

## I am Not Content: The Future of Education Must Come Today...!!!

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<http://mypage.iu.edu/~cjbonk/>



## Poll #1:

Are you interested in Education  
1.0?



A = Yes  
B = No  
C = Not sure

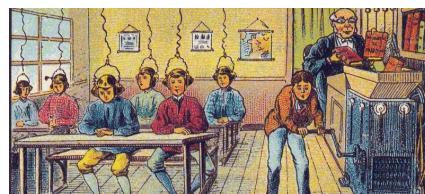
## The Problem with Learning Technology

Karen Wilcox, November 7, 2014, Chronicle of Higher Education  
[https://chroniclevitae.com/news/792-the-problem-with-learning-technology/?cid=at&utm\\_source=at&utm\\_medium=en](https://chroniclevitae.com/news/792-the-problem-with-learning-technology/?cid=at&utm_source=at&utm_medium=en)



October 21, 2014

Teaching and the University of Tomorrow.  
Chronicle of Higher Education, Kelly J. Baker  
[https://chroniclevitae.com/news/792-teaching-and-the-university-of-tomorrow/?cid=at&utm\\_source=at&utm\\_medium=en](https://chroniclevitae.com/news/792-teaching-and-the-university-of-tomorrow/?cid=at&utm_source=at&utm_medium=en)



*Image: France in 2000 year (XXI century). Future school. From a postcard by Villemard, 1910.*

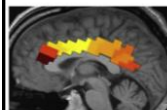
## Instructor as Credit Manager



## Poll #2:

Are you interested in Education  
2.0?

EDUCATION 3.0: GETTING TO  
KNOW THE BRAIN



A = Yes  
B = No  
C = Not sure



## Education 3.0

**The Genesis and Emergence of Education 3.0 in Higher Education and its Potential for Africa, First Monday, by Derek Keats and J. Philipp Schmidt, March 2007**  
<http://firstmonday.org/ojs/index.php/fm/article/view/1625/1540>

### EDUCATION 3.0

Characteristics	Education 1.0	Education 2.0	Education 3.0
Primary role of professor	Source of knowledge	Guide and source of knowledge	Orchestrator of collaborative knowledge creation
Content arrangements	Traditional copyright materials	Copyright and free/open educational resources for students within discipline, sometimes across institutions	Free/open educational resources created and reused by students across multiple institutions, disciplines, nations, supplemented by original materials created for them
Learning activities	Traditional, essays, assignments, tests, some groupwork within classroom	Traditional assignment approaches transferred to more open technologies; increasing collaboration in learning activities; still largely confined to institutional and classroom boundaries	Open, flexible learning activities that focus on creating room for student creativity; social networking outside traditional boundaries of discipline, institution, nation

## Instructor as Conductor



## Instructor as Concierge

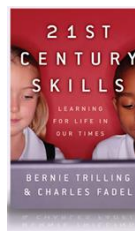


## What skills do we need in the 21<sup>st</sup> Century?

**Bernie Trilling, 21st Century Skills: Learning for Life in Our Times (2006, Toward Learning Societies)**

<http://21stcenturyskillsbook.com/>

<http://toped.svefoundation.org/2011/08/05/the-digital-natives-are-coming/>



### The Seven Cs – 21<sup>st</sup> Century Lifelong Skills

Seven Cs	Component Skills
Critical Thinking and Doing	Problem-solving, Research, Analysis, Project Management, etc.
Creativity	New Knowledge Creation, "Best Fit" Design Solutions, Artful Storytelling, etc.
Collaboration	Cooperation, Compromise, Consensus, Community-building, etc.
Cross-cultural Understanding	Active Global Ethics, Knowledge and Organizational Culture
Communication	Crafting Messages and Using Media Effectively
Computing / ICT Literacy	Effective Use of Electronic Information and Knowledge Tools
Career & Learning Self-reliance	Managing Change, Lifelong Learning and Career Redefinition

## March 2015

**America's Skills Challenge: Millennials and the Future**  
 Madeline Goodman, Anita Sands, and Richard Coley, ETS  
<http://www.ets.org/s/research/30879/index.html>

### AMERICA'S SKILLS CHALLENGE: MILLENNIALS AND THE FUTURE

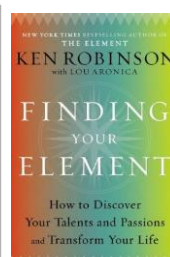
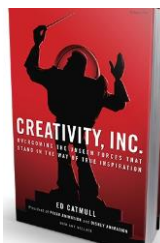
BY MADELINE J. GOODMAN, ANITA M. SANDS, RICHARD J. COLEY,  
 EDUCATIONAL TESTING SERVICE

OVERVIEW

## Poll#3: Read any good books lately?

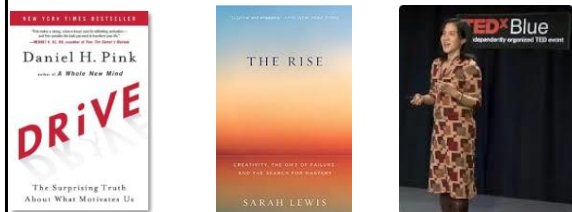
**Creativity, Inc. (2014)**

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



## The Rise: Creativity, The Gifts of Failure, and the Search for Mastery

Sarah Lewis (2014)



## Creating Innovators: The Making of Young People Who Will Change the World

Tony Wagner (2012)

<http://creatinginnovators.com/>



## The Innovators:

How a group of hackers, geniuses, and geeks created the digital revolution. New York: Simon & Schuster.

Walter Isaacson (2014)

<http://books.simonandschuster.com/The-Innovators/Walter-Isaacson/9781476708690>

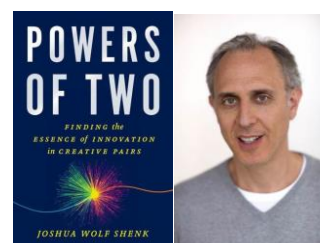


## Powers of Two:

Powers of two: Finding the essence of innovation in creative pairs. Boston: Houghton Mifflin Harcourt.

Joshua Wolf Shenk (2014)

<http://www.ahemk.net/powersoftwo/>



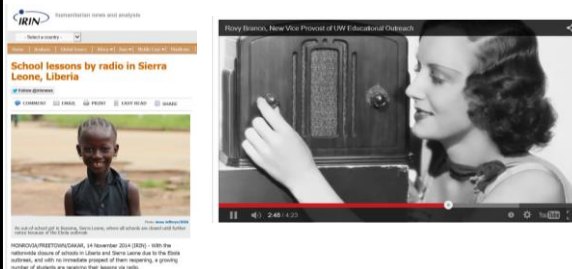
## Poll #4: Listen to the Radio Lately?

November 14, 2014

School lessons by radio in Sierra Leone, Liberia, IRIN (Humanitarian News and Analysis), MONROVIA/FREETOWN/DAKAR

<http://www.irinnews.org/report/100838/school-lessons-by-radio-in-sierra-leone-liberia>

<http://www.pce.uw.edu/about/Leadership/>



## Poll #5: Turn on the TV Lately?

November 14, 2014 (2:25)

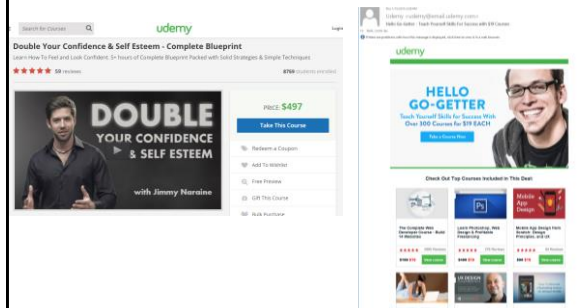
Why online ed disrupts the traditional model,

Fareed Zakaria GPS, CNN, On GPS, Stuart Butler & Anant Agarwal explain why students are drawn to online higher education: tuition debt & exciting new technologies

<http://www.cnn.com/video/data/2.0/video/bestof/2014/11/15/exp-gps-moocs-sot.cnn.html>



## Poll #6: Read Your Email Lately? January 15, 2015

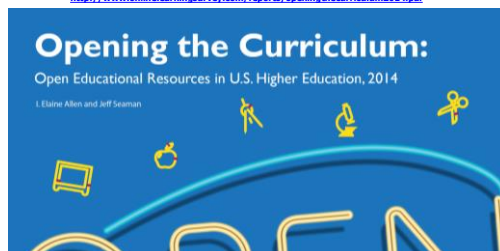


## Poll #7: Read Any Research Lately? October 25, 2014

### Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014

I. Elaine Allen and Jeff Seaman

<http://www.onlinelearningurvey.com/reports/openingthecurriculum2014.pdf>



## November 25, 2014 OER Research Hub, OER Evidence Report: Building Understanding of Open Education 2013-2014

<http://oerresearchhub.files.wordpress.com/2014/11/oerh-evidence-report-2014.pdf>



## Looking to the Past...



## 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 based

1950s and 1960s – television

1970s and 1980s – VHS tapes

1980s and 1990s – DVD



## Fall 2014, On Wisconsin MOOC, Meet MORC (Massive Open Radio Course)

WHA, UW Madison, College of the Air, 1933,  
Vocational Training dedicated to Agriculture,  
and later Home Economics and Typing



MOOC, Meet MORC



**May 10, 2013**

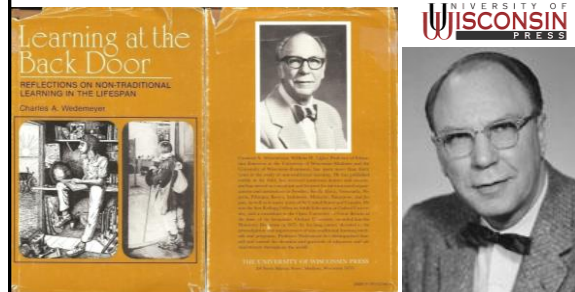
## 10 ed-tech tools of the 70s, 80s, and 90s

eSchool News, Meris Stansbury

<http://www.eschoolnews.com/2013/05/10/10-ed-tech-tools-of-the-70s-80s-and-90s/print/>



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



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



## Knowledge Navigator (1987) Apple Computer

<http://www.youtube.com/watch?v=h84zf5wEoc>



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



## Thirty Ways Learning is Changing... (i.e., it's more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, etc.)



## Learning is Technology Based New Technologies = New Delivery Methods...



## I. Learning is More Mobile August 5, 2014

Timex enters smartwatch category. No phone needed, Edward C. Baig, USA Today,

<http://www.usatoday.com/story/tech/columnist/baig/2014/08/05/timex-enters-smartwatch-category-no-phone-needed/13397331/>



## II. Learning is More Flipped January 7, 2015

When a Flipped-Classroom Pioneer Hands Off His Video Lectures, This Is What Happens, Jeffrey R. Young, The Chronicle of Higher Education

<http://www.chronicle.com/article/When-a-Flipped-Classroom/131032/>



A student watches a video of Norman Nemrow's accounting class. Mr. Nemrow started the video lectures nearly 15 years ago at Brigham Young U. He is now retired, but students still watch him on the screen.

## III. Learning is More Video-Based February 15, 2015

Lynda.com Excel Training, IU

<http://www.lynda.com/Excel-tutorials/Excel-2010-Essential-Training/61219-2.html>



## IV. Learning is More Visual September 22, 2014 110 Foot Engagement, Elliott Masie's Learning 2014

<http://www.learning2014.com/index.php/Item/110-foot-screen-engagement.html>



## V. Learning is More Touch Sensored October 16, 2013

Corporate Classrooms: Adapting to Change  
Chief Learning Officer, Frank Kalman

<http://www.chmedia.com/articles/corporate-classrooms-adapting-to-change>



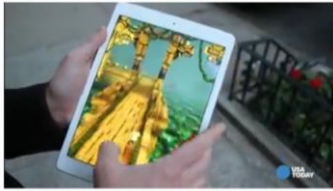
## VI. Learning is More Game-Based

October 21, 2014

**Sexy iPad Air 2 is fabulous but not a must upgrade, Edward Baig, USA Today**

<http://www.usatoday.com/story/tech/columnist/2014/10/21/sexiest-ipad-2-fabulous-but-not-must-upgrade/12558295/>

Sexy iPad Air 2 is fabulous but not a must upgrade



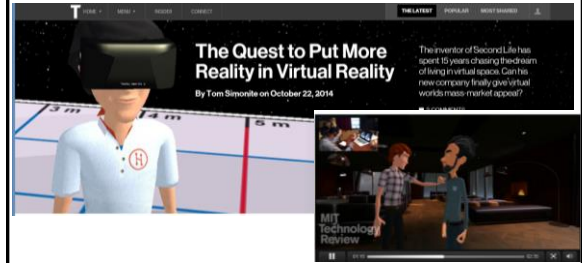
## VII. Learning is More Immersive

October 22, 2014

**The Quest to Put More Reality in Virtual Reality,**

Tom Simonite, MIT Technology Review

<http://www.technologyreview.com/2014/10/22/59406/the-quest-to-put-more-reality-in-virtual-reality-tom-simonite-mit-technology-review>



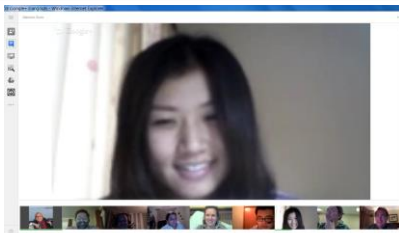
## VIII. Learning also is More Collaborative

March 26, 2014

**Flat Connections: Welcome to Flat Connections - Learning about the world, with the world**

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

Global Collaboration Projects that Go Way Beyond Skype



## IX. Learning is More Social

October 24, 2014

**Facebook launches Rooms app for anonymous sharing of interests,**

USA Today, Jessica Guynn

<http://www.usatoday.com/story/tech/2014/10/23/facebook-rooms-josh-miller-brands-mobile-app-creative-labs/12769162/>



## X. Learning is More Adventurous

**Aaron Doering, Chasing Seals, TEDx**

<http://chasingseals.com/>



Speaking for Change and Humanity

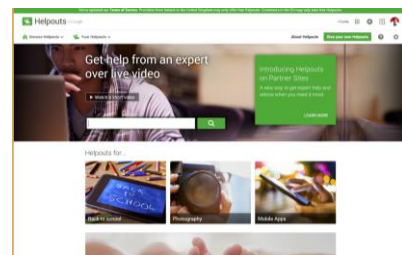
From the Arctic to Africa, Aaron Doering is taking his story of how he learned technology, adventure, and adventure can change how we think. Inspiring. Inspiring. Inspiring. Do. Inspire.

## XI. Learning is More Direct from Experts

February 3, 2015

**Helpouts (Google), Noodle, etc.**

<https://helpouts.google.com/>







## XVI. Learning is More Competency-Based July 31, 2014

Hire Education: Mastery, Modularization, and the Workforce Revolution, Michelle R. Weise and Clayton M. Christensen, The Christensen Institute  
<http://www.christenseninstitute.org/publications/hire/>



College, on Your Own: Competency-based education can help motivated students. But critics say it's no panacea  
Dan Berrett, The Chronicle of Higher Ed, July 14, 2014  
<http://chronicle.com/article/College-On-Your-Own/147659/?cid=at>

Nichele Pollock, a student in Northern Arizona U.'s competency-based bachelor's-degree program, takes a Spanish exam online.



## XVII. Learning is More On Demand May 5, 2014

Mobile MOOCs: New platform challenges conventional MOOCs  
eCampus News (<https://coursmos.com/>)  
<http://www.atanews.com/blog/news/new-platform-challenges-conventional-mooc-point>



## XVIII. Learning is More Hands-On February 2, 2015

Makey Makey and the Kano  
<http://makeymakey.com/>  
<https://vimeo.com/60307041>



## XIX. Learning is More Personal

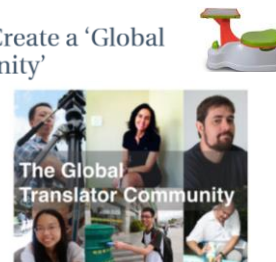
Localization and Translation of Open Content  
Coursera, Global Translator Community, Chronicle of Higher Education  
<https://www.coursera.org/about/translate>

Coursera Seeks to Create a 'Global Translator Community'

Bring a great education to the world.  
Join the **Global Translator Community**.

The Global Translator Community (GTC) is a community of volunteers and partner organizations working to make great educational content accessible across geographic and linguistic boundaries. GTC participants work together to translate top courses on Coursera into their native languages.

[Join the GTC >](#)  
[Meet our translators >](#)



## XX. Learning is More Communal April 30, 2014

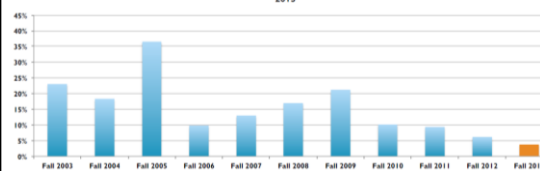
New Learning Hubs Locations Hosted by The New York Public Library and Seven Other Int'l Partners, Coursera Learning Hubs  
<https://www.coursera.org/about/programs/learningHubs>  
<http://blog.coursera.org/post/84322385012/new-learning-hubs-locations-hosted-by-the-new-york>



## February 5, 2015 XXI. Learning is More Online

2014 Survey of Online Learning  
Grade Level: Tracking Online Education in the United States, 2014, Online Learning Consortium (formerly Sloan-C), by I. Elaine Allen and Jeff Seaman  
<http://www.onlinelearningconsortium.org/reports/gradelevel.pdf>  
<http://edition.cnn.com/videos/business/2015/03/11/yale-offers-online-degree-2u-ceo.cnn>

GROWTH RATE OF NUMBER OF STUDENTS TAKING AT LEAST ONE ONLINE/DISTANCE COURSE - 2003 TO 2013



## February 2014 IU Online Enrollments (at least one class online)

<http://www.iuonlineofindiana.com/News/Students/AtLeastOneOnlineClassDashboard/AtLeastOneOnlineClassCount.asp>

Headcount Over Time By Campus Display - Campuses

19,865



## Learning is More Online June 15, 2014

Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace (from Arizona State online programs)

[http://money.cnn.com/2014/06/15/news/economy/starbucks-scholarship-education/index.html?hpt=hp\\_12](http://money.cnn.com/2014/06/15/news/economy/starbucks-scholarship-education/index.html?hpt=hp_12)  
<http://www.nytimes.com/2014/06/16/us/starbucks-to-provide-free-college-education-to-thousands-of-workers.html>



## XII. Learning is More Modifiable

Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business, Feb. 22, 2013  
<http://www.universitybusiness.com/article/inside-look-learning-spaces>



## XIII. 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>



## XIV. Learning is More Ubiquitous September 23, 2014

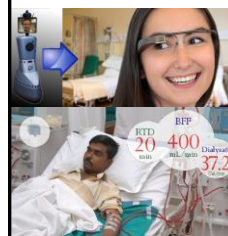
Elliott Masie's (i-Beacon; Bluetooth low energy proximity sensing)  
<http://www.learning2014.com/index.php/learning-trends-and-challenges-webinar.html>

On September 23, 2014 Elliott Masie hosted a webinar discussing Learning Trends and Challenges in 2014. Below is the video from this dialogue.



## XV. Learning is More Instantaneous April 9, 2013

HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today  
<http://www.usatoday.com/story/10111450-computer-wearables-people-wearables-her-computer-fashions/1179462>  
(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/people-glasses-could-have-strong-potential-healthcare-use/2013-03-18>







## Audience Poll #8:

**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)

<http://web.mit.edu/newsoffice/2001/ocw.html>

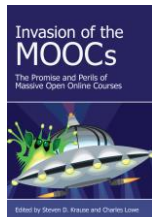
"This is about something bigger than MIT. I hope other universities will see us as educational leaders in this arena, and we very much hope that OpenCourseWare will draw other universities to do the same. We would be delighted if -- over time -- we have a world wide web of knowledge that raises the quality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



## XXX. Learning is More Massive

**Sample Course: Open Knowledge:  
Changing the Global Course of Learning**  
September 2, 2014 to December 12, 2014, Stanford

<https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#>  
Softcover (\$30): [http://www.parlorpress.com/invasion\\_of\\_the\\_moocs](http://www.parlorpress.com/invasion_of_the_moocs)  
Free (PDF): [http://www.parlorpress.com/pdf/invasion\\_of\\_the\\_moocs.pdf](http://www.parlorpress.com/pdf/invasion_of_the_moocs.pdf)



## Global Health Initiatives

**October 7, 2014**

**Online Mooc courses deliver Ebola health advice, BBC News, Sean Coughlan**

<http://www.bbc.com/news/education-29521360>  
<http://www.advancelearning.com/why-wait-for-others-to-fight-ebola>

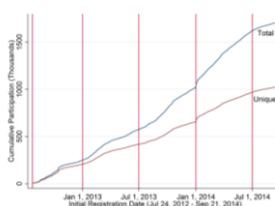


Disinfecting a room in Monrovia, Liberia: Online courses are providing health advice to fight Ebola.

**March 30, 2015**

**HarvardX and MITx: Two Years of Open Online Courses Fall 2012-Summer 2014, Andrew Dean Ho et al., Social Science Research Network**

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2586847](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2586847)



## 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."



**My dog is content....**



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

[http://chronicle.com/article/A-Conversation-With-Bill-Gates/1325917?cid=at&utm\\_source=at&utm\\_medium=en](http://chronicle.com/article/A-Conversation-With-Bill-Gates/1325917?cid=at&utm_source=at&utm_medium=en)

**On the Meaning of MOOC's**

"Even though I only have a high school degree, I'm a professional student."



**Bill Gates Discusses MOOCs at Microsoft Research's Faculty Summit**

July 16, 2013, 4:05 am

By Nate Grossman

Bill Gates says that this is the "golden era" of learning. Thanks to



**I am not Content!!!**



**May 6, 2013**  
**Faculty Backlash Grows Against Online Partnerships**  
**Chronicle of Higher Education, Steve Kolowich**

<http://chronicle.com/article/Faculty-Backlash-Grows-Against-1339049/>

**Faculty Backlash Grows Against Online Partnerships**



Staff Photos, Justin Lee, Harvard News Office  
 Michael Sarsel, a Harvard professor, taught an online course that San Jose State U. asked its philosophy professors to use in place of their own instruction. They said no.

By Steve Kolowich

**January 29, 2014**  
**Maybe it is not so open!**

(e.g., MOOCs and the Promise of Internationalization,  
 The Chronicle of Higher Education, Christina C. Davidson)

<http://chronicle.com/blogs/chronicle/2014/01/29/maybe-it-is-not-so-open-and-the-promise-of-internationalization/2140266401>

inspiring, empowering, and connecting experiences

wamda

HOME HOW TO WAMDA TV RESOURCES.COM

Online education platform Coursera blocks students in Syria and Iran



**Things are heating up!**

<http://routledge-ny.com/books/details/9781138807419/>



**MOOCs and Open Education Around the Word**

By Bonk, Lee, Reeves, & Reynolds

## MOOCs and Open Education Around the World

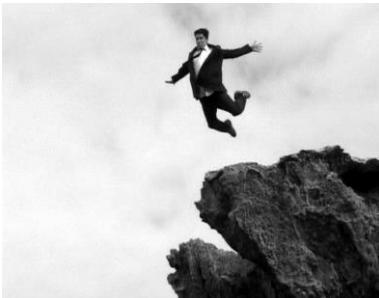
<http://routledge-ny.com/books/details/9781138807419/>



## The Web of Learning



## We are entering a jumping off point...



### Framework: 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!

**WE**

**ALL**

**LEARN!!!**



## How do you now view the instructor in the Open World of Education 3.0?



**Poll #9:  
Instructor as Course  
Ambassador?**



**Poll #10:  
Instructor as Curator?**



**Poll #11:  
Instructor as Camping Trip  
Guide?**



**Charles Wedemeyer Quote:**

"It should be immaterial whether one has learned at the front door or the back door of the Palace of Learning. **What one has learned**—not where, or how, in what sequence, at what institution, or in what period of time—is the only criterion of supreme importance."  
(Charles Wedemeyer, 1981, p. 216)



**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

<https://web.mit.edu/newsoffice/2013/former-mit-president-charles-m-vest-dies-at-72-1213.html>



**Who is Content Now?**

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**Book: <http://tec-variety.com/>**

**Dr. Curt Bonk – [CJBonk@Indiana.edu](mailto:CJBonk@Indiana.edu)**

