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

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Audience Poll: Has learning technology ever transformed your life.

Looking to the Past...

Change not possible as an accountant...
(Life as a CPA, 1981-1986)

Knowledge Navigator (1987)
Apple Computer
http://www.youtube.com/watch?v=hb4AzF6wEoc

Fast Forward 25+ Years...
“Anyone can now learn anything from anyone at any time.”
I. Learning is More Technology Driven
Robots teaching English and Virtual Worlds
Dr. Meeyong Kim, Dajeon, Korea, May 2012

II. Learning is More Video-Based
GETideas Channel, Cisco (Thought Leader Series uploaded to YouTubEdu), July 22, 2011

III. Learning is More Mobile

IV. Learning is More Open
MIT+K-12: Making Video to Make a Difference, April 25, 2012
http://k12videos.mit.edu/

V. Learning is More Massive
Open Education’s Wide World of Possibilities
Chronicle of Higher Ed, Katherine Mangan, April 29, 2012

June 25, 2012
Massive Open Online Courses (MOOCs)
A Conversation With Bill Gates About the Future of Higher Education, Chronicle of HE, Jeffrey R. Young

February 5, 2013
Bioelectricity: A Quantitative Approach, Duke University's First MOOC

March 7, 2013
At South by Southwest Education Event, Tensions Divide Entrepreneurs and Educators, Jeffrey R. Young, Chronicle of HE

April 16, 2013 (NovoEd)
New MOOC Provider Says It Fosters Peer Interaction
Chronicle of Higher Education, Jake New
http://novoed.com/

VI. Learning is More Flipped
Mooresville's Shining Example, February 12, 2012
(It's Not Just About the Laptops), ALAN SCHWARZ, NY Times

VII. Learning is More Empowering
iPad gives voice to kids with autism
Supraja Seshadri, CNN, May 14, 2012
iPad gives voice to kids with autism
Sharia Siddiqui uses an iPad to help her communicate. Her father says it's "given her a sense of control she never had."
VIII. Learning is More Social
Facebook to help overhaul ICT curriculum, Money, Andrew Marszal, Telegraph, Oct. 19, 2012

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

X. Learning is More Flexible
New Learning Space Designs

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

Components of the wrist-worn display prototype developed at HP Labs are shown in this illustration. When completed, the device will incorporate a working flexible display powered by solar cells.
XII. Learning is More Pervasive (i.e., Streamed)
Google Glass (June 27, 2012)

Computer fashions face social test
Can wearable computers fit in?
Scott Martin, USA Today

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

XIV. Learning is More Global
(Book Review by Dr. Mimi Miyoung Lee: Ed Tech Magazine, May-June 2013)

Learning is Changing the World
(Book Review: Ed Tech Mag, May-June 2013)

Uruguay - Plan Ceibal
After 450,000+ notebooks

April 9, 2013
Computer fashions face social test
Can wearable computers fit in?
Scott Martin, USA Today
January 30, 2013
DataWind Prepared $20 Tablet Computer for Indian Market

April 15, 2013
Google boss: Entire world will be online by 2020, Doug Gross, CNN

The Web of Learning
It is very open!
(Norway, the Philippines, Saudi Arabia, etc.)

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!
We are entering a jumping off point...

Charles Wedemeyer,
University of Wisconsin

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!

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

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

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.
Trend #1. Web Searching in the World of e-Books. What happens then? WE ALL LEARN!!!

Worldreader, August 22, 2011
What Makes Ed Tech Successful in the Developing World?, ReadWriteWeb, David Risher
http://www.readwriteweb.com/archives/what_makes_educational_technology_successful_in_the_developing_world.php
http://www.worldreader.org/

March 24, 2012
In South Korean classrooms, digital textbook revolution meets some resistance, Washington Post

Opener #2. E-Learning and Blended Learning

March 2013
Commonwealth of 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.

Opener #3. Availability of Open Source and Free Software
Moodle (April 17, 2013: 68 million users in 232 countries, 79,400 sites, 7.2 million courses)

Opener #4. Leveraged Resources and OpenCourseWare (OCW) (e.g., free courses from Harvard Edx, MI Tx, CORE, OOPS)

May 2, 2012
MI T and Harvard announce edX
http://www.edxonline.org/about.html
EdX: The Future of Online Education is Now
http://www.youtube.com/watch?v=S46E6RVR

July 17, 2012
(Expanded Sept 19, 2012)
Into the Fray, Steve Kolowich, Inside Higher Ed
November 13, 2012

October 1, 2012: MOOC Students
4 Massive Open Online Courses and How They Work, Ben Gose, Chronicle of HE

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

October 27, 2012
Chuck Severance
(U Michigan/Coursera) in Barcelona
http://www.youtube.com/watch?v=JzNHv5v8TI

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

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).

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

December 31, 2012
Dead Sea Scrolls
http://www.deadseascrolls.org.il/explore-the-archive
http://www.deadseascrolls.org.il/explore-the-archive/search#q=site_en:'Qumran,_Cave_4'
http://www.deadseascrolls.org.il/home
February 18, 2012
Talking the Talk, for Posterity
Oral Online Dictionaries Help Preserve Languages, Cultures Muted by Modernity, The Wall Street Journal,
http://online.wsj.com/article/SB10001424052970204880404577228982976760026.html#articleTabs%3Dinteractive

Center for Open Educational Resources and Language Learning
http://www.coerll.utexas.edu/coerll/

LRC (Language Resource Center)
http://www.nflrc.org/

April 3, 2012
Google Art Project, NBC Nightly News
http://www.msnbc.msn.com/id/3032619/v/Y/46945508#46945508

September 2011
Online Encyclopedias
(e.g. the Encyclopedia of Life, Encyclopedia of Earth, etc.)

March 13, 2012
Educational Videos: TED-Ed
http://education.ted.com/

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)

The Learning World is Open

December 21, 2012
Community Oral Histories (e.g., The History Harvest)
http://historyharvest.unl.edu/collections

October 2011 (E-learn Conference)
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

April 6, 2011
Eric Whitacre: A virtual choir 2,000 voices strong
http://www.youtube.com/watch?v=6WhWDCw3Mng

Opener #7. Electronic Collaboration and Interaction (synchronous & asynchronous; Leonardo Tosi, project manager in the ICT and education area of the INDI RE institute)

April 15, 2013
Guest Speakers
Sara de Freitas and Jim Hensman (https://connect.iu.edu/p2ie1yx6z6x/)
Jay Cross (https://connect.iu.edu/p4bytsoronh/)
March 20, 2012
Georgetown Learning Initiatives
Soliya Connect
http://gli.georgetown.edu/#soliya

January 14, 2011
South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN

June 29, 2011 and July 6, 2012
Google+ Hangouts and Facebook Video calling
http://www.youtube.com/watch?v=KLf9jzFvkTA&annotation_id=annotation_389852&feature=iv

May 7, 2012
Google+ Hangouts On Air: broadcast your conversation to the world
http://googleblog.blogspot.com/2012/05/google-hangouts-on-air-broadcast-your.html#!/2012/05/google-hangouts-on-air-broadcast-your.html

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

Augmented Reality, May 17, 2011:
USA Today, Edward Baig, Augmented reality has potential to reshape our lives. (e.g., ZooBurst, Craig Kapp, NYU, pop-up books)
February 20, 2013
UW-Madison to expand distance learning with Massive Open Online Courses, Kari Knutson, University of Wisconsin-Madison News
http://www.news.wisc.edu/21520?utm_source=iUW&utm_medium=email&utm_campaign=iUW2013-02-21

Opener #9. Real-Time Mobility and Portability (e.g., iPhone, low cost wireless devices)

- 15m people/month mobile in India
- 40,000/week Rwanda
- 60,000 earthlings/hour

August 10, 2012
Judy Brown, Keynote talk, “Learning in Hand With Mobile Technology,” Wisconsin Distance Teaching and Learning Conference

February 2012
Commonwealth of Learning (COL)

February 2012
SMILE: Stanford Mobile Inquiry-based Learning Environment
Lessons on iPad (e.g., ShowMe: http://www.showme.com/)
Sept 18, 2012
How to turn Wikipedia into an e-book, John D. Sutter

March 19, 2013
Samsung: We’re making a smart watch, too
Doug Gross, CNN Tech

Opener #10. Networks of Personalized Learning (Blogs, Podcasts, MySpace, Flickr, and RSS)
The Samsung DualView TL225

Student Expertise (e.g., Learnist)
http://learni.st/category/featured#/category/featured

June 3, 2012
Tutor/Mentor Connection (Chicago)
http://www.tutormentorprogramlocator.net/InteractiveMap.aspx
December 16, 2010
Introducing Word Lens
http://www.youtube.com/watch?v=h2ORKdyY4Hs

Online Language Learning
(e.g., Livemocha, ChinesePod, EnglishCentral, iTalki, Palabea, Babbel)

July 12, 2011
An interactive timeline of Middle East protests,
The Guardian, Garry Blight, and Sheila Pulham,
http://www.guardian.co.uk/world/interactive/2011/mar/21/middle-east-protest-interactive-timeline

May 7, 2012
Interactive Maps
(adults with college degrees by count)
http://todayscampus.com/article/Keith_Hampson_Interviews_Josh_Keller_on___Interactive_Graphics_for_Higher_Education

Are you happy now?

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

WE
ALL
LEARN!!!