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://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

2. The Principle of Convenience
   http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

3. The Principle of Choice and Options
   http://travelinedman.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

April 13, 2016
The Fourth Industrial Revolution: What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/
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/news/2016/05/18/google-calling-all-android-robot-programmers/84461778/
Usual internal link: http://trainingshare.com/usa2.html
New download link: https://www.dropbox.com/s/hxcuwqgvaj20oiv/pepper-the-robot2.mp4?dl=0

January 30, 2017
A robotic barista is now serving — really fast
Joe Swartz, USA Today
http://www.usatoday.com/story/tech/2017/01/30/robotic-barista-now-serving-really-fast/95888780/
September 21, 2016
Udacity Unveils Nanodegree Program for Self-Driving Car Engineers
Sri Ravipati, Campus Technology

March 14, 2016
Artificial Intelligence and Robots
Paul Basken, The Chronicle of Higher Education
http://chronicle.com/article/Behind-a-Computer’s-Surprise-Victory/Hits-of-Global-Economic-Uph/235687?cid=at&utm_source=at&utm_medium=en&elqTrackId=b050021f79e64d299f78b827af837b4a&elq=9ab0ff65a0e940caa0943c7774346&elqaid=8231&elqat=1&elqCampaignId=2650

June 10, 2015
Augmented reality promises ‘superpowers’, and people are listening
The USA Today, Marco della Cava
https://www.youtube.com/watch?v=aThCr0PsyuA

June 3, 2016
Virtual Reality Lets Med Students Experience What It’s Like To Be 74
Elyse Wanshel, Huffington Post
http://ht.ly/bSpe300XEPJ

Knowledge Navigator (1987)
Apple Computer
http://www.youtube.com/watch?v=hb4AzF6wEoc

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)

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

The World is Open:
How Web Technology Is Revolutionizing Education
Ten Openers: (We-All-Learn)
1. Web Surfing 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. Learning 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 IV, 2015: THE AGE OF PERSONALIZATION.

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

30+ Ways Learning is Changing:
The Mega Trends
Learner Engagement
Pervasive Access
Customization & Personalization
How Learning is Changing:
Mega Trend #1. Learner Engagement

- Social
- Hands-on
- Visual
- Touch-sensored
- Game-based
- Adventurous
- Digital & resource rich
- Immersive
- Collaborative

February 17, 2016 (Engagement)
World’s Cheapest Smartphone at $3.67
[Link](https://m.facebook.com/hashtag/launched?refid=52&__tn__=%2As)
[Link](https://m.facebook.com/story.php?story_fbid=10153960012315798&id=102527030797)
[Link](http://gadgets.ndtv.com/videos/freedom-251-launched-as-worlds-cheapest-smartphone-at-rs-251-404082)

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.
Learning Apps: [Link](https://www.learningpool.com/services/apps)

August 31, 2016 (Engagement)
Samsung ticks forward with new Gear S3 smartwatch
Edward C. Baig and Eli Blumenthal, USA TODAY
[Link](http://www.usatoday.com/story/tech/2016/08/31/samsung-ticks-forward-new-gear-s3-smartwatches/89644266/)
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)

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

- Informal
- Global
- Video-based
- Synchronous
- Ubiquitous
- Open
- Direct from experts
- Online
- Immediate
January 15, 2016
Wikipedia is 15!
Scott McLemee, Inside Higher Ed

June 13, 2016 (Access)
Nine-Year-Old Anvitha Vijay is the Youngest Developer at WWDC (age 9)
(Apple Worldwide Developers Conference), Gadgets

May 4, 2016 (Access)
This Mongolian Teenager Aced a MOOC
Now He Wants to Widen Their Impact
(140,000 people took the MIT MOOC on Circuits and Electronics, 1 of 300 to get a perfect score)
The Chronicle of Higher Education, Jeffrey R. Young

September 7, 2016 (Customization)
The Future of Collaboration Spaces
Encompasses Video
Interactive, Mobil, Julie Johnston, ID, Campus Technology

August 1, 2016 (Customization)
363 by Idea Group; Study Café
Meeting Place; Idea Space (Seoul, Korea)
May 20, 2016 (Customization)
agMOOCs (India)
http://www.agmoocs.in/

December 25, 2016
By The Numbers: MOOCS in 2016
Dhawa Shah, Class Central

July 28, 2016 (Customization)
Coursera Specializations email
Starting Monday August 1st: 9 Top Specializations

MOOCs and Open Education Around the World
http://routledge-np.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 Lagares, Class Central
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/

Shubham Jaglan Overwhelmed by "Dream" Return Home After Double World Championship
NDTV Sports

Survey: Video Usage in Ed Continues Ramp-up, Dian Schaffhauser, THE Journal

Penn State Students Attend Class via Robot, Sri Ravipati, Campus Technology

Penn State Students Attend Class via Robot

Academic Earth
Free online video courses from leading universities.
May 4, 2016
What I Learned at the ASU GSV Summit
Kenneth Green, Inside Higher Ed

September 14, 2015
Credit for Watching a TED Talk? A new platform aims to help employers track casual learning
Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/Credit-for-Watching-a-TED/232973/?cid=at&utm_source=at&utm_medium=en
Degreed: https://degreed.com/

Part I: Expert Apprenticeship from Video

Apprenticeship in the Past...

Instruction as a Cognitive Apprenticeship

Theoretical Rationale Behind Web and Video Conferencing
- Reflects on real world
- Receives mentoring and advice
- Articulates ideas and questions for the expert
- Tries out initial kernels of ideas
- Receives a glimpse of the discipline
- Starts the journey from novice to expert
- Forms new social connections
- Sees new perspectives
- Gets excited about a discovery, issue, idea, finding, etc.
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)
1. There was statistically significant improvement in English Proficiency for mobile learning group.
2. There was not significant difference between the two groups.

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

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
Jay Cross, Berkeley

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/p25p9ialg9/

Jan. 20, Oct. 13, & Nov. 2016 (Zoom)
Weekly Guest Expert Chats
RS11 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/

10. Expert Session Archive
Reviews and Discussions

November 11, 2015
Learning Talks
Elliott Masie’s Learning 2015
https://emasie.smugmug.com/Learning-2015/Graphic-Illustrations/16941145

July 14, 2016
2015 AECT/China Research Symposium - Speakers
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_shi@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/0B9Iyl2ZIh2N6iibXlRc3daWTBqczQ/view?usp=sharing

October 23, 2016
Ben Gose, The Chronicle of Higher Education
http://www.chronicle.com/article/When-the-Teaching-Assistant-is-a-Robot/238114

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/95888780/

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 I. Amu, New Learning Times (NLT)
https://newlearningtimes.com/cms/article/4022/?ddc_source=Via&ddc_medium=E&ddc_name=December
29 Newsletter

July 21, 2016
Facebook’s Aquila drone completes first test flight
Jessica Guynn, USA Today

An aerial view of Aquila, an autonomous aircraft Facebook is designing to deliver mobile broadband networks to isolated people (mission to fly 60,000 feet 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.”
“Don’t do this alone.”
“I cannot do this alone.”

Questions?
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
Email: curt@worldisopen.com