Education 20/20 meets Education 3.0: Visions of Our Changing Learning World!

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Talk Overview

1. Education 20/20 and Education 3.0
2. Artificial Intelligence vs. Intelligence Augmentation
3. The Evolution of E-Learning
   (30 ways that learning is changing...)
5. Future Trends and Ideas

Bonk's Last Principles of Teaching/Instruction

Education 20/20
1. The Principle of Flexibility
   [Link to article]

2. The Principle of Convenience
   [Link to article]

5. The Principle of High Expectations
   [Link to article]

6. The Principle of Choice and Options
   [Link to article]
8. The Principle of Support and Feedback
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

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

12. The Principle of Nontraditional Learning
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

14. The Principle of Relevance and Meaningfulness
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

15. The Principle of Trial and Error (i.e., it is ok to fail)
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html

16. The Principle of Expanded Resources
http://travelinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html
Learning is Changing…

“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.”

(Per Wikipedia: https://en.wikipedia.org/wiki/Education_3.0)

Education 3.0

The Genesis and Emergence of Education 3.0 in Higher Education and its Potential for Africa

First Monday, by Derek Keats and J. Philipp Schmidt, March 2007


January 14, 2016

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/

April 13, 2016

The Fourth Industrial Revolution: What it means, how to respond

Klaus Schwab, Founder and Executive Chairman, World Economic Forum


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

“The world is becoming open to learning.”

“IT’s quite clear that the established models of education have to change and adapt to the new environment.”
August 17, 2016
Research: 3D Printing Market to Double by 2020
Joshua Bolkan, Campus Technology

May 19, 2016
Pepper the robot needs U.S. programmers, Marco della Carva, USA Today
http://www.usatoday.com/story/tech/news/2016/05/18/google-calling-all-android-robot-programmers/84461778/
New download link: https://www.dropbox.com/s/hxcuwqgvaj20oiv/pepper-the-robot2.mp4?dl=0

June 7, 2016
Teaching refugees how to code, CNN Money

June 20, 2016
Coursera on a Mission to Help Refugees
Lauren Camera, US News and World Report

July 28, 2016
Knod
(Per Dr. Michael Mayrath: work with employers to diagnose skills gaps, then provide a platform to deliver content to build those skills in a learn by doing experiences, real projects with employers)
https://www.knod.net/

September 21, 2016
Udacity Unveils Nanodegree Program for Self-Driving Car Engineers
Sri Ravipati, Campus Technology
Poll:
Read any good books lately
detailing this shift?

Big Magic (2015):
Creative Living Beyond Fear
Elizabeth Gilbert
http://www.elizabethgilbert.com/

The Innovators:
How a group of hackers, geniuses, and geeks
created the digital revolution. New York: Simon
& Schuster, Walter Isaacson (2014)
http://books.simonandschuster.com/The-Innovators/Walter-Isaacson/9781476708690

Machines of Loving Grace:
The Quest for Common Ground Between
John Markoff (2015)
http://www.amazon.com/Machines-Loving-Grace-Common-Between/dp/0062266683

Artificial Intelligence
John McCarthy, Stanford AI Lab
http://www.amazon.com/Machines-Loving-Grace-Common-Between/dp/0062266683

March 14, 2016
Artificial Intelligence and Robots
Paul Basken, The Chronicle of Higher Education
http://www.usatoday.com/story/tech/2016/03/13/robots-androids-geminoids-sxsw/81735092
Intelligence Augmentation and Amplification
Douglas Engelbart’s "The Mother of All Inventions" (1968)
Augmentation Research Center (ARC)
(The live demonstration featured the introduction of the computer mouse, video conferencing, telecommunication, hypertext, word
processing, hypermedia, object addressing, and dynamic file linking, and a collaborative real-time editor.)

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.

June 10, 2015
Augmented reality promises 'superpowers', and people are listening
The USA Today, Marco della Cava

Microsoft HoloLens: https://www.youtube.com/watch?v=aThCr0PsyuA

Letsee is an AR app from a South Korean company that allows consumers to scan a product and see a series of product
reviews instantly overlaid overtop.

June 3, 2016
Virtual Reality Lets Med Students Experience What It's Like To Be 74
Elyse Wanshel, Huffington Post
http://ht.ly/bSpe300XEPJ

Microsoft HoloLens: https://www.youtube.com/watch?v=aThCr0PsyuA

One VR diversity demo places the user in the body of an African-American woman as a white male avatar gets aggressive mere feet away. (In one Stanford VR demo, subjects are made to feel what it is like to be homeless, as in this scene where the user is transported into the body of a woman riding the bus with a few possessions.)

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

April 10, 2016
Virtual reality tested by NFL as tool to confront racism, sexism
Marco della Cava, USA Today

Siri (co-founder Tom Gruber)
http://www.imore.com/siri
May 9, 2016
Personal Digital Assistants (PDA)
Personal digital assistants are on the rise (and they want to talk)
USA Today, Edward Baig (i.e., Google codename of “Chirp”), Elizabeth Weise, USA Today
http://www.usatoday.com/story/tech/columnist/baig/2016/05/09/siri-creators-they-have-smarter-brainchild/84133244/

The World is Open:
How Web Technology Is Revolutionizing Education

August 5, 2015
Shubham Jaglan (10 years old) Overwhelmed by "Dream" Return Home After Double World Championship
Disha Chopra, NDTV Sports

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.

July 2016
I. Elaine Allen and Jeff Seaman, Babson Survey Research Group

November 7, 2016
OER Use to Triple Over Next 5 Years, Campus Technology
January 3, 2017
College is Over
Roger Schank, LinkedIn


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

http://ocw.mit.edu/about/15-years/

April 4, 2016
MIT OpenCourseWare is 15!

August 6, 2016
The Web is 25!
Happy (sort of) birthday, World Wide Web!

1971
Email is 35 years old!
Raymond Tomlinson, inventor of modern email, dies, USA Today (March 7, 2016)
Invented: May 24, 1844
150 Years since Lincoln needed
the Telegraph (T-Mail)
Mr. Lincoln's T-Mails: How Abraham Lincoln Used the
Telegraph to Win the Civil War, Tom Wheeler (2008).

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

30+ Ways Learning is Changing:
The Mega Trends

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

August 23, 2016 (Engagement)
Learning is More Visual
e.g., reef videoconferencing
(Great Barrier Reef, Australia)

May 7, 2015 (Engagement)
Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
http://chasingseals.com/
https://twitter.com/chasingseals
July 22, 2016 (Engagement)
Learning is More Game-like
When Pokémon Goes to Campus: The Good, the Bad, and the Ugly
Gabriel Sandoval, Chronicle of Higher Education

Pokémon Go players converged last week on the U. of Nebraska at Lincoln’s Memorial Stadium, which officials had opened to the animated-monster hunters. The hit augmented-reality game has prompted many colleges to jump on the bandwagon.

April 2, 2015 (Engagement)
Learning is More Immersive
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 crew members 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.

July 14, 2016 (Engagement)
Learning is More Synchronous (e.g., Shindig)
http://events.shindig.com/event/ftf-wheeler

Learning is More Mobile
World’s Cheapest Smartphone at $3.67
https://m.facebook.com/hashtag/launched?refid=52&__tn__=%2As

Samsung Pay on the Gear S3. (Photo: Eli Blumenthal, USA TODAY).
Samsung is hoping to have 10,000 apps by the time the Gear S3 launches this fall.

September 7, 2016 (Engagement)
Learning Apps - Personalized Interfaces for Performance
Elliott Masie’s Learning TRENDS; trend@masie.com
Personalized for an employee based on their development goals, competency gaps and changing skill/information matrix in the workplace. A Learning App could provide a just in time set of content, context, collaboration connections, coaching sets and real-time feedback.

Want “FREE” engagement?
How about “Adding Some TEC-VARIETY”? http://tec-variety.com/
June 20, 2016 (Access)
Learning is More Direct from Experts
(e.g., The Expert Café)
http://expertscafe.com/

June 13, 2016 (Access)
Nine-Year-Old Anvitha Vijay is the Youngest Developer at WWDC (age 9)
(Apple Worldwide Developers Conference), Gadgets
http://expertscafe.com/WWDC sweeps down town:
May 4, 2016 (Access)
This Mongolian Teenager Aced a MOOC
Now He Wants to Widen Their Impact
(140,000 people took the MIT MOOC on Circuits and Electronics, 1 of 300 to get a perfect score)
The Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/This-Mongolian-Teenager-Aced-a/236362

May 19, 2016 (Access)
From MOOC to bootcamp to MIT
MIT News, Office of Digital Learning
MIT News, Office of Digital Learning
Jin Wu—from MITx to MIT Global Entrepreneurship Bootcamp
to master’s student

How Learning is Changing:
Mega Trend #3. Customization

September 7, 2016 (Customization)
Learning is More Comfortable
The Future of Collaboration Spaces Encompasses Video
Interactive, Mobile, Julie Johnston, IU, Campus Technology
In the Indiana University Media School lobby, a large display will showcase student work and provide interactive sessions. (Photo by Allen Major/The Media School © Indiana University)
January 20, 2016 (Customization)
Learning is More Blended
Universities tap growth of craft beer, offer classes, Chicago Tribune

May 20, 2016 (Customization)
Learning is More Massive
agMOOCs (India)
http://www.agmoocs.in/

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

December 25, 2016
By The Numbers: MOOCS in 2016
Dhawa Shah, Class Central

December 23, 2016
HarvardX and MITx: Four Years of Open Online Courses -- Fall 2012 - Summer 2016
Isaac Chung, MIT, and Andrew Dean Ho, Harvard

August 12, 2016 (Customization)
Class Central’s Top 50 MOOCs of All Time,
Dhawal Shah, Class Central Blog
“Now there are close to 6,000 MOOCs from 600+ universities around the world.”
https://www.class-central.com/report/top-moocs/
August 12, 2016 (Customization)
A Life of Happiness and Fulfillment
Indian School of Business, Rajagopal Raghanathan

August 5, 2015 (Customization)
How Nanodegrees Are Disrupting Higher Education
John Waters, Campus Technology
http://campustechnology.com/articles/2015/08/05/how-nanodegrees-are-disrupting-higher-education.aspx

January 13, 2016 (Customization)
Degree gets you a tech job — or your money back
Marco della Cava, USA Today

July 28, 2016 (Customization)
Coursera Specializations email
Starting Monday August 1st: 9 Top Specializations

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

July 1, 2015 (Customization)
Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC
Paul Kim and Charlie Chung, Stanford University
Figure 2. Twitter thread announcing the MOOC
June 14, 2016 (Customization)
World First: University of Michigan’s Dr. Chuck Holds a Graduation Ceremony for MOOC Students
Anuar Lequerica, Class Central

August 24, 2016
K-MOOCs (and ocMOOCs and hMOOCs)
Revolutionizing online education
Professor creates courses tailored to cultural differences
Korea JoongAng Daily, Bong-Moon Kim
http://www.kmooc.kr/

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

WHAT'S NEXT

September 2, 2016
Humans, the Latest MOOC Feature
Introduction to Philosophy: God, Knowledge and Consciousness
($300 USD for an identity-verified certificate)
Carl Straumsheim, Inside Higher Ed

October 23, 2016
Ben Gose, The Chronicle of Higher Education
http://www.chronicle.com/article/When-the-Teaching-Assistant-Is/238114
July 21, 2016
Facebook’s Aquila drone completes first test flight
Jessica Guynn, USA Today

An aerial view of Aquila, a autonomous aircraft Facebook is designing to deliver mobile broadband networks to isolated people (mission to fly 60,000 above Earth for up to 3 months at a time; current record for solar-powered unmanned flight is 2 weeks). (Photo: Facebook)

Things are heating up!

Education 3.0 is coming within reach!

Poll #10:
Who is now interested in Education 20/20...?

END OF COURSE EXAMS?
I SHALL PASS!

Remember for Education 20/20 to meet Education 3.0:
“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: curt@worldisopen.com