A Mixed Methods Look at Self-Directed Online Learning: MOOCs, Open Education, and Beyond

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Audience Polls #1:
A. Who remembers what they were doing on the day that John D. Kennedy was shot?
B. Who remembers what they were doing on 911?
C. Who remembers what they were doing on 441?
D. Has this open educ. movement changed your life?

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

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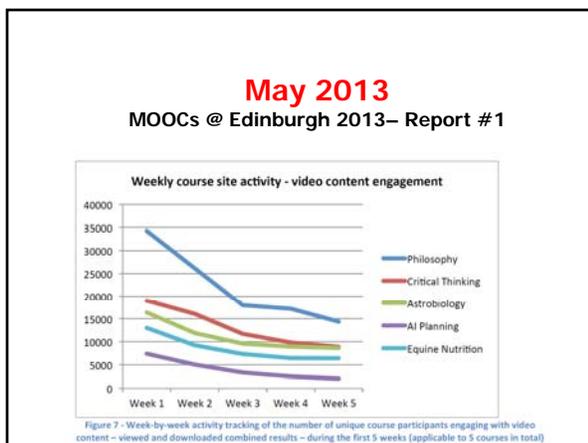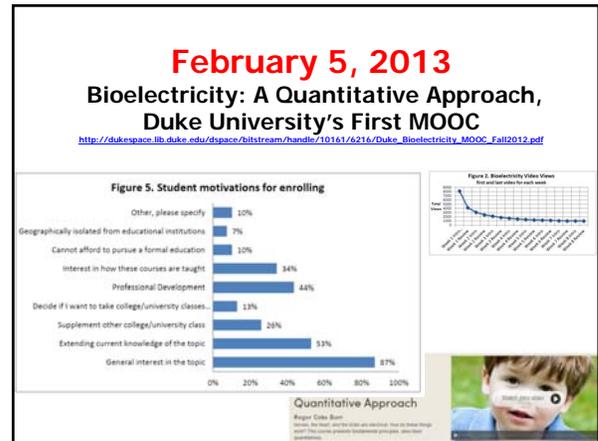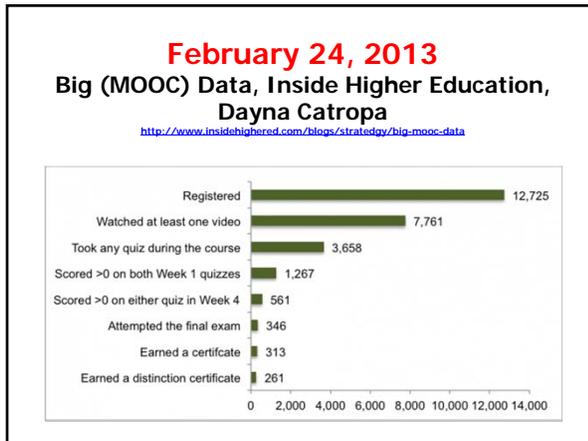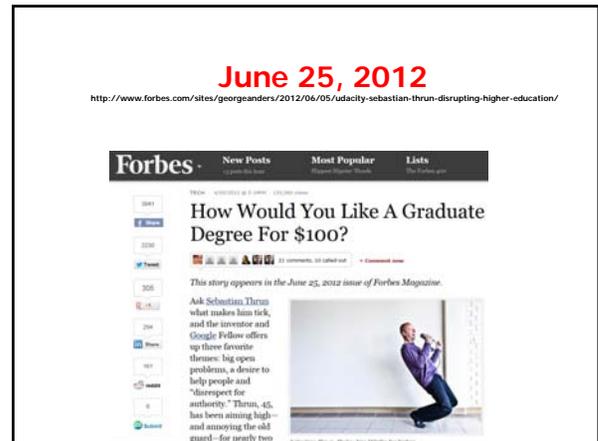**New Delivery Methods...**

Learning is More Interactive and Collaborative

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

November, 2012
Degrees of Difficulty, Time
http://nation.time.com/2012/10/18/degrees-of-difficulty/ /

June 25, 2012
http://www.forbes.com/sites/georgeanders/2012/06/05/udacity-sebastian-thrun-disrupting-higher-education/

February 24, 2013
Big (MOOC) Data, Inside Higher Education, Dayna Catropa
http://www.insidehighered.com/blogs/stratedgy/big-mooc-data

February 5, 2013
Bioelectricity: A Quantitative Approach, Duke University's First MOOC
http://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/6216/Duke_Bioelectricity_MOOC_Fall2012.pdf

May 2013
MOOCs @ Edinburgh 2013– Report #1

May 2013
MOOCs @ Edinburgh 2013– Report #1

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."


OpenCourseWare Consortium

Self-Directed Learners (SDL) (Abdullah, 2001)

- **Tend to be highly curious & generally enjoy learning**
- **View problems as challenges**
- **Desire change, willing to try new things,**
- **Persistent, self-disciplined, goal oriented**
- **Independent, self-confident**
- **Make learning meaningful and relevant**
- **Self-monitor, evaluate, and regulate one's learning**

Visual Representation of Extreme Learning

Human activity system for understanding the impact of Extreme Learning
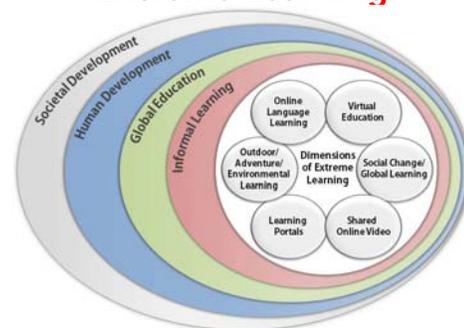
## HOPES: Humanity's Open Platform for the Exchange of Stories

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/
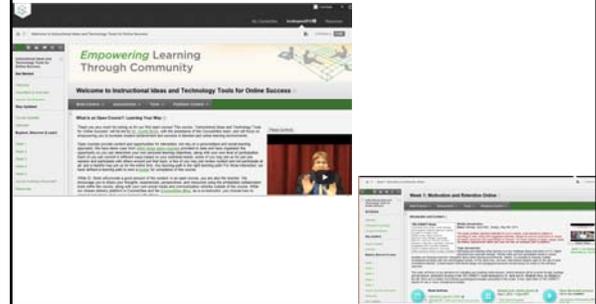

Rajeev Bajpai, an airline pilot based in Mumbai, took an online computer-science course to gain programming skills.

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DREAMS: Design Research for an Engaging and Active Mobile System
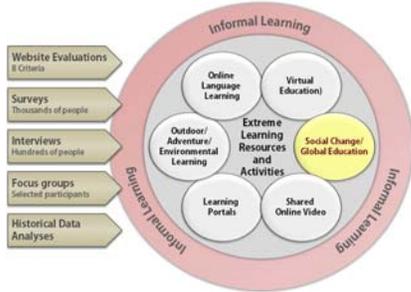
Blackboard (CourseSites) MOOC
http://events.blackboard.com/open

Blackboard MOOC Sample

- **Survey notice sent to 3,800 MOOC participants**
- **159 completed surveys**
  - ◆ **49 completed open ended items**
  - ● **72% over age 40**
  - ● **73% females**
  - ● **North America (81 percent); Asia (2 percent); Europe (6 percent); South America (1 percent); Middle East (2 percent); Australia/NZ (7 percent); Africa (1 percent)**
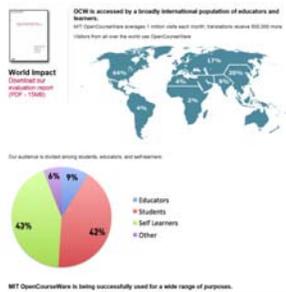
MIT OpenCourseWare (OCW)
http://ocw.mit.edu/index.htm

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MIT OCW Sample

- **E-newsletter subscription 156,000 people**
  - **1,429 completed surveys**
    - **613 completed open ended items**
  - **50% over age 40**
  - **76% males**
  - **North America (44 percent); Asia (23 percent); Europe (14 percent); South America (10 percent); Middle East (3 percent); Oz (2 percent).**
    - **Top countries in the MIT OCW subscriber list were the United States, India, China, Brazil, Nigeria, Pakistan, Iran, Canada, the UK, Taiwan, Indonesia, Mexico, and Egypt.**
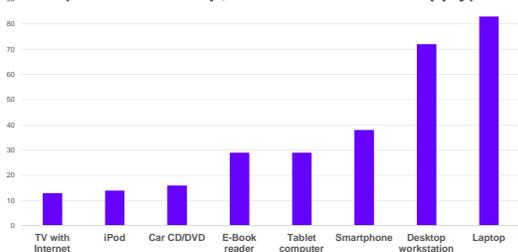
Where conduct informal?

Where Engage in Informal Learning with Technology
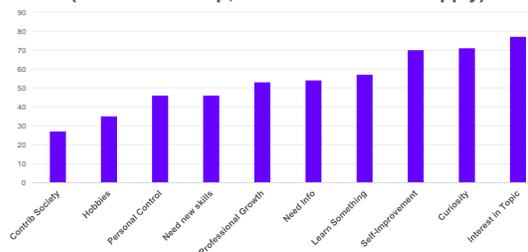**(MIT OCW Group; Note: check all the apply)**
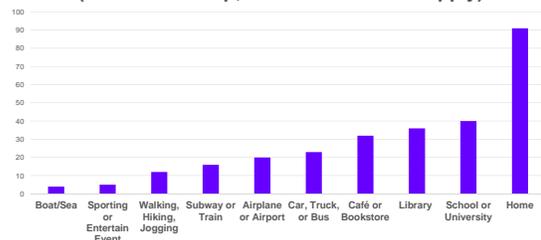
How access informal?

Devices Used for Learning Informally
(MIT OCW Group; Note: check all that apply)
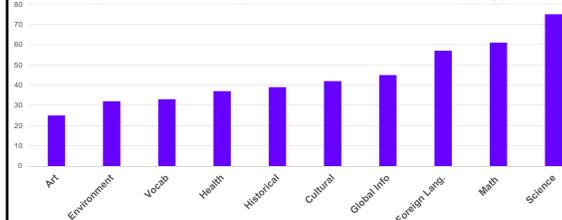

Reasons to explore?

Main Reason Explore the Web Informally to Learn
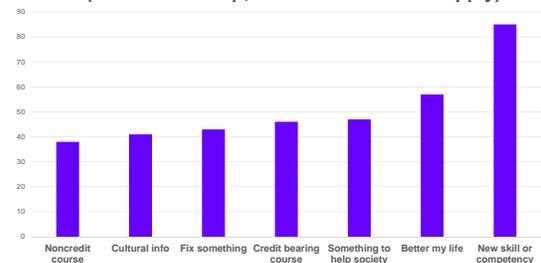**(MIT OCW Group; Note: Check all that apply)**

Skills hoping to acquire?

Skills Would Like to Learn Online Informally
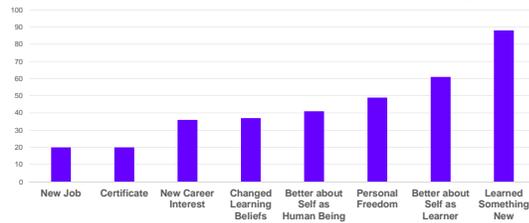**(MIT OCW Group; Note: Check all that apply)**

Hoping to achieve?

Like to Achieve from Learning Informally Online
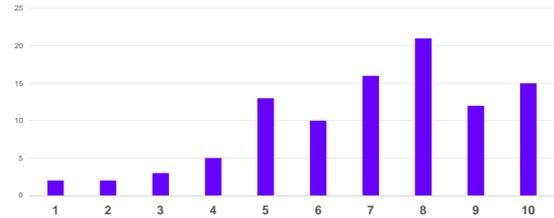**(MIT OCW Group; Note: Check all that apply)**

Actual achievements?

Achievements from Informal Online Learning Pursuits
**(MIT OCW Group; Note: Check all that apply)**

Experience life change?

Degree to Which Life Changed from Informal Online Learning
(Scale of 0 (Not at all) to 10 (Very Significantly); 5 = Moderately)
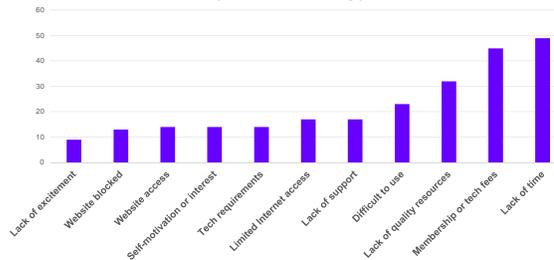**(MIT OCW Group; Note: Check all that apply)**

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)
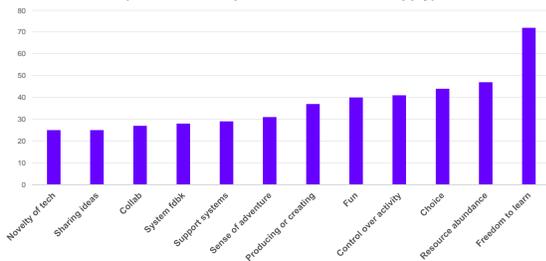
What obstacles faced?

What Obstacles Faced When Learning Informally Online
(MIT OCW Group)

Open-Ended Questions

(**28**) Can you describe your most interesting or successful informal learning experience? What did you accomplish?

(**30**) Why did you want to do this learning activity or task? What was your **purpose or goals**? Please describe what captured your interest.

(**31**) Has your life changed in a small or big way as a result of this informal learning activity or experience? If so, how?

(**32**) What was the key moment when learning informally with technology where you felt a personal change? If so, please describe that moment, as best you can.

(**34**) Did you face any **obstacles or challenges** during this time when learning informally with technology? If so, how did you overcome them?

Goals and Motivations
(Blackboard MOOC)

- Improve their job prospects
- Pursue personal interests or hobbies
- Seeking certification of some type
- Information seeking
- Means to expand one's formal learning

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Information Seekers (DIYers): Personal Identity

"Today, we were trying to install a pool filter--we got instructions off You Tube. I also just bought a recumbent exercise bike--I looked at online reviews before making a choice." She then added, "Knowing that I did not need to ask an actual person for help was life changing. I am an introvert by nature, and I prefer to figure things on my own. Knowing that I can research informally on the Web is reassuring."

Seeking Relevance

"I almost always listen to podcasts or .mp3 audio books, etc. when biking. After one session of learning some Korean language on a bike I was on my way home and chose to stop into a store for some take-out food. The conversation was almost identical to the lesson I had just learned. Although the questions and answers were simple and predictable small talk, it really was surreal at just how closely the real-world small talk conversation matched the mp3 that was produced a few years ago. It really gave me confidence that the audio recording method was not a joke."

Challenges and Issues

- Discern the quality of information
- Evaluate the quality
- Informal learning not taken seriously by their superiors
- Certificates and badges may reduce sense of fun and learning enjoyment

Learning for Enjoyment

"Just play around with ideas for alternatives to printed texts and don't be afraid to create your own, even if they're amateurish...I think we need to de-emphasise formal assessment and accreditation and encourage our playful side to see what is possible. Too much informal learning wants to get itself 'badged' or validated too quickly and this means its losing its genuine amateur status.'

Informal Learner Characteristics

- Strong intrinsic motivation, pride themselves being a "self-directed learner" ---"my own pleasure" and values autonomy, considers it empowering
- Considers sharing as important part of educ/learning
- Takes pride in creating and contributing
- Enjoys the community of people with similar interests---but not necessarily the human f2f interaction

Informal Learner Characteristics: Values SDL

"I continue to research my interests for my own pleasure, especially on sites like Amazon for books and e-books, and have ongoing email alerts for journal content. I also use online sources for job hunting and professional networking."

Components of Successful MOOC Learner

- Self-motivated
- Enjoys sense of creating
- Shares their creation
- Delights in wide range of info resources
- Takes pride in learning on their own

MIT Data:
Inspires and Changes Ed Systems
(18-20 year old male, Middle East)

When i was 14 years old i found MIT OCW during my search in..(physics) by Prof Walter Lewin looked really interesting and i became interested in physics. **To be honest OCW changed my way of living and i found how beautiful physics is**...informal learning is interesting because you can have access to some of the best courses provided by the best universities in the world...MIT OCW or Stanford **open courses have also changed the educational system in some poor countries** and have taught the teachers and professors in those countries how to teach a subject in a modern way.

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:
Enhances Current Job Prospects
(31-40 year old male, Asia)

I learnt scheme from **MIT OCW**. Which helped in **learning elisp/lisp**. The programming techniques increased my software design knowledge. **Algebra - mit ocw course was very useful**, it helped me to refresh the basics of Digital signal processing. - I have learnt a lot of "**applying my knowledge**" than just learning the "theory" - Various online classes allow for multiple perspectives of the same topic thus showing us how the same thing can be applied in different fields.

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:
Builds Expertise and Expert Connections
(51-60 year old female, North America)

I'm a virtual reference librarian...My friend and I have a blog about music cognition, which is a little crazy because we don't know anything about it. Nevertheless, we blog about current articles, and one experience was especially meaningful, where **I tweeted a question to Daniel Levitin, who answered. He's the guy who wrote The World in Six Songs, among other things.** The fact that you can communicate with an expert in the field who will take the time to give a thoughtful tweeted (and yes, 140 characters can be thoughtful)--well, that's amazing...**I think it was the single most exciting learning moment I've experienced**.

MIT Data:
Retiree Develops New Hobby
(65 year old male, North America)

I retired from education I became a lifestyle entrepreneur. I was trying to learn software to develop a business website for our sailing business. I discovered...Lynda.com. I was learning web development, video editing and photoshop. I realized that I could learn this software without going to a formal class and that was an "eureka" moment.. My wife and I travelled and started a yacht delivery and training business that has taken us all over the world. We learned technology and social media as we travelled and ended up with many fantastic experienced in some very exotic places. We taught ourselves web development and have been figuring out online learning as we went. Now at 65 years of age we are going back to university to take a Computer Science Degree and start a new tech business relating to interactive educational media and games. All very exciting :-)

MIT Data:
Retiree Develops New Hobby
(70+ year old female, North America)

I'm am 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.

Any Questions?

Slides at: TrainingShare.com
Paper: PublicationShare.com
Books: http://worldisopen.com/
Email: curt@worldisopen.com
cjbonk@Indiana.edu