3sgdA>

4. Variety, Novelty: A. Cool Resource Provider or Tech Demos

PS40 Cool Resource Provider and Moderator Sign Up Sheet

4. Variety, Novelty, Fun, Fantasy:
B. Random Lists (Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)

RANDOM.ORG **RANDOM.0**

Coin Flipper Dice Roller List Randomizer

The screenshot shows the Random.org website interface. On the left is the 'Coin Flipper' tool with two virtual coins and a 'Flip Again' button. In the center is the 'Dice Roller' tool showing two dice faces and a 'Roll Again' button. On the right is the 'List Randomizer' tool with a list of items and a 'Random Sequence Generator' button.

4. Variety, Novelty, Fun, Fantasy:
C. Timers (Stopwatches, Countdown Timers, Stopwatch Bombs, etc.; <http://www.online-stopwatch.com/countdown-timer/>)

The screenshot shows an online stopwatch website. It features a large digital display showing '00:01:39'. Below the display are 'Start' and 'Clear' buttons. To the left, there is a graphic of a stopwatch with a yellow cord.

5. Autonomy, Choice: A. Online Literature Search (Class Google Jockeys) (links to text, soundtracks, video clips, etc.)

The screenshot shows a grid of search results for an online literature search. The results include various images, text snippets, and video thumbnails related to literature.

5. Autonomy, Choice:
B. Web Exploration Assignments

1. Complete Works of Charles Darwin Online: <http://darwin-online.org.uk/>
2. The Complete Works of William Shakespeare: <http://shakespeare.mit.edu/>
3. Edgar Allan Poe Society of Baltimore: <http://www.eapoe.org/>
4. Einstein Archives Online: <http://www.alberteinstein.info/>
5. Federal Resources for Educational Excellent project: <http://free.ed.gov/>
6. Global Text Project: <http://globaltext.org/>
7. iBerry (Open Courseware Directory): <http://iberry.com/>
8. Jane Austen: <http://www.janeausten.org/>
9. The Jane Goodall Institute: <http://www.janegoodall.org/>
10. Timeless Hemmingway: <http://www.timelesshemmingway.com/>

The collage includes a book cover for 'The Complete Works of William Shakespeare', a portrait of Charles Darwin, a portrait of Albert Einstein, and a portrait of Jane Austen.

6. Relevance, Meaningfulness:
A. Online Cases (e.g., Mark Braun, IU)



The screenshot shows an online medical case study interface. It features several histology slides with labels such as 'Slide 106, ovum with trophoblastic reaction', 'Slide 107, ovum with trophoblastic reaction', 'Slide 108, ovum with trophoblastic reaction', 'Slide 109, ovum with trophoblastic reaction', and 'Slide 110, ovum with trophoblastic reaction'. There is also a patient photo and a 'I'd like to take the quiz now.' button.

6. Relevance, Meaningfulness:
B. 60 Second Recap, Jenny Sawyer
<http://www.60secondrecap.com/>
 Actress to students: Lend me your earbuds!
 English major, 24, rambunctiously recaps the classics in 60-second Web videos; By Greg Toppo; USA TODAY, September 2009


The screenshot shows the 60 Second Recap website. It features a video player with a woman speaking, a 'Recaps for this book' section, and a '3: the plot, part 1' section.

6. Relevance, Meaningfulness:
C. Tour an Online Oil Drilling Site or Role Play Situations (i.e., BP)
<http://www.youtube.com/watch?v=ts45BkAnqTs>


Open newsroom learning


6. Relevance, Meaningfulness:
D. Anchored Instruction (e.g., Learning and Memory Videos in YouTube)



6. Relevance, Meaningfulness:
E. Video is Popular in the UK (Videos of the Periodic Table, Univ of Nottingham)




7. Interactive, Collaborative:
A. Working In Virtual Teams (e.g., Collanos, Ning, Groove, SharePoint, Google Docs)



Ning

7. Interactive, Collaborative:
B. Collaborative Video Annotation
 Creating-annotated discussions: An asynchronous alternative, Craig Howard and Rodney Myers, *International Journal of Designs for Learning*, 1(1)
<http://scholarworks.iu.edu/journals/index.php/ijdl/article/view/853/912>



7. Interactive, Collaborative:
C. Dr. Monica Rankin's class, UT Dallas, Cuban Revolution (April/May 2011)
<http://www.youtube.com/watch?v=ocQMf1kPo98>



10. Yields Products, Goals:
A. More Student YouTube Products

Miguel Lara (Web 2.0 FREEDOM): <https://www.youtube.com/watch?v=8m0c2798908>
 Shuya Xu and Yue Ma (Blog my online lmg): <https://www.youtube.com/watch?v=im7GQH9fzbc>
 Julie Rust (Participatory Learning): https://www.youtube.com/watch?v=stx_SbRWV0M
 Cesar Dogli (Animal perspectives on course): <https://www.youtube.com/watch?v=cDeTEld05k>

10. Yields Products, Goals:
B. Photo Festivals and Competitions
 (e.g., COFA at UNSW, Scrapblog, flickr, etc.)

<http://www.youtube.com/watch?v=im7GQH9fzbc>

TEC-VARIETY Model for Online Motivation and Retention

Tone/Climate
 Encouragement, Feedback
 Curiosity

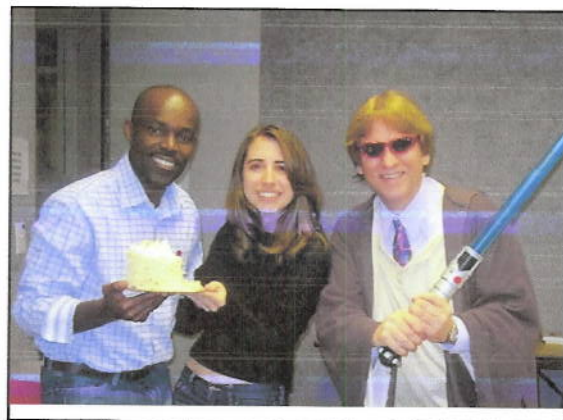
Variety
 Autonomy
 Relevance
 Interactive
 Engagement
 Tension
 Yields Products

Do you feel Jumbo Motivation?
Poll #1: How many ideas did you get so far?

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.



Framework #3:
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 1a. Learning Planet: Interactive Glossary

Umida Khikmatillaeva, Dec. 2011, P540
<http://learningplanet.shutterfly.com/>





Read 1b. Listen or Read to Open Access Expert Podcast Shows and Blogs



2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives

Reflect 2a. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State University, Come and See Africa Blog; <http://comeandseeafrica.blogspot.com/>)



Reflect 2b. Critical Friend Blog Postings (Kristen and Susan)



Do 4a. Singing YouTube Summaries

Daniel Halluska, P540, Fall 2011
<http://www.youtube.com/watch?v=tOL7irGsqnw>

Do 4b. Prezi Summaries

Dylan Wajda-Levie, P540, Fall 2011
<http://www.prezi.com/2009/08/27/learning-theories-in-ps40/>
<http://www.prezi.com/2010/03/18/is-the-world-open/>
<http://www.prezi.com/2010/03/18/that-was-in-1945/>

Do 4c. Podcast Productions and Shows

Do 4d. Paired Article Critiques in Blogs

• Students sign up to give feedback on each other's article reviews posted to their blogs.

Article	Student Critique	Student Peer Review
Arbaugh, J.B. (2007). Does the Community of Inquiry Framework Predict Outcomes in Online MBA Courses?	Stephan Meyer Caroline Pavuluri Lin Yu Alex Shuler	Lorraine Ryan Karen Leonard Flora Liu Loi Adkinson
Meyer, K.A. (2005). Face-to-Face versus Threaded Discussions: The Role of Time and Higher-Order Thinking	Lorraine Ryan Heidi Oberst Nerea Ariza Karen Leonard Erinica Wilkinson	Paul Anderson Yvonne Toney Carolee Perreault Lin Yu Alex Shuler
Shen, P., Li, C.S., and Pickett, A. (2006) A study of teaching presence and student sense	Heather Sherratt David Wilson	Sasha Thompson Nerea Ariza

Do 4e. Virtual Microscopes

(Sungkyunkwan University School of Medicine, www.mededu.or.kr)

Stomach, endoscopic examination and biopsy
 Poorly differentiated tubular adenocarcinoma


Post-operative
 Advanced gastric carcinoma with multiple lung metastases with lymphovascular growth

Do 4f. Virtual Quizzes

(Sungkyunkwan University School of Medicine, www.mededu.or.kr)

Do 4g. Wikibook or Wikipedia Editing or Critiques

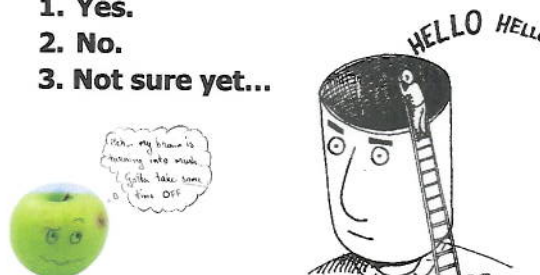
- Ask students to critique a wikibook or page from Wikipedia



The screenshot shows a Wikipedia article for 'Kaprotochus'. The text is mostly illegible but includes a description of the genus. There is a small image of a fossilized skull on the right side of the page.


**Try the R2D2 and TEC-VARIETY!
Poll #2: Is your brain mush?**

1. Yes.
2. No.
3. Not sure yet...




A cartoon illustration of a person's head. A ladder is leaning against the top of the head, with a small figure climbing it. The words 'HELLO HELLO' are written in an arc above the head. A thought bubble next to the head contains the text: 'Oh... my brain is turning into mush. Gotta take some time OFF'. To the left of the head is a green apple with a smiling face.

**Framework #4:
From Tinkering to Tottering to Totally
Extreme Learning...**




Two side-by-side photographs showing a group of monkeys sitting at desks in a computer lab, interacting with desktop computers. The monkeys appear to be using the computers in a playful or experimental manner.

Tinkering




A collage of four images related to the concept of tinkering. Top left: A person's hands working on a small object. Top right: A colorful illustration of a fairy with wings. Bottom left: A red sign with the word 'TINKERING' and the quote 'I'm a thinker, therefore I tinker!'. Bottom right: A word cloud with the word 'tinkering' in large red letters.

10 Blended Models



An illustration of a child sitting at a wooden table, working on a model airplane. The child is wearing a red shirt. To the right of the child is a yellow model airplane. Further right is a small figure of a person standing.

**Blended Model #1. Face-to-Face
Primary
(online is for remediation of
supplement)**



Two images illustrating the blended model. On the left, a woman is lying on her stomach, using a laptop computer. On the right, a bowl contains several colorful pills of various shapes and sizes.

Blended Model #2. Rotation
(students alternate FTF and Oline instruction)



Blended Model #3. Flex
(curriculum primarily online with instructors available FTF)



Blended Model #4. Online Lab
(lab or field experience component of course is online)



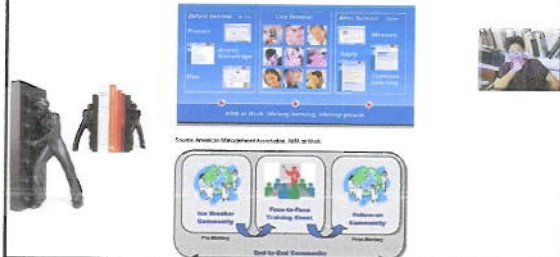
Blended Model #5. Self-Blend
(students decide on which courses they take online or which portion of the course is online)




Blended Model #6. Online Driver
(courses primarily online and physical facilities used to supplement or as needed)



Blended Model #7. Bookend
(first and last part of the course is online and middle portion is online; AMA Special Report)



Blended Model #8. Anchor (start with FTF or what students are familiar with and then move to online; Alison Rossett (2006))



The slide features a large anchor in the center. To the left is a small image of a boat on the water, and to the right is a small portrait of Alison Rossett, a woman with short dark hair wearing a green jacket.

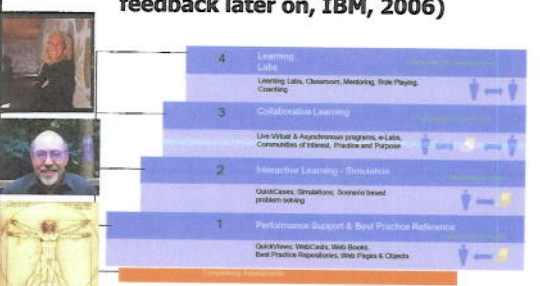
Blended Model #9. Field (combine FTF and online as needed...mix and match, AMA, 2006)

Table 1. What Might Go in the Blend

Live face-to-face (formal) <ul style="list-style-type: none"> Instructor-led classroom (F2F) Workshops Coaching, mentoring On-the-job (OJ) training Work-based problems 	Live face-to-face (informal) <ul style="list-style-type: none"> Collegial relationships Work teams Apprenticeships
Virtual collaboration/synchronous <ul style="list-style-type: none"> Live e-learning classes Coaching, e-mentoring Instant messaging, SMS 	Virtual collaboration/asynchronous <ul style="list-style-type: none"> Email Online communities and discussion boards Listserve Wlogs, wikis, podcasts
Self-paced learning (print, CD/DVD, electronic, wireless) <ul style="list-style-type: none"> Online modules Online resource links Simulations and scenarios Assessments and self-assessments Workbooks, readings 	Performance support <ul style="list-style-type: none"> Online help systems Peer job aids Online knowledge databases Documentation Performance support tools

Adapted from Rossett, Douglas, & France, 2005, July

Blended Model #10. Degrees of Humanness (rely on computer-based feedback and interaction at first and switch to human feedback later on, IBM, 2006)




The diagram shows a staircase with four levels, each representing a degree of humanness. From top to bottom:

- Level 4: Learning Labs** - Learning Labs, Classroom, Mentoring, Role Playing, Coaching
- Level 3: Collaborative Learning** - Live/Virtual & Asynchronous programs, e-Labs, Communities of Interest, Practice and Purpose
- Level 2: Interactive Learning - Simulation** - OJ/Case, Simulations, Scenario-based problem solving
- Level 1: Performance Support & Best Practice Reference** - QuickView, WebCasts, Web Books, Best Practice Repositories, Web Pages & Objects

 Arrows indicate a flow from Level 4 down to Level 1, and from Level 1 up to Level 4.

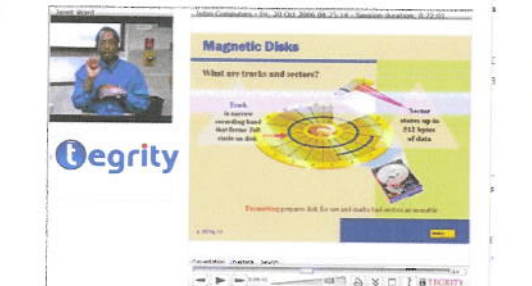
Tinker #1. Video Scenario Learning Accounting Interviews and Preparatory Course Review Modules (Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/managerialAccounting/cost-behavior-player.html>
<http://video.franklin.edu/Franklin/acct/342/common/FraudScenarioG2.html>



The screenshot shows a video player interface. The main content is a graph titled 'Cost Behavior' with 'Variable Cost' and 'Fixed Cost' on the y-axis and 'Number of Units' on the x-axis. A line graph shows total cost increasing with units. A smaller video window in the top right shows a man speaking.

Tinker #2. Webcast Lectures (Tegrity, Echo360, Mediasite, etc.)

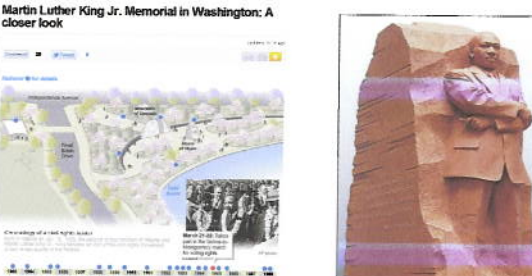


The screenshot shows a webcast lecture from Tegrity. The title is 'Magnetic Disks' and the question is 'What are tracks and sectors?'. The video shows a diagram of a hard disk platter with tracks and sectors. The Tegrity logo is visible in the bottom left corner.

Tinker #3. Timeline Tools (e.g., USA Today, August 26, 2011)

<http://www.usatoday.com/story/news/nation/2011/08/26/martin-luther-king-jr-memorial-washington/506242>

Martin Luther King Jr. Memorial in Washington: A closer look



The screenshot shows a USA Today article about the Martin Luther King Jr. Memorial in Washington. It features a map of the memorial site and a timeline tool. A large image of the memorial statue is on the right.

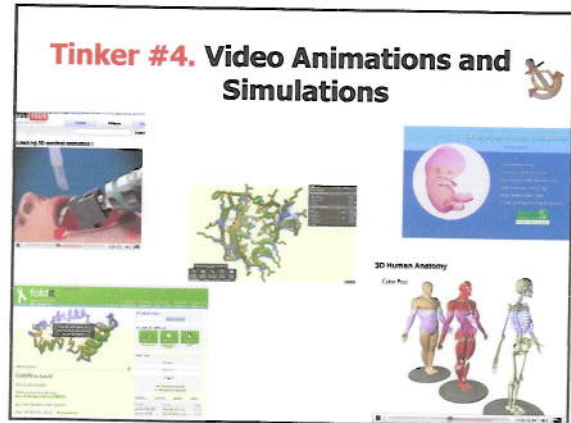
Tinker #3. Timeline Tools

(e.g., Steve Jobs' career, CNN, August 24, 2011)
http://www.cnn.com/2011/TECH/innovation/08/24/steve.jobs.timeline/index.html?hpt=hp_hp7



The image shows a screenshot of a CNN website featuring a timeline tool for Steve Jobs' career. The tool displays a series of images and text boxes representing key events in his life, such as the founding of Apple, the launch of the Macintosh, and the introduction of the iPhone. The interface is clean and user-friendly, with a navigation bar at the top and a central timeline area.

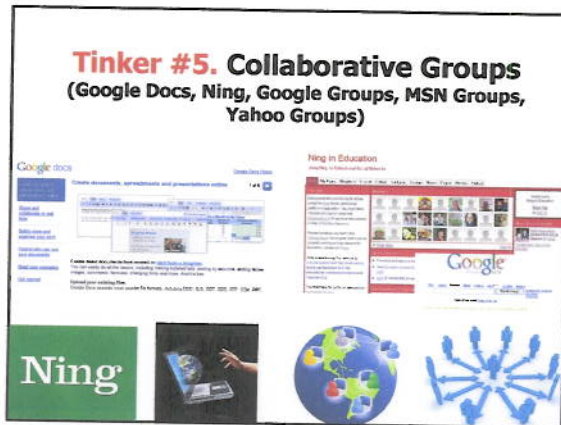
Tinker #4. Video Animations and Simulations



This collage includes several educational resources: a video of a person using a prosthetic hand, a 3D molecular model, a 3D human anatomy simulation, and a video of a person using a prosthetic hand. The 3D human anatomy simulation shows a human figure with internal organs highlighted in red, and a 3D molecular model shows a complex structure of atoms and molecules.

Tinker #5. Collaborative Groups

(Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)



The collage features screenshots of Google Docs, Ning in Education, and a Ning logo. It also includes a globe with network connections and a blue network diagram. The Google Docs screenshot shows a document being edited, while the Ning in Education screenshot shows a group page with members and activities.

Tinker #6. Case Learning and Role Play

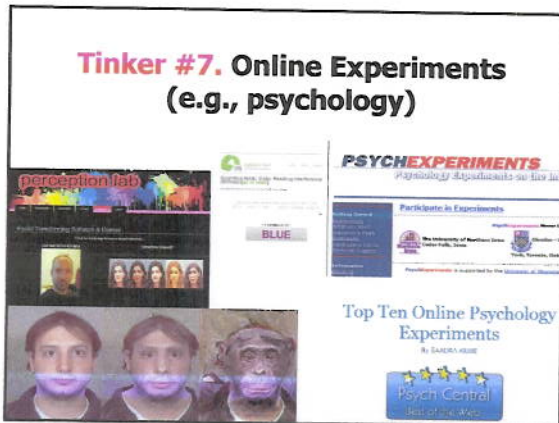
(Kelley Direct, IU)



The collage includes screenshots of a video conference, a classroom setting, and the Kelley School of Business logo. The video conference screenshot shows a man speaking in a virtual meeting, and the classroom screenshot shows a group of students sitting at desks in a lecture hall.

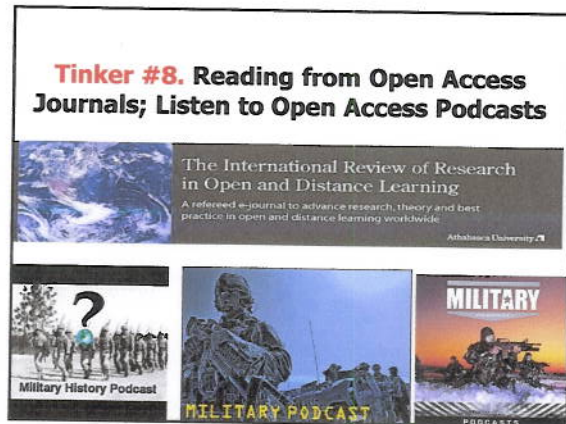
Tinker #7. Online Experiments

(e.g., psychology)





The collage features screenshots of Perception Lab, PsychExperiments, and a list of top ten online psychology experiments. The Perception Lab screenshot shows a face with a red dot, and the PsychExperiments screenshot shows a list of experiments. The top ten online psychology experiments list includes "The Stroop Effect" and "The Marshmallow Test".

Tinker #8. Reading from Open Access Journals; Listen to Open Access Podcasts

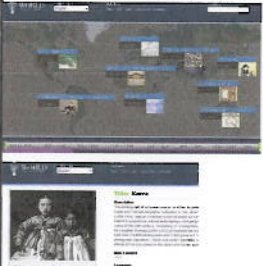



The collage includes covers of "The International Review of Research in Open and Distance Learning" and "Military History Podcast". The journal cover features a globe and the text "A refereed e-journal to advance research, theory and best practice in open and distance learning worldwide". The podcast cover features a soldier and the text "MILITARY PODCAST".

Tinker #9. Track Life of a Scientist or Famous People (e.g., Brian J Ford, independent scientist)
<http://www.youtube.com/user/tallymonitor#p/s/u/1/LhGeApsKjaac>

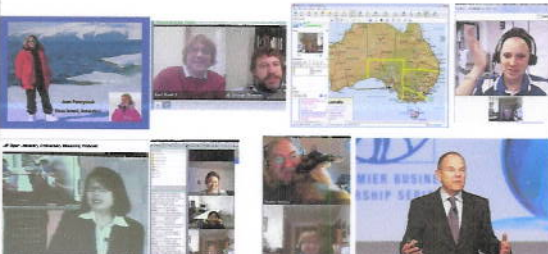
Tinker #10. Online Portals of Rich Data
 United Nations Opens World Digital Library, Turning the Pages from the British Library, etc. (history, culture, literature, writing, art, etc.)


Tottering



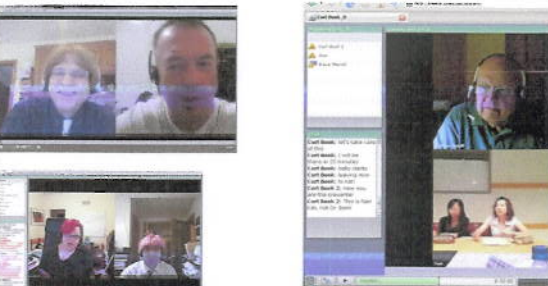

Totter #1. Bridges to World of Expert and Practitioners
 (e.g., Invite, Watch, or Listen to Online Conferences, Expert interviews, blogs, chats, etc.)



Totter #2. Global Class
Videoconferencing and Remote Lands
 (e.g., The seminar was structured on a series of videoconferences and virtual classes on e-learning platform, organized by the Major of the Health and Veterinary Corps of Italian Army Lorenzo TIDU, Veterinarian of the Task Force South of the Regional Command West, which is strongly involved in the specific field in favor of populations of the villages in the province of Farah.)



Totter #3. Combining Asynchronous and Synchronous and Synchronous Events



Totter #4. Multi-Site Events
(e.g., William and Mary, March 3, 2011)



Totter #5. Online Language Learning and Conversations
(e.g., PalTalk, iTalki, Palabea, Babbel)



Totter #6. Wikibooks, Wikipedia editing, wiki syllabi, wiki glossaries
(Ron Owston, York University, Toronto)



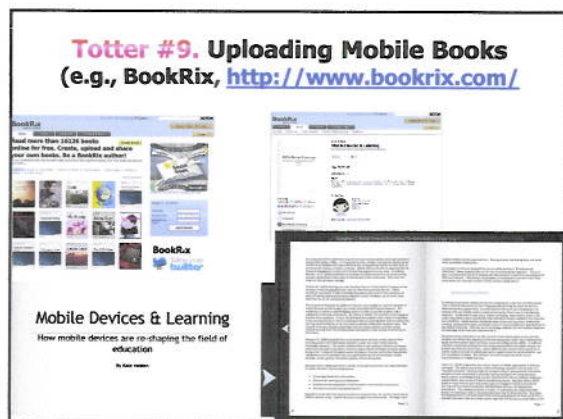
Totter #7. Podcast Productions and Virtual Performances for students of pronunciation class
(e.g., Tzu-Su Chen, Taiwan)



Totter #8. Video Blogging



Totter #9. Uploading Mobile Books
(e.g., BookRix, <http://www.bookrix.com/>)



Totter #10. Student Film Competitions
 Verily Tan, Recollections from R685, Fall 2011
<http://vimeo.com/33090590/> (Verily)
<http://vimeo.com/33123125> (Anjali)
<http://www.youtube.com/watch?v=1QZtHvuZ3rbw&feature=youtu.be> (Yue)

The image shows a screenshot of a Vimeo video player. The video title is "R685 Fall 2011 The World is Open". The video content shows a character in a red shirt standing on a stage with arms outstretched.

Totally Extreme Learning

Cameras stream Canadian polar bear migration

The image is a collage of several small images. It includes a polar bear in a snowy landscape, a person working at a computer, a person in a military uniform, a person in a control room, and a group of people sitting around a table.

Totally Extreme #1. Immediate Science
 Ida (a transitional species) 47-Million-Year-Old Fossil
the Missing Link? (May 20, 2009)

The image is a collage of images related to the fossil Ida. It includes a fossil of a primate, a person in a lab coat, and a person in a hat. Text on the page includes "THE LINK UNCOVERING OUR EARLIEST ANCESTOR" and "Ida's World".

Totally Extreme #2. Live Science
 (Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms a discoveries made)

The image is a collage of images showing live science expeditions. It includes a person in a control room, a person in a hat, a person in a lab coat, and a person in a boat. Text on the page includes "NAUTILUS LIVE" and "ORLANDO".

Totally Extreme #3. Armchair Archeology
 UCLA Summer Digs Program

The image is a collage of images showing archeological excavations. It includes a person digging, a skull, a person in a hat, and a person in a lab coat. Text on the page includes "Public Tagged 'UCLA Summer Digs Program'" and "UCLA Summer Digs Program".

Totally Extreme #4. Adventure Learning
 (e.g., GeoThentic, Earthducation, Polar Husky, GoNorth; Aaron Doering, Univ of Minnesota; cars and bikes--Dan Grec and Mark Beaumont)

The image is a collage of images showing adventure learning activities. It includes a person on a bicycle, a person in a hat, a person in a lab coat, and a person in a boat. Text on the page includes "The road chose me" and "DAILY UPDATE: 1-13-11".

Totally Extreme #5. The Last Ocean Project, Ice Stories, and Shark Theater (24 foot inflatable screen (and outdoor ocean theater) to tiny island communities) <http://www.lastocean.com/> and <http://lastocean-project.org/>; Cassandra Brooks

Totally Extreme #6. 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/crheroes.stokes/index.html?hpt=I2>

Totally Extreme #7. Open Teaching and Massive Open Online Courses (i.e., MOOC, David Wiley, George Siemens, Ray Schroeder)

eduMOOC
 Online Learning Today...and Tomorrow

Welcome to eduMOOC 2011

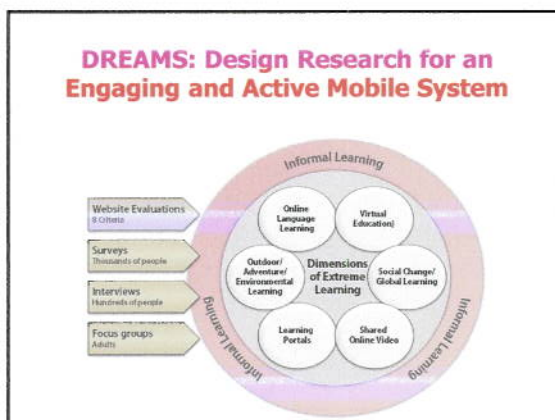
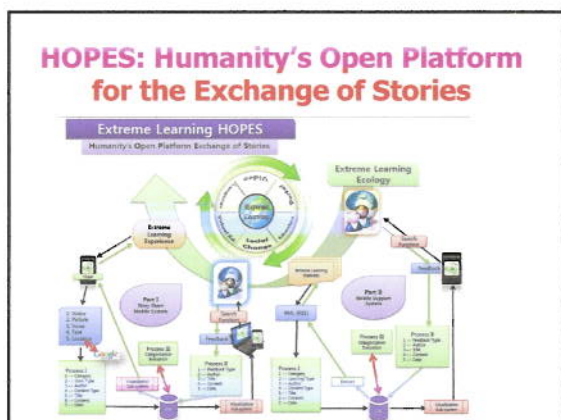
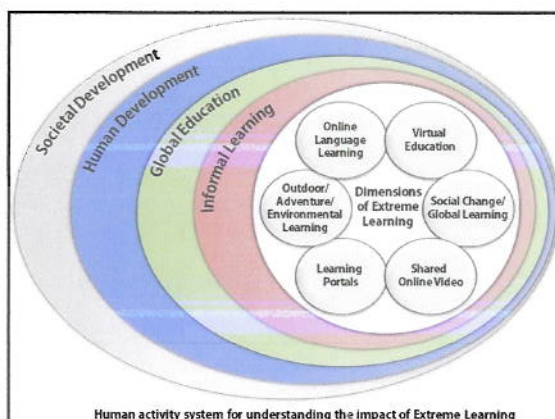
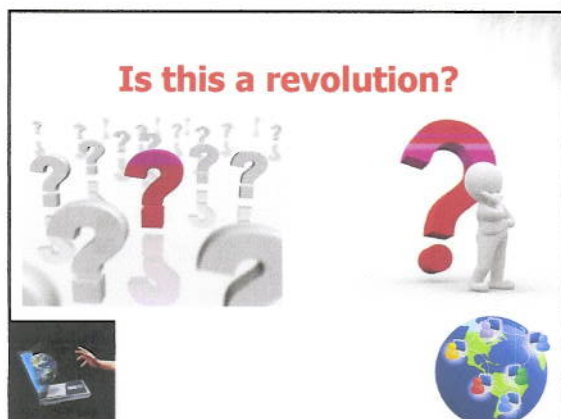
Accessing Online Learning - From the MITOC open video, arbitrary low content material can be re-

Totally Extreme #8. International and Global Education and Competitions
 (e.g., Global Game Jams, online role play, Global Videoconferencing)

Global Game Jam

Totally Extreme #9. Telepresence and Teleportec Systems (e.g., Cisco and HP)

Totally Extreme #10. Military Mobile Learning and MBAs from War Zones (u.s. Army Learning Concept for 2015; 2011, January 15).
<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)



DREAMS: Design Research for an Engaging and Active Mobile System

- **Online Language Learning Sites:** Babbel, Livemocha, ChinesePod, English Central, BBC-Languages, Mixer, Voxopop, Kan Talk, Ling, Vocab Sushi, InterPals.
- **Outdoor/Adventure Learning:** Polar Husky, Earthducation, the Last Ocean Project, Impossible2Possible, Roadtrip Nation, Explo tv, Explorers Web, Nautilus Live.
- **Social Change/Global Education:** The Flat Classroom Project, Link TV, Soliya, ePals, IEARN, Free Rice, MGDFive.com, Infinite Family, Omnium Extension Projects.
- **Virtual Education:** Khan Academy, Open Yale, Wolfram Alpha, MIT OCW, Sophia, Peer 2 Peer University, Florida Virtual School, Wikiversity, Open High School of Utah.
- **Learning Portals:** JaneAustin.org, Einstein Archives Online, Shakespeare Online, Jane Goodall Institute, Curriki, MERLOT, Connexions, Encyclopedia of Life, Squidoo.
- **Shared Online Video:** Link TV, Book TV, Current TV, YouTube EDU, School Tube, Big Think, Fora TV, Clip Chef, Wonder How To, Howcast, TV Lesson, MIT World, Academic Earth, BBC Video Nation, CNN Presents, History for Music Lovers.

Time to Stretch the Edges?

Slides at: TrainingShare.com

Papers: PublicationShare.com

Book: <http://worldisopen.com/>

Email: curt@worldisopen.com

