

Masterclass: Where are You R2D2?:
Addressing Diverse Online Learner Needs with the
Read, Reflect, Display, and Do Model

Curtis J. Bonk, IST Professor
Indiana University
cjbonk@indiana.edu; <http://curtbonk.com/>



1

Education 20/20



2



3

20 New Roles of the Instructor



4

1. Instructor as Counselor



5

2. Instructor as Consultant



6

3. Instructor as Conductor



7

4. Instructor as Course Ambassador



8

5. Instructor as Curator



9

6. Instructor as Concierge



10

7. Instructor as Camping Trip Guide



11

8. Instructor as Cultivator



12



13

Merrill's First Principles of Teaching/Instruction

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

Integration	Activation
Problem/ Task	
Application	Demonstration
The First Principles Four Phase Cycle of Instruction	

14

Bonk's Last Principles of Teaching/Instruction (Education 4.0?)

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
<http://www.applcathai.com/articles/education-4-0/>

Education

4.0

15

1. The Principle of Flexibility

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
 (e.g., multiple due dates, grace period, flexible agenda, etc.)

16

2. The Principle of Convenience

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
 (e.g., multiple ways to turn in, record the class, get student input on time to teach the class, etc.)

17

4. The Principle of Cheerfulness and Optimism

<http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
 (e.g., smile, celebrate accomplishments, positive feedback before any criticisms, etc.)

18

6. The Principle of Choice and Options

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>
(e.g., sign up for weeks to present, have 10 midterm or final options and pick any 4, choose if want to work as a group/team or individually submit, etc.)



19

7. The Principle of Empowerment and Autonomy

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>
(e.g., build something for a wider audience, design, negotiate the syllabus in a wiki, students vote on agenda items, student presentations of final projects, etc.)



20

8. The Principle of Support and Feedback

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>
(e.g., offer extensive feedback, assign critical friends for feedback, offer summary feedback for common questions, use job aids and scaffolds, etc.)



21

9. The Principle of Spontaneity

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>
(e.g., try stuff out and debrief, change agenda or syllabus, combine ideas, etc.)



22

10. The Principle of Organization

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>
(e.g., create and share agenda in advance, contact guest speakers in advance and share their bios and pic, arrange order of student presentations, etc.)



23

11. The Principle of Sharing

<http://travelinman.blogspot.com/2011/05/books-last-principles-of-instruction.html>



24

13. The Principle of Passion and Inspiration

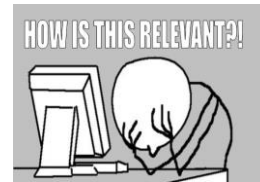
<http://travellinedman.blogspot.com/2011/05/bonka-last-principles-of-instruction.html>



25

14. The Principle of Relevance and Meaningfulness

<http://travellinedman.blogspot.com/2011/05/bonka-last-principles-of-instruction.html>



26

16. The Principle of Expanded Resources

<http://travellinedman.blogspot.com/2011/05/bonka-last-principles-of-instruction.html>



27

The World of Open Education



28

The World is Open: How Web Technology Is Revolutionizing Education



TEN OPENERS: (WE-ALL-LEARN)

1. Web Searching 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. Learner Participation in Open Information Communities
7. Electronic Collaboration
8. Alternate Reality Learning
9. Real-Time Mobility and Portability
10. Networks of Personalized Learning



29



30

The World is very open!

(South University of Science and Technology of China, Wednesday June 10, 2015)



31

17. The Principle of Human Connectedness

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



32

Café Classroom and Café Connectedness

Starbucks Your Classroom!

Oskar Cymerman, Teaching Channel

<https://www.teachingchannel.org/blog/2016/07/29/starbucks-your-classroom/>



Sterile, industrial-era rows aren't very attractive or motivating. ...I believe the "Starbucks" environment will promote that freedom and movement...Freedom is the key ingredient to social-emotional well-being and deeper learning. Rows and columns constrict. They hold back and stifle.

33

20. ??? (what is missing)

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



34

Bonk's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)

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

Flexibility Support and Feedback Choice and Options
 Convenience Spontaneity Nontraditional Learning
 Collegiality Organization Passion and Inspiration
 Sharing Relevance and Meaningfulness
 Trial and Error (i.e., it is ok to fail)
 High Expectations Purpose and Vision Expanded Resources
 Empowerment and Autonomy Human Connectedness #20 ???
 Cognitive Apprenticeship



35

Clearly... Learning is Changing!



36

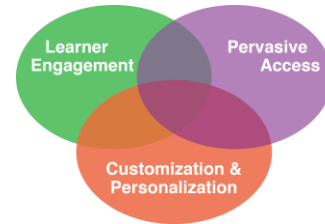
Thirty Ways Learning is Changing...

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



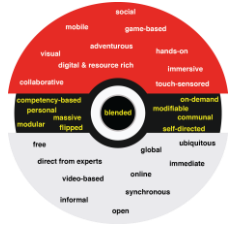
37

30+ Ways Learning is Changing: The Mega Trends



38

30+ Ways Learning is Changing: Recapping the Three Mega Trends: Engagement, Access, and Customization



39

February 26, 2021

Ever have 'Zoom fatigue?' These are the causes and how to fix them, researchers say
Brett Molina, USA Today

<https://www.usatoday.com/story/tech/2021/02/26/zoom-fatigue-causes-and-how-to-fix-it/1832509002/>



40

July 8, 2020

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

<https://www.insidehighered.com/digital-learning/article/2020/07/08/faculty-member-and-dean-ad-education-offers-also-ideas-improving-teaching-com>

Yes, Your Zoom Teaching Can Be First-Rate



Turns Out You Can Build Community in a Zoom Classroom

A professor finds that personal design can be surprisingly effective in building relationships in a synchronous virtual classroom.

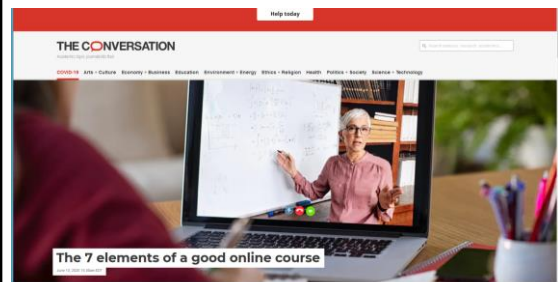


41

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>



42

June 2, 2021

A Pandemic Silver Lining? More People Are Talking About Teaching

Beckie Supiano, The Chronicle of Higher Education

<https://www.chronicle.com/article/a-pandemic-silver-lining-more-people-are-talking-about-teaching>

A Pandemic Silver Lining? More People Are Talking About Teaching

By Beckie Supiano | June 1, 2021



This article is excerpted from a new Chronicle special report, "The Future of Teaching: How the Classroom Is Being Transformed," available in the Chronicle Store.



43

October 6, 2020

Faculty Confidence in Online Learning Grows Doug Lederman, Inside Higher Ed

<https://www.insidehighered.com/digital-learning/article/2020/10/06/covid-19-experience-boosts-faculty-belief-value-online>

Faculty Confidence in Online Learning Grows

Survey finds significant increases in professors' confidence in virtual learning and their sense of support from their colleges - but continuing concerns about equity for underrepresented students.

By Doug Lederman | October 6, 2020



44

March 8, 2021

As Many Parents Fret Over Remote Learning, Some Find Their Kids Are Thriving

Eva Tedfaye, MindShift

<https://www.kqed.org/mindshift/52589/as-many-parents-fret-over-remote-learning-some-find-their-kids-are-thriving>

By Eva Tedfaye | March 8, 2021



45

May 7, 2021

Why some black teens thrived with remote school Shaylah Brown, USA Today

<https://www.usatoday.com/story/news/education/2021/05/07/some-black-students-are-doing-well-remote-learning/7072700001>

Remote learning is helping some Black students affirm their identities and excel in school

Shaylah Brown | Northjersey.com

Watch Video: <https://youtu.be/8m5d5y8m>

Some Black students have thrived, educationally and emotionally, through remote learning

Quiana Khathale-Kay-Guay, 16, from Fort Lee in New Jersey attends school remotely. She prefers remote learning because it affords her the opportunity to be free of racial bullying. She also has time to spend on what she is most passionate about: activism, political science, and writing. (Shaylah Brown, Northjersey.com)

46

June 3, 2020

Contact North | Contact Nord Webinars

<https://teachonline.ca/webinars>

47

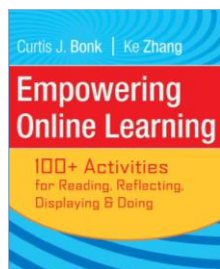
Poll: Have you reflected on your teaching philosophy or approach during COVID-19?

- Yes many times and I am dramatically changing my philosophy statement.
- Yes many times and I am taking action (meeting people, reading more, attending webinars like this, etc.).
- Yes, I thought about it a couple of times and I am tweaking it.
- Not sure. I'm kinda brain dead right now.
- No, my teaching philosophy is basically the same.



48

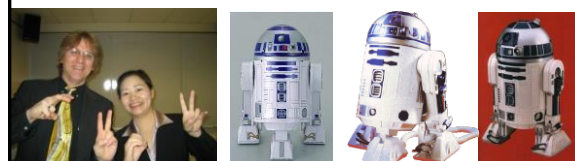
Part II: The R2D2 Model: Read, Reflect, Display, Do...



49

The R2D2 Model

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



50

1. Auditory or Verbal Learners

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



51

June 30, 2021

3 Strategies for Inclusive Pedagogy Jamie Landau, Inside Higher Ed

<https://www.insidehighered.com/advice/2021/06/30/advice-instructors-making-classroom-more-inclusive-again>

3 Strategies for Inclusive Pedagogy

Jamie Landau has found that a communication and racial justice perspective has enabled students – and her – to rediscover their voices.

By **Jamie Landau** // June 30, 2021

Last month marked a year since the murder of George Floyd, reminding me of students of color in my class this past spring semester whose humanity is at stake with inclusive pedagogy.

52

June 30, 2021

3 Strategies for Inclusive Pedagogy Jamie Landau, Inside Higher Ed

<https://www.insidehighered.com/advice/2021/06/30/advice-instructors-making-classroom-more-inclusive-again>

- **Conversations.** Two students rotate stations while others remain, bringing diverse voices to the conversation and additional ideas from the new group.
- **Speed-dialing.** Students sit in close proximity to dialogue face-to-face in pairs as if on a speed date, communicating interpersonally with people with whom they usually do not talk, such as someone from a different race.
- **Tape recorder.** One student listens while the other talks and must paraphrase what they heard that other person say, ensuring traditionally dominant speakers do not take up as much airtime and marginalized voices are heard.
- **Fresh person standing summary.** Students find someone in class whom they have not yet gotten to know and share what they learned from this fresh person, learning to value voices beyond their own and communicate interpersonally with people with whom they usually do not talk, such as someone from a different race.
- **Conversations.** Students are assigned roles such as questioner or even a democratic champion whose responsibility is to invite students to speak, allowing additional ideas to be considered in the conversation and ensuring traditionally dominant speakers do not take up as much airtime and marginalized voices are heard.
- **Podcast.** Students are given a mediated public speaking platform to interview other people, learning to value voices beyond their own and ensuring traditionally dominant speakers do not take up as much airtime and marginalized voices are heard.

53

June 27, 2020

Read 1a. Storyline Online is a free literacy platform where kids can listen stories (where actors read to children).

<https://www.youtube.com/user/StorylineOnline>



54

July 18, 2020

Read 1b. International Children's Digital Library (ICDL)

(The ICDL collection includes 4619 books in 59 languages from 228 countries. The ICDL Foundation's goal is to build a collection of books that represents outstanding historical and contemporary books from throughout the world. Ultimately, the Foundation aspires to have every culture and language represented so that every child can know and appreciate the riches of children's literature from the world community.)

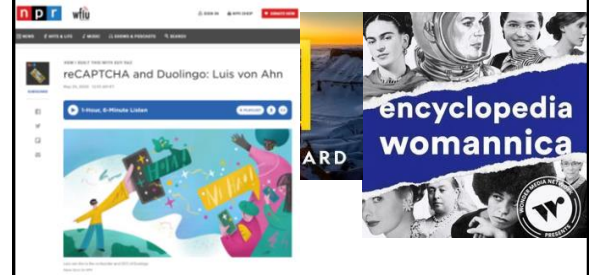
<http://en.childrenslibrary.org/index.shtml>



55

Read 1c. Listen to Podcasts

(e.g., Educational: <https://discoverpods.com/educational-podcasts/>)

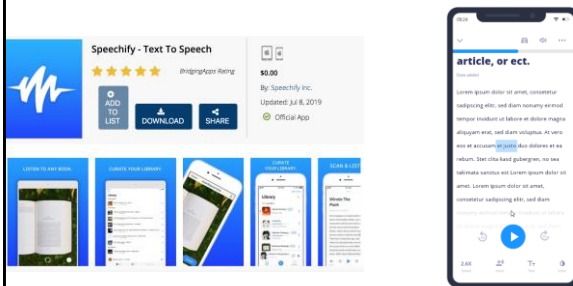


56

January 20, 2016

Read 1d. Text to Audio

(e.g., Speechify; <https://www.hsalfrank.com/speechify/>)



57

February 11, 2018

Read 1e. Online Referenceware

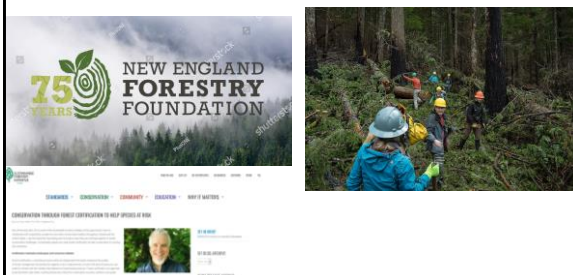
The Magical Power of Dictionaries
Alberto Manguel, The Chronicle of Higher Education
<https://www.chronicle.com/article/The-Magical-Power-of-Dictionaries>



58

March 21, 2020

Read 1f. Read Blogs



59

Read 1g. Twitter Fed Class Discussions

<https://twitter.com/FAOForestry>



60

Read 1g. Twitter Fed Class Discussions (e.g., BBC Learning English: <https://twitter.com/bbccl?lang=en>)



61

Read 1h. Grammer Checkers (e.g., Grammarly, Ginger, GrammarCheck, PaperRater, and SpellCheckPlus) <http://www.grammarly.com/>



62

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

<https://doaj.org/>
Open access journals for kids:
<https://sciencejournalforkids.org/about-us.html>
<https://kids.frontiersin.org/>
<https://sciencejournalforkids.org/about-us.html>



63

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



64

Reflect 2a. Big Issue Reflections

Forestry & Society Forests of the U.S.—Questions

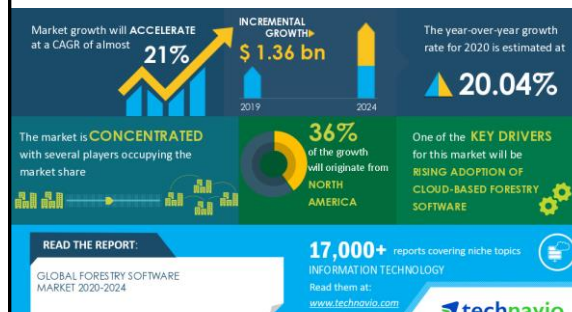
- What are some major species of eastern forests? Describe them.
- What are some major species of western forests? Describe them. What are some major species of southwestern forests? Describe them. Compare the productivity of temperate forests with tropical and boreal forests.
- Describe the ownership pattern of forestland in the U.S. What were the major laws that determined US forest land policy? What did they do for US forest policy?

Probable Questions

- Discuss types of forests in Bangladesh. What are their issues of concerns?
- What are the main objectives of the National Forestry Policy 1994? Discuss
- For conservation of the forests and wildlife, the Government of Bangladesh has declared some areas as "Protected Areas". What are they?
- What are the challenges of conservation of forests? Discuss

65

Reflect 2b. Interpreting Interactive Graphs and Infographics



66

Reflect 2c. Online Role Play or Debate (e.g., documentary production)



67

Reflect 2c. Continued... Online Role Play or Debate (e.g., documentary production)

<ul style="list-style-type: none"> • Controller/Executive • Director/CEO/Leader • Connector/Relator/Linker/Synt • hesizer • Decider/Judge/Serfer • Devil's Advocate/Critic/Censor • Reflector/Thinker/Speculator/Observer/Watcher • Warrior/Debater/Arguer/Conqu • eror/Bloodletter • Idea • Squeaker/Biased Preconceiver • Slacker/Slough/Slap/Surfer • Dude 	<ul style="list-style-type: none"> • Artist/Idea • Person/Visionary/Muse • Planner/Predictor/Guesser/Flow • haunter • Organizer/ Starter/Founder/Initiat • or • Questioner/Ponderer/Protester/ • Adventurer/Discoverer/Explorer/ • Traveler • Mediator/Negotiator/Compromise • r/Peacemaker • Watchdog/Evaluator/Measurer • Creative • Energy/Inventor/Generator/Brain • stormer 	<ul style="list-style-type: none"> • Optimist/Open-minded/Idealist • Robotic/Information • Dumpster/Spook-like • Absent • Minded/Strampler/Dense/Aiml • ess • Coach/Facilitator/Inspirator/Tr • ainer • Guide/Mentor/Teacher/Scaffol • der • Humanitarian/Do Gooder/Fund • Raiser • Funny/Humorous/Comic/Witty • Advisor/Responder/Helper/Tut • or • Woefully/Wise person/Sage/Gur • u/Spiritual Leader
--	---	--

Example 2: Scaffolding...in the form of structuring the online environment and engagement e.g. reflective roles, self-coding, timely-engagement of instructors or otherwise you have "serial monologues."

68

July 5, 2018 Reflect 2d. 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>



69

Reflect 2e. Hot Off the Press! (i.e., students edit and publish group news summaries through blogs.) Revise and edit group members' news summaries and synopses. Present and publish the group news project.

My Class by edublogs

- ✓ Easily set up and monitor your classroom blogging program.
- ✓ Manage student bloggers or class blog contributors.
- ✓ Many options for moderation and privacy. You choose!

Allow students to set up blogs without an email address.

Teachers can change student email addresses and reset passwords.

Read, comment, and moderate posts and comments in one location.

Control privacy settings on student blogs with one click.

Quality create student blogs.

MY CLASS FEATURES

Quality enable extra features on student blogs such as changing email code. *

Teachers can opt to moderate student posts. *

Teachers or students can be in charge of comment moderation.

<http://edublogs.org>

* Additional Fees apply.

70

Reflect 2g. Reflect on Shared Online Video A Visual History of Human Knowledge Manuel Lima, TED Talk https://www.ted.com/talks/manuel_lima_a_visual_history_of_human_knowledge#t-484317



71

3. Visual Learners

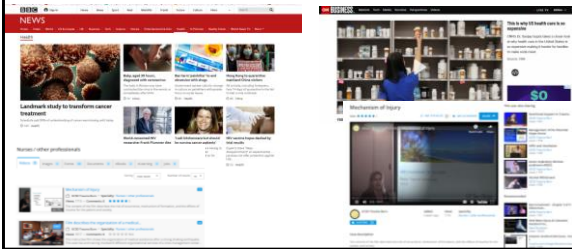
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.



72

Display 3a.

Short Educational Videos: Anchored Instruction/Macrocontext CNN, BBC, TED, TED-Ed, ForATV, MedTube



73

April 29, 2020

Display 3b. Animated Videos Animated COVID-19 prevention video goes viral

Mandy Erickson, SCOPE Stanford Medicine

<https://scopeblog.stanford.edu/2020/04/29/animated-covid-19-prevention-video-goes-viral/>
<https://www.youtube.com/watch?v=UcFdfueQ8g>



74

June 7, 2020

Display 3c. Interpreting nominations of Data World Mapper, COVID-19

<https://worldmapper.org/map-animation-covid19/>
<https://www.youtube.com/watch?v=6uu1MGyGjvI>



75

Display 3d. Video Editing Tools

TubeChop: <https://www.tubechop.com/>



76

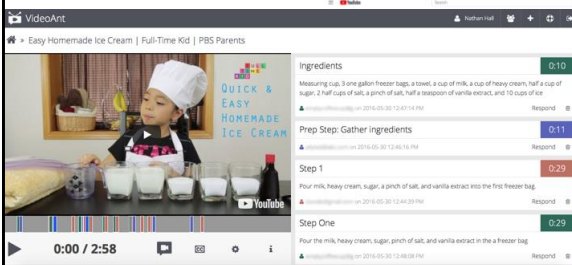
Display 3e.

Video Annotation and Commenting Tools

VideoAnt (Free): <https://ant.umn.edu/> (Univ. of Minnesota)

<https://www.youtube.com/watch?v=1SOE2aQky2I>

Edpuzzle (Free): <https://www.youtube.com/watch?v=-L62wAxzEM>



77

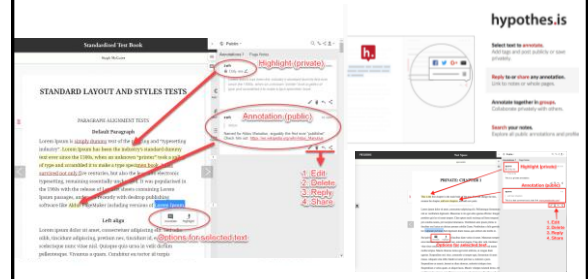
Display 3f.

Collaborative Web and PDF Annotation Tools

Hypothes.is (Free): <https://web.hypothes.is/>

Note Anywhere: <https://www.youtube.com/watch?v=g4A2eowd4Ho>

Adds virtual sticky notes to webpages

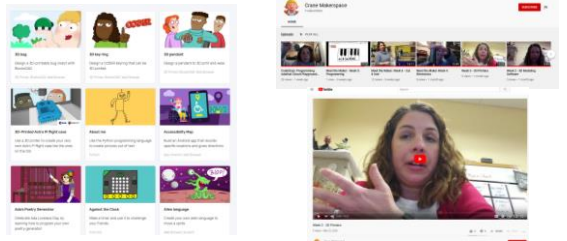


78

14

April 23, 2020 Do 4b. Demonstration Videos Crane Makerspace, Tina Closser

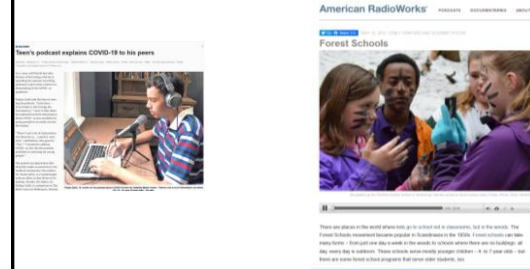
https://www.youtube.com/channel/UCbeWf9g7z0JMB9T5t5w7/view_as=subscriber
<https://sites.google.com/view/cranetech/home>
<https://projects.raspberrypi.org/en/projects>



85

August 6, 2020 Do 4c. Student Podcast Shows Teen's Podcast explains COVID-19 to his peers Janey Begley, USA Today, TC Palm

<https://www.tcpalm.com/story/life/2020/08/06/florida-youth-starts-podcast-explaining-covid-19-teens/3312120001/>



86

June 18, 2021 Do 4d. Student Created Openbookprojects

<https://drewharr.wixsite.com/openbookproject>

Per Dr. Chaoran Wang: As to open pedagogy, this spring, I had my pre-service literacy and language teachers to edit and compile a variety of methods of teaching reading into an open book. They created this open licensing book here <https://drewharr.wixsite.com/openbookproject>.



87

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.
7. More than 10.



88

Technology Tomorrow WHAT'S NEXT?

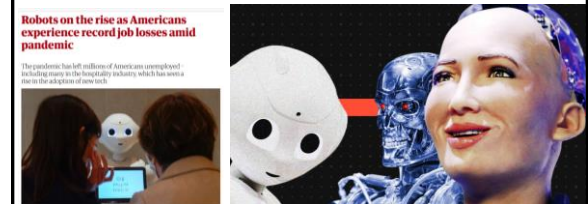
<http://www.thefuturistpost.ca/de-maine-Sound-robot.html?prepara-for-future-learn-3-1640756.html>



89

November 27, 2020 Robots on the rise as Americans experience record job losses amid pandemic

Lauran Arantani, The Guardian
<https://www.theguardian.com/technology/2020/nov/27/coronavirus-robots-employment>



90

Robot Collaborators/Partners

http://www.britainismoon.com/45andem/527hes/Library_Alexandria.html

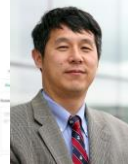


91

September 26, 2018 Conversation with the Wall

Pushing the Boundaries of Learning With AI
Lindsay McKenzie, Inside Higher Ed

<https://www.insidehighered.com/digital-learning/article/2018/09/26/academics-push-expand-use-ai-higher-ed-teaching-and-learning>
<https://www.insidehighered.com/digital-learning/article/2018/09/26/academics-push-expand-use-ai-higher-ed-teaching-and-learning>
<https://www.youtube.com/watch?v=76u5Txl8ZkA>
11:17 <http://curtbenk.com/mandarin.html>



92

May 9, 2018 Conversation with Technology Google Duplex Demo from Google IO 2018

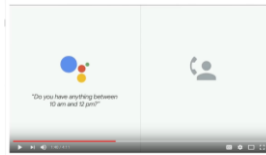
Video (4:11): <https://www.youtube.com/watch?v=bd1mEm2Fy08>

Video (2:05): <http://curtbenk.com/google40-245.html>

Online video (4:11) <https://www.youtube.com/watch?v=bd1mEm2Fy08>

Donald Clark Plan B

<http://donaldclarkplanb.blogspot.ca/2018/05/google-just-announced-ai-bot-that-could.html?m=1>



93

May/June 2020 Chatting with Chatbots and Text Buddies

Lindsay McKenzie, Inside Higher Ed

<https://www.insidehighered.com/digital-learning/article/2020/05/06/alexandria-chatbots-higher-ed>
<https://www.usatoday.com/story/tech/2019/11/08/alexa-google-assistant-ai-robots-become-substitute-friends/4057885002/>



94

January 30, 2017 Professor Einstein's PDA's

<http://www.usatoday.com/story/tech/2017/01/30/robotic-einstein-now-serving-really-fast/9588878/>



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-einstein-now-serving-really-fast/9588878/>

95

January 25, 2021 AI Generated Teachers

Tom Bartlett, The Chronicle of Higher Education
<https://www.futureme.org/>

Dead Man Teaching

What's it like to find out your favorite new professor has been dead for almost two years? In a word, weird.

By Tom Bartlett | January 25, 2021



96

**We are entering a jumping
off point...**



97

Things are heating up!



98

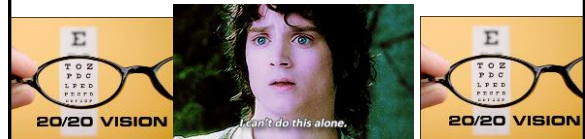
**Education 3.0 and a
Learning Revolution is
coming within reach!**



99

**Remember...
"I cannot do this alone."**

"I cannot do this alone."
"I cannot do this alone."
"I cannot do this alone."



100

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/>



101