The Flat World Swung Open: How Web Technology Is Revolutionizing Education

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Audience Poll #1: Has learning technology ever transformed your life.

1728: 1st correspondence course advertised Boston
(learn shorthand from Caleb Phillips thru weekly mailed lessons)
1728-1990s – Generally postal system based
1930s – phonograph and radio
1950s and 1960s – television
1970s and 1980s – VHS tapes
1980s and 1990s – DVD

February 26, 2013
Tablets Rock On: Education Tech Through The Ages, Information Week,
The First Correspondence Course
(University of London, External Program, 1858)
http://www.informationweek.com/education/leadership/educational-technology-across-the-ages/240149241

William Rainey Harper, first president of the University of Chicago, developed the concept of extended education. Research Univ. had satellite colleges of education in the wider community.

In 1892, he also encouraged the concept of correspondence school courses to further promote education, an idea that was put into practice by Columbia University.

May 10, 2013
10 ed-tech tools of the 70s, 80s, and 90s
eSchool News, Meris Stansbury
http://www.eschoolnews.com/2013/05/10/10-ed-tech-tools-of-the-70s-80s-and-90s/print/
Looking to the Past...

Life as an accountat/CPA in a high tech company in the 1980s...

Took Correspondence & TV Courses (thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)

Knowledge Navigator (1987) Apple Computer

Fast Forward 25+ Years...
"Anyone can now learn anything from anyone at any time."

February 26, 2013 Free Tablets for Everyone?
http://www.informationweek.com/education/leadership/educational-technology-across-the-ages/240149241
Actually Technology is Almost Free...

DataWind Prepared $20 Tablet Computer for Indian Market

A Canada-based company believes it can revolutionize education in India by rolling out a $20 tablet computer.

May 20, 2013

The Next Generation is Here!

The New Greatest Generation: Why Millennials will Save Us All, Time, Joel Stein

November, 2012

Degrees of Difficulty, Time

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Students with Debt</th>
<th>Average Debt (2013 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>46%</td>
<td>$14,500</td>
</tr>
<tr>
<td>2001</td>
<td>66%</td>
<td>$26,600</td>
</tr>
<tr>
<td>2012</td>
<td></td>
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</tbody>
</table>

Student debt loads are increasing

Having fewer degrees threatens our global competitiveness

November/December, 2012

The Siege of Academy

Washington Monthly, Kevin Carey,

September/October, 2012

Washington
Learning is Changing
New Technologies =
New Delivery Methods...

Charles Vest (April 4, 2001)
"This is about something bigger than MIT. I hope other universities will see us as educational leaders in this arena, and we very much hope that OpenCourseWare will draw other universities to do the same. We would be delighted if -- over time -- we have a world wide web of knowledge that raises the quality of learning -- and ultimately, the quality of life -- around the globe."

OCW Circuits and Electronics

I. Learning is More Open
(80-Year-Old WGU Texas Grad Keeps His Promise, November 30, 2012, Reeve Hamilton, Texas Tribune)

II. Learning also is More Collaborative
Collaboration and Discussion in Google Hangouts or with iPad, Jan. 28, 2013
(Carrie Gong from Beijing Normal University)

Audience Polls #2:
I. Who remembers where they were when they found out that Steve Jobs passed away?
II. Who remembers what they were doing on the day that John D. Kennedy was shot?
III. Who remembers what they were doing on 911?
IV. Who remembers what they were doing on 441?
III. Learning is More Mobile

IV. Learning is More Video-Based
Adora Svitak, WFP Youth Representative - 2013 ECOSOC Youth Forum, March 27, 2013

V. Learning is More Social
Facebook reaches one billion users, CNN Money, Aaron Smith, October 4, 2012

VI. Learning is More Personal
iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman (January 10, 2013)

VII. Learning is More Modifiable
Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business, Feb. 22, 2013

VIII. Learning is More Comfortable
Design for Students, with Students, “Hub Central”, the $42 million University of Adelaide learning hub opened in October 2011, May 8, 2012, Mike Roberts


http://designbuildsource.com.au/design-for-students-with-students
IX. Learning is More Massive
April 16, 2013 (NovoEd)
New MOOC Provider Says It Fosters Peer Interaction
Chronicle of Higher Education, Jake New
http://novoed.com/

January 23, 2013: The Bush MOOC Party?
Academic Partnerships Launches MOOC2Degree Initiative
Free, Open Online Courses As A First Step Toward A Degree
http://www.mooc2degree.com/

October 1, 2012: MOOC Students
4 Massive Open Online Courses and How They Work, Ben Gose, Chronicle of HE
http://chronicle.com/blogs/techtherapy/2012/10/03/episode-99-
what-wearable-computers-could-mean-for-campuses/

October 27, 2012
Travel for Office Hours
Chuck Severance, (U Michigan/Coursera) in Barcelona
http://www.youtube.com/watch?v=JzNHvmSv8TI

November 2, 2012
The Year of the MOOC,
New York Times, Laura Pappano,
http://www.nytimes.com/2012/11/04/education/edlife/massive-
open-online-courses-are-multiplying-at-a-rapid-pace.html?
pagewanted=all&_r=3&emc=eta1

April 20, 2013
Two Cheers for Web U!
A. J. Jacobs, New York Times
http://www.nytimes.com/2013/04/21/opinion/sunday/grading-
the-mooc-university.html?pagewanted=1&_r=3&_p=

Clockwise, from top left: an online course in circuits and electronics
with an M.I.T. professor (edX); statistics, Stanford (Udacity);
machine learning, Stanford (Coursera); organic chemistry, University
of Illinois, Urbana (Coursera).

Rajeev Bajpai, an airline pilot based in Mumbai, took an online computer-science course to gain programming skills.

Krissa Swain, of Knoxville, Tenn., is taking "Operations Management" online to help develop her management skills.

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May 6, 2013
Faculty Backlash Grows Against Online Partnerships
Chronicle of Higher Education, Steve Kolowich
http://chronicle.com/article/Faculty-Backlash-Grows-Against/139049/

June 19, 2013
2013 is "The Year of the Anti-MOOC"
George Siemens, UW-Madison Summit

X. Learning is More Ubiquitous
Flexible displays bend what’s possible for computers,
Jon Swartz, USA Today (May 4, 2012)

XI. Learning is More Instantaneous
April 9, 2013
(HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today
(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)
http://www.fiercemobilehealthcare.com/story/google-glasses-could-have-strong-potential-healthcare-use/2013-03-18

XII. Learning is More Global
UC Irvine (2013 report)
Example 3: Fundamentals of Japanese
Dr. Hidemi Riggs, Fall 2012 & Winter 2013
Tech-enhanced: EEE AdvancedWebspace (Dreamweaver), Skype video conferencing
Format: 3-2A lectures (24 students maximum); 2-3A lectures (24 students maximum)

February 22, 2013
NASA’s spacey Google+ Hangout
shows off zero-G antics – and cats!
http://cosmiclog.nbcnews.com/_news/2013/02/22/17057588-nasas-spacey-google-hangout-shows-off-zero-g-antics-and-cats/lite
Learning is Changing the World
(Book Review: Ed Tech Mag, May-June 2013)

April 15, 2013
World will soon be “Webified”
Google boss: Entire world will be online by 2020, Doug Gross, CNN

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!

The Web of Learning

It is very open!
(at least in Norway & the Philippines)

We are entering a jumping off point...
Framework #1: WE-ALL-LEARN: Ten Forces that Opened the Learning World

- Web Searching in the World of e-Books (i.e., Darwin)
- E-Learning and Blended Learning
- Availability of Open Source and Free Software (e.g., Moodle)
- Leveraged Resources and OpenCourseWare (e.g., MIT)
- Learning Object Repositories and Portals (i.e., shared content)
- Learner Participation in Open Info Communities (YouTube)
- Electronic Collaboration and Interaction (sync and async)
- Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

Audience Participation!

WE
ALL
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.

January 22, 2013
Free digital textbooks surge in popularity, Sarah Langmead, Assistant Editor, eCampus News,

Opener #1. Web Searching (e.g., Google, MSN, Yahoo!) in the World of e-Books (i.e., Darwin, Shakespeare, etc.)

Opener #2. E-Learning and Blended Learning
January 15, 2013
Online programs offered by Kelley and IU schools of education and nursing highly ranked by U.S. News, IU News Room

More than six million post-secondary students are taking online classes in the USA; growing by 10% per year.

August 5, 2013
Free Online Higher Education: 5 Best MOOCs
By Kannan Sankaran, Epoch Times
http://www.theepochtimes.com/n3/229640-5-best-moocs-for-free-online-higher-education/

Opener #3. Availability of Open Source and Free Software Moodle
(July 18, 2013: 72 million users in 237 countries, 84,518 sites, 7.6 million courses)

Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from Harvard Edx, MITx, CORE, OOPS)
February 16, 2012
Online Badges and Certifications from OER
University of Illinois at Springfield, Ray Schroeder
https://sites.google.com/site/opencontinuinged/

Some sample badges:

Opener #5. Online Learning Object Repositories and Portals (shared content)

Online Encyclopedias
(e.g., the Encyclopedia of Earth:
http://www.eoearth.org/)

History for Music Lovers, Washington Post
The French Revolution ("Bad Romance" by Lady Gaga)
Trojan Way ("Tainted Love" by Soft Cell)
Charlemagne ("Call Me" by Blondie)
http://www.youtube.com/user/historyteachers?blend=6&ob=5#p/f/12/kJULC0jsgdA
October 2010, The V-PORTAL (Bonk, IU) "Video Primers in an Online Repository for e-Teaching and Learning" V-PORTAL, TravelinEdMan (27 free/open YouTube videos) http://www.youtube.com/user/TravelinEdMan

Opener #6. Learner Participation in Open Information Communities (e.g., Slashdot, Digg, Wikipedia, YouTube)


Google Hangouts Class Sync Collaboration and Discussion (Spring, 2013)

April 15, 2013 Guest Speakers Sara de Freitas and Jim Hensman (https://connect.iu.edu/p2szystv6kj/) Jay Cross (https://connect.iu.edu/p4bytsoronh/).
A Story from the spring of 1995
Combining Asynchronous and Synchronous Events (flipping classes)

Opener #8. Alternate Reality Learning
(Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)

Opener #9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)
60,000 earthlings/hour get mobile

Military Mobile Learning (See: the U.S. Army Learning Concept for 2015; 2011, January 15).
http://www.youtube.com/watch?v=KD9NGAV3-3k (4:26 minutes)

Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)

June 3, 2012
Tutor/Mentor Connection (Chicago)
http://www.tutormentoryprogramlocator.net/InteractiveMap.aspx

Video Walls of Experts (IQ Wall)
Indiana University unveils high-tech classroom
The Herald-Times, May 22, 2013, Mike Leonard
http://www.indianaeconomicdigest.net/main.asp?SectionID=31&SubSectionID=135&ArticleID=69980

December 16, 2010
Introducing Word Lens
http://www.youtube.com/watch?v=h2OfQdYrHRs

What about the Instructor in the Open World?
1. Instructor as Credit Manager

7. Instructor as Conductor

9. Instructor as Curator

10. Instructor as Concierge

Finally... Decisions for this Open Ed World:

- Technology & Administrator Decisions:
  - What do to about OER, open source, E-books, mobile, etc.?

- Instructional Designer & Trainer decisions:
  - Act as Concierge, Counselor, Course facilitator, Credit manager?

- Formal Learner & Informal Lrnr decisions:
  - Should I attend traditional university or create your own degree path?
  - How to report use of OER on resumes?

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/

WE ALL LEARN!!!