Masterclass Day 2:
Ultra-Engaging Online and Blended learning:
Introducing the TEC-VARIETY and R2D2 Models
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March 26, 2020
What the World Needs Now is Love
Students at the Boston Conservatory at Berklee created a social distancing rendition of 'What the World Needs Now is Love'
https://www.youtube.com/watch?v=qv7JSACHCw

April 14, 2020
900-Strong Singapore Virtual Choir sings Home (Dick Lee)
https://www.youtube.com/watch?v=psK61cafiE&feature=youtu.be

Opening Activity:
Type in the Chat Window three words from yesterday...

Poll #1: Have you reflected on your teaching philosophy or approach during COVID-19?

a. Yes many times and I am dramatically changing my philosophy statement.
b. Yes many times and I am taking action (meeting people, reading more, attending webinars like this, etc.).
c. Yes, I thought about it a couple of times and I am tweaking it.
d. Not sure. I’m kinda brain dead right now.
e. No, my teaching philosophy is basically the same.
Poll #2: Have you even been to an e-learning or online learning conference, institute, or summit?

a. Yes many times.
b. Yes, once or twice.
c. No, but I want to go.
d. No. And I am not going to go.

World Conference on E-Learning

June 12, 2020
World Economic Forum
COVID-19’s staggering impact on global education


May 27, 2020
Back to school? 1 in 5 teachers are unlikely to return to reopened classrooms this fall, poll says
Susan Page, USA Today


June 10, 2020
Online Learning Is Not the Future
Peter C. Herman, Inside Higher Ed

https://www.insidehighered.com/digital-learning/views/2020/06/10/online-learning-not-future-higher-education-opinion

June 16, 2020
Sorry Not Sorry: Online Teaching Is Here to Stay
Flower Darby, The Chronicle of Higher Education

https://www.chronicle.com/article/Sorry-Not-Sorry/248993

June 23, 2020
Turns Out You Can Build Community in a Zoom Classroom
Rachel Toor, The Chronicle of Higher Education

March 19, 2020
COL announces a series of webinars on online learning

June 12, 2020
The 7 elements of a good online course
George Veletsianos, The Conversation
https://theconversation.com/the-7-elements-of-a-good-online-course-139736

July 8, 2020
Yes, Your Zoom Teaching Can Be First-Rate
Stephen Hersh, Inside Higher Ed

July 6, 2020
Making Online Learning Active
Steven Mintz, Inside Higher Ed
https://www.youtube.com/watch?v=J6PrjJdwG0I&feature=youtu.be

June 3, 2020
Contact North | Contact Nord Webinars
https://teachonline.ca/webinars

March 3, 2020
Keep Teaching, Indiana University
https://keepteaching.iu.edu/strategies/index.html
April 25, 2020
(SuperTravelinEdMan)
STARLINK programs on Online and Blended Learning and the Web 2.0
October 2008-January 2010
https://www.youtube.com/playlist?list=PLHcReRoW2lxOrKfYXJyy3y462Vzi-vDmoEx

Part 1: Blended Learning

Face-to-Face Learning
Blended Learning
Online Learning

Blended Model #1.
Face-to-Face Primary (online is for remediation of supplement)

March 21, 2020
Silver Lining for Learning
https://silverliningforlearning.org/
https://www.youtube.com/channel/UC9XEsh89gIIpmvVip0Qtn-A/AA/live

Classifying K-12 Blended Learning
Heather Staker and Michael B. Horn, May 2012

"Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace."

Blended Model #2. Rotation
(students alternate FTF and Online instruction)
Blended Model #3. Flex
(curriculum primarily online with instructors available FTF)

Blended Model #4. Online Lab
(lab or field experience component of course is online)

Blended Model #5. Bookend
(first and last part of the course is online and middle portion is FTF)

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 Dozen Blended Learning Examples

August 19, 2015
Blended Solution #1.
Use the Media to Supplement Content
(e.g., Accounting Coach; includes tests, Q&A, visuals, forms, definitions, etc.)


3 tips to getting retirement right in your 20s

Introduction to Inventory and Cost of Goods Sold
Inventory and Cost of Goods Sold

Millennials & Their Money

Source: American Management Association, AIMA at Work
July 8, 2020
Blended Solution #2. Immediate Science
Baby raptor discovered in Alaska may have been a permanent resident of the ancient Arctic
Katie Hunt, CNN

July 7, 2020
Blended Solution #3. Multimedia Science News
'Tiny bug slayer': Meet the pint-size ancient ancestor of dinosaurs discovered in Madagascar
Ryan W. Miller, USA Today

May 9, 2017
Immediate and Multimedia Science
Meet Zuul, the new dinosaur species named after 'Ghostbusters' demon
Traci Watson, USA Today

January 9, 2020
Blended Solution #4. Live Science
Scientists put 3D glasses on cuttlefish and showed them film clips. The results were surprising (Cuttlefish eyes have well-developed depth perception).
Ryan Prior, CNN

July 8, 2020
Blended Solution #5. Online Cultural News
Ming Dynasty encyclopedia sells for more than $9 million at auction -- 1,000 times the expected price. Jack Guy, CNN

Blended Solution #6. Videos with Test Questions (e.g., TEDEd)
(Lessons about every single element on the periodic table)
**Blended Solution #7.**
**Language Lessons Online**
BBC Learning English
http://www.bbc.co.uk/learningenglish

**Blended Solution #8.**
**Online Database Activities**
(e.g., WolframAlpha)
http://www.wolframalpha.com/

**Blended Solution #9.**
**Online Test/Quiz Review Games**
(e.g., Jeopardy Rocks)
https://www.jeopardy.rocks/r511merve/

**July 28, 2017**
**Blended Solution #10.**
Simulations and Scenario-Based Learning
Modern medicine breathes new life into virtual training
Videos
01:01 - 01:21: http://curtbonk.com/vr-medicine.html

**March 25, 2020**
**Blended Solution #11.**
Use Video Lectures of Experts
A housebound world finds solace in Yale’s ‘Science of Well Being’ course

Bill Hathaway, YaleNews
Laurie Santos teaches “Psychology and the Good Life,” the precursor to her popular Coursera course, at Woolsey Hall in 2018.

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**Blended Solution #12.**
**Interactive Timelines and Other Media**
(Dipity, xtimeline, Simile, TimeLineCurator, etc.)

Amy Cavender, The Chronicle of Higher Education

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Needed: New Models of Motivation and Engagement

Poll: What did Jean-Luc Picard say?

Poll #3: Have you ever taught a blended (face-to-face and online) course?
   a. Yes many.
   b. Yes, just a couple.
   c. No, but I taught one or more technology enhanced ones.
   d. No but I am willing to try.
   e. No and I like it that way.

Poll #4: Have you ever taught a fully online course?
   a. Yes, many.
   b. Yes, just a couple.
   c. No, but I taught one or more blended ones.
   a. No but I am willing to try.
   b. No and I like it that way.

Chat Window: Million Dollar Question: What words come to mind when I say that I want to motivate learners?
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.

Intrinsic Motivation
“...innate propensity to engage one's interests and exercise one's capabilities, and, in doing so, to seek out and master optimal challenges (i.e., it emerges from needs, inner strivings, and personal curiosity for growth)


Part 2: Introducing the TEC-VARIETY Model
(Motto: It's better than the "TEC-MONOTONY" Model)
http://tec-variety.com/

Examples of TEC-VARIETY

April 3, 2017
1. Tone/Climate:
A. Sli.do (students get a code; e.g., 9801)
https://www.sli.do/
April 11, 2020

1. Tone/Climate:
   B. Threaded Video Discussions and Questions (e.g., Flipgrid)
   Ed Tech with Adam: https://www.youtube.com/watch?v=hyv00P4szFz
   https://techcrunch.com/2018/06/18/microsoft-acquires-social-learning-platform-flipgrid/

2. Encouragement, Feedback:
   A. Poll Everywhere, BlogPoll, MicroPoll
   Girls + data is a non-profit 501(c)(3) that hosts data camps, interactive workshops, and seminars where different applications are brought to the dashboard.
   The program culminates in a project that allows the participants to tell a story with data. To date, girls +
   data has educated over 450 kids at 17 events across the nation.

   B. Voice/Audio Feedback
   Vocaroo: http://vocaroo.com/

   C. Online Practice Tests and Interactive Flash Cards (e.g., Pharmacy, OT, etc.)
   http://quizlet.com/

   D. Video Tutorials, Demonstrations, and How-To's (videos, tutorials, etc.)
   Jing, GoView, Screenr, Overstream, Screencast-o-Matic, TikTok, etc.
   EdTech with Adam channel:
   https://www.youtube.com/channel/UCyLzXEHGgbuzN99rFQumDQ
June 18, 2020

3. Curiosity, Intrigue, Unknowns:
A. Multimedia News (e.g., Internet access issues)
New Telco Tower Announced For Sabah Village After Student Taking Online Exams In Tree Goes Viral, Kirat Kaur, TRP News

Veevanah Mosibin, a foundation student at Universiti Malaysia Sabah (UMS) had to take her online exams atop a tree to get a strong enough internet connection. (Credit: Veevanah M/YouTube)

July 7, 2020

3. Curiosity, Intrigue, Unknowns: B. Augmented Reality
Elephant in the room: How augmented reality takes online classes to exciting highs, Abdul Latheef Naha, The Hindu

A social science teacher of AEM AUP School, Moorkanad, introducing the globe through augmented reality technology during an online class.

April 29, 2020

3. Curiosity, Intrigue, Unknowns:
C. 101-year-old woman born during the 1918 flu pandemic beats coronavirus
Y'Nee Yancey-Brigg, USA Today

Meet the 101-year-old who was born on a ship during the 1918 flu pandemic and just beat coronavirus.

April 17, 2017

3. Curiosity, Intrigue, Unknowns:
D. 1st woman to officially run Boston Marathon does it again, 50 years later
Emmanuelle Grinberg, CNN, USA Today

Julia Hawkins Sets 100-Meter Dash Record for Women 100 Years or Older

September 21 and November 12, 2017

3. Curiosity, Intrigue, Unknowns:
E. Scientists just discovered the first brainless animal that sleeps
Sara Kaplan, Washington Post

This ancient shark with a snake head and 300 teeth is why we should just say nope to the ocean
Cleve R. Woodson, Jr., Washington Post

3. Curiosity, Intrigue, Unknowns:
F. Multimedia Historical News (e.g., This may be the oldest surviving Photo of a human, November 7, 2014, CNN, Brandon Griggs; But this image, taken in Paris, France, in 1838)

A Cassiopea jellyfish rests upside-down on black sand and pulses, rhythmically contracting and relaxing its bell. At night, Cassiopea jellyfish pulse less frequently — a clue that they're sleeping, researchers report. (Photo by JanEaster.com)
March 2, 2020
3. Curiosity, Intrigue, Unknowns:
G. Newly launched Collections Online increases access to Eskenazi Museum of Art’s works
Barbara Brosher, IU Press
https://news.iu.edu/stories/2020/03/iub/inside/02-eskenazi-museum-of-art-launches-collections-online.html

April 29, 2020
3. Curiosity, Intrigue, Unknowns:
H. New Discoveries
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-irpt/
‘Crazy beast’ lived among last of dinosaurs, BBC News

November 19, 2015
3. Curiosity, Intrigue, Unknowns:
I. New Discoveries in Science...
New daddy longlegs named after ‘Lord of the Rings’ character Smeagol, Mary Bowerman, USA Today

June 27, 2020
4. Variety, Novelty, Fun, Fantasy:
A. Create Animated Presentations
Animaker is a cloud-based do-it-yourself video maker. Free version provides a lot of characters, props, transitions, and background images. Example in Turkish: https://youtu.be/LS20lCbozBQ?t=737

February 27, 2020
4. Variety, Novelty, Fun, Fantasy:
B. Game Show Style Presentations
Susie Gronseth, University of Houston
https://www.youtube.com/watch?v=ZFXIVba6zoQ&feature=youtu.be

4. Variety, Novelty, Fun, Fantasy:
C. Random Lists
(Random.org—clocks, coins, playing cards, dice, integers, passwords, jazz scales, lists, sequences, etc.)
February 21, 2017
4. Variety, Novelty, Fun, Fantasy:
D. My classroom is like a,"
http://wheeldecide.com/

Fall 2018 R546
4. Variety, Novelty, Fun, Fantasy:
E. Kahoot!
https://getkahoot.com/

October 10, 2018
4. Variety, Novelty, Fun, Fantasy:
F. FutureMe.org
Write a letter to the future
https://www.futureme.org/

January 14, 2019
5. Autonomy, Choice:
A. Enroll in a MOOC and Reflect
(e.g., see Class Central)
https://www.youtube.com/watch?time_continue=72&v=8kKjPoYINLA&feature=emb_logo
https://www.edx.org/course/nutrition-exercise-and-sports

5. Autonomy, Choice:
B. Tracking the Life of a Computer Scientist
(e.g., bio.com)
http://www.biography.com/people/steve-jobs-9354805
http://www.biography.com/people/ada-lovelace-20825323
https://www.biography.com/scientist/alexander-fleming

5. Autonomy, Choice:
C. Design Multimedia Glossaries
P540 Final Assignment: Nate Wynne, Supersized Personal Course Glossary
http://natewynne1982.wix.com/p540courseglossary
Umida Khikmatillaeva, Dec. 2011, P540
http://learningplanet.shutterfly.com/
5. Autonomy, Choice: D. Flipping the Classroom (video lectures online) 

Poll #5: Any light bulbs going off in your head so far?

a. Yes definitely...many of them...pop...pop...pop!
b. Yes, several times.
c. Yes maybe!
d. Not yet (but hopefully soon...)
e. Nope. Darn it my brain is not working today.
f. There's no hope with this idiot presenting.

Poll #6: Which of these ideas might you use?

A. Threaded video discussions (e.g., Flipgrid)  
B. Video introductions (instructor or student)  
C. Demonstrations and tutorials (Jing, Screenr, etc.)  
D. Voice/Audio feedback (Vocaroo)  
E. Flipping the Class  
F. Online Quizzes (Kahoot!)  
G. Multimedia Glossaries  
H. Immediate Science

August 23, 2016
6. Relevance, Meaningfulness:
A. Interact with Experts e.g., reef videoconferencing (Great Barrier Reef, Australia) 

SMILE, Paul Kim Stanford, https://youtu.be/bfJDsI1hVLU
February 22, 2020, Jima Ngei in Nigeria (1 hour 15 minutes)
Video: https://youtu.be/sM6VMsfQJXc

6. Relevance, Meaningfulness:
C. Professional Development Videos
Edgar Leon, Puerto Rico, Marisol Hernández Hermina, Animaker
https://app.animaker.com/animo/2h5b0Hz2gxURJ5x4/?shareid=view%7C2h5b0Hz2gxURJ5x4

April 6 and 28, 2020
6. Relevance, Meaningfulness:
B. Weekly Guest Expert Chats
February 22, 2020, Jima Ngei in Nigeria (1 hour 15 minutes)
Video: https://youtu.be/sM6VMsfQJXc
March 20, 2018
6. Relevance, Meaningfulness:
D. Editing Wikipedia Pages
Women’s-Studies Students Across the Nation Are Editing Wikipedia
Emma Kerr, The Chronicle of Higher Education

Samantha Erickson, left, of the Wiki Education Foundation; Tina Brock, a dean of the School of Pharmacy at UC San Francisco; and professor Amin Azzam discuss implementing the integration of Wikipedia pages on medical topics with students’ work.

June 27, 2020
7. Interactive, Collaborative:
A. Team Management and Project Coordination
Trello is a team management tool and list-making application to organize online group tasks easily. Trello is for teams to organize team work. However, teachers can use it to manage online group projects or homeschooling activities like in this Example: https://youtu.be/L6fUOMXnKxU?t=132

7. Interactive, Collaborative:
B. Virtual Sharing Walls
e.g., Padlet (A collaboration and discussion board)

7. Interactive, Collaborative:
C. Negotiate Meanings Online
e.g., PiratePad: http://meetingwords.com/
MeetingWords, Google Docs, NowComment, MixedInk

7. Interactive, Collaborative:
D. Guest Speaker Quotes
(Rey Junco, February 25, 2013)
7. Interactive, Collaborative:
E. CNA - Speaking Exchange (video chats)
FCA Brazil and the CNA language school network are launching the Speaking Exchange project, which connects CNA students in Brazil with Americans living in retirement homes.

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7. Interactive, Collaborative:
F. Team Article Debates
Nuclino (like a wiki...may delete by mistake, trial version, limited)

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7. Interactive, Collaborative:
G. Virtual Mobile (at Virtually Inspired)
Virtual laboratory brings the opportunity for remote collaboration enables students to conduct experiments, access, interpret, evaluate, and exchange relevant technical information.
Susan Aldridge, Drexel: https://virtuallyinspired.org/portfolio/online-virtual-labs/

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7. Interactive, Collaborative:
H. Collab Annotation and Group Reading (Perusall)
How to Do Collaborative Annotation and Group Reading in Perusall for Online or Blended Classrooms
EdTech with Adam: https://www.youtube.com/watch?v=edb9IECompA
https://perusall.com

94

8. Engagement, Involvement:
A. Learning Chemistry in Virtual Reality,
Sarah Hardman, New Learning Times

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8. Engagement, Involvement:
B. Interactive Maps Timelines
October 22, 2014, Second immigration wave lifts diversity to record high, Edward Greg Toppo and Paul Overberg, USA Today
July 8, 2020

8. Engagement, Involvement: C. Interactive Maps

(Thinglink: interactive map creator)

https://www.thinglink.com/

(Thinglink [Freemium]: Direct students to the discussions, assignments, course files, and syllabus. She added hyperlinks to pictures or videos to facilitate navigation. Thinglink makes any still picture interactive. You can put links into a picture and students easily navigate to necessary website. For example, it is used commonly for online history and geography courses. The teachers put links on a map and students can go to relevant unit and related video link.)

7/8/2020

8. Engagement, Involvement:

D. Maps

(Symbaloo [free]: organize and categorize web links into buttons; The purpose is to facilitate navigation for young online students.)

https://www.symbaloo.com/

July 8, 2020

8. Engagement, Involvement:

E. Interactive Labs and Simulations

http://phet.colorado.edu/en/simulation/energy-skate-park

8. Engagement, Involvement:

F. Interactive Timelines

(Sutori, xtimeline, Preceden, Timeline.js, TimelineCurator, Time Mapper, etc.)

July 23, 2019

8. Engagement, Involvement:

G. Explore Historical and Cultural Sites

Four World Heritage Sites in VR With MasterWorks

Sara Hardman, New Learning Times

Rome Reborn: https://www.romereborn.org/

May 28, 2019

8. Engagement, Involvement:

H. Virtual Reality Comes to the Classroom

Beth McMurtie, The Chronicle of Higher Education

Using a special recording system, Hamilton College created a virtual-reality experience for students in a conducting class. Heather Buchman, a music professor, first recorded a performance using 3-D audio and video. (Andrew Groll)

Students later practiced conducting the virtual orchestra by wearing a special headset through which the sound of the orchestra changes as they turn their head. (Ben Salzman)
May 28, 2019
8. Engagement, Involvement:
  I. Virtual Reality Comes to the Classroom
Beth McMurtrie, The Chronicle of Higher Education
https://www.chronicle.com/interactives/20190528-ImmersiveTech

Unlike VR headsets, augmented-reality glasses allow users to see the world around them, opening up possibilities for shared learning experiences. A group of students could gather around a virtual heart as their professor takes it apart to show them the components. (Microsoft)

May 11, 2020
9. Tension, Challenge, Controversy, etc.:
  B. What is smileUP & How to use it?
SMILE, Stanford
https://www.youtube.com/watch?v=pblU8sSALWo

9. Tension, Challenge, Controversy, etc.:
  C. Yes, Mr. President, We Remade Our Atlas to Reflect Shrinking Ice
Christine Dell’Amore, National Geographic, August 3, 3015

February 16, 2017
9. Tension, Challenge, Controversy, etc.:
  D. Immediate Science
Woolly Mammoth Could Be ‘De-Extinct’ In 2 Years, Scientist Says
Hillary Hansan, CNN (video: 3:22)
http://www.huffingtonpost.com/entry/woolly-mammoth-elephant_us_58a62fa7e4b037d17d264477

10. Yields Products, Goals:
  A. Database Collection Tools
Article Databases in Pinterest
September 3, 2017
Yields Products, Goals:
B. Mindmap Recaps of Online Discussions
Mindmap of Week 2 of R511

April 23, 2020
10. Yields Products, Goals:
D. Student Generated Timelines, Taxonomies,
and Concept Maps
R678 John Falchi, Timeglider: An Abbreviated History of Distance Education
March 2003. Volume 3, Issue 1
https://time.glider.com/t/50843d8903a48008?min_zoom=1&max_zoom=100

June 27, 2020
10. Yields Products, Goals:
E. Design Products (students created infographics,
brochures, timelines)
Canva is an online design program that does not require
$10m business

April 29, 2020
10. Yields Products, Goals:
F. Wikibook Projects and Chapters
R678, Amanda Zwirecki and Ashia Williams
https://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies/Online_Learning_Communities

10. Yields Products, Goals:
G. Student Website Development
"Cousins but Not Twins: Instructional Technology and Human Performance Technology"
Poll #7: Which of these ideas might you use?

A. Student designed multimedia glossaries
B. Edit Wikipedia pages
C. Guest chats with experts and former students
D. Collaborate on online documents
E. Enroll in a MOOC
F. Controversy and debates
G. Guest speaker quotes
H. Student timelines

Poll #8: Which motivational principle do you see as the most crucial online?

1. Tone/Climate
2. Encouragement, Feedback
3. Curiosity
4. Variety
5. Autonomy
6. Relevance
7. Interactive
8. Engagement
9. Tension
10. Yields Products

Make Commitments: Stop and Share in Chat Window:
Which principle(s) of TEC-VARIETY will you use?

- Tone/Climate
- Encouragement, Feedback
- Curiosity
- Variety
- Autonomy
- Relevance
- Interactive
- Engagement
- Tension
- Yields Products

Part II: The R2D2 Model: Read, Reflect, Display, Do...

- Read (Auditory and Verbal Learners)
- Reflect (Reflective Learners)
- Display (Visual Learners)
- Do (Tactile, Kinesthetic, Exploratory Learners)
Addressing Learning Styles with R2D2

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

June 27, 2020
Read 1a. Storyline Online is a free literacy platform where kids can listen stories.
https://www.youtube.com/user/StorylineOnline

January 20, 2016
Read 1b. Listen to Podcasts
(e.g., Educational: https://discoverpods.com/educational-podcasts/)

January 20, 2016
Read 1c. Text to Audio
(e.g., Speechify: https://www.hsalfrank.com/speechify)

February 11, 2018
Read 1d. Online Referenceware
The Magical Power of Dictionaries
Alberto Manguel, The Chronicle of Higher Education
https://www.chronicle.com/article/The-Magical-Power-of/242513
Read 1e. Grammar Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus) http://www.grammarly.com/

May 28, 2015
Read 1f. Immediate Science and Open Access Science
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

Read 1g. Listen to News Podcasts (news tidbits) reCAPTCHA and Duolingo: Luis von Ahn Podcast Interview, Guy Raz, NPR https://www.npr.org/2020/05/22/860884062/recaptcha-and-duolingo-luis-von-ahn

May 25, 2020
Read 1h. Read Blogs Punya Mishra, Silver Lining for Learning https://silverliningforlearning.org/the-value-of-school-part-1/

April 1, 2020
Read 1i. Twitter Fed Class Discussions (e.g., OT: https://twitter.com/glenbourneteam)

Read 1j. Reading and Reviewing articles in Open Access Science Journals (e.g., DOAJ—Directory of Open Access Journals)
Open access journals for kids: https://sciencejournalforkids.org/about-us.html
https://kids.frontiersin.org/
https://sciencejournalforkids.org/about-us.html

Read 1k. Reading and Reviewing articles in Open Access Science Journals (e.g., DOAJ—Directory of Open Access Journals)
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.

April 13, 2016
Reflect 2a. Interpreting Interactive Graphs and Infographics
How much rainforest in that chocolate bar?
Tech billionaire announces $250 million in cancer immunotherapy funding,
Jayne O'Donnell, USA Today

July 5, 2018
Reflect 2b. Vialogues
EdLab Seminar—Engaging Educators with Digital Collections
Vialogue, Sara Hartman, New Learning Times
https://newlearningtimes.com/cms/article/5426/how-academic-publishing-is-changing-in-the

October 6, 2016
Reflect 2d. What-if Reflections
What if Aaron Burr had missed Alexander Hamilton?, Thomas Fleming, CNN

Reflect 2e. Cultural Blogs (e.g., Dr. Kim Foreman, San Fran State Univ, Come and See Africa Blog; http://comeandseeafrica.blogspot.com/)
3. Visual Learners

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

Display 3a. Embedding Royalty Free Images

e.g., Pixabay (royalty free images)
https://pixabay.com/images/search/nurse/

Display 3b. More Royalty Free Images
Medical Graphics in Creative Commons

Display 3c. Short Educational Videos:
Anchored Instruction/Macrocontext
CNN, BBC, TED, TED-Ed, ForaTV, MedTube
April 29, 2020
Display 3d. Animated Videos
Animated COVID-19 prevention video goes viral
Mandy Erickson, SCOPE Stanford Medicine
https://www.youtube.com/watch?v=UcFDdfueQRg

January 20, 2017
Display 3e. VR Takes You on a Tour of The Human Body
https://www.youtube.com/watch?v=L8Ww4jT_L0M

March 16, 2020
Display 3f. Video Teasers
G3 of Writing and Publishing Tips
https://youtu.be/4BGJRd5Aaoo

March 2020
Display 3h. Visual Depictions of Science
Migrations in Motion
http://maps.tnc.org/migrations-in-motion/4/19.00/-78.00

June 7, 2020
Display 3g. Animations of Data
World Mapper, COVID-19
https://worldmapper.org/map-animation-covid19/
https://www.youtube.com/watch?v=6uu1MGyGjvI

March 2020
Display 3i. Video Editing Tools
TubeChop: https://www.tubechop.com/
Display 3j. Video Annotation and Commenting Tools

VideoAnt (Free): https://ant.umn.edu (Univ. of Minnesota)
https://www.youtube.com/watch?v=150F2aJglEy
Edpuzzle (Free): https://www.youtube.com/watch?v=Lw2Kw6C6M

Display 3k. Collaborative Web and PDF Annotation Tools

Hypothes.is (Free): https://web.hypothes.is/
Note Anywhere: https://www.youtube.com/watch?v=l4AJoew4Em
Adds virtual sticky notes to webpages

Display 3l. Animations of Data
Global Deaths Due to Various Causes and COVID-19
By Tony Nickonchuk
https://public.flourish.studio/visualisation/2562261/?fbclid=IwAR2iAZWYIvm14Q64wmNUu4cNFl418KGP4S_8XNJTMJWMAtOpdtBAtqQU_B0

Display 3m. Concept Mapping and Timeline Tools
(Bubbl.us, Cmap, Gliffy, Spicynodes, or Mindomo)
http://www.spicynodes.org/index.html

Display 3n. Virtualize Words Used (e.g., Tagzedo, Tagul, WordSift, Word It Out)

Display 3o. More Word Clouds (e.g., Tagzedo, Tagul, WordSift, Word It Out): Week 2 and 5 (13 and 14)
https://www.wordclouds.com/
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.

Do 4a. Case Decision Making (e.g., snake bite)

Do 4b. Sample Student Work
  e.g., Interactive Archive/Gallery of best work

Do 4c. Demonstration Videos
  Crane Makerspace, Tina Closser
  [Link 1](https://www.youtube.com/channel/UCbw9F9067q2Z0HhT1B15t/https://sites.google.com/view/cranetech/home/https://projects.raspberrypi.org/en/projects)
**Poll #9:**
Which of these ideas might you use?

A. Interactive map  
B. Facebook course page (or Pinterest)  
C. Issue challenges, role plays, and debates  
D. Student designed course recap videos  
E. Student designed word clouds  
F. Interactive timeline tools  
G. Videos with test questions

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**Poll 10:** 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.  

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**Poll 11:** Which pedagogical model or framework do you prefer?

- a. TEC-VARIETY  
- b. R2D2  
- c. Neither  
- d. Both  
- e. I will try to create some unique combo of the two.

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**Technology Tomorrow**

[Link to article]
1. Independent Studies Via MOOCs

**MOOC: AI A-Z: Learning How to Build an AI Online Course and Machine Learning**
Mengyuan Zhao
https://www.udemy.com/artificial-intelligence-az/
https://www.coursera.org/learn/machine-learning

**The Career Curriculum Continuum**
Andrew Hermalyn, Inside Higher Ed

2. OER-Based Courses and Programs

**Launching OER Degree Pathways:**
An Early Snapshot of Achieving the Dream’s OER Degree Initiative and Emerging Lessons

- Saving money with open-ed resources.
- A large-scale effort to encourage the use of open education resources helped students save money and boosted their learning, according to a report, released today, on the findings from the second year of Achieving the Dream’s OER Degree Initiative. The study found that:
  - Students saved between $66 and $121 per course.
  - Over 60 percent of students reported that the overall quality of their learning experience in an OER course was higher in comparison to a typical, non-OER course.
  - The number of OER courses at participating institutions jumped from 13 in 2016 to 385 in the spring of 2018; the number of students enrolled in OER courses went from 3,404 in 2016 to 37,398 in 2017.

**Google IT Professional Certificates**
Coursera Blog
https://grow.google/programs/it-support/?cid=wc&source=ams&sourceId=61203
Video: Melinda Williams: Aspiring IT Support Specialist (2:57)
https://www.youtube.com/watch?time_continue=107&v=fvhPKZWbfms&feature=emb_logo

**Learning is More Free and Open**
Modern State Education Alliance
https://modernstates.org/

3. Binge Learning Experiences

**What Online Education Can Learn from Netflix**
Henry Kronk, E-learning Inside News
https://theumlaut.com/binge-learning-is-online-educa
4. Rise of Super E-Mentors and AI Coaches
(Paul Kim, 2018)

February 27, 2017
5. Web Conferencing Walls
Global Learning Partner or PBL Team Selection Walls
http://www.thelivingmoon.com/43ancients/02files/Library_Alexandria.html

September 26, 2018
6. Interactive Agents and Tutors
Pushing the Boundaries of Learning With AI
Lindsay McKenzie, Inside Higher Ed

March 24, 2017
Artificial Intelligence Market in the US Education Sector 2017-2021
http://www.researchandmarkets.com/research/5lshzz/artificial-AI-Market-to-Grow-47-5%25-Over-Next-Four-Years
Richard Chang, Campus Technology

May 9, 2018
Learning is More On Demand
Google Duplex Demo from Google IO 2018
Video (4:11): https://www.youtube.com/watch?v=bd1mEm2Fy08
Video (2:05): http://curtbonk.com/google40245.html
Donald Clark Plan B
http://donaldclarkplanb.blogspot.ca/2018/05/google-just-announced-ai-bot-that-could.html?

January 30, 2017
7. Professor Einstein PDA’s
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)
http://www.usatoday.com/story/tech/2017/01/30/robotic-barista-now-serving-really-fast/95888780/
Sterile, industrial-era rows aren’t very attractive or motivating. ...I believe the “Starbucks” environment will promote that freedom and connectedness. Freedom is the key ingredient to social-emotional well-being and deeper learning. Rows and columns constrict. They hold and still.
April 3, 2020
Project lets people interview Holocaust survivors even after their deaths
Aging Holocaust survivors now have the chance to record their memories in a way that will allow future generations to literally ask them about their experiences, and see and hear their answers. See the full report, here: https://cbsn.ws/2ULGevH
https://www.youtube.com/watch?time_continue=6&v=aWT4zueWAt8&feature=emb_logo

Poll #12: Are you excited to try anything out that you heard today?

a. Yes definitely...many of them...
b. Yes, several of them.
c. Yes maybe one!
d. Not yet (but hopefully soon...)
e. Nope. My brain is simply not working today.
f. No...I am having Internet connection issues.

Poll #13: Does all this stuff that you heard give you a headache?

a. Yes, but I am still excited to try things out.
b. Yes, and I need some medicine and a break.
c. Not sure.
d. No, let's go all day.
e. No, let's go another hour.
f. No, it was just right.

Poll #14: Would you attend a Part 2 follow-up session?

a. Definitely, Definitely, Definitely...
b. Probably, Probably, Probably,
c. Maybe, Maybe, Maybe
d. You got to be kidding...NO!

Poll #15: As a result of this session, are you going to be a more effective and more confident online instructor?

a. Definitely, Definitely, Definitely...
b. Probably, Probably, Probably,
c. Maybe, Maybe, Maybe
d. You got to be kidding...NO!
The World is Open for you now…!

We are entering a jumping off point…

Any Questions or Comments?
Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: http://tec-variety.com/
Curtis J. Bonk, IST Professor
Indiana University
cjbonk@indiana.edu; http://curtbonk.com/

MAKE IT SO