Our Learning World is Changing:
Big, Blended, and Beyond

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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

Poll: Who had one of these?

Academos
Plato Circa 428–347 BCE

May 10, 2013
10 ed-tech tools of the 70s, 80s, and 90s
eSchool News, Meris Stansbury
http://www.eschoolnews.com/2013/05/10/ed-tech-tools-of-the-70s-80s-and-90s/print/

Life as an accountant/CPA in a high tech company in the 1980s...
Took Correspondence & TV Courses
(thanks to Bob Clasen and Charles Wedemeyer, the University of Wisconsin)

Fast Forward 30+ Years...
“Anyone can now learn anything from anyone at any time.”

Poll: Any Visions of Education 3.0?
Knowledge Navigator (1987)
Apple Computer

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

May 14, 2015
Smartphone separation anxiety: How bad is your nomophobia?, Today Health, Meghan Holohan

Review: Samsung rises to challenge with Galaxy S6 and S6 Edge
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  
June 16, 2015  
Lynda.com Excel Training, IU Acquired for $1.5 Billion, April 23, 2015  

IV. Learning is More Visual  
September 22, 2014  
110 Foot Engagement, Elliott Masie’s Learning 2014  

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

VI. Learning is More Game-Based  
October 21, 2014  
Sexy iPad Air 2 is fabulous but not a must upgrade, Edward Baig, USA Today  
http://www.usatoday.com/story/tech/columnist/baig/2014/10/21/ipad-air2-fabulous-tablet-is-not-must-upgrade/17658295/
VII. Learning is More Immersive
April 2, 2015
The Quest to Put More Reality in Virtual Reality, Review: Samsung rises to challenge with Galaxy S6 and S6 Edge, Edward Baig, USA Today

NextVR crewmembers set up their virtual reality cameras at an NBA game, allowing viewers of the live event to see the game from a variety of positions in the arena.

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/
Global Collaboration Projects that Go Way Beyond Skype

IX. Learning is More Social
September 1, 2015
Facebook says 1 billion people used Facebook on Monday, USA Today http://www.usatoday.com/tech/

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

XI. Learning is More Direct from Experts
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.
February 15, 2015

XII. Learning is More Synchronous
(International Open Badges Extravaganza)
European Meeting in Zoom, November 2015)

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 More Immediate and Resource Rich
March 22, 2015
Madagascar marvel: Divers find fossils of extinct giant lemurs
Daisy Carrington, for CNN, March 22, 2015

May 28, 2015 (Immediate, Digital, and Resource Rich)
Ancient jawbones put new species on the human family tree, researchers say,
Laura Smith-Spark, CNN
http://www.nature.com/nature/journal/v521/n7553/full/nature14448.html

XV. Learning is More Informal
June 29, 2015
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/
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

http://chronicle.com/article/College-On-Your-Own/147659/?cid=at

College, on Your Own: Competency-based education can help motivated students. But online may fit no.

Michelle 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
eCampus News (https://coursmos.com/)

XVIII. Learning is More Hands-On
February 2, 2015
Makey Makey and the Kano

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/

XX. 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

XXI. Learning is More Online
February 5, 2015
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
Learning is More Online  
June 15, 2014  
Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace  
(from Arizona State online programs)  

January 20, 2016  
Universities tap growth of craft beer, offer classes, Chicago Tribune  

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 sensing)  

XV. Learning is More Instantaneous  
April 9, 2013  
HER Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today  
http://www.fiercemobilehealthcare.com/story/google-glasses-could-have-strong-potential-healthcare-use/2013-03-18
(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)
XVI. Learning is More Free
August 5, 2014
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

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
May 26, 2015
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)

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

August 4, 2015
XXX. 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
XXXI. Learning is More Massive
Sample Course: Open Knowledge:
Changing the Global Course of Learning
September 2, 2014 to December 12, 2014, Stanford
https://class.stanford.edu/courses/Education/OpenKnowledge/Fall2014/about#
Softcover ($30): http://www.parlorpress.com/invasion_of_the_moocs

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.

Employee to Employee Training
G2g (Googler to Googler) Training
Seven Ways to Corporate MOOC, Udemy blog, December 23, 2013, Shannon Hughes
https://www.udemy.com/organizations/blog/2013/12/23/seven-ways-to-corporate-mooc/
Classes range from management and public speaking, to parenting and mountain climbing.

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/9781138807419/

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

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

Poll #1:
Who Needs Blended and Online Learning?

Blended Online and F2F Instruction
“Blended learning refers to events that combine aspects of online and face-to-face instruction” (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)

Issue: There is no one best model of blended.
Blended Model #1. Face-to-Face Primary (online is for remediation of supplement)

Blended Model #2. Rotation (students alternate FTF and Online instruction)

Blended Model #3. Flex (curriculum primarily online with instructors available FTF)

Blended Model #3. Online Lab (lab or field experience component of course is online)

Blended Model #4. Self-Blend (students decide on which courses they take online or which portion of the course is online)

Blended Model #5. Bookend (first and last part of the course is online and middle portion is FTF; AMA Special Report, Blended Learning Opportunities, Alison Rossett (2006))
Blended Model #6. Anchor (start with FTF or what students are familiar with and then move to online; or the opposite and start online and move to F2F)

A Few Blended Learning Examples

Blended Solution #1. Use the Media to Supplement #1 Content (e.g., CNN Money)

Blended Solution #2. Online Role Play or Debate (e.g., documentary production)

Blended Solution #3. Short Video Anchors (e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning)
Curt Bonk: http://www.tubechop.com/watch/378752

Blended Learning Model #7: Gradual Human (F2F) Approach
The IBM Four Tier Learning Model. Blending Learning for Business Impact – IBM’s case for learning success. Nancy Lewis, VP, & Peter Orton, IBM

August 19, 2015 Blended Solution #1. Use the Media to Supplement #1 Content (e.g., CNN Money)

Blended Solution #3. Short Video Anchors (e.g., TubeChop of V-PORTAL: Video Primers in an Online Repository of e-Teaching and Learning)
Curt Bonk: http://www.tubechop.com/watch/378752

Competency Assessments
Awareness & information
Understanding & Practice
Group learning from peers/experts
Higher order skills and proficiencies
January 20 and 26, 2016 (Zoom)
Blended Solution #4.
Weekly Guest Expert Chats
R511 Chat with Mike Molenda, IU
R511 Chat Charles Graham, BYU

Blended Solution #5.
Reading from Open Access Journals
(e.g., PLOS, IRRODL, etc.)

New Role of the Instructor or Trainer

From Instructor as Credit Manager...to...

1. Instructor as Counselor

2. Instructor as Conductor
3. Instructor as Curator

4. Instructor as Concierge

Motivation Research Highlights
(Jere Brophy, Michigan State University)

1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
4. Novelty, variety, choice, adaptable to interests.
5. Game-like, fun, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback, advance organizers.
9. Show intensity, enthusiasm, interest, minimize anxiety.
10. Make content personal, concrete, familiar.

Framework: TEC-VARIETY for Online Motivation and Retention

1. Tone/Climate: Psych Safety, Comfort, Belonging
2. Encouragement, Feedback: Responsive, Supports
3. Curiosity: Fun, Fantasy, Control

4. Variety: Novelty, Intrigue, Unknowns
5. Autonomy: Choice: Flexibility, Opportunities
6. Relevance: Meaningful, Authentic, Interesting
7. Interactive: Collaborative, Team-Based, Community
8. Engagement: Effort, Involvement, Excitement
9. Tension: Challenge, Dissonance, Controversy
10. Yields Products: Goal Driven, Products, Success, Ownership

Introducing the free “TEC-VARIETY” Framework...
http://tec-variety.com/
### Examples of TEC-VARIETY

<table>
<thead>
<tr>
<th>1. Risk</th>
<th>High Risk</th>
<th>Low Risk</th>
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<td>Easy to Embed</td>
<td>Extensive Planning</td>
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<th>2. Time</th>
<th>Free or Inexpensive</th>
<th>Enterprise Licenses</th>
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<th>3. Cost</th>
<th>Student-Focus</th>
<th>Instructor-Focus</th>
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<tr>
<td>Low</td>
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<th>4. Student-Centered</th>
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<tr>
<td>Low</td>
<td>High</td>
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#### 1. Tone/Climate:

**A. Instructor Course Introductions**  
(Theatre 10 Intro Video, October 7, 2014, Elizabeth Dale, West Valley College)  
[https://www.youtube.com/watch?v=_Wzbzc3QiiA](https://www.youtube.com/watch?v=_Wzbzc3QiiA)  
Chuck Severance, U Michigan/Coursera in Barcelona  
[http://www.youtube.com/watch?v=JzNHvm6d8TI](http://www.youtube.com/watch?v=JzNHvm6d8TI)  
Chuck Severance, University of Michigan  
[https://www.coursera.org/course/pythonlearn](https://www.coursera.org/course/pythonlearn)

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#### 2. Encouragement, Feedback, etc.: A. Demonstrations and Tutorials

Emerging technology specialist, IU UITS, Nitocrates Perez,  
May 29, 2014  

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#### 3. Curiosity, Fun:

**A. Something in the News**  
(e.g., Chinese universities move up in world rankings, China Daily)  

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#### 4. Variety, Novelty, Fun, Fantasy:

**A. Random Lists** (Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)  
[Random.org](https://www.random.org)  
[Random.Org](http://random.org)
5. Autonomy, Choice: A. Video Repositories and Portals (e.g., Khan Academy, Computer Programming)

6. Relevance, Meaningfulness: A. Guest Chats (e.g., Emily Hixon, January 20, 2015)

7. Interactive, Collaborative: A. Collaboration and Discussion in Google Hangouts, Jabber, Skype, etc (January 29 and February 25, 2013)

8. Engagement, Effort: A. Interactive Map Timelines (adults with college degrees by county, May 7, 2012)

9. Tension, Challenge, etc.: A. Controversial Issue Debates
RS11 Midterm Video How to Create an Authentic Environment in a Content-Driven School?, RS11, Nick and Nik
https://www.youtube.com/watch?v=Bc03_aZT_xQ&feature=youtu.be

10. Yields Products, Goals: A. Student Created Videos
Piercarlo Abate: http://www.youtube.com/watch?v=PpZkDz0R4fM
Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWi9lW8
Kendal Rasnake (Is IT Right For You?): https://www.youtube.com/watch?v=MJ3GUDICIGw
Commitments:
Stop and Share:
Which principle(s) of TEC-VARIETY will you use?
- Tone/Climate
- Encouragement, Feedback
- Curiosity

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

Framework #2: The R2D2 Model

The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

1. Auditory or Verbal Learners
   - Auditory and verbal learners prefer words, spoken or written explanations.

2. Reflective and Observational Learners
   - Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives

January 20, 2016
Read 1a. Podcasts
IU Bloomington podcast series to launch Jan. 24, Steve Hinnefeld, IU Newsroom

IU’s Media School dean James Shanahan, at left, will host a new campus podcast. Senior Luqmann Ruth will read the news for the inaugural podcast. 

PHOTO BY JENNIFER PIUREK, OFFICE OF THE PROVOST
Reflect 2a. Case and Online Discussion (Kelley Direct, IU)

3. Visual Learners
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. More Interpreting Infographics
August 5, 2015
How much rainforest in that chocolate bar?
Global Forest Watch, Nancy Harris, Octavia Payne and Sarah Mann
http://blog.globalforestwatch.org/2015/08/how-much-rainforest-is-in-that-chocolate-bar/

Land-Use Change Emissions in Miles Driven

2,000 Ha of forest harvested = 1.5B miles driven by 1 passenger car = 58,819 forest lost to the earth

http://blog.globalforestwatch.org

4. Tactile/Kinesthetic Learners
- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

December 8, 2015
Do 4a. Take a MOOC
PS40 Final Assignment for Meina Zhu: MOOC, Coursera, Introduction to Psychology, University of Toronto
https://www.coursera.org/course/intropsych
https://www.futurelearn.com/courses/mental-health-and-well-being

Poll: Which do you prefer...
(A) TEC-VARIETY or (B) R2D2?
Overcoming the Resistance Movement

1. Shared Success Stories and Best Practices

2. An Atmosphere of Sharing

3. Frameworks and Models

Bonk's Last Principles of Teaching/Instruction

1. The Principle of Flexibility
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

4. The Principle of Expanded Resources

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

Creativity, Inc.
Ed Catmull, President of Pixar Animation and Disney Animation
http://www.creativityincbook.com/
http://www.elizabethgilbert.com/

Poll: How many ideas did you get from this talk?

1. 0 if I am lucky.
2. Just 1.
3. 2, yes, 2...just 2!
4. Do I hear 3? 3!!!!
5. 4-5.
6. 5-10.

Any Comments or Questions?

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://tec-variety.com/
Email: curt@worldisopen.com