Technology Today, Technology Tomorrow: Might Learning Evolutions lead to Learning Revolutions?
Curtis J. Bonk, Professor, Indiana University
cjbonk@indiana.edu
http://curtbonk.com/

Talk Overview
1. Technology Yesterday
2. Technology Today
   30 ways learning is changing...
3. Technology Tomorrow and Future Trends

Part 1: Technology Yesterday

Poll: 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

The Evolution of E-Learning (All 7 year cycles)
Phase III, 2008: THE AGE OF MOOCs (First MOOC offered).
Phase IV, 2015: THE AGE OF PERSONALIZATION.

Other prior significant e-learning dates:
1985: FIRST ONLINE COURSE, LINDA MARSH, UNI OF TORONTO
1987: HYPERCARD FIRST SHIPPED.
**Winky Dink and ... Bill Gates?**

Bob Greene, March 31, 2013, CNN


A girl uses her “Winky Dink” drawing kit to draw on a TV screen as they watch the 1950s kids program.

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**June 3, 2017**

How PLATO changed the World...in 1960

Cait Etherington, ElearningInside News


PLATO was the first generalized computer-assisted instruction system. Starting in 1960, it ran on the University of Illinois' ILIAC I computer. By the late 1970s, it supported several thousand graphics terminals distributed worldwide, running on nearly a dozen different networked mainframe computers. Many modern concepts in multi-user computing were originally developed on PLATO, including forums, message boards, online testing, e-mail, chat rooms, picture languages, instant messaging, remote screen sharing, and multiplayer games.

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**Intelligence Augmentation and Amplification**

Douglas Engelbart’s “The Mother of All Inventions” (1968)

Augmentation Research Center (ARC)

(The live demonstration had multiple introductions of the computer concept: online conferencing, hypertext hypermedia, object addressing, dynamic file linking, and other key concepts.)

http://www.amazon.com/Machines-Loving-Grace-Common/dp/0062266683

Engelbart’s prototype of a computer mouse, as designed by Bill English from Engelbart’s sketches.

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**The World of Open Education**

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**Poll: Anyone remember these technologies?**

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**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/
September 19, 2014
A Distance Learning Story
Bob Clasen, University of Wisconsin
https://www.youtube.com/watch?v=kCm1_MGaqec&feature=youtu.be
February 27, 1934 - March 17, 2018

September 26, 2018
Remember Education 2.0?
The rise and fall of the company behind 'Reader Rabbit'
and all your favorite educational games
Abigail Cain, The Outline

Knowledge Navigator (1987)
Apple Computer
http://www.youtube.com/watch?v=hb4AzF6wEoc

How Might Video Games Be Good for Us?
Jane McGonigal, October 15, 2012, BQO
https://www.bigquestionsonline.com/content/how-might-video-games-be-good-for-us

August 6, 2016
The Web is 25!
Happy (sort of) birthday, World Wide Web!,
Erica Fink and Jonathan Tortora, CNN Money (Tech)
http://info.cern.ch/ (First website)
http://info.cern.ch/hypertext/WWW/TheProject.html

January 15, 2016
Wikipedia is 15!
Scott McLemee, Inside Higher Ed

The Web is 25!

Wikipedia at 15

The Web is official 25 years old on Thursday, August 6th, 2016.

Wikipedia is 15 years old, a truly amazing achievement. It is an incredible example of how the internet can connect people and build communities. For that reason, it is important to take a moment to reflect on its success and the impact it has had on the world.
Sterile, industrial-era rows aren’t very attractive or motivating. Even more, I’ve become convinced that traditional educational settings dull the senses. 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 and stifle. That is the truth. That is the reality in many U.S. classrooms today. But no longer in mine. Never again.

“In Education 3.0, classrooms would move away from lectures, such as this one, to having class time be spent on discussions and projects, using digital technology.”

Now What is Education 4.0?
"Innovation-producing education. Learn more in: Development of Individual Agency within a Collaborative, Creative Learning Community"
http://www.igi-global.com/dictionary/education-40/41795
https://thinc.in.th/engadmission/education4.html (Chula Engineering)

November 8, 2018
Learning is More Personalized
AI Question Asking
(Paul Kim keynote in Taiwan: Education 4.0 Conference)
https://www.facebook.com/digitalschema
https://www.facebook.com/digitalschema/videos/10217854957270186/
What is turbulence? Why is turbulence dangerous to small airplanes?

When did Elon successfully launch the SpaceX program? Who admitted that launching the car into space was “kind of silly and fun?”

If he did not devise ever-more sensitive receivers to detect these waves, what could have been the consequence? If he did not introduce the AC motor in the late 1880s, what would have been the consequence? What are the things Tesla designed? What were the things Tesla couldn’t determine the cause of? Why did Tesla build a plant in Colorado, not in New York? Why did Tesla at first consider whether they were “electrical disturbances as are produced by the sun?”

How do you compare Elon Musk and Nicolas Tesla? How is Mars different from Jupiter?

What is turbulence? Why is turbulence dangerous to small airplanes?

How do you compare Elon Musk and Nicolas Tesla? How is Mars different from Jupiter?

The Fourth Industrial Revolution: What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

The Fourth Industrial Revolution: What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum

The Fourth Industrial Revolution: What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
http://www.tubechop.com/watch/8280981

ST Future Economy Roundtable: Is Asia ready for the Fourth Industrial Revolution?
The Straits Times
http://www.straitstimes.com/asia/is-asia-ready-for-the-fourth-industrial-revolution

“The Fourth Industrial Revolution: What it means, how to respond
Klaus Schwab, Founder and Executive Chairman, World Economic Forum
https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

The Rise of the Phigital Learner
Going ‘phigital’? 4 things schools need to know about Generation Z, Todd Kominiak, TrustEd

The Rise of the Phigital Learner
Going ‘phigital’? 4 things schools need to know about Generation Z, Todd Kominiak, TrustEd
https://www.ecampusnews.com/campus-administration/education-gen-z-phigital-student/

July 11, 2017
The Rise of the Phigital Learner
Going ‘phigital’? 4 things schools need to know about Generation Z, Todd Kominiak, TrustEd

August 21, 2016
ST Future Economy Roundtable: Is Asia ready for the Fourth Industrial Revolution?
The Straits Times
http://www.straitstimes.com/asia/is-asia-ready-for-the-fourth-industrial-revolution

“IT’s quite clear that the established models of education have to change and adapt to the new environment.”

May 15, 2017
3 must know’s about the rising “phigital” student-and why their impact is enormous, Meris Stansbury, eCamous News
https://www.ecampusnews.com/campus-administration/education-gen-z-phigital-student/
Clearly... Learning is Changing!

Education 20/20

20 New Roles of the Instructor

- Captain
- Course Ambassador
- Consumer Advocate
- Change Catalyst
- Counselor
- Curator
- Concierge
- Cook
- Comedian
- Conductor
- Camping Trip Guide
- Collaborator
- Consulting
- Community Organizer
- Chemist
- Care Giver
- Colleague
- Cultivator

Merrill’s First Principles of Teaching/Instruction

- Integration
- Activation
- Application
- Demonstration

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

http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html
http://www.applicadthai.com/articles/education-4.0
Bonk's 20 "Last" Principles of Instruction
(LAST = Learning Activation System Template)

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

- Convenience
- Cheerfulness and Optimism
- Support and Feedback
- Spontaneity
- Nontraditional Learning
- Relevance and Meaningfulness
- Trial and Error (i.e., it's ok to fail)
- Choice and Options
- Passion and Inspiration
- Shared Expanding Resources
- Human Connectivity
- Empowerment and Autonomy
- Cognitive Apprenticeship

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

ARKit lets you create immersive augmented reality experiences on iOS devices. (Photo: Wearable)

90+ ED TECH COMPANIES WRITING THE FUTURE OF EDUCATION

October 21, 2018
Virtually Inspired (from Drexel University)
Building a Go-To Resource on Innovation in Online Learning
Meg Lloyd, Campus Technology
https://virtuallyinspired.org/

30+ Ways Learning is Changing:
The Mega Trends

How Learning is Changing:
Mega Trend #1. Learner Engagement

- social
- mobile
- hands-on
- visual
- touch-sensored
- game-based
- adventurous
- digital & resource rich
- immersive
- collaborative
January 3, 2018
Learning is More Mobile
CES 2018: Your guide to the biggest consumer electronics show
USA Today

The Octopus watch from Joy, an icon-based watch for kids to have good habits is on display during CES.

October 8, 2018
Learning is More Social
First look: Facebook unveils Portal video calling devices for the home with Alexa
Edward C. Baig, The USA Today

April 22, 2018
Learning is More Visual
Microsoft AI Commercial ft. Common

May 14, 2018 (Engagement)
Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx

August 8, 2017
Learning is More Game-like
ShortSims
July 29, 2018
Learning is More Collaborative
Why Silicon Valley is teaming up with San Quentin to train young people to code
Jessica Guynn and Megan Diskin, USA TODAY

March 21, 2018 (Engagement)
Learning is More Collaborative
Chatterbox
The overall winner in the competition was Chatterbox, an online language school powered by refugees
https://wearechatterbox.org/

September 4, 2017
Virtual Reality and AR Explodes
VR Lets Med Students Experience What It's Like To Be 74
Elyse Wanshel, Huffington Post
http://ht.ly/bSpe300XEPJ

May 1, 2018
Learning is More Hands-on
3 ways districts can use AR and AI
Justin Anglio, eSchool News
https://www.eschoolnews.com/2018/05/01/3-amazing-ways-our-district-is-using-ar-and-vr/

May 1, 2018
Learning is More Immersive
3 ways districts can use AR and AI
Justin Anglio, eSchool News
https://www.eschoolnews.com/2018/05/01/3-amazing-ways-our-district-is-using-ar-and-vr/

May 30, 2017
Learning is More Immersive
Fly above the water with Oracle Team USA in 360
https://youtu.be/9nZhz30QIZQ

When a teacher glances around her classroom, Lumilo allows her to see real-time analytics (in the form of icons) floating directly above each student’s head. The teacher can glance directly at a student or “click” on a student’s icon to see more detailed information about where and how that student might be struggling.
July 19, 2017
Learning is More Immersive
HoloLens Assists in Live Surgery
Tommy Palladino, Next Reality

Numerous examples exist of doctors and surgeons using HoloLens to plan surgeries. The device has even been used to view reference images during a procedure and stream it to a remote audience, during surgery. This has been used to expand the audience of who can observe live surgeries.

April 8, 2018
Pros and Cons of Virtual Reality in the Classroom
Adam Evans, The Chronicle of Higher Education
https://www.chronicle.com/article/ProsCons-of-Virtual/243016?cid=cp197

Pro:
An art professor might virtually guide students in his rural-Kentucky classroom through an exhibit happening in Paris, allowing them to explore works of art while standing in his classroom. A biology class might virtually travel down DNA strands previously visible only through a microscope.

Con:
We need to be having conversations about the ethics of using virtual reality in the classroom. Just because we have the ability to virtually transport a student to a war-torn country or a historical moment in time does not mean we should do so without thinking of possible consequences. What ethical obligations might faculty members owe our students during these experiences?

April 16, 2018
Learning is More Informal
World of active learning in higher ed
Formal and informal learning spaces transforming campuses internationally
Sherrie Negrea, University Business, May 2018
https://www.universitybusiness.com/article/world-active-learning-higher-ed-

May 18, 2017
Learning is More Immersive
Google Expeditions Adds Augmented Reality for Classrooms
https://thejournal.com/articles/2017/05/18/google-expeditions-adds-augmented-reality-for-classrooms.aspx

How Learning is Changing:
Mega Trend #2. Pervasive Access
informal free
global open
video-based synchronous
ubiquitous direct from experts
online immediate

May 7, 2014 (Access)
Learning is More Global
CNA - Speaking Exchange (video chats)

CNA 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.
July 11, 2018
Learning is More Immediate...
Fossil of first giant dinosaur, dubbed Ingentia prima, found in Argentina
Brett Molina, USA Today
15 second:
http://curtbonk.com/ghostbusters15.html

October 4, 2018 (Engagement)
Learning is More Synchronous
Shindig, Future Trends Forum, Bryan Alexander
https://bryanalexander.org/the-future-trends-forum/
http://www.shindig.com/
https://shindig.com/client/client/?event=ftf-agarwal

November 1, 2017
Learning is More Online (Access)
Indiana University, Office of Online Education

November 11, 2018
Meet the New Mega-University:
Can the fast-growing Southern New Hampshire U. transform higher education?
Goldie Blumenstyk, The Chronicle of Higher Education
https://www.chronicle.com/article/Meet-the-New-Mega-University/245049

July 29, 2018
Learning is More Online
Can a Huge Online College Solve California’s Work-Force Problems?
Karin Fischer, The Chronicle of Higher Education
http://curtbonk.com/link

September 17, 2018
Talk to Books
https://books.google.com/talktobooks/
March 27, 2017 (Access)
Learning is More Free and Open
Beyond Free: Harnessing the resonant value in open and collaborative practices for the public good
David Porter, CEO, eCampus Ontario, Open Education Ontario Summit
https://www.slideshare.net/David_Protter
https://www.ocls.ca/events/open-education-ontario-summit

August 2, 2018
Learning is More Free and Open
OpenStax Infographic

March 19, 2018
Learning is More Free and Open
Open Textbook Network
Center for Open Education, University of Minnesota
http://research.cehd.umn.edu/otn/

December 19, 2017 and April 24, 2018
Learning is More Free and Open
eTexts: A Practical Guide
https://iu.pb.unizin.org/iuetexts101/front-matter/introduction/

May 3, 2017
Learning is More Free and Open
4 out of 5 Companies Have Hired a Coding Bootcamp Graduate
Sri Ravipati, Campus Technology

August 9, 2017
Learning is More Free and Open
Modern State Education Alliance
https://modernstates.org/
The World is Open: How Web Technology Is Revolutionizing Education

March 6, 2018
Learning is More Direct from Experts
By connecting Chinese pupils with North American teachers, Beijing-based platform is building cultural bridges, one online English class at a time.
Most Innovative Companies, Fast Company
Interview with VIPKid CEO Cindy Mi
https://www.fastcompany.com/company/vipkid

March 21, 2018
Learning is More Direct from Experts
TeachMeNow
TeachMeNow is a gig-economy platform for teachers. This marketplace connects teachers, experts, and mentors to students. The technology enables scheduling, payments and live virtual sessions that can connect at any time. Millions of students are learning to read, spell, and code online interactively, with some teachers earn $100,000 last year. In addition, schools and companies including Microsoft use TeachMeNow software to create their own branded online learning communities.
https://teachmenow.com/

How Learning is Changing: Mega Trend #3. Customization

January 14, 2018
Learning is More Communal
Facebook invites you to live in a bubble where you’re always right
Callum Borchers, The Washington Post
Learning is More Modifiable
The Architecture of Ideal Learning Environments
Emelina Minero, Edutopia
https://www.edutopia.org/article/architecture-ideal-learning-environments

Learning is More Blended
Universities tap growth of craft beer, offer classes, Chicago Tribune

Learning is More Self-Directed
The LMS Market is Quickly Losing Ground
Carol Leaman, CLO
https://www.openlearning.com/

Learning is More Personal
5G to AR: Here are 7 technologies to watch in 2018, Edward C. Baig, USA Today
(e.g., Augmented hearing)

Learning is More Personalized
China wants to bring artificial intelligence to its classrooms to boost its education system
Meng Jing, South China Morning Post

April 8, 2018
Learning is More Personal
Can Artificial Intelligence Make Teaching More Personal?
Goldie Blumenstyk, The Chronicle of Higher Education
https://www.chronicle.com/article/Can-Artificial-Intelligence/243023

A new grading tool called Gradescope — powered by AI and now being used for more than 175,000 students at 550 colleges — offers one window on the possibilities.

The tool helps automate the grading process without requiring instructors to rely on multiple-choice tests. Several professors who use it say the automation has actually made it easier for them to personalize their teaching.

At the University of Michigan at Ann Arbor, students in a statistics class last fall had their writing assignments evaluated by an automated text-reading tool.

Some Weird Things Are Going On...
Weirdness #1: Never Stop Learning!

MOOC Trends and Recent Data
Weirdness #2: MOOCs are not dead  
August 19, 2018  
Cumulative Growth in Number of MOOCs, 2011-18  
Almanac 2018, Chronicle of Higher Education  
https://www.chronicle.com/article/Top-5-MOOC-Providers-by-Reader/244090?cid=cp216

Weirdness #3: Your Friends are doing MOOCs  
June 15, 2017  
Massive List of MOOC Providers Around The World, Class Central  
https://www.class-central.com/report/mooc-providers-list/

Weirdness #4: Summer MOOC Discounts  
Email inbox: June 10, 2018  
edX (Summer discounts)  
https://www.edx.org/course

Weirdness #5: Master’s of Accountancy MOOCs?  
Email inbox: June 11, 2018  
Coursera  
https://www.coursera.org/

Weirdness #6: MOOC Info in Engagement Announcements  
September 26, 2018  
The Future of Professional Credentialing ... in an Engagement Announcement  
Joshua Kim, Inside Higher Ed  

January 22, 2018  
Learning is More Massive MOOCs for Credit  
Class Central  
https://www.class-central.com/report/moocs-for-credit/
May 19, 2016
Weirdness #7: From MOOC to bootcamp to MIT
MIT News, Office of Digital Learning
(Jin Wu—from MITx to MIT Global Entrepreneurship Bootcamp to master’s student)

Weirdness #8: Hundred+ MOOC Clubs
April 20, 2015
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCs-Counting-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.”

Weirdness #9: We All Teach the World
October, 2018
Teaching the World, Sarah Fister Gale, CLO
Chapter 19: Harnessing the Power of Open Learning to Share Global Prosperity and Eradicate Poverty
Shella Jagannathan, World Bank, Washington DC
http://www.agmoocs.in/

Weirdness #10: MOOC Wave #2 is here!
May 21, 2018
The Second Wave of MOOC Hype Is Here, and It’s Online Degrees
Dhawal Shah, Class Central

September 12, 2018
Coursera's CEO on the Evolving Meaning of 'MOOC'
Dian Schaffhauser, Campus Technology
**Weirdness #11: Mega Millions of MOOC Users**

January 22, 2018

A Review of MOOCs Stats and Trends in 2017, Dhawal Shah, Class Central


Here is a list of the top five MOOC providers by registered users:

1. Coursera — 30 million users.
2. edX — 14 million users.
3. XuetangX — 9.3 million users.
4. FutureLearn — 7.1 million users.
5. Udacity — 5 million users.

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**Weirdness #12: Discounted MOOC-based MBAs**

August 7, 2017

FutureLearn and Coventry University to Roll Out 50 Online Degrees (Last year Deakin University announced a similar partnership with FutureLearn)

Class Central, Dhawal Shah


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**October 12, 2018**

**Weirdness #13: Microcredentials and Nanodegrees**

Learning is More on Modular

edX Expands MicroMasters Programs With Data Science ("nanodegree") Digital Leadership and More, Sri Ravipati, Campus Technology


Lindsey McKenzie, Inside Higher Ed


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**October 30, 2017**

**Weirdness #14: MOOCs ramp up new fields**

Report: 59% of employed data scientists learned skills on their own or via a MOOC

Alison DeNisco Rayome


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**MOOCs and Open Education Around the World**

http://routledge-ny.com/books/details/9781138807419/

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**Tired of MOOCs...?**
30+ Ways Learning is Changing: Recapping the Three Mega Trends: Engagement, Access, and Customization

Part III. Technology Tomorrow

August 1, 2018
1. Independent Studies Via MOOCs
MOOC: AI A-Z: Learning How to Build an AI Online Course and Machine Learning
Mengyu Zhao
https://www.udemy.com/artificial-intelligence-az/
https://www.coursera.org/learn/machine-learning

October 12, 2018
2. OER-Based Courses and Programs
The Chronicle of Higher Education
Launching OER Degree Pathways: An Early Snapshot of Achieving the Dream’s OER Degree Initiative and Emerging Lessons

September 22, 2017
3. Binge Learning Experiences
What Online Education Can Learn from Netflix
Henry Kronk, E-learning Inside News
https://theumlaut.com/binge-learning-is-online-education-s-killer-app-84da18f8ae76

November 17, 2018
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

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

January 30, 2017
7. Professor Einstein PDA’s
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)

February 27, 2017
8. Robot Collaborators/Partners

January 16, 2018
Robots are better at reading than humans
Brett Molina, The USA Today

Video (37 seconds): http://curtbonk.com/robots1.html

https://www.usatoday.com/story/tech/2017/01/30/robotic-barista-now-serving-really-fast/95888780/


http://curtbonk.com/mandarin.html

https://www.youtube.com/watch?time_continue=4&v=7EuSTu1iR2A


https://www.youtube.com/watch?time_continue=4&v=7EuSTu1iR2A

http://curtbonk.com/mandarin.html
March 29, 2017

Every industrial robot takes up to 6 jobs, study finds

Steve Goldstein, MarketWatch

http://www.marketwatch.com/story/every-industrial-robot-takes-up-to-6-jobs-study-finds-2017-03-29

Video: 45-1:14: http://curtbonk.com/futureandroids2.html
Video: .01 to .49: http://curtbonk.com/futureandroids4.html

March 24, 2017

Artificial Intelligence Market in the US Education Sector 2017-2021

AI Market to Grow 47.5% Over Next Four Years

Richard Chang, Campus Technology

http://www.researchandmarkets.com/research/5lshzz/artificial

AI Market to Grow 47.5% Over Next Four Years

Video: .49 - 1:12: http://curtbonk.com/futureandroids2.html

Video: .01 to .49: http://curtbonk.com/futureandroids3.html

9. Café Classroom and Café Connectedness

Starbucks Your Classroom!

Oskar Cymerman, Teaching Channel

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

10. Instructional Designer Morphs into Learning Environment Engineer

February 27, 2017

11. World Knowledge Refreshment Stations

http://www.thelivingmoon.com/43ancients/02files/Library_Alexandria.html

March 28, 2017

12. Brain-based Learning

Elon Musk’s Neuralink wants to plug into your brain, Marco della Cava, USA Today

https://www.usatoday.com/story/tech/talkingtech/2017/03/27/teslas-musk-may-now-want-plug-into-your-brain/99711510/

http://trainingshare.com/musk.html

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 constrain. They hold and stifle.
Poll: Evolution or Revolution?

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

Things are heating up!

The Learning Revolution is coming within reach!

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

Any Questions or Comments?

Slides at: TrainingShare.com
Papers: PublicationShare.com
Free book: http://tec-variety.com/
Email: cjbokn@indiana.edu