

**Stretching the Edges of Technology-Enhanced Teaching: From Tinkering to Tottering to Totally Extreme Learning**

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**New Technologies =  
New Delivery Methods...**  
CLO, September 2011



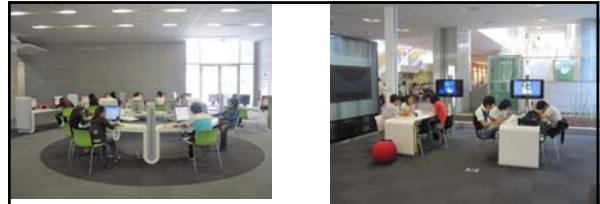
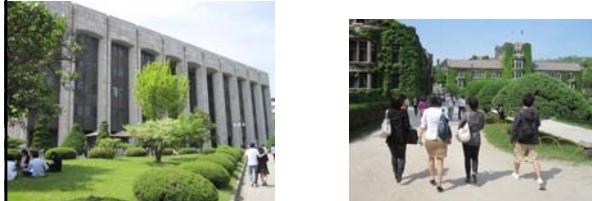
Learning Delivery

How Do You Deliver Learning?





**Yonsei University, Seoul, Korea**



**Yonsei University Library, Seoul, Korea**



**Audience Poll:**  
**Has learning technology ever transformed your life.**

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

**Decided to Read, Read, Read...**  
**(e.g., People like Albert Bandura, Howard Gardner, Roger Schank, Elliot Soloway, etc.)**

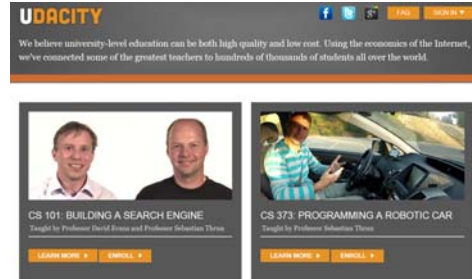
**Took Correspondence & TV Courses**  
**(thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)**



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



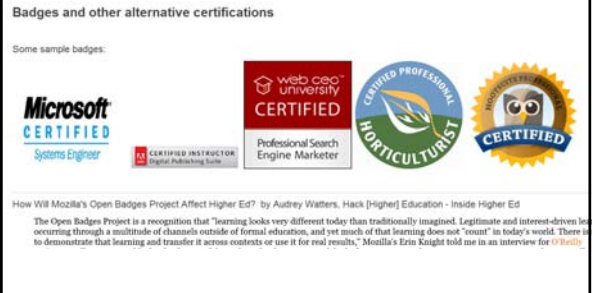
**January 23, 2012**  
**Udacity- Sebastian Thrun**  
<http://www.udacity.com/>



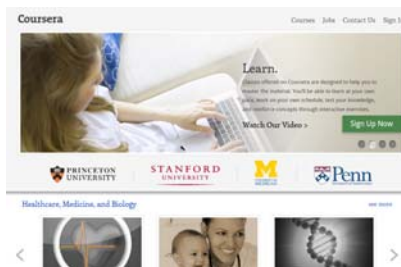
**February 15, 2012**  
Guess what! You just got into MIT! Free ride! Kind of!  
Marketplace Tech Report, [John Moe](http://www.marketplace.org/shows/marketplace-tech-report),  
<http://www.marketplace.org/shows/marketplace-tech-report>



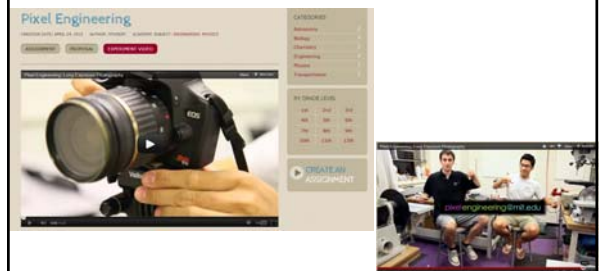
**February 16, 2012**  
**Online Badges and Certifications from OER**  
University of Illinois at Springfield, [Ray Schroeder](https://sites.google.com/site/opencontinuinged/)  
<https://sites.google.com/site/opencontinuinged/>



**April 18, 2012**  
**Online-Education Start-Up Teams With Top-Ranked Universities to Offer Free Courses,**  
Chronicle of Higher Education (e.g., Coursera)  
(<https://www.coursera.org/>)



**April 25, 2012**  
**MIT+K-12**  
**Making Video to Make a Difference**  
<http://k12videos.mit.edu/>



**April 27, 2012**  
**Introduction to Blackboard/CourseSites MOOC, With Dr. Curt Bonk: "Instructional Ideas and Technology Tools for Online Success" (3,600+ enrolled)**  
<http://www.youtube.com/watch?v=r8He8CUEPTQ&feature=youtu.be>

**April 29, 2012**  
**'Supersizing' the College Classroom: How One Instructor Teaches 2,670 Students, Chronicle of Higher Education, Marc Parry**  
<http://chronicle.com/article/Slide-Show-Technology-for/131711/>

**John Boyer teaches a megaclass in current events at Virginia Tech in person—and holds online office hours using Ustream.**

**April 29, 2012**  
**Open Education's Wide World of Possibilities, Chronicle of HE, Katherine Mangan**  
[http://chronicle.com/article/Open-Education's-Wide-World-of/131672?cid=at&utm\\_source=at&utm\\_medium=utm](http://chronicle.com/article/Open-Education's-Wide-World-of/131672?cid=at&utm_source=at&utm_medium=utm)

**May 2, 2012**  
**EdX: The Future of Online Education is Now**  
<http://www.youtube.com/watch?v=SA6ELdIRkRU>

**May 2, 2012**  
**MIT and Harvard announce edX**  
<http://www.edxonline.org/about.html>

**May 2, 2012**  
**Harvard, MIT announce new partnership that will offer free online classes, Washington Post**  
[http://www.washingtonpost.com/business/harvard-mit-announce-new-partnership-that-will-offer-free-online-classes/2012/05/02/?hpid=hp\\_story\\_hp1](http://www.washingtonpost.com/business/harvard-mit-announce-new-partnership-that-will-offer-free-online-classes/2012/05/02/?hpid=hp_story_hp1)

**Harvard, MIT announce new partnership that will offer free online classes**

By Associated Press, Published: May 2

CAMBRIDGE, Mass. — Harvard and the Massachusetts Institute of Technology have joined forces to offer free online courses in a project aimed at attracting millions of online learners around the world, the universities announced Wednesday.

Beginning this fall, a variety of courses developed by faculty at both institutions will be available online through the new \$60 million partnership, known as "edX."

**May 4, 2012**  
**"Top Gear presenter James May meets his virtual self", BBC**  
[http://news.bbc.co.uk/2/hi/programmes/click\\_online/9718563.stm](http://news.bbc.co.uk/2/hi/programmes/click_online/9718563.stm)

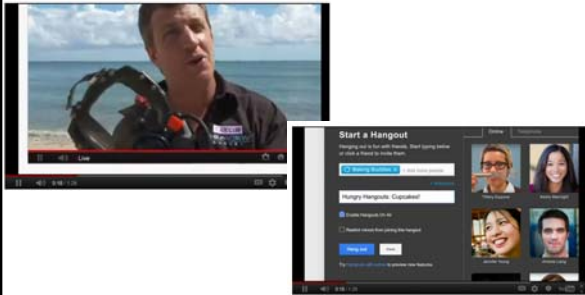
Top Gear presenter James May meets his virtual self



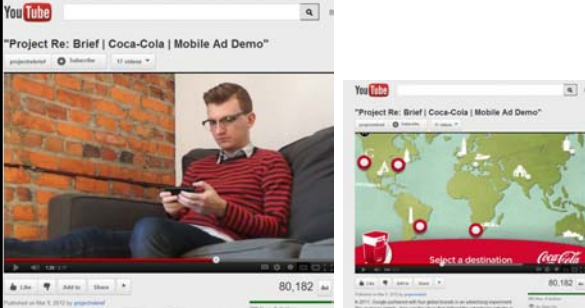
**May 5, 2012**  
**Shaq earns doctorate degree**  
<http://www.youtube.com/watch?v=Szj6uQn8djc>



**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#12012/05/google-hangouts-on-air-broadcast-your.html>



**May 8, 2012**  
**"Project Re: Brief | Coca-Cola | Mobile Ad Demo"**  
<http://www.youtube.com/watch?v=45Z-GevoYB8&feature=relmfu>



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<http://www.youtube.com/watch?v=45Z-GevoYB8&feature=relmfu>



**Poll: Is this a revolution in education today?**

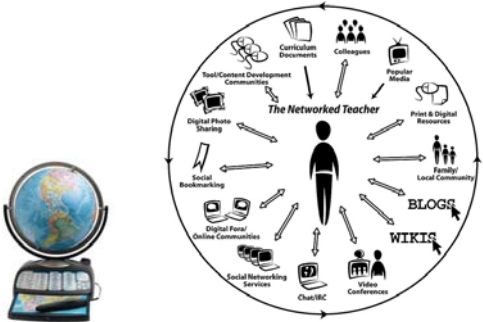
A. Yes...  
B. No...



**Now we have...  
The Web of Learning**

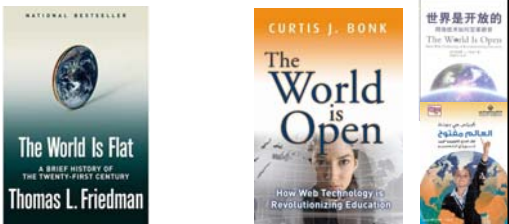


**The Web of Learning**



**The Triple Convergence**


The Flat World P's	The Open World P's
1. Processes Levelled	1. Piping/Infrastructure
2. Playing Field Equalized	2. Pages of Content
3. Participants	3. Participatory Culture



**It is very open!**  
(e.g., Korea, Saudi Arabia, Norway, etc.)



**The World Open at the University of Batangas**  
(February 21, 2012)





**WE-ALL-LEARN:**  
Ten Forces that Opened the Learning World

- W**eb Searching in the World of e-Books
- E**-Learning and Blended Learning
- =====
- A**vailability of Open Source and Free Software
- L**everaged Resources and OpenCourseWare
- L**earning Object Repositories and Portals
- =====
- L**earner Participation in Open Info Communities
- E**lectronic Collaboration and Interaction
- A**lternate Reality Learning (e.g., MMOG, Second Life)
- R**eal-Time Mobility and Portability (e.g., iPhone)
- N**etworks of Personalized Learning (Blogs, RSS)

**Audience Participation!**

**1. WE**

**2. ALL**

**3. LEARN!!!**

**Open Yale Courses:**  
<http://open.yale.edu>

Home

Video Lectures

Downloadable Resources

**Khan Academy:**  
<http://www.khanacademy.org>

Home

Assessment

## TED: Technology, Entertainment and Design

The image shows a screenshot of the TED website. On the left, there's a search bar and navigation options. The main content area features a grid of video thumbnails with titles like 'Riveting talks by remarkable people, free to the world'. To the right, there's a 'TED TALKS' banner with a lightbulb icon and the slogan 'IDEAS WORTH SPREADING'. Below that is a video player showing a man speaking on a stage.

## Link TV: <http://www.linktv.org>

The image shows a screenshot of the Link TV website. At the top, it says 'Link TV: http://www.linktv.org'. The main content area is divided into several sections: 'Home' at the bottom, 'Social News' on the right, and 'Synchronous Forums' at the bottom right. The central part of the page features a large video player with a man speaking, and several smaller video thumbnails around it.

## GETideas Channel, Cisco (Education Thought Leader Series uploaded to YouTube)

<http://www.youtube.com/user/GETideas#g/u>

The image shows a screenshot of the GETideas YouTube channel page. On the left, there's a grid of video thumbnails. On the right, a video player is shown with a woman speaking. The video title is 'A Conversation on Global Education with Kathie Kirby & Dr. Okhwa Lee'. Below the video, there are view counts and a '79' comment count.

## CurrentTV Citizen Generated News

The image shows a screenshot of the CurrentTV website. The main content area features a large video player with a woman speaking, titled 'Vanguard: Sex, Lies & Cigarettes'. Below it, there's a 'watch more vanguard' link. To the left, there are several smaller video thumbnails with titles like 'Infokandy' and 'Vanguard: Sex, Lies & Cigarettes'.

## Jon Bowermaster : <http://www.jonbowermaster.com>

The image shows a screenshot of Jon Bowermaster's website. On the left, there's a 'Home' section with a large photo of a man in a boat. On the right, there's a 'Blog' section with a photo of a man's face and a 'Videos' section with a video player showing a man speaking.

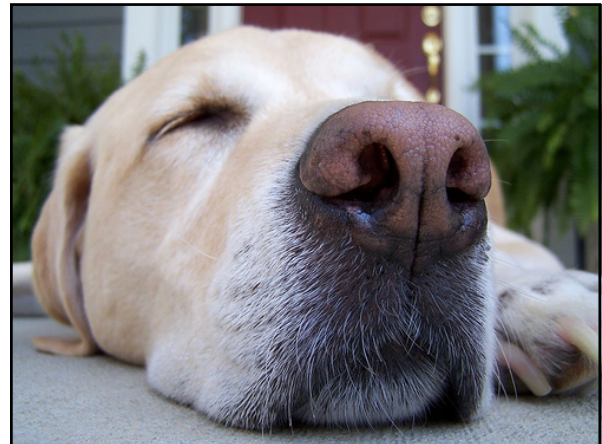
## Eartheducation: <http://it.umn.edu/eartheducation>

The image shows a screenshot of the Eartheducation website. On the left, there's a 'Home' section with a large photo of a man and a woman. On the right, there's a 'Field Update' section with a photo of a man and a woman sitting on a bench. Below that, there's a large photo of a man standing in a field.



**Polar Husky:** <http://www.polarhusky.com>

Home Forums



**I am not Content!!!**

**Blazing internet speeds in South Korea**  
 Washington Post, March 24, 2012,  
[http://www.washingtonpost.com/world/2012/03/24/qIQAx3NbYS\\_graphic.html](http://www.washingtonpost.com/world/2012/03/24/qIQAx3NbYS_graphic.html)

Average measured internet speed, by country

RANK	MEGABITS PER SECOND	YEAR-OVER-YEAR CHANGE
1 South Korea	16.7	18.0%
2 Hong Kong	10.5	14.0
3 Japan	8.9	5.8
4 Latvia	8.9	47.0
5 Netherlands	8.5	34.0
6 Switzerland	7.5	40.0
7 Czech Republic	7.3	33.0
8 Ireland	7.0	57.0
9 Romania	6.6	-5.5
10 Denmark	6.3	25.0
13 United States	6.1	23.0
Global	2.7	39.0

Note: Data collected in third quarter of 2011. Broadband is connections of 2 Mbps or greater.

**Blazing internet speeds in South Korea**  
 Washington Post, March 24, 2012,  
[http://www.washingtonpost.com/world/2012/03/24/qIQAx3NbYS\\_graphic.html](http://www.washingtonpost.com/world/2012/03/24/qIQAx3NbYS_graphic.html)

Average measured internet speed, by city

RANK	CITY	MEGABITS PER SECOND
1 South Korea	Daegu	21.5
2 South Korea	Daejeon	20.1
3 South Korea	Anyang	18.2
4 South Korea	Kimchon	18.0
5 South Korea	Seoul	16.9
6 Japan	Shimotsuma	15.5
7 Japan	Kanagawa	14.5
8 South Korea	Suwon	14.4
9 Japan	Tokai	14.3
10 Japan	Urawa	14.1
13 United States	San Jose	13.0

**In South Korean classrooms, digital textbook revolution meets some resistance**, Washington Post, March 24, 2012,  
[http://www.washingtonpost.com/world/asia\\_pacific/in-south-korean-classrooms-digital-textbook-revolution-meets-some-resistance/2012/03/23/qIQAx3NGYS\\_story.html?hpid=hp:asia-pacific:story](http://www.washingtonpost.com/world/asia_pacific/in-south-korean-classrooms-digital-textbook-revolution-meets-some-resistance/2012/03/23/qIQAx3NGYS_story.html?hpid=hp:asia-pacific:story)

**Ahn Young-joon/AP - Teacher Yeon Eun-jung, right, helps student Jeong Ho-seok study on a tablet PC during a lesson at Sosu Elementary School in Gwesan, South Korea in July. The country is now scaling back a plan to digitize classrooms by 2015.**

In South Korean classrooms, digital textbook revolution meets some resistance

**February 2012**  
 Seeds for Empowerment, Tanzania  
 Getting Juice for Technology (generator)

**February 2012**  
 Seeds for Empowerment, Tanzania  
 (Paul Kim turning it on!)

**Framework #2:**  
**The TEC-VARIETY Model**

**Tone/Climate**  
 Encouragement, Feedback  
 Curiosity

**Variety**  
 Autonomy  
 Relevance  
 Interactive  
 Engagement  
 Tension  
 Yields Products

**Framework #3:**  
**The R2D2 Method**

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

**Framework #4:**  
**From Tinkering to Tottering to  
 Totally Extreme Learning...**

**Tinkering**

### Tinker #1.

## Cases and Video Scenario Learning

(Franklin University, cost and forensic accounting course)

<http://video.franklin.edu/Franklin/acct/managerialAccounting/cost-behavior-player.html>  
<http://video.franklin.edu/Franklin/acct/342/common/fraudScenario02.html>

### Tinker #2. Webcast Lectures

(Tegrity, Echo360, Mediasite, etc.)

### Tinker #3. Timeline Tools

(e.g., USA Today, August 26, 2011)

<http://www.usatoday.com/story/news/nation/2011/08/26/martin-luther-king-jr-memorial-in-washington-a-closer-look/34696>

Martin Luther King Jr. Memorial in Washington: A closer look

### Tinker #4. Video Animations and Simulations

### Tinker #5. Collaborative Groups

(Google Docs, Ning, Google Groups, MSN Groups, Yahoo Groups)

Ning in Education

### Tinker #6. Case Learning and Role Play

(Kelley Direct, IU)

### Tinker #7. Online Experiments (e.g., psychology)

The image shows two screenshots of online psychology experiment websites. On the left is 'perception lab' with a 'Facial Transforming Software & Demos' section showing faces being transformed into a monkey. On the right is 'PSYCHEXPERIMENTS' with a 'Participate in Experiments' section and a 'Top Ten Online Psychology Experiments' list by Sandra Kober from Psych Central.

### Tinker #8. Reading from Open Access Journals; Listen to Open Access Podcasts

The image displays two open access resources. On the left is the cover of 'The International Review of Research in Open and Distance Learning', a refereed e-journal from Athabasca University. On the right is the cover of the 'Military History Podcast' featuring a soldier in a trench.

### Tinkering #9. Tracking the Life of a Scientist (e.g., Brian J. Ford, independent scientist)

<http://www.youtube.com/user/tellymonitor#p/a/u/1/LhGeApsKiasr>  
<http://www.labnews.co.uk/news/prehistoric-revolution/>  
<http://www.youtube.com/embed/kimNnRFHCzk?rel=0>

The image shows a 'Laboratory News' article titled 'A prehistoric' featuring a dinosaur skull. Below the article is a video player showing a man, Brian J. Ford, speaking.

### Origins of Humans, Brian J. Ford, Microbiologist, Cambridge, UK

Origin of Humans: <http://www.youtube.com/user/tellymonitor#p/a/u/2/sWWnVEDl8cU>  
 Tellymonitor's Channel: <http://www.youtube.com/user/tellymonitor>  
 BBC programs omit living cells: <http://www.youtube.com/watch?v=rdMjTh6Cx6Y>  
 Secret Weapons: <http://www.youtube.com/user/tellymonitor#p/u>  
 Dinosaurs (Laboratory News, April 1, 2012): <http://www.labnews.co.uk/news/prehistoric-revolution/>

The image shows a screenshot of the YouTube channel page for 'tellymonitor', featuring a video player and a list of uploads including 'Origins of Humans with Brian J Ford'.

### Tinker #10. Online Portals of Rich Data United Nations Opens World Digital Library, Turning the Pages from the British Library, etc. (history, culture, literature, writing, art, etc.)


The image shows two screenshots of digital libraries. On the left is the 'World Digital Library' interface with a world map and search options. On the right is an 'ONLINE GALLERY' showing a scanned page of a historical document.

### Tinker #10b. Online Art Google Art Project, NBC Nightly News, April 3, 2012

<http://www.msnbc.msn.com/id/3032619/vp/46945508#46945508>

The image shows a screenshot of the NBC Nightly News broadcast from April 3, 2012, with Brian Williams. A segment titled 'STATE of the Art' is visible, showing two people in an art gallery.

**Tinker #11.**  
**Using Online Encyclopedias**  
 (e.g, the Encyclopedia of Earth:  
<http://www.eoearth.org/>)  
[http://en.wikipedia.org/wiki/Encyclopedia\\_of\\_Earth](http://en.wikipedia.org/wiki/Encyclopedia_of_Earth)



**Tinker #11.**  
**Educational Videos: TED-Ed**  
<http://education.ted.com/>




**Tottering**



**Flipped Classrooms?**  
 Chronicle of HE, February 19, 2012  
[http://chronicle.com/article/How-Flipping-the-Classroom/130857?cid=pm&utm\\_source=pm&utm\\_medium=en](http://chronicle.com/article/How-Flipping-the-Classroom/130857?cid=pm&utm_source=pm&utm_medium=en)

February 19, 2012  
**How 'Flipping' the Classroom Can Improve the Traditional Lecture**



Andrew Martin's teaching techniques get students out of their seats during his class on evolutionary biology at the U. of Colorado at Boulder. Some students enjoy the "flipped" lectures that require them to help one another understand the material. Others resent being forced to work in groups.  
 By Fern Russell

**February 21, 2012**  
**Rethinking Learning with Salman Khan, Stanford Graduate School of Business**  
<http://www.youtube.com/watch?v=W-vj6BhQa5w>  
 Khan Academy Founder Finds Simplicity Appeals in Online Education Experimentation  
<http://www.gsb.stanford.edu/news/headlines/sal-khan-academy.html>  
**Let's use video to reinvent education, TED, March 2011**  
[http://www.ted.com/talks/Salman\\_Khan\\_Let\\_s\\_use\\_video\\_to\\_reinvent\\_education.html](http://www.ted.com/talks/Salman_Khan_Let_s_use_video_to_reinvent_education.html)




**Totter #1.**  
**Wikibooks, Wiki-Glossaries, Wiki-Syllabi**  
 (Ron Owston, York University, Toronto)

Web 2.0 and Emerging Learning Technologies  
 From Wikibooks, the open-content textbooks collection




**WIKIBOOKS**

**March 20, 2012**  
**Georgetown Learning Initiatives**  
**Wikipedia Public Policy Initiative**  
<http://qli.georgetown.edu/#soliva>

**Totter #2.**  
**Student Films and Documentaries**  
<http://vimeo.com/33090590/> (Verity)  
<http://vimeo.com/32123125> (Anjali)  
<http://www.youtube.com/watch?v=1OZHvu73rbw&feature=youtu.be> (Yue)

**March 20, 2012**  
**Georgetown Learning Initiatives**  
**Social Justice Documentary**  
<http://qli.georgetown.edu/#soliva>

**Totter #3. Bridges to World of Expert and Practitioners**  
 (e.g., Invite, Watch, or Listen to Online Conferences, Expert interviews, blogs, chats, etc.)

**Totter #4. Global Class**  
**Videoconferencing and Remote Lands**

**March 20, 2012**  
**Georgetown Learning Initiatives**  
**Soliya Connect**  
<http://qli.georgetown.edu/#soliva>

### Totter #5. Combining Asynchronous and Synchronous Events

### Totter #6. Multi-Site Events (e.g., William and Mary, March 3, 2011)

### Totter #7. Podcast Productions and Virtual Performances for students of pronunciation class (e.g., Tzu-Su Chen, Taiwan)

### Totter #8. Video Blogging

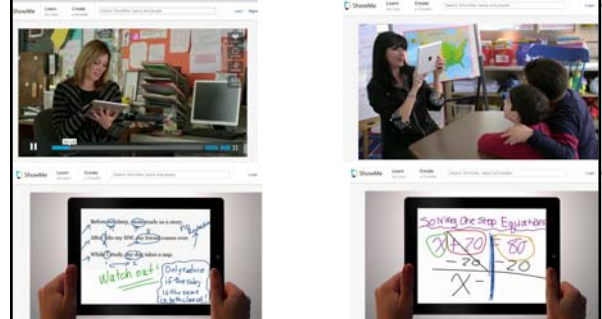
### Totter #9. Uploading Mobile Books (e.g., BookRix, <http://www.bookrix.com/>)

### Totter #10. Podcasting Medical Lectures (School of Dentistry, University of Michigan)

### Totter #11. Online Instructor Q&A April 1, 2012, Piazza: <https://piazza.com/>



### Totter #12. Lessons on iPad (e.g., ShowMe: <http://www.showme.com/>)



### Totter #13. Student Collaborative Knowledge Building and Sharing (e.g., Popplet: <http://popplet.com/>)



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



### Totally Extreme Learning...





## Extreme Learning Defined (Bonk, 2011)

"Extreme learning can involve learning while on a boat at sea near the North Pole or when sailing around the world. It also occurs when tracking the blog and podcasts postings of those in similar adventures such as riding a bike or a car around the world or through the Americas. Extreme learning also includes more sedate and passive forms of learning including watching an online video in TED, LinkTV, CurrentTV, or YouTube."



## Extreme Learning continued... (Bonk, 2011)

"Through extreme learning Web resources, those stuck behind prison walls, injured and in a hospital bed, or unemployed and unable to pay for college tuition can learn to be more productive members of society. Others might be in transition from one career to another and find open educational resources and OpenCourseWare can arouse new interests and confidence" (see Iiyoshi & Kumar, 2008).

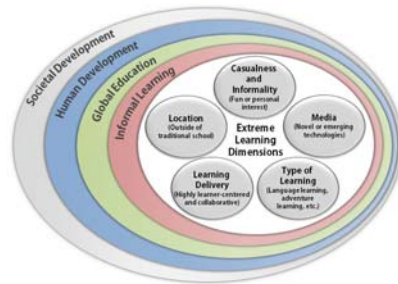


## Extreme Learning

"Still others might be retired and offer their educational ideas and mentoring services to anyone interested in the topic. Others might be earning their MBA while in war zones in Iraq or Afghanistan."



## Visual Representation of the Dimensions and Impact of Extreme Learning



## Totally Extreme #1. Immediate Science Ida (a transitional species) 47-Million-Year-Old Fossil the Missing Link? (May 20, 2009)



## Totally Extreme #2. Live Science (Nautilus Live allows people to watch expeditions live & listen to scientists in control rooms a discoveries made)



**Totally Extreme #3.**  
**Blogging Field Archeology Research**  
 (e.g., Lily Henry Roberts, UCLA digging in Hope, BC, Stó:lō First Nation people from 12,000 years ago)

**Totally Extreme #4.**  
**Google Earth Archeology Research**  
 (e.g., 450 sites of interest in Afghanistan found by David Thomas, La Trobe Univ., Melbourne, Australia)

**Totally Extreme #5. Adventure Learning**  
 (e.g., GeoThentic, Earthducation, Polar Husky, GoNorth; Aaron Doering, Univ of Minnesota; cars and bikes--Dan Grec and Mark Beaumont)

**Totally Extreme #6.**  
**Virtual High School Learning by Boat**  
 (e.g., Bridey Fennell and her family sailing and learning in the Caribbean)


**Totally Extreme #7.**  
**Kids Learn Online, Teach Online**  
 (e.g., the World's Youngest Teacher; Adora Svitak)

**Totally Extreme #8. The Last Ocean Project, Ice Stories, and Shark Theater** (24 foot inflatable screen (and outdoor ocean theater) to tiny island communities) <http://www.lastocean.com/> and <http://lastocean-project.org/>; Cassandra Brooks

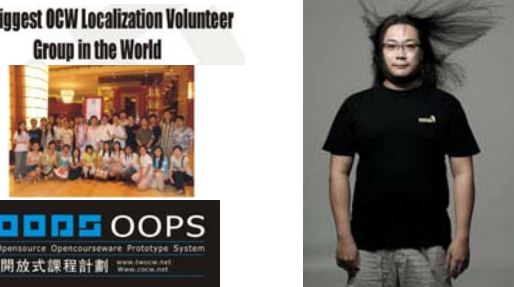
**Totally Extreme #9.**  
**iPod Learning from MIT OCW**  
 (e.g., Wendy Ermold, University of Washington)



**Totally Extreme #10.** South African teens get virtual mentoring from all over the world, By Danielle Berger, CNN, January 14, 2011  
<http://www.cnn.com/2011/LIVING/01/13/cnnheroes.stokes/index.html?hpt=T2>

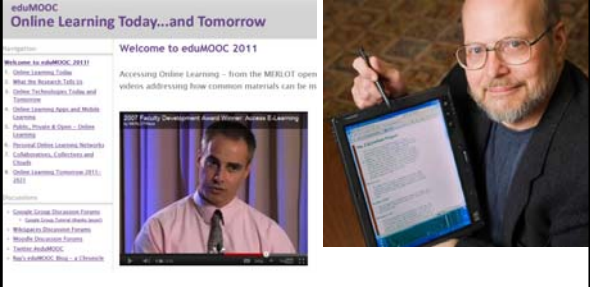


**Totally Extreme #11.**  
**Learning from Localized OER and OCW**  
 (e.g., Opensource Opencourseware Prototype System (OOPS), Lucifer Chu, Janitor of OOPS)  
**The Biggest OCW Localization Volunteer Group in the World**



**OOPS**  
 Opensource Opencourseware Prototype System  
 開放式課程計劃

**Totally Extreme #12.** Open Teaching and Massive Open Online Courses (i.e., MOOC, David Wiley, George Siemens, Ray Schroeder)




**Totally Extreme #13.** International and Global Education and Competitions  
 (e.g., Global Game Jams, online role play, Global Videoconferencing)



**Global Game Jam**

**Totally Extreme #14.**  
**Telepresence and Teleportec Systems**  
 (e.g., Cisco and HP)



**The Telepresence Classroom**  
 Overview Causes of War DC-Q Forum Classes Partners  
**David Edelstein's 'Causes of War' Class**  
 In this video, you'll see Professor David Edelstein teaching his class 'The Causes of War' to students in Doha and DC simultaneously.

**Totally Extreme #15. Military Mobile Learning from War Zones (U.S. Army Learning Concept for 2015; 2011, January 15).**  
<http://www.youtube.com/watch?v=KD9NGAV3-3k> (4:26 minutes)

**Totally Extreme #16. Online Language Learning**  
 (e.g., 300,000 people per month listening to ChinesePod, co-hosted by Jenny Zhu, John Pasden, and Ken Carroll)

**Totally Extreme #16. More Online Language Learning and Conversations**  
 (e.g., PalTalk, iTalki, Palabea, Babbel)

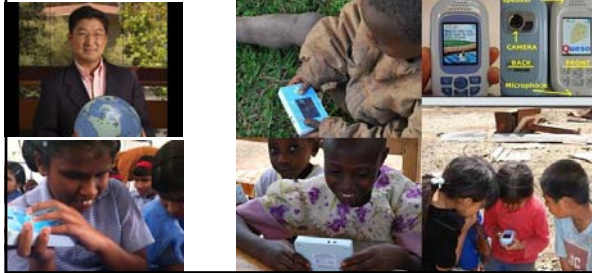
**Totally Extreme #17. Shared Online History Videos**  
 (e.g., "History for Music Lovers" with over 50 songs including: Trojan War "Tainted Love" by Soft Cell; Charlemagne "Call Me" by Blondie, Cleopatra, Napoleon, Shakespeare, the Vikings)

**Totally Extreme #18. MBAs from War Zones...!**

**Totally Extreme #19. Learn Anytime, Always On/Mobile.**  
 Will Technology Kill the Academic Calendar? Online, semesters give way to students who set their own schedules, Marc Parry, Chronicle of Higher Ed, October 10, 2010

Robert Johnson, who championed the open-format Learn Anytime program at a two-year college in Louisville, Ky. checks students' e-mail while waiting for a flight. "Everything I need to do today, I can do on my phone," says Robert Johnson...He often grades papers and communicates with students from a cafe near his home.

**Totally Extreme #20. Pocket School and Videoconferencing in Developing World**  
(Paul Kim, Stanford and Seeds for Empowerment in Rwanda, India, Mexico, Tanzania, etc.)



**February 2012**

**SMILE: Stanford Mobile Inquiry-based Learning Environment**



**February 2012**

**Seeds for Empowerment, Tanzania (Alex Bonk and the kids...)**



**March 20, 2012**

**SMILE: Stanford Mobile Inquiry-based Learning Environment**



**Extreme Learning Stories**  
**Mobile Storytelling and Pocket Schools**  
(e.g., Paul Kim, Stanford & Seeds for Empowerment)

**Totally Extreme #21.**  
**Students/Instructors Publish Own Books**  
(e.g., Apple's new electronic textbook initiative)



## Totally Extreme #22.

### Massive Open Online University

#### University 2.0 - Sebastian Thrun (Livestream)

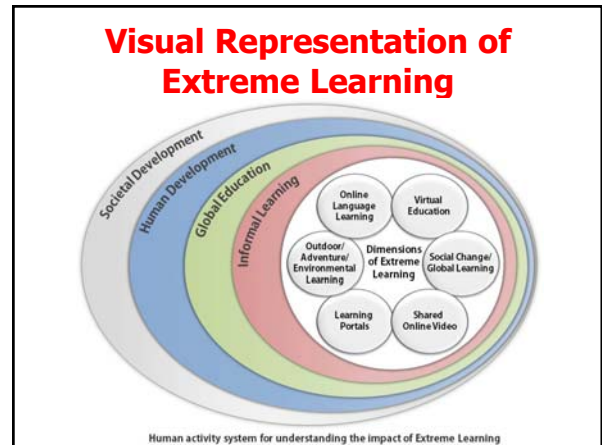
<http://new.livestream.com/accounts/50648/events/698/videos/112950/>  
<http://www.youtube.com/watch?v=SkneoNrfadk>

## Extreme Learning Website

[www.extreme-learning.com](http://www.extreme-learning.com)

## Extreme Learning Areas

1. Adventure Learning and environmental education,
2. Virtual Education (formal as well as informal),
3. Social Change and Global Learning,
4. Language Learning,
5. Shared online video,
6. Learning portals.



## 1. Virtual Education

### Open High School of Utah, Khan Academy, Michigan Virtual School

## 2. Online Language Learning

### ChinesePod, LiveMocha, Babbel

### 3. Portals of OER

**OER Commons, Open College Textbooks, WorldBridges.net**

The image shows two screenshots of educational portals. On the left is OER Commons, featuring a search bar and various resource categories. On the right is WorldBridges.net, which includes a navigation menu and a 'What is WorldBridges?' section.

### 4. Social Change and Global Education

**SierraClub, Longitude, iCivics**

The image shows two screenshots of websites. On the left is SierraClub, with a 'CRISIS-NATIONS' banner and a grid of resource icons. On the right is Longitude, featuring a portrait of a young boy and text about global education.

### 5. Shared Online Video

**TED, CurrentTV, YouTube, Explo.TV, ClipChef, Big Think, etc.**

The image shows two screenshots. On the left is a YouTube video player showing 'The Queen visits Google London'. On the right is a virtual scene of a horse-drawn carriage with several people, likely from a game or simulation.

### 6. Adventure and Environmental Learning

**PenguinScience, Impossible2Possible, EARTHducation**

The image shows four screenshots related to environmental learning. Top left: A person in a field. Top right: A quote about responsibility and a photo of people on a snowy slope. Bottom left: A group of people in a desert landscape. Bottom right: A group of people in a snowy, mountainous landscape.

### "Coolest" Extreme Learning Websites

Categories	Coolest websites	
1. Online Language Learning	<a href="#">Live Mocha</a> <a href="#">BBC Learning English</a>	<a href="#">Englishpod</a> <a href="#">Chinese Pod</a>
2. Virtual Education	<a href="#">MIT OpenCourseWare (OCW)</a> <a href="#">MIT OpenCourseWare (OCW) Highlights for High School</a> <a href="#">Khan Academy</a> <a href="#">Open University UK</a> <a href="#">OpenLearn</a> <a href="#">Ed Tech talk</a> <a href="#">iCivics</a>	<a href="#">John Hopkins OpenCourseWare</a> <a href="#">NASA for Educators</a> <a href="#">Florida Virtual School</a> <a href="#">Smithsonian</a>
3. Social Change/Global Education		
4. Adventure/Outdoor Learning	<a href="#">Earth education</a> <a href="#">Jon Bowermaster</a>	<a href="#">Nautilus Live</a> <a href="#">Explore</a>
5. Learning Portals	<a href="#">MERLOT</a>	
6. Shared Online Videos	<a href="#">National Geographic Education</a> <a href="#">Academic Earth</a> <a href="#">Discovery News Video</a>	<a href="#">Wonder How To Videos</a> <a href="#">Explo.tv</a> <a href="#">Link TV</a>

### Future: Extreme Learning Featured site (ELF Awards)

The image shows four cartoon elf characters standing in a row. They are wearing green tunics, leggings, and pointed hats with red pom-poms. They have white gloves and shoes. They appear to be in a festive or celebratory mood.

## HOPES: Humanity's Open Platform for the Exchange of Stories

## Sample HOPES Stories

## Web Platform Storytelling System

Name	Age	Sex	Address
Kurtis E	19	M	1234567890
Zaria, Niger	18	F	1234567890
Mrs and Mrs	17	F	1234567890
Nigeria, Niger	16	F	1234567890
Abimbola, Niger	15	F	1234567890



## DREAMS: Design Research for an Engaging and Active Mobile System

- Website Evaluations: 8 Countries
- Surveys: Thousands of people
- Interviews: Hundreds of people
- Focus groups: Selected participants
- Historical Data: Analyses

## Extreme Learning "Stretches the Edges" of Humanity

Document, Catalog, Grasp, Connect, Inspire Others...





**What are your Extreme Learning  
HOPES and DREAMS?**  
 Website: [www.Extreme-Learning.com](http://www.Extreme-Learning.com)  
 Slides at: [TrainingShare.com](http://TrainingShare.com)  
 Book: <http://worldisopen.com/>

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**Website: [www.extreme-learning.com](http://www.extreme-learning.com)**