Education 3.0:
My, Our Learning World is Changing!
Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
http://mypage.iu.edu/~cjbonk/

(Circa Confucius 551–479 BCE)

Academos
Plato Circa 428–347 BCE

Poll #1: Remember Education 1.0
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
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...

Poll #2: Remember education 2.0?

Poll #3: Do you really remember what was to be education 2.0?
Fast Forward 30+ Years…
“Anyone can now learn anything from anyone at any time.”

Poll #4: Are you interested in Education 3.0?
A = Yes
B = No
C = Not sure

Poll #5: Does anyone remember the Knowledge Navigator (1987)
Apple Computer

March 2015
America’s Skills Challenge: Millennials and the Future
Madeline Goodman, Anita Sands, and Richard Coley, ETS

America’s Skills Challenge: Millennials and the Future

What skills do we need in the 21st Century?
http://21stcenturyskillsbook.com/
http://www.politicalscience.com/2011/03/15/the-digital-natives-are-coming/

What is Education 3.0?

Table 1: Educational generations in higher education

<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>Primary role of professor</td>
<td>Source of knowledge</td>
<td>Source of knowledge</td>
<td>Orchestrator of collaborative knowledge creation</td>
</tr>
<tr>
<td>Content arrangements</td>
<td>Traditional copyright materials</td>
<td>Copyright and free/open educational resources for students within discipline, sometimes across institutions</td>
<td>Free/open educational resources created and shared by learners and educators, often beyond multiple institutional, disciplinary, national, or other boundaries, supplemented by original materials created for them</td>
</tr>
<tr>
<td>Learning activities</td>
<td>Traditional, group work, some group work within classroom</td>
<td>Traditional assignment approaches transformed to more open technologies; increasing collaboration in learning activities, still largely confined to institutional and classroom boundaries</td>
<td>Open, fluid learning activities that focus on creating room for student creativity; social networking outside traditional boundaries of discipline, institution, nation</td>
</tr>
</tbody>
</table>
Poll #6:
Read any good books lately?

1. Drive (2009):
The Surprising Truth About What Motivates Us
Daniel Pink

Pinkcast 2.
Advice from Adam Grant: Look for “disagreeable givers”
(March 2, 2016)

2. Grit (2016):
The Power of Passion and Perseverance
Angela Duckworth

Creative Living Beyond Fear
Elizabeth Gilbert
http://www.elizabethgilbert.com/
https://www.ted.com/talks/elizabeth_gilbert_success_failure_and_the_drive_to_keep_creating?language=en

Unraveling the Mysteries of the Creative Mind
Scott Barry Kaufman & Carolyn Gregory

5. Originals (2016):
How Non-Conformists Move the World
Adam Grant
http://www.adamgrant.net/#!originals/c1ckh

Pinkcast 2. Advice from Adam Grant: Look for “disagreeable givers”
(March 2, 2016)
6. The Innovators (2014):
How a group of hackers, geniuses, and geeks created the digital revolution.
Walter Isaacson
http://books.simonandschuster.com/The-Innovators/Walter-Isaacson/9781476708690

The New Psychology of Success
Carol Dweck
http://mindsetonline.com/index.html
- Growth vs. fixed (i.e., entity) theories of intelligence
- Intelligence is not fixed
- Practice, practice, practice
- Do not blame others
- Learning goals over performance goals
- Asks: What can I learn from this?
- Asks: How can I improve?

May 11, 2016
Carol Dweck Says Theory of Educational Mind-Set Is Often Misunderstood
Goldie Blumenstyk, Chronicle of Higher Education
http://chronicle.com/article/Carol-Dweck-Says-Theory-of/236453?cid=pm&utm_source=pm&utm_medium=en&elqTrackId=a032971cc25b454c80f57d65d06e2b5c&elq=54b8bb3b46154903ac41d6ea0fd8229d&elqaid=9030&elqat=1&elqCampaignId=3106
Carol Dweck, a psychologist at Stanford U., examines "the whole question of why some people take on challenges and see them through."

8. Creativity, Inc. (2014)
Ed Catmull, President of Pixar Animation and Disney Animation
http://www.creativityincbook.com/

Preparing Our Kids for the Innovation Era
Tony Wagner and Ted Dintersmith
http://www.tonywagner.com/1933

Previous: Creating Innovators
Tony Wagner (2012)
http://creatinginnovators.com/
- Play
- Passion
- Purpose and life goals
- Open cultures of innovation and interdisciplinary problem solving
- Collaboration
- Intrinsic motivation
10. Creative Schools (2015): The Grassroots Revolution That’s Transforming Education
Sir Ken Robinson
http://sirkenrobinson.com/creative-schools-the-grassroots-revolution-that’s-transforming-education/

Previous: Finding Your Element: How to Discover Your Talents and Passions and Transform Your Life
Sir Ken Robinson and Lou Aronica (2013)
http://www.inventtolearn.com/

• Find your zone (deep in the throes of exploration and personal passion)
• Think differently (make fresh connections and analogies; avoid groupthink)
• Do something, develop your creative ideas
• Use your imagination, play with ideas
• Free and open exchange of ideas
• Encourage expression of personal ideas/feelings

Finding Your Element: How to Discover Your Talents and Passions and Transform Your Life
By Lou Aronica and Ken Robinson (2013)
http://www.inventtolearn.com/


Poll #7: What if you read these books?

This is a new age of learning and instruction...!
From Instructor as Credit Manager and Course Lecturer...

Poll #8: Do you really remember those days of the lecture?

1. Instructor as Concierge

2. Instructor as Consultant

3. Instructor as Conductor

5. Instructor as Curator
Age of Instructor as Curator, Concierge, Counselor, etc.

We are entering a jumping off point...
(South University of Science and Technology of China, Wednesday June 10, 2015)

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

I. Learning is More Mobile
(e.g., mobile courses on smartphone)
April 2, 2015
Review: Samsung rises to challenge with Galaxy S6 and S6 Edge

February 17, 2016
World’s Cheapest Smartphone at $3.67

May 14, 2015
Smartphone separation anxiety: How bad is your nomophobia?, Today Health, Meghan Holohan
March 2, 2015
Beware the smartphone zombies blindly wandering around Hong Kong, Mark Sharp, South China Morning Post

January 7, 2015
II. Learning is More Flipped
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/

June 16, 2015
III. Learning is More Video-Based
Lynda.com Excel Training, IU Acquired for $1.5 Billion, April 23, 2015

August 5, 2015
Shubham Jaglan Overwhelmed by "Dream" Return Home After Double World Championship
Disha Chopra, NDTV Sports

April 5, 2016
Association for the Advancement of Computing in Education (AACE), YouTube Channel
https://www.youtube.com/channel/UCTB7iSqp11VhADcIWb_s9g

September 22, 2014
IV. Learning is More Visual
110 Foot Engagement, Elliott Masie’s Learning 2014
October 16, 2013
V. Learning is More Touch Sensored
Corporate Classrooms: Adapting to Change
Chief Learning Officer, Frank Kalman

March 2, 2016
VI. Learning is More Immersive
10 AR/VR sets that take you to another world
USA Today, Marco della Cava

April 28, 2016
VII. Learning also is More Collaborative
Shindig, Video Chat Tool
Future Trends Forum (with Bryan Alexander)
https://bryanalexander.org/

April 12, 2016
VIII. Learning is More Social
Zuckerberg criticizes Trump's call for border wall at F8 conference,
Natalie DiBlasio, USA Today

May 7, 2015
IX. Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
http://chasingseals.com/
https://twitter.com/chasingseals

February 2, 2015
X. Learning is More Direct from Experts
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 delPlante, 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.
January 26, 2016
XI. Learning is More Synchronous
Weekly Sync Guests in Zoom
RS11 Chat with Mike Molenda, IU
RS11 Chat Charles Graham, BYU

October 23, 2014
XII. Learning is More Digital
New Amazon Kindle is a Voyage into eReader luxury, USA Today, Edward C. Baig

January 20, 2016
XIII. Learning is More Blended
Universities tap growth of craft beer, offer classes, Chicago Tribune


January 14, 2016
XIV. Learning is More Immediate
Move over T. rex, new dinosaur unveiled, Amanda Jackson, CNN

http://www.cnn.com/2016/01/14/living/titanosaur-new-dinosaur-on-display-new-york-city/

May 14, 2016
Mastodon bones offer clues of earliest humans in North America, Faith Karimi, CNN

Abstract: http://advances.sciencemag.org/content/2/5/e1600375
Full Article: http://advances.sciencemag.org/content/2/5/e1600375.full
Supplemental materials (PDF): http://advances.sciencemag.org/content/suppl/2016/05/10/2.5.e1600375.DC1
PDF: http://advances.sciencemag.org/content/advances/suppl/2016/05/10/2.5.e1600375.DC1/1600375_SM.pdf

May 13, 2016

Abstract: http://advances.sciencemag.org/content/2/5/e1600375
Full Article: http://advances.sciencemag.org/content/2/5/e1600375.full
Supplemental materials (PDF): http://advances.sciencemag.org/content/suppl/2016/05/10/2.5.e1600375.DC1
PDF: http://advances.sciencemag.org/content/advances/suppl/2016/05/10/2.5.e1600375.DC1/1600375_SM.pdf
June 29, 2015
XV. Learning is More Informal
Is Facebook the next frontier for online learning?
Christine Greenhow; greenhow@msu.edu, Andy Henion
http://msutoday.msu.edu/news/2015/is-facebook-the-next-frontier-for-online-learning/

May 10, 2016
XVI. Learning is More Competency-Based
Developing a Flexible Degree
Cathy Sandeen, Inside Higher Ed
http://chronicle.com/article/College-On-Your-Own/147659/?cid=at

February 2, 2015
XVIII. Learning is More Hands-On
Makey Makey and the Kano
http://makeymakey.com/
https://vimeo.com/60307042

May 5, 2014
XVII. Learning is More On Demand
Mobile MOOCs: New platform challenges conventional MOOCs
eCampus News (https://coursmos.com/)

March 7, 2016
XIX. Learning is More Personal
Personalized Learning: What It Really Is and Why It Really Matters
Michael Feldstein and Phil Hill, EDUCAUSE Review
http://er.educause.edu/articles/2016/3/personalized-learning-what-it-really-is-and-why-it-really-matters
Learning is More Personal
Localization and Translation of Open Content
Coursera, Global Translator Community, Chronicle of Higher Education
https://www.coursera.org/about/translate

April 30, 2014
XX. Learning is More Communal
New Learning Hubs Locations Hosted by The New York Public Library and Seven Other Int’l Partners, Coursera Learning Hubs

OpenLanguage
(Jenny Zhu and John)

February 2016
XXI. Learning is More Online
Online Report Card – Tracking Online Education in the United States
Babson Survey Research Group and co-sponsored by the Online Learning Consortium (OLC), Pearson, StudyPortals, WCET and Tyton Partners

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

November 18, 2015
Focused Ga. Mom Completes College Exam While in Labor, Fox 5, Atlanta

Focused Ga. Mom Completes College Exam While in Labor

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

Focused Ga. Mom Completes College Exam While in Labor

New Learning Hubs Locations Hosted by The New York Public Library and Seven Other Int’l Partners, Coursera Learning Hubs

Learning is More Personal
Localization and Translation of Open Content
Coursera, Global Translator Community, Chronicle of Higher Education
https://www.coursera.org/about/translate
October 30, 2015
Migrants get help through German online university
Mihret Yohannes and Jabeen Bhatti, Special for USA TODAY, USA Today
"Kiron (University) relies on existing “mass open online courses,” or MOOCs, and works with eight academics from Harvard and MIT to create a two-year course of study. This will provide many refugees with credits that can transfer to 35 traditional, brick-and-mortar universities across Europe that are partners with Kiron.”

February 29, 2016
Instructional Design: Demand grows for a new breed of academic
The Chronicle of Higher Education, Dan Berrett
http://chronicle.com/article/Instructional-Design/235425/

May 8, 2012
XII. 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

May 11, 2016
XIII. Learning is More Voice Activated
Google may have its own Echo coming soon (i.e., codename of “Chirp”), Elizabeth Weise, USA Today
http://www.usatoday.com/story/tech/columnist/baig/2016/05/09/siri-creators-think-they-have-smarter-brainchild/84133244/

April 13, 2016
XIV. Learning is More Ubiquitous
Facebook debuts terrestrial tech to deliver Internet
Jessica Guynn, USA Today
Terragraph places small nodes or boxes on lamp posts, buildings, bus stops and the like at distances up to 820 feet apart to bring high-speed Internet to dense urban areas. (Photo: Facebook)

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

February 2013
XXVI. Learning is More Self-Directed
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

May 26, 2015
XXVII. Learning is More Global
Exploring by the Seat of Our Pants
National Geographic, Jessica Shea
http://blog.education.nationalgeographic.com/2015/05/26/exploring-by-the-seat-of-our-pants/
Two men living in Dadaab, a refugee camp in Kenya, would watch lecture videos and take online quizzes at a nearby United Nations compound. (InZone)

April 20, 2015
XXVIII. Learning is More Open
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCsCounting-One/229397/?cid=at
If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.

Jima Ngei: “I had this unrelenting fear that this miracle of free access might evaporate soon.”

September 15, 2015
MOOCs for Social Impact
Social Learning for Social Impact, edX
Join the world’s first GROOC – a MOOC for groups – to collaborate with others globally and create social change.
https://www.edx.org/course/social-learning-social-impact-mcgillx-groocx
https://www.youtube.com/watch?v=5LFAMdI

January 13, 2016
As an Open-Access Megajournal Cedes Some Ground, a Movement Gathers Steam
Paul Basken, Chronicle of Higher Education
http://chronicle.com/article/As-an-Open-Access-Megajournal/234890/?key=V9WzHg4QbDkFuXONne07CiwpC5cgiOVgA5_Vr92e1bNrUktRMEhhLXpCT3hONUR3VHN1VWdLUk5ZdFVJUENKVFNWdkpscWJvWmFn
August 4, 2015
XXIX. Learning is More Modular
How Nanodegrees Are Disrupting Higher Education
John Waters, Campus Technology
http://campustechnology.com/articles/2015/08/05/how-nanodegrees-are-disrupting-higher-education.aspx

September 2, 2014
XXX. Learning is More Massive
Sample Course: Open Knowledge: Changing the Global Course of Learning
http://parlorpress.com/invasion_of_the_moocs

State of the MOOC 2016:
A Year of Massive Landscape Change For Massive Open Online Courses, Online Course Report
http://www.onlinecoursereport.com/state-of-the-mooc-2016-a-year-of-massive-landscape-change-for-massive-open-online-courses/

Udemy: “Get cozy with a class”
udemy@email.udemy.com

January 5, 2016
Use Of MOOCs And Online Education Is Exploding: Here's Why
Josh Bersin, Forbes
http://www.forbes.com/sites/joshbersin/2016/01/05/use-of-moocs-and-online-education-is-exploding-heres-why/

November 19, 2015
Ten Most Popular MOOCs Starting in November 2015, Class Central Blog
https://www.class-central.com/
**September 22, 2015**
Who’s Benefiting from MOOCs, and Why
Chen Zhenghao, Brandon Alcorn, Gayle Christensen, Nicholas Eriksson, Daphne Koller, Ezekiel J. Emanuel, Harvard Business Review

**May 4, 2016**
This Mongolian Teenager Aced a MOOC. Now He Wants to Widen Their Impact
The Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/This-Mongolian-Teenager-Aced/236362

**March 4, 2016**
MOOCs: vital tools in education of the future — or over-hyped online fad? (embedded video: 8:01)
Euro News, Sarah Chappell
http://www.euronews.com/2016/03/04/moocs-vital-tools-that-are-shaping-the-future-of-education-or-over-hyped-online/68090

**May 26, 2015**
Edtech and MOOC Times in China
Michael Trucano On Tue, 05/12/2015, EdTech

**June 26, 2015**
In China, Where Everything is a MOOC
Education Week, Justin Reich, HarvardX Research Fellow
http://blogs.edweek.org/edweek/edtechresearcher/2015/05/in_china_where_everything_is_a_mooc.html?r=284759497

The most memorable line from my recent visit to China was this: “We have 12 million K-12 teachers in China who need to receive this particular in-service training, so we started with a group of about 200,000.”

**Things are heating up!**
http://routledge-ny.com/books/details/9781138807419/
Things are heating up!

And coming within reach!

MOOCs and Open Education
Around the World
http://routledge-ny.com/books/details/9781138807419/

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."

Poll #9: Does all this give you a headache?

Not Me...I am happy!
and...
My minions are happy!
Remember: We are entering a jumping off point...  
(South China Normal University, Friday June 12, 2015)

Activity #1:  
What are 3 things that you learned?

Activity #2:  
Share Three Words from this Session!

Remember:  
“I cannot do this alone.”
“I cannot do this alone.”
“I cannot do this alone.”

Poll #10:  
What happens next...?

END OF COURSE EXAMS?  
I SHALL PASS!

Any Comments or Questions?  
Slides at: TrainingShare.com  
Papers: PublicationShare.com  
Book: http://tec-variety.com/  
Email: curt@worldisopen.com