

Through the Words of Experts: Cases of Expanded Classrooms Using Conferencing Technology

Dr. Curtis J. Bonk, cjbonk@indiana.edu
Professor, Indiana University



1. The Principle of Flexibility

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



2. The Principle of Convenience

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



3. The Principle of Choice and Options

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>



Learning is Changing...



December 15, 2016

The Digital Era: How 50 years of the information age transformed college forever, Ben Myers & Erica Lusk, *The Chronicle of Higher Education*
<http://www.chronicle.com/interactives/50-years-of-technology>



August 15, 2016

**The Maker Movement in Education:
A New Global Transformation**

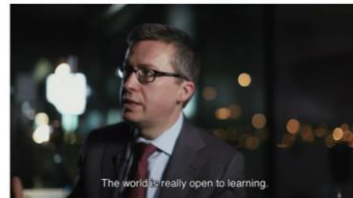
Paul Kim, ICT in Education, UNESCO
<http://www.unesco.org/new/en/education/ict/infocentre/ict-in-education-database/2016/08/education-database/home/article/the-maker-movement-in-education-a-new-global-transformation/>



April 13, 2016

**The Fourth Industrial Revolution:
What it means, how to respond**

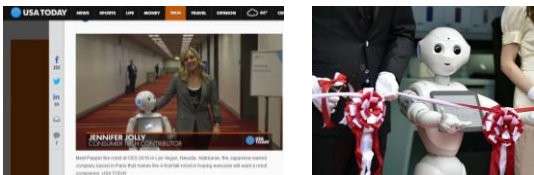
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
<http://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
<http://trainingshare.com/fourth-industrial-revolution-video-clip.php>
<http://www.tubechop.com/watch/8280981>



May 19, 2016

**Pepper the robot needs U.S. programmers,
Marco della Carva, USA Today**

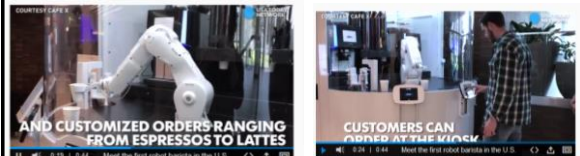
<http://www.usatoday.com/story/tech/2016/05/19/pepper-robot-needs-u-s-programmers/8486172/>
 Usual internal link: <http://trainingshare.com/usa2.html>
 New download link: <https://www.dropbox.com/s/hxcuwwqva120oiv/pepper-the-robot2.mp4?dl=0>



January 30, 2017

**A robotic barista is now serving —
really fast**

Jon Swartz, USA Today
<http://www.usatoday.com/story/tech/2017/01/30/robotic-barista-now-serving-really-fast/958897801>



September 21, 2016

Udacity Unveils Nanodegree Program for Self-Driving Car Engineers

Sri Ravipti, Campus Technology

<https://campustechnology.com/articles/2016/09/21/udacity-unveils-nanodegree-program-for-self-driving-car-engineers.aspx>



Udacity Unveils Nanodegree Program for Self-Driving Car Engineers



March 14, 2016

Artificial Intelligence and Robots

Paul Basken, The Chronicle of Higher Education

<https://www.chronicle.com/article/Artificial-Intelligence-and-Robots/238893>

Behind a Computer's Surprise Victory, Hints of Global Economic Upheaval



Forget the robots — here come the germinoids!



June 10, 2015

Augmented reality promises 'superpowers', and people are listening

The USA Today, Marco della Cava

<http://www.usatoday.com/story/tech/2015/06/10/augmented-reality-superpowers/2844882/>

Microsoft HoloLens: <https://www.youtube.com/watch?v=3vcaThG0Pp8k>



Letsee is an AR app from a South Korea consumers to scan a product and see reviews instantly overlaid atop.



June 3, 2016

Virtual Reality Lets Med Students Experience What It's Like To Be 74

Elyse Wanshel, Huffington Post

<http://ht.ly/bSpe300XEPJ>

Virtual Reality Lets Med Students Experience What It's Like To Be 74

Published on January 1, 2016 by Huffington Post, 4/15/16

Facebook Twitter Google+ LinkedIn

Share this story: Virtual Reality Lets Med Students Experience What It's Like To Be 74

Virtual Reality Lets Med Students Experience What It's Like To Be 74

I don't remember what I'm supposed to do



Knowledge Navigator (1987)

Apple Computer

<http://www.youtube.com/watch?v=3vcaThG0Pp8k>



October 14, 2011

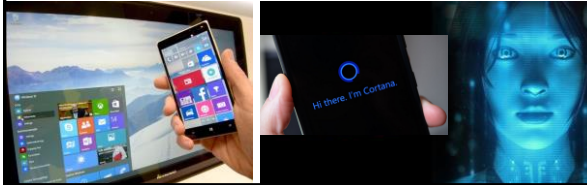
Siri (co-founder Tom Gruber)

<http://www.imore.com/siri>

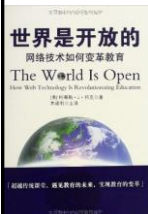


August 22, 2016**Microsoft acquires AI assistant start-up Genee**

Marco della Cava, USA Today (Cortana)

<http://www.usatoday.com/story/tech/news/2016/08/22/microsoft-acquires-ai-assistant-startup-genee/93126002/>**May 9, 2016****Personal Digital Assistants (PDA)**

Personal digital assistants are on the rise (and they want to talk) USA Today, Edward Baig
(i.e., Google codename of "Chirp"), Elizabeth Weise, USA Today

<http://www.usatoday.com/story/tech/news/2016/05/09/personal-digital-assistants-are-on-the-rise/8211338/>**The World is Open:****How Web Technology Is Revolutionizing Education****TEN OPENERS: (WE-ALL-LEARN)**

1. Web Searching in the World of E-Books
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software
4. Leveraged Resources and OpenCourseWare
5. Learning Object Repositories and Portals
6. Learner Participation in Open Information Communities
7. Electronic Collaboration
8. Alternate Reality Learning
9. Real-Time Mobility and Portability
10. Networks of Personalized Learning

**The Evolution of E-Learning (All 7 year cycles)**

Phase I, 1994:
THE AGE OF PORTALS AND PAGES (NETSCAPE GOES PUBLIC).



Phase II, 2001:
THE AGE OF OPENNESS (MIT OCW & WIKIPEDIA BORN).



Phase III, 2008:
THE AGE OF MOOCs (FIRST MOOC OFFERED).



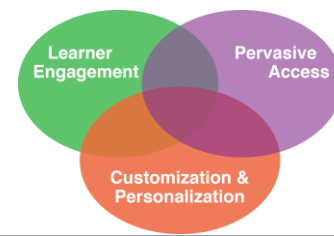
Phase IV, 2015
THE AGE OF PERSONALIZATION.

Other prior significant e-learning dates: 1985: FIRST ONLINE COURSE, LINDA HARASIM, UNIV. OF TORONTO
1987: HYPERCARD FIRST SHIPPED.

Thirty Ways Learning is Changing...

(i.e., it's more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, etc.)

Ten Cheers for Web 2.0!

**30+ Ways Learning is Changing: The Mega Trends**

How Learning is Changing: Mega Trend #1. Learner Engagement



February 17, 2016 (Engagement) World's Cheapest Smartphone at \$3.67

https://m.facebook.com/hashing/launched?ref=528..._&_ftid=101535660121177598&_ftid=101535660121177598&_ftid=101535660121177598
<http://gadgets.ndtv.com/videos/facebook-251-launched-as-world-s-cheapest-smartphone-at-rs-251-90402>



September 7, 2016 (Engagement) Learning Apps - Personalized Interfaces for Performance

Elliott Masie's Learning TRENDS; trends@masie.com
Personalized for an employee based on their development goals, competency gaps and changing skill/information matrix in the workplace. A Learning App could provide a just in time set of content, context, collaboration connections, coaching sets and real time feedback.

Learningpool: <https://www.learningpool.com/services/apps-for-learning>



August 31, 2016 (Engagement) Samsung ticks forward with new Gear S3 smartwatch

Edward C. Baig and Eli Blumenthal, USA TODAY

<http://www.usatoday.com/story/tech/2016/08/31/samsung-ticks-forward-new-gear-s3-smartwatch/89644266/>



Samsung Pay on the Gear S3. (Photo: Eli Blumenthal, USA TODAY)



Samsung is hoping to have 10,000 apps by the time the Gear S3 launches this fall.

August 23, 2016 (Engagement) Reef Videoconferencing (Great Barrier Reef, Australia)

<http://www.reefhq.com.au/education-at-reef-hq-podcast/reef-videoconferencing>



How Learning is Changing: Mega Trend #2. Pervasive Access



May 20, 2016 (Customization) agMOOCs (India)

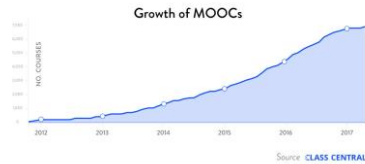
<http://www.agmoocs.in/>



December 25, 2016 By The Numbers: MOOCs in 2016

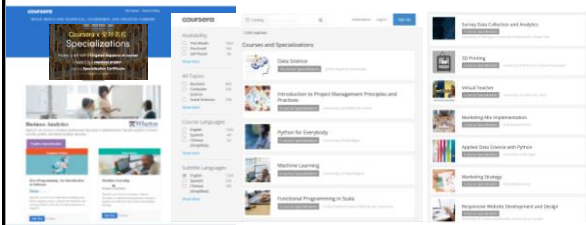
Dhawa Shah, Class Central

<https://www.class-central.com/report/mooc-stats-2016/>



July 28, 2016 (Customization) Coursera Specializations email

Starting Monday August 1st: 9 Top Specializations



MOOCs and Open Education Around the World

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



July 1, 2015 (Customization) Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC

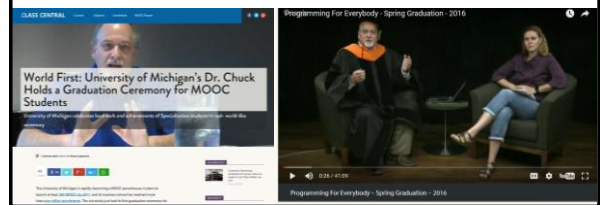
Paul Kim and Charlie Chung, Stanford University
Figure 2. Twitter thread announcing the MOOC



June 14, 2016 (Customization) World First: University of Michigan's Dr. Chuck Holds a Graduation Ceremony for MOOC Students

Anuar Lequerica, Class Central

<https://www.class-central.com/report/dr-chuck-graduate-ceremony-python-specialization/>



August 24, 2016**K-MOOCs (and ocMOOCs and hMOOCs)
Revolutionizing online education**

Professor creates courses tailored to cultural differences

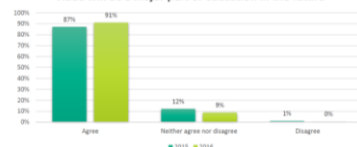
Korea JoongAng Daily, Bong-Moon Kim

<http://www.kmooc.kr/>**The Age of Videopedia...**Source: <http://reviews-bonuses.net/videopedia-pro-1-0-reviews-bonuses/>**August 5, 2015****Shubham Jaglan Overwhelmed by "Dream" Return Home After Double World Championship**

Disha Chopra, NDTV Sports

<http://www.ndtv.com/sports/2015/08/05/shubham-jaglan-overwhelmed-by-dream-return-home-after-double-world-championship>**July 18, 2016****Survey: Video Usage in Ed Continues Ramp-up, Dian Schaffhauser, THE Journal**<http://thejournal.com/article/2016/07/18/survey-video-usage-in-ed-continues-ramp-up.aspx>

Video will be a major part of education in the future

**September 8, 2016****Penn State Students Attend Class via Robot, Sri Ravipati, Campus Technology**<https://campustechnology.com/articles/2016/09/08/penn-state-students-attend-class-via-robot.aspx>**Penn State Students Attend Class via Robot**

By Sri Ravipati | 09/08/16

A new technology program at Pennsylvania State University enables students to attend and participate in class without ever leaving their dorms.

The research initiative is utilizing the BeamerBot, a small, mobile robot that can be remotely operated via computer applications. Users can view the BeamerBot's video feed on their laptops or tablets, and they can even interact with the robot via an app or a website. The robot is also equipped with a microphone and a camera.

At the moment, the BeamerBot is being used in a pilot program at Penn State's Berks campus, where it is being used to deliver lectures and answer questions from students.

**Academic Earth**

- 9

Practical Rationale Behind Web and Video Conferencing

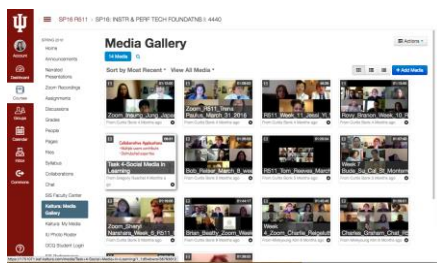
- Easy to do. Experts at your fingertips.
- More focused, pointed, and targeted experience.
- Easier to ask a question.
- More private; hence, freer to ask questions; more open.
- Greater opportunities to talk to an expert.
- Introverted/shy people feel more free to express their questions, concerns, ideas, etc.
- Gain experience speaking in a public forum.
- Experts are available on an informal basis (i.e., as a result, feel more connected and confident to engage).

R511 Chat with Experts

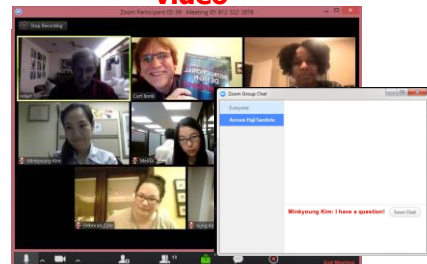
We've met 12 experts all over the world during the course



Anytime access



multiple ways to engage—text, audio, video

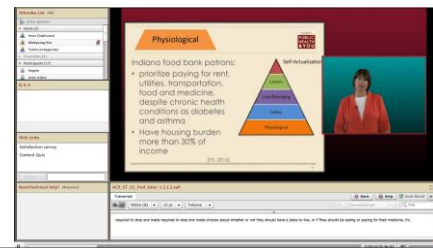


October 11, 2016

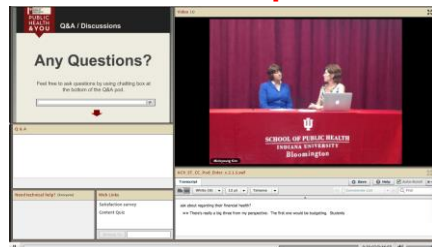
Zoom, Guest Expert, Sanjaya Mishra, R511



School of Public Health Webinar Chat with Experts



School of Public Health Webinar Chat with Experts



Impact of Web and Video Conferencing

- Learner engagement (and multiple ways to engage—text, audio, video)
- Enhanced learning
- Student retention and satisfaction
- Learner involvement
- Learners in community (less isolation)
- Can revisit the experience/session anytime
- Additional learning paths
- Anytime, anywhere participation
- Course reputation enhanced

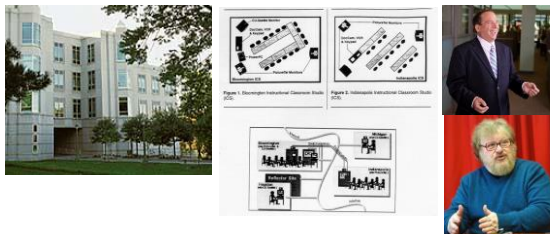
Part II: Lessons Learned...



Lesson #1. Combining Asynchronous and Synchronous Events (e.g., guest was David Merrill, 2007)



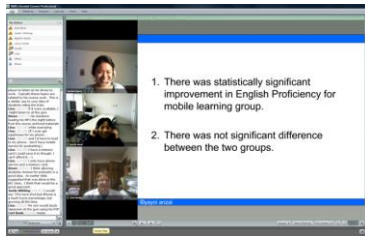
Synchronous + Asynchronous (e.g., Elliot Soloway and David Palumbo, 1995)



February 15, 2016 Synchronous + Asynchronous Jennifer Maddrell, R678 (Zoom)



Lesson #2. If Plan, No Instructor Required (Guest Session Run by Assistant)



Lesson #3. Test the System (e.g., Guest No Video)



May 2015 Sync Presentation and Chat in Adobe Connect (from hotel room)

<https://connect.liv.edu/p259wplabg9/>



Lesson #4. Guest Starts Semester Michael Horn and Curt Bonk, R685, August 20, 2012



Lesson #5. Multiple Guest Experts Sara de Freitas and Jim Hensman, U of Coventry, UK (<https://connect.liv.edu/p2131x666/>) Jay Cross, Berkeley (<https://connect.liv.edu/p484ytsoroth/>)



Lesson #6. Be Willing to Reciprocate



Lesson #7: Experiment with Technology

Collaboration and Discussion in Google Hangouts (1/29/2013)



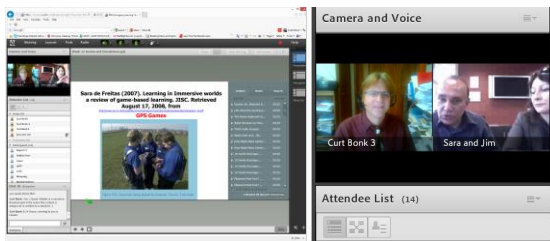
Lesson #8: Solicit Student Recommendations

Expert Interviews (Rich Culatta, Acting Director, Office of Educational Technology)



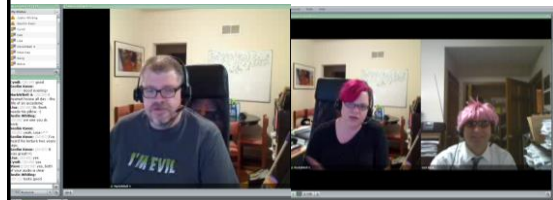
Lesson #9: Don't Give Up!

Serious Gaming Institute, Coventry, UK



Lesson #10: Make a List of Those You Know

Intellagirl Sarah Smith-Robbins and Mark Bell (Second Life for Dummies)



Part III: Twenty Pedagogical Activities for Class-Related Videoconferencing or Web Conferencing with Experts



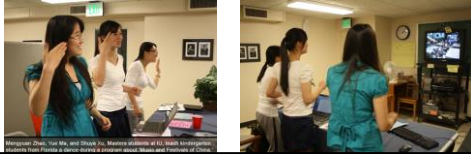
1. Expert Presentations with Audience Questioning and Commenting

The guest expert makes a formal or semi-formal presentation of ideas, activities, cultural norms and practices, or research to the class.



2. Expert Demonstrations and Audience Questioning

The guest expert demonstrates a certain technique, idea, principle, etc., while the learners observe and ask follow-up questions.



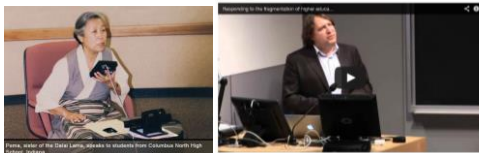
January 26, 2016 Demo Web Conferencing

Tom Reeves, Guest Appearance Zoom



3. Question and Answer Sessions

The guest expert responds to questions posed by the audience based on a particular topic (the audience might read or watch ahead of time).



November 30, 2016

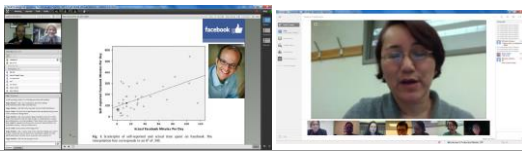
Edgar Leon, Puerto Rico, Caribbean University

<http://www.caribbean.edu/>



4. Responding to Book or Article Quotes

The learners come to the synchronous session with quotes from those articles or resources for the guest expert to respond to.



5. Responding to Publication Visuals

Students find visuals from the culture or country of the guest to respond to; alternatively, they might find charts, tables, figures, and graphs from articles, books, or presentations of the guest expert.



6. Expert Panel

A panel might set up to discuss a particular issue, trend, controversial topic, cultural practice, research finding, announcement, etc.



8. Expert Interviews and Discussions

Students might read the biography or resume of the guest as well as available articles, books, and other resources about this person. Next, the guest might respond to questions from the class based on these resources.



April 28, 2016

Communities

Shindig, Video Chat Tool

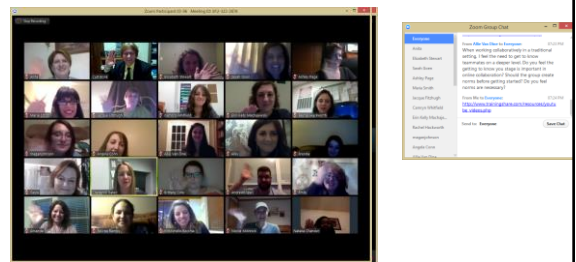
Future Trends Forum (with Bryan Alexander)

<https://bryanalexander.org/>



March 1, 2016

Tarleton State University, Dr. Credence Baker, Zoom



Weekly Synchronous Guest Chats

(e.g., Emily Hixon, January 20, 2015)

<https://connect.iu.edu/p259wpiabg9/>



Jan. 20, Oct. 13, & Nov. 2016 (Zoom)

Weekly Guest Expert Chats

R511 Chat with Mike Molenda, IU



9. Expert Life Stories

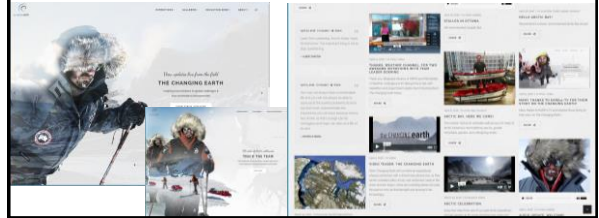
The guest expert might detail different stories or situations that he or she has encountered related to a certain topic of the class. Students in the class can comment on them and ask questions as needed.



January 20, 2017

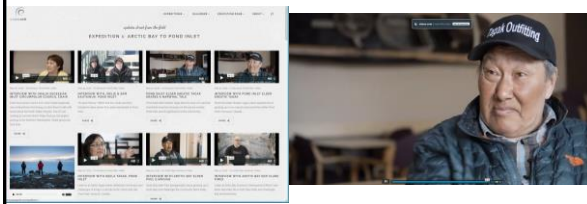
The Changing Earth

<http://thechangingearth.com/>



January 20, 2017
The Changing Earth

<http://thechangingearth.com/>



10. Expert Session Archive Reviews and Discussions



November 11, 2015

Learning Talks

Elliott Masie's Learning 2015

<https://www.scribd.com/document/251515156/Elliott-Masie's-Learning-2015>



July 14, 2016

2015 AECT/China Research Symposium - Speakers

<http://www.aect.org/meetings/2015ChinaSymposium.html>



11. Expert Presentations and Webinars

The guest expert presentation followed by questions and answer session.

e.g., Cathy Davidson or Michael Wesch, The End of Higher Education, <http://connectedcourses.net/thecourse/why-we-need-a-why/>



July 31, 2014 12. Celebration Events

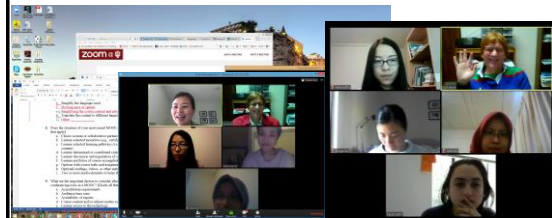
Book Launching via Skype
University of Waikato, New Zealand



Cross-Institutional Wikibook Project (e.g., IU and the University of Houston)



Zoom, January 15, 2017 13. Team Document Review Research Team Meeting



January 17, 2017 Zoom Saudi Arabia Meeting



September 7, 2015 15. Informal Meetings

Blab

<https://blab.im/>
<https://blab.im/jaycross-learning-for-yourself>



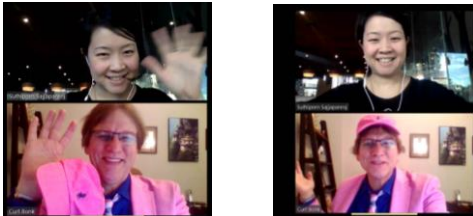
January 19, 2015
16. Planning Meetings
 Sonja Stahl and Diane Salmon, National
 Louis University, Chicago



October 6, 2016
 Zoom, Conference planning
 meeting, University of Houston



December 22, 2016
 Zoom, Bangkok, Thailand



January 27, 2017
 Skype Thailand, Prince of Songkla University



October 23, 2016
16. Interview Meetings
 Zoom, Interview on Online Learning/Teaching in IST



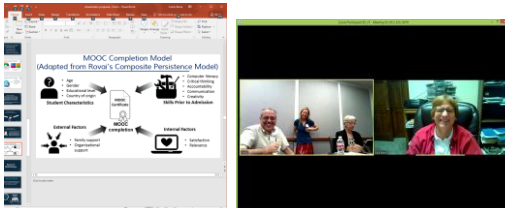
January 21, 2016
18. Dissertation Defenses
 Dissertation proposal meeting with Susan Herring at UCSC



August 15, 2016

Zoom, Dissertation proposal meeting

Erwin Hardske erwin_hardske@yahoo.com



November 2014
19. Short Cameo Appearances Can Work
Shenzhen, China

Guest Speaker (cameo appearance via Skype from Madrid hotel room)

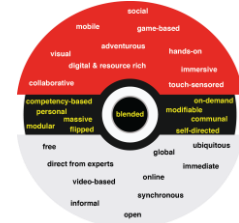


November 30, 2016

20. Article Interviews. Yonjoo Cho, Research Interview,
 Article: "Women Leaders' Work-Life Imbalance in South
 Korean Companies: A Collaborative Qualitative Study,"
 December issue, Human Resource Development Quarterly
 Podcast Video Interview (11:48):
<https://drive.google.com/file/d/0B89y1Z2i-H61oB0rCdaWTBqczQ/view?usp=sharing>
 Abstract: <http://onlinelibrary.wiley.com/doi/10.1002/hrdq.21262/abstract>



30+ Ways Learning is Changing:
Recapping the Three Mega Trends:
Engagement, Access, and Customization



October 23, 2016

Ben Gose, The Chronicle of Higher Education

<http://www.chronicle.com/article/When-the-Teaching-Assistant-Is/238114>

When the Teaching Assistant Is a Robot

Faculty members experiment with artificial intelligence in the classroom



January 30, 2017

A robotic barista is now serving — really fast

Jon Swartz, USA Today

<http://www.usatoday.com/story/tech/2017/01/30/robotic-barista-now-serving-really-fast/1355847801>



Professor Einstein, an educational Wi-Fi connected robot is on display at the Hanson Robot display during the opening day of Consumer Electronics Show 2017. (Photo: Robert Hanashiro, USA TODAY)

December 26, 2016

Glimpse into the Future of Learning
Jenny Abamu, New Learning Times (NLT)

https://newlearningtimes.com/cms/article/40227646_source=ViaAddic_medium=EBAddic_name=December-26-2026%20NewsEditor



July 21, 2016

Facebook's Aquila drone completes first test flight

Jessica Guynn, USA Today

<http://www.usatoday.com/story/tech/2016/07/21/facebook-aquila-completes-first-test-flight/87368918/>



An aerial view of Aquila, an autonomous aircraft Facebook is designing to deliver mobile broadband networks to isolated people (mission to fly 60,000 above Earth for up to 3 months at a time; current record for solar-powered unmanned flight is 2 weeks). (Photo: Facebook)

Things are heating up!



Education 3.0 is coming within reach!



Remember for Education 20/20 to meet Education 3.0:
"I cannot do this alone."

"I cannot do this alone."
 "I cannot do this alone."
 "I cannot do this alone."



Questions?

Slides at: TrainingShare.com

Papers: PublicationShare.com

Book: <http://worldisopen.com/>

Email: curt@worldisopen.com

