Learning is Changing: MOOCs, The Open World, and Beyond

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

1728: 1st correspondence course advertised Boston
(learn shorthand from Caleb Phillips thru weekly mailed lessons)
The First University Correspondence Course
(University of London, External Program, 1858)
1728-1990s – Generally postal system based
1930s – phonograph and radio
1950s and 1960s – television
1970s and 1980s – VHS tapes
1980s and 1990s – DVD

Looking to the Past...

Life as an accountant/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  
http://www.youtube.com/watch?v=hb4AzF6wEoc

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

Audience Polls #2:  
I. Who remembers what they were doing on 911?  
II. Who remembers what they were doing on April 4, 2001?

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."

Part I. Learning is Changing  
New Technologies = New Delivery Methods...
May 20, 2013
The New Greatest Generation: Why Millennials will Save Us All, Time, Joel Stein
http://www.time.com/time/magazine/article/0,9171,2143001,00.html

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

The World is very open!
(In Chulalongkorn Univ, March 10, 2014)

The World is very open!
(in Ho Chi Minh City, Vietnam, Wednesday March 12th)

The World is very open!
(in Hue, Vietnam, Friday March 14th)

Reasons to explore?
(Main Reason Explore the Web Informally to Learn (MIT OCW Group; Note: Check all that apply)
Factors leading to success or personal change?
Factors Leading to Success or Personal Change When Exploring Online
(MIT OCW Group; Note: Check all that apply)

MIT Data: Self-Taught on Social Media
(21-30 year old unemployed female, North America)
At first my purpose was to fulfill boredom ...After graduating with a MS, I was faced with unemployment. I took the opportunity to read blogs, watch YouTube videos, and more to learn about blogging and social media. Since than I have become well versed in social media and other business topics and started a business... I decided not to pursue a PhD because I am learning a more rapid pace. Instead of spending 5 years in school, I can be flexible and work on what I am learning.

MIT Data: Prepares to Reenter University
(41-50 year old male, Middle East)
Most interesting experience of my own was my use of MIT OCW to refresh on Calculus. I purchased the textbook and followed one of several calculus options on the site. This was quite successful in re-introducing Calculus, as a prep to re-entering college 28 years after graduation - this time to study for a Master's.

MIT Data: Retiree Develops New Hobby
(70+ year old female, North America)
I'm an avid photographer and have developed skills for developing my own website for display of my photography and books I have written that include my photographs...I've had multiple careers, from science, to public administration, and information technology. The development of my art is a new and exciting experience.

Life Changing Example #1
Yes. I plan to focus my Ph.D. research on alternative forms of learning (informal DIY) and credit (like open badges) and the changes higher ed and employers will have to make to accept these forms of credit.

Life Changing Example #2
It has made my job much easier and it’s been easier for me to execute certain tasks, making me more willing to take on bigger challenges. It was also shown me how enjoyable it is to learn a computer language. It opened my mind to considering possibilities in this area. It also made my husband respect my ability around computers a bit more.
Life Changing Example #3

My life has changed in a big way. I used these new skills to create a small business that supplements my income. I couldn’t use this income solely to support myself, but it does pay some bills.

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

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)
http://mashable.com/2013/01/10/ipotty/
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 6, 2012, Mike Roberts
http://designbuildsource.com.au/design-for-students-with-students

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

X. 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.)

XI. Learning is More Global
UC Irvine (2013 report)
Example 3: Fundamentals of Japanese

XII. Learning is More Massive
June 2014
Need more Summer PD?
June 2, 2014
Understanding Research Methods, Coursera, University of London
https://www.coursera.org/course/researchmethods

IXV. Learning is More Flipped
One Man, One Computer, 10 Million Students: How Khan Academy Is Reinventing Education, Forbes, November 19, 2013, Michael Noer
The One World Schoolhouse (Twelve, Oct. 2, 2012)

XIII. Learning is More Technology-Based
DataWind Prepared $20 Tablet Computer for Indian Market

January 2014
XV. Learning is More Online
http://sloanconsortium.org/publications/survey/grade-change-2013
Direct connect: http://www.onlinelearningsurvey.com/reports/gradechange.pdf

Let’s Review:
Learning is Changing...
(i.e., it’s more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, etc.)

Frank Basile, an aircraft technician, took an MITx course on circuits and electronics to increase his knowledge.

Joe Alfonso, a financial adviser from Oregon, is taking the online finance course as a "refresher."

April 15, 2013
World will soon be “Webified”
Google boss: Entire world will be online by 2020, Doug Gross, CNN
**September 2013**
Google Wi-Fi from the Sky,
Steven Levy, pp. 126-131, Wired
[http://www.wired.com/business/2013/08/google-project-loon/](http://www.wired.com/business/2013/08/google-project-loon/)

Google X chief Astro Teller (left) and Project Loon's first leader, Rich DeVaul, holding the system's ground-based antennas.

**March 30, 2014**
All Things Drones, CNN
Facebook unveils technology to bring the internet to everyone. CNN's Ralitsa Vassileva reports.

**The Web of Learning**

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!**
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

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)

Opener #5. Online Learning Object Repositories and Portals (shared content)
April 23, 2014
Shakespeare’s Dictionary?
Skepticism Abounds
Chronicle of Higher Education, Jennifer Howard
http://shakespearesbeehive.com/barets-alvearie

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., Wikipedia, YouTube, Scribd)

Opener #7. Electronic Collaboration and Interaction (synchronous & asynchronous)
Soliya Connect
http://gli.georgetown.edu/#soliya

March 26, 2014
Global Collaboration Projects that Go Way Beyond Skype (e.g., Flat Connections project)
By Stephen Noonoo, THE Journal

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, iPads, smart watches (September 4, 2013))

Opener #10. Networks of Personalized Learning (Blogs, Podcasts, Facebook, and RSS feeds, etc.)

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

Mobile MOOCs
May 5, 2014
New platform challenges conventional MOOCs
eCampus News

Audience Poll #3:
Have you taught a MOOC before?
Have you ever taken a MOOC as a student?
Have you ever browsed a MOOC?
A. Yes
B. No

Mystery of MOOCs:
Part II. Some MOOC news from the past 2 years...
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

July 16, 2013
"Golden Era of Learning"
Bill Gates Discusses MOOCs at Microsoft Research’s Faculty Summit

October 31, 2013
The launch of OERu: Towards free learning opportunities for all students worldwide,
BC Campus (Canada)
http://bccampus.ca/2013/10/31/the-launch-of-oeru-towards-free-learning-opportunities-for-all-students-worldwide/

September 16, 2013
Rwandan Degree Program Aims for a ‘University in a Box’, Chronicle of Higher Education, Megan O’Neil
http://chronicle.com/article/Rwandan-Degree-Program-Aims/141631/

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/

February 27, 2013 (Inside HE)
Grade My Course (i.e., Yelp for Ed)
http://www.grademycourse.com/
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

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

May 2013
MOOCs @ Edinburgh 2013– Report #1

August 8, 2013
The MOOC ‘Revolution’ May Not Be as Disruptive as Some Had Imagined
Steve Kolowich, Chronicle of Higher Ed

January 21, 2014
MITx Working Papers (research on MOOCs)
http://odl.mit.edu/mitx-working-papers/
Global Ed Issue of the Past Decade:
Free and Open Access to Education
(e.g., OER, OCW, MOOCs)
For example, January 2014 MOOC on Climate Change, from the World Bank
https://www.coursera.org/course/warmerworld

April 27, 2014
Coursera, Global Translator Community,
Chronicle of Higher Education
https://www.coursera.org/about/translate

April 30, 2014
New Learning Hubs Locations Hosted by The New York Public Library and Seven Other International Partners, Coursera Blog

Audience Poll #4:
Why would you take a MOOC?
A = For fun
B = To get credit
C = To learn something new
D = Curious about it
E = See if you like a topic

But who’s taking these MOOCs?
February 20, 2014
Harvard and MIT Release Visualization Tools for Trove of MOOC Data,
Lawrence Biemiller, Chronicle of Higher Education
https://www.coursera.org/about/programs/learningHubs
May 18, 2014
Harvard goes all in for online courses
The Boston Globe, by Marcella Bombardieri

At what age?
HarvardX (visualization tools)
8. World map of age composition
http://harvardx.harvard.edu/harvardx-insights

What about gender?
HarvardX (visualization tools)
4. World map of gender composition
http://harvardx.harvard.edu/harvardx-insights

What about their level of education?
MIT Office of Digital Learning (visualization tools)
http://odl.mit.edu/mitx-insights/world-map-education-composition/
Estimated Worldwide Completed Education Level as of February 10, 2014

April 21, 2014
The Revolution Is Not Being MOOC-ized, Students are educated, employed, and male.
Gayle Christensen and Brandon Alcorn, UPenn, New Scientist
http://www.slate.com/articles/health_and_science/new_scientist/2014/03/mooc_survey_students_of_free_online_courses_are_educated_employed_and_male.html

Do they finish?
MIT Office of Digital Learning (visualization tools)
http://odl.mit.edu/mitx-insights/world-map-certificate-attainment/
Estimated Certificate Attainment as of February 10, 2014

Filipino youths go online at an Internet café in Manila on Feb. 18, 2014. Two-thirds of Coursera participants come from the developed world, according to a new report.
June 13, 2014
8 Things You Should Know About MOOCs
Chronicle of Higher Education, By Jonah Newman and Soo Oh
http://chronicle.com/article/MOOCs-EdX/146901/

1. Nearly half of registrants never engage with any of the content.

Courses are broken into 11 to 18 chapters, but few students look at them all. Only about half of participants look at every chapter, and fewer than one in 10 view even half of the material.

In fact, of those who viewed any course material, half looked at 11 percent of the course chapters or less.

May 28, 2014
Alexander the MOOC Lands,
Inside Higher Education, Guy M. Rogers
http://www.insidehighered.com/blogs/higher-ed-beta/alexander-mooc-lands#sthash.tUAXiSX7.dpbs

“Inspiring engagement, passion, and a love of learning are of course harder outcomes to measure…Without any prompting from EdX or WellesleyX students also decided to form ongoing Alexander study groups, requested more history courses like the Alexander course, and asked if we could organize a study tour overseas to follow in the footsteps of Alexander the Great. We also received many unsolicited letters from students telling us how much our course had inspired them.”

May 31, 2014
Revolutionizing online education
Professor creates courses tailored to cultural differences,
Korea JoongAng Daily, KIM BONG-MOON [bongmoon@joongang.co.kr]

Professor Auh Yoon-il of Kyung Hee Cyber University explains the upcoming Kyung Hee MOOC 2.0 in an interview with the Korea JoongAng Daily at Kyung Hee University on Wednesday. (“one culture” or ocMOOCs and hMOOCs)

June 2014
MOOC Research (and video interviews)
Gates Foundation
http://www.moocresearch.com/report

June 12, 2014
Will a degree made up of Moocs ever be worth the paper it’s written on?
The University of the People can now hand out degrees to its online students – but will employers take them seriously?
Louise Tickle The Guardian
http://www.theguardian.com/higher-education-network/blog/2014/jun/12/moocs-viable-alternative-traditional-degree

Moocs can offer a lot, but they don’t offer the feedback of a traditional degree.
Mystery of MOOCs: Part II. 10 MOOC Leadership Principles

MOOC Leadership Principle #1: Be First!
June 21, 2011 and August 2, 2011
Stanford U. Offers Free Online Course in Artificial Intelligence (over 160,000 enroll, 23,000 complete, and 238 perfect scores; http://www.ai-class.com/)

MOOC Leadership Principle #2: Offer Something Novel or Distinct
September 15, 2011, Stanford Engineering, Everywhere (SEE) http://see.stanford.edu/
View lecture videos, access reading lists & course handouts, take quizzes and tests, and communicate with other students.

MOOC Leadership Principle #3: Take Risks
August 18, 2013
Virtual U: Master’s Degree Is New Frontier of Study Online
Tamar Lewin, The New York Times
http://www.nytimes.com/2013/08/18/education/masters-degree-is-new-frontier-of-study-online.html?_r=0

MOOC Leadership Principle #4: Rethink Delivery, Assessment, Certification, Students, etc.
Guess what! You just got into MIT! (Feb 15, 2012)
Stanford to help build edX MOOC platform,
Washington Post, Nick Anderson (April 2, 2013)

September 18, 2013
MIT Will Offer MOOC Curricula, Not Just Single Courses, on edX, Steve Kolowich, Chronicle of HE
MOOC Leadership Principle #5: Form Strategic Relationships
April 18 and Sept 19, 2012: Coursera
https://www.coursera.org/  
Coursera's Institutional MOOC Partners
- U of Washington
- U of California at San Francisco
- Stanford U.
- U of Michigan
- U of Illinois
- U of Virginia
- Duke U.
- Georgia Tech
- U of Pennsylvania

MOOC Leadership Principle #6: Conduct Formative Evaluation

MOOC Leadership Principle #7: Collect Testimonials
June 11, 2012
http://chronicle.com/article/4-Professors-Discuss-Teaching/132125/

December 13, 2012
UK universities in online launch to challenge US, BBC News, Sean Coughlan
http://www.bbc.co.uk/news/education-20697392

The Open University’s Martin Bean says UK universities cannot “stick their head in the sand”

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/

MOOC at UPenn; Recession Fuels Explosion of Online Learning
http://www.youtube.com/watch?v=52rFiM40l5w
MOOC Leadership Principle #8:  
Set Bold (i.e., Audacious) Goals  
June 18, 2012  
http://www.openculture.com/2012/06/udacity_to_launch_5_new_classes.html

MOOC Leadership Principle #9:  
Generate Media Attention  
June 25, 2012  
http://www.forbes.com/sites/georgeanders/2012/06/05/udacity-sebastian-thrun-disrupting-higher-education/

MOOC Leadership Principle #10:  
Do Not Make Rash Decisions  
July 17, 2012  
http://chronicle.com/article/After-Leadership-Crisis-Fueled/132917/

April 27, 2012  
Introduction to Blackboard/CourseSites MOOC, With Dr. Curt Bonk: "Instructional Ideas and Technology Tools for Online Success" (4,039 now enrolled)  
http://www.youtube.com/watch?v=rBNe8CUePTQ&feature=youtu.be

September 9, 2013  
Creativity MOOC Draw 120,000 Students (Penn State), Campus Technology, Leila Meyer  
3 Student Profiles: Adventurers (committed); Tourists (pick and choose); and Explorers (in between)  
Dr. Jack V. Matson, Dr. Darrell Velegol and Dr. Kathryn W. Jablokow, Penn State University, Coursera

Mystery of MOOCs:  
Part III. 4 Types of MOOCs
MOOC Type #1. Theory- or Trend-Driven MOOC

MOOC Type #2. Remedial Course MOOC

MOOC Type #3. Degree or Program Qualifier or System Bottleneck MOOC

MOOC Type #4. Professional Development (PD) (practical) MOOC

Mystery of MOOCs: Part IV. Five MOOC Business Plans and Models

MOOC Business Model #1. Advertisers Underwrite Courses and Degrees
MOOC Business Model #2.
Small and Flexible Application
or Enrollment Fee

MOOC Business Model #3.
Course Assessment Fee

MOOC Business Model #4.
Certificate Fee (with sticker)
https://twitter.com/drchuck/status/262423287173550009/photo/1

MOOC Business Model #5.
Free Entryway Course

What about the Instructor
in the Open World?

Instructor as Curator
Instructor as Concierge

Mystery of MOOCs: Part V. Ten MOOC Instructor Guidelines

MOOC Instructor Guide #1.
Plan and Prepare
October 12, 2012
Radical rethink: how to design university courses in the online age, Paul, Wappett, The Conversation, Australia

MOOC Guide #2.
Designate Feedback Providers and Tasks (especially in Week One)

MOOC Guide #3.
Use Peer, Machine, Volunteer, and Self-Assessment

MOOC Guide #4.
Address Participants by Geographic Region
MOOC Guide #5.
Personalize Where Possible
Chuck Severance (U Michigan/Coursera) in
Barcelona, Seoul, Manila, Melbourne, etc.
http://www.youtube.com/watch?v=JzNHvmSv8TI

MOOC Guide #6.
Form Groups and Social Supports

MOOC Guide #7.
Combine Sync and Async
Instruction

MOOC Guide #8.
Arrive Early for Sync Session

MOOC Guide #9.
Share Resources and Recap
them Weekly

MOOC Guide #10.
Involve the Participants (e.g., use
debates, polling questions)
Audience Poll #4:
Would you like to teach or take a MOOC now?
A. Yes...
B. No...

Introducing the (FREE) "TEC-VARIETY book..."

Framework #2: The R2D2 Model

Stop and Share:
Three Words from this Session!

December 13, 2013
Former MIT president Charles M. Vest dies at 72
As the Institute’s leader from 1990 to 2004, he sparked a period of dynamism.
Steve Bradt, MIT News Office

Introducing the (FREE) "TEC-VARIETY book..."