Poll #1:
Are you interested in Education 1.0?
A = Yes
B = No
C = Not sure

Poll #2:
Are you interested in Education 3.0?
A = Yes
B = No
C = Not sure
**Education 3.0**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Education 1.0</th>
<th>Education 2.0</th>
<th>Education 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional role of professor</td>
<td>Source of knowledge</td>
<td>Guides and sources of knowledge</td>
<td>Dedicated to collaborative knowledge</td>
</tr>
<tr>
<td>Content arrangements</td>
<td>Traditional, expensive materials</td>
<td>عاطف</td>
<td>Current and educational resources created and reused by students, educators, or student-led communities.</td>
</tr>
<tr>
<td>Learning activities</td>
<td>Traditional, essay assignments, tests; some give peer feedback</td>
<td>Traditional, essay assignments, tests; increased collaboration in learning activities, with influence from institutional and classroom boundaries</td>
<td>Open, flexible learning activities that emphasize creativity, collaborative learning, digital learning, and participation.</td>
</tr>
</tbody>
</table>

**Instructor as Conductor**

**Instructor as Concierge**

**What skills do we need in the 21st Century?**
http://21stcenturyskillsbook.com/

**March 2015**
America’s Skills Challenge: Millennials and the Future
Madeline Goodman, Anita Sands, and Richard Coley, ETS
http://www.ets.org/research/2015/skills.html

**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/

Walter Isaacson (2014)
http://books.simonandschuster.com/The-Innovators/Walter-Isaacson/9781476708690

Joshua Wolf Shenk (2014)
http://www.shenk.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.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
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  

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

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  
1950s and 1960s – television  
1970s and 1980s – VHS tapes  
1980s and 1990s – DVD

September 15, 2014
Open, Distance and Online Learning: A Brief History, Sir John Daniel  
International Conference on Emerging Technologies in Education and Computer Science, Universidad Da Vinci, Cancun, Mexico  
http://vimeo.com/106002761 (password knou)  
Notes and Slides: http://sirjohn.ca/wordpress/?page_id=29
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

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=hb4AzF6wEoc

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/13597331/

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://chronicle.com/article/When-a-Flipped-Classroom/151031/

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

IV. Learning is More Visual
September 22, 2014
110 Foot Engagement, Elliott Masie’s Learning 2014
October 6, 2014
Stanford U Display Wall Takes Visualization to a Higher Level,
Dian Schaffhauser, Campus Technology

VI. Learning is More Game-Based
October 21, 2014
Sexy iPad Air 2 is fabulous but not a must upgrade, Edward Baig, USA Today

V. Learning is More Touch Sensored
October 16, 2013
Corporate Classrooms: Adapting to Change
Chief Learning Officer, Frank Kalman

VII. Learning is More Immersive
October 22, 2014
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/

IX. Learning is More Social
October 24, 2014
Facebook launches Rooms app for anonymous sharing of interests,
USA Today, Jessica Guynn

X. Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
http://chasingseals.com/

XI. Learning is More Direct from Experts
February 3, 2015
Helpouts (Google)
https://helpouts.google.com/

-January 22, 2015
Noodle
When Can I Skip Taking the GRE or GMAT?
https://www.noodle.com/articles/when-can-i-skip-taking-the-gre-or-gmat
https://www.noodle.com/

February 2, 2015
Here Comes Professor Everybody: The ‘sharing economy’ meets higher education,
Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/Here-Comes-Professor-Everybody/151445/?cid=at

Kevin deLaplante, an associate professor at Iowa State U., makes an average of $2,500 per month teaching from his home studio (above) on sites like Udemy.

XII. Learning is More Synchronous
Dubai to Puerto Rico (Edgar Leon)
https://www.youtube.com/watch?v=Imxw0YwTh2Y&list=UUClhOjnvl1pEXd9Skv_Iw

XIII. Learning is More Digital
October 23, 2014
New Amazon Kindle is a Voyage into eReader luxury, USA Today, Edward C. Baig
XIV. Learning is Resource Rich
January 28, 2015
Discovery Education Techbook

XV. Learning is More Informal
October 13, 2013
A Dozen Ways To Promote Informal Learning
Chief Learning Officer, Saul Carliner
http://www.clomedia.com/articles/a-dozen-ways-to-promote-informal-learning

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.
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

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
iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman (January 10, 2013)
http://mashable.com/2013/01/10/ipotty/
Learning is More Personal
Localization and Translation of Open Content
Coursera, Global Translator Community, Chronicle of Higher Education
https://www.coursera.org/about/translate

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

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://onlinelearningsurvey.com/reports/gradelevel.pdf

January 23, 2015
Gates Newsletter

Learning is More Online
June 15, 2014
Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace
(From Arizona State online programs)

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://onlinelearningsurvey.com/reports/gradelevel.pdf
XII. Learning is More Modifiable
Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business, Feb. 22, 2013

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 signaling)

XV. Learning is More Instantaneous
April 9, 2013
HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today
(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/google-glasses-could-have-strong-potential-healthcare-use/2013-03-18

XVI. Learning is More Free
August 5, 2014
OpenStax Aims To Bring Free Digital Textbooks to High Schools, David Nagel, THE Journal

January 8, 2015
Obama Plan Would Help Many Go to Community College Free
JULIE HIRSCHFELD DAVIS and TAMAR LEWIN, The New York Times
President Obama running onto the stage before delivering remarks at Central High School in Phoenix on Thursday. Credit Doug Mills/The New York Times
Want something FREE?
Introducing the “TEC- VARIETY” book...
http://tec-variety.com/

What motivates?
1. Timeliness: Psychological Safety, Comfort, Sense of Belonging
2. Engagement: Feedback, Permanence, Peace, Support
3. Curiosity: Surprise, Intrigue, Unknown
4. Variety: Novelty, Fun, Fantasy
5. Autonomy: Choice, Control, Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactivity: Collaborative, Team Based, Community
8. Engagement: Effort, Involvement, Investment
9. Tension: Challenge, Dissonance, Controversy
10. Training: Product: Goal Driven, Purposeful Vison, Ownership

The V-PORTAL (Bonk, IU)
“Video Primers in an Online Repository for e-Teaching and Learning” V-PORTAL,
TravelinEdMan (27 free/open YouTube videos)
http://www.youtube.com/user/TravelinEdMan

XXVII. Learning is More Self-Directed
February 2013
TED Talks
(Build a School in the Cloud; Self-Organized Learning Environments (SOLES), TED Talk from Sugata Mitra
http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html

XXVIII. Learning is More Global
August 1, 2014
Can You Really Teach a MOOC in a Refugee Camp?, Chronicle of Higher Education, Steve Kolowich

XIX. Learning is More Open
(December 2, 2014)
Nature, Openwords, etc.
http://www.openwords.com/
https://www.facebook.com/Openwords

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)

“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.”

Global Health Initiatives
October 7, 2014
Online Mooc courses deliver Ebola health advice, BBC News, Sean Coughlan

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

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.”

Things are heating up!
http://routledge-ny.com/books/details/978138807419/

MOOCs and Open Education Around the World
http://routledge-ny.com/books/details/978138807419/
The Web of Learning

We are entering a jumping off point...

Framework: WE-ALL-LEARN: Ten Forces that Opened the Learning World
- Web Searching in the World of e-Books (i.e., Darwin)
- E-Learning and Blended Learning
- Availability of Open Source and Free Software (e.g., Moodle)
- Leveraged Resources and OpenCourseWare (e.g., MIT)
- Learning Object Repositories and Portals (i.e., shared content)
- Learner Participation in Open Info Communities (YouTube)
- Electronic Collaboration and Interaction (sync and async)
- Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Real-Time Mobility and Portability (e.g., iPhone)
- Networks 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 Counselor?
Poll #10: Instructor as Course Ambassador?

Poll #11: Instructor as Curator?

Poll #12: 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

Questions and Comments?
Slides at: TrainingShare.com
Papers: PublicationShare.com
Free Book: http://tec-variety.com/
Dr. Curt Bonk – CJBonk@Indiana.edu

2015 Cengage Learning Computing Conference