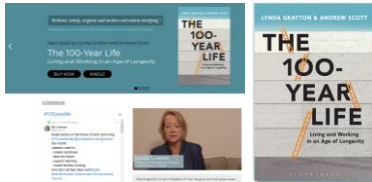


July 24, 2018

The 100-Year Life: Living and Working in an Age of Longevity

Lynda Gratton and Andrew Scott

<http://www.amazon.com/100-Year-Life-Living-Working-Longevity/dp/1543624634>
<http://www.100yearlife.com/>



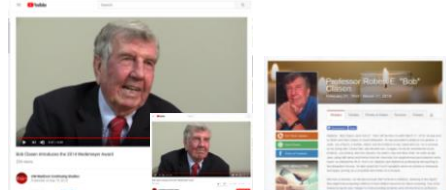
September 19, 2014

Story #1...I am a product of distance learning...

Bob Clasen, University of Wisconsin

February 27, 1934-March 17, 2018

https://www.youtube.com/watch?v=kCm1_MGaqec&feature=youtu.be
<https://www.onsideration.com/obituary/2018/03/Robert-Clasen/>



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

<https://theoutline.com/post/330/remember-education-20-the-rise-and-fall-of-the-company-behind-reader-rabbit-and-all-your-favorite-educational-games>

Rocky's Boots: <https://www.youtube.com/watch?v=a-MJ5S8b1ik>
 Project YES (Curt Bonk): <https://youtu.be/bZD5mQH4Ujs>



Fast Forward 30+ Years...

"Anyone can now learn anything from anyone at any time."



The Creation of Effective Learning Environments

<http://study.com/academy/lesson/learning-environment-in-the-classroom-definition-impact-importance.html>



July 29, 2016

Reimagine Your Learning Space: 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. 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.

Education 3.0...Education 20/20



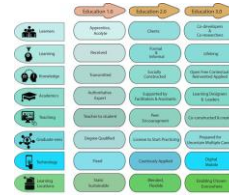
"In Education 3.0, classrooms would move away from lectures, such as this one, to having class time be spent on discussions and projects, using digital technology."
(Per Wikipedia: https://en.wikipedia.org/wiki/Education_3.0)

September 18, 2017

Education 1.0 to 3.0

Gilly Salmon, University of Liverpool, UK

<http://www.gillysalmon.com/learningfuture.html>

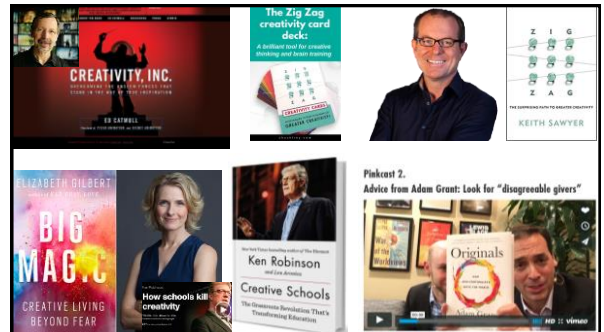
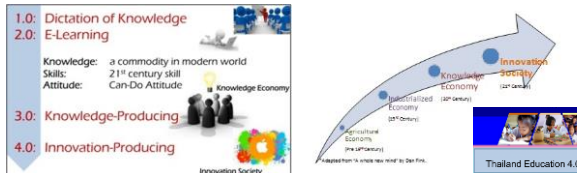


Now What is Education 4.0?

"Innovation-producing education. Learn more in:
Development of Individual Agency within a Collaborative,
Creative Learning Community"

<http://www.igi-global.com/dictionary/education-40/41755>

<https://thinc.in.th/engadmission/education4.html> (Chula Engineering)



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."

April 13, 2016

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

Klaus Schwab, Founder and Executive Chairman, World Economic Forum
<http://www.weforum.org/agenda/2016/02/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
<http://trainingshare.com/fourth-industrial-revolution-video-clip.php>
<http://www.tubechop.com/watch/92869981>



The world's really open to learning.

July 11, 2017

The Rise of the Phigital Learner

Going 'phigital'? 4 things schools need to know about Generation Z, Todd Kominiak, TrustEd
<http://trusteds12.com/phigital-digital-learning/>

May 15, 2017

3 must know's about the rising "phigital" student-and why their impact is enormous, Maria Stanbury, eCampus News
<https://www.ecampusnews.com/campus-administration/education-gen-z-student-student/>



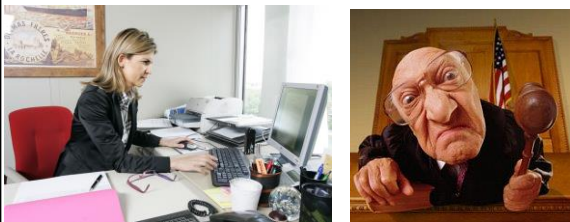
Clearly... Learning is Changing!



Education 20/20



From Instructor as Credit Manager and Court Room Judge



1. Instructor as Counselor



2. Instructor as Consultant



3. Instructor as Conductor



4. Instructor as Course Ambassador



5. Instructor as Curator



6. Instructor as Concierge



7. Instructor as Camping Trip Guide



8. Instructor as Cultivator

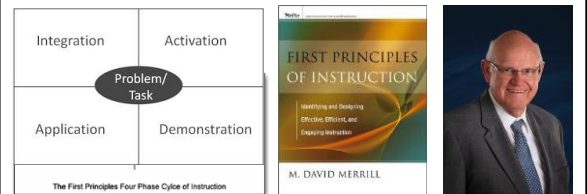


20 New Roles of the Instructor



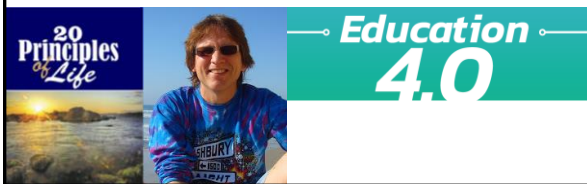
Merrill's First Principles of Teaching/Instruction

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



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

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



1. The Principle of Flexibility

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



2. The Principle of Convenience

<http://travellinedman.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.)



3. The Principle of Collegiality

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
(e.g., help turn papers into publications, introduce students to colleagues, ask them to share resources and papers with you, etc.)



4. The Principle of Cheerfulness and Optimism

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



5. The Principle of High Expectations

<http://travellinedman.blogspot.com/2011/05/bonks-last-principles-of-instruction.html>
(e.g., post high quality student work, challenge, offer job aids, mention students prior successes like conference presentations from final projects, etc.)



6. The Principle of Choice and Options

<http://travellinedman.blogspot.com/2011/05/bonks-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.)



7. The Principle of Empowerment and Autonomy

<http://travellinedman.blogspot.com/2011/05/bonks-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 from final projects, etc.)



August 6, 2018

Why I'm Easy: On Giving Lots of A's

Gary Laderman, The Chronicle of Higher Education

<https://www.chronicle.com/article/Why-I'm-Easy-On-Giving-Lots/244144>

August 6, 2017

Professor's plan to let students grade themselves gets an F, Paul LeBlanc, CNN

<http://www.cnn.com/2017/08/08/health/students-choose-grades-stress-reduction-trnd/index.html>

Professor's plan to let students grade themselves gets an F



8. The Principle of Support and Feedback

<http://travellinedman.blogspot.com/2011/05/bonks-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.)



9. The Principle of Spontaneity

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



10. The Principle of Organization

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



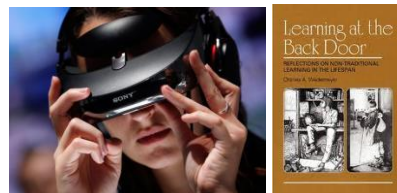
11. The Principle of Sharing

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



12. The Principle of Nontraditional Learning

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



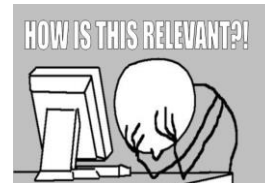
13. The Principle of Passion and Inspiration

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



14. The Principle of Relevance and Meaningfulness

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



16. The Principle of Expanded Resources

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



The World of Open Education



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



The World is very open!

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



17. The Principle of Human Connectedness

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



18. The Principle of Cognitive Apprenticeship

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



19. The Principle of Purpose and Vision

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



20. ??? (what is missing)

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



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

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



Thirty Ways

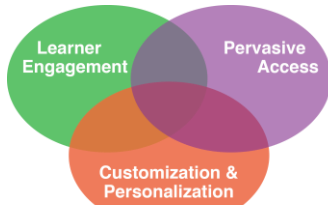
Learning is Changing...

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

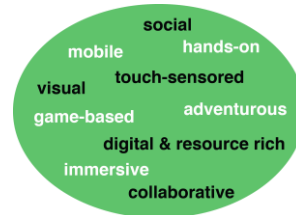


ARKit lets you create immersive augmented reality experiences on iOS devices. (Photo: Wearable)

30+ Ways Learning is Changing: The Mega Trends

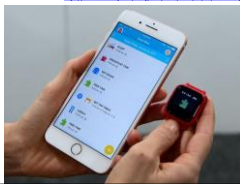


How Learning is Changing: Mega Trend #1. Learner Engagement



January 3, 2018 Learning is More Mobile CES 2018: Your guide to the biggest consumer electronics show USA Today

<https://www.usatoday.com/story/tech/news/2018/01/03/ces-2018-your-guide-what-to-expect-consumer-electronics-show/1005778001/>



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



August 4, 2017 Learning is More Mobile When our smartphones leave us out of touch Brett Molina, USA Today

<https://www.usatoday.com/story/tech/news/2017/08/04/when-our-smartphones-leave-us-out-of-touch/1005778001/>



July 24, 2018

Learning is More Digital and Resource Rich

This Physicist Wants Female Scientists To Get Noticed. So She Wrote 270 Wikipedia Profiles.

Jenna Amatulli, Huffington Post

https://www.huffpost.com/entry/jenna-amatulli-wrote-270-wikipedia-profiles-for-female-scientists-get-noticed_us_58574eece4b015aba32c5d5



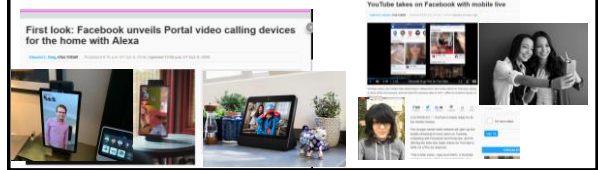
October 8, 2018

Learning is More Social

First look: Facebook unveils Portal video calling devices for the home with Alexa

Edward C. Baig, The USA Today

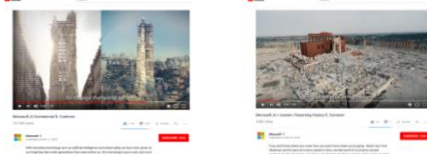
<https://www.foxnews.com/tech/facebook-portal-video-calling-devices-home-alexa>
<http://curtbonk.com/facebook-portal.html>
<http://www.usatoday.com/story/tech/2017/02/07/youtube-takes-facebook-mobile-live/97566592/>



April 22, 2018
Learning is More Visual

Microsoft AI Commercial ft. Common

Video 1:00: Microsoft AI Commercial ft. <https://www.youtube.com/watch?v=3uacY72bhe4/> (Feb 11, 2018)
 Video 1:46: Microsoft AI: Amplifying Human Ingenuity <https://www.youtube.com/watch?v=r02mu725MPs>
 Video 1:00: Microsoft AI: Empowering Innovators ft. Common <https://www.youtube.com/watch?v=250WudA7hw> (April 22, 2018)
 Video 1:50: Microsoft AI + Xcelom: Preserving History ft. Common <https://www.youtube.com/watch?v=ZD2ja3tHMSM> (April 22, 2018)
 Video: 0:44: Microsoft AI + The Yield: Taking the guesswork out of farming ft. Common <https://www.youtube.com/watch?v=7r9uafGt8t0> (April 22, 2018)



January 8, 2017

Learning is More Visual

Summary and Comparison Maps

#GeoawesomeMapOfTheDay
<https://twitter.com/geoawesomeus>
<https://www.instagram.com/p/B8wep3D4q/>
<https://twitter.com/hashtag/GeoawesomeMapOfTheDay?src=hash>



May 14, 2018 (Engagement)

Learning is More Adventurous

Aaron Doering, Chasing Seals, TEDx

<https://chasingseals.com/>
<https://twitter.com/chasingseals>
<https://www.nytimes.com/interactive/2018/05/14/climate/arctic-sea-ice.html>



August 8, 2017

Learning is More Game-like

ShortSims

<http://www.shortsims.com/>
 Clark Aldrich clark@clarkaldrichdesigns.com



May 1, 2018
Learning is More Immersive
3 ways districts can use AR and AI
Justin Anglio, eSchool News



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.

How Learning is Changing:
Mega Trend #2. Pervasive Access



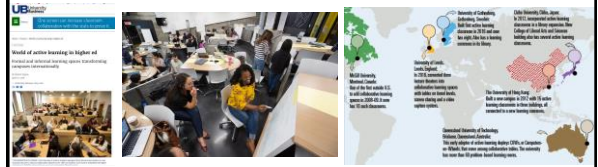
August 1, 2016 (Access)
Learning is More Ubiquitous
363 by Idea Group; Study Café
Meeting Place; Idea Space (Seoul, Korea)

<http://363.co.kr/eng/2016/08/01/363-cafe-11>



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

<https://www.youtube.com/watch?v=8-SEVvFOk>
 FCB 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.



January 31 and November 28, 2018
Learning is More Immediate...
Science in the News

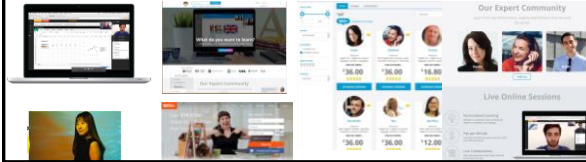
<https://www.cnn.com/2018/01/31/science/dinosaur-egypt/index.html>
<https://www.cnn.com/2018/11/28/science/siberian-unicorn/index.html>



March 21, 2018**Learning is More Direct from Experts****TeachMeNow and VIPKid**

TeachMeNow is a gig-economy platform for teachers. This marketplace connects teachers, experts, and mentors to students. The technology combines scheduling, payments and live virtual sessions that can connect on any device allows tens of thousands of teachers to create their own online businesses, with some earning over \$100,000 last year. In addition, schools and companies including Microsoft use TeachMeNow software to create their own-branded online learning communities.

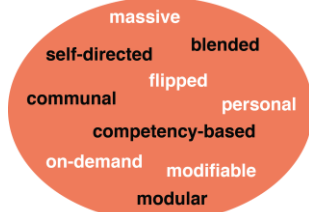
<https://teachmenow.com/>

**September 25, 2017****Learning is More Direct from Experts****Professors Have Taken Over the MOOCs: How open online learning is changing****Joshua Kim, Inside Higher Ed**

<https://www.insidehighered.com/blogs/technology-and-learning/professors-have-taken-over-moocs>



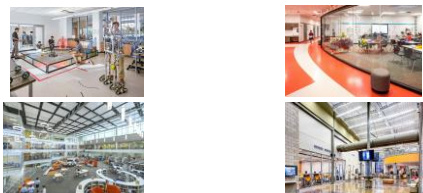
How Learning is Changing: Mega Trend #3. Customization

**May 12, 2017 (Customization)****Learning is More Modifiable**

The Future of Collaboration Spaces Encompasses Video Interactive, Mobile, Julie Johnston, IU, Campus Technology

**March 2, 2018****The Architecture of Ideal Learning Environments****Emelina Minero, Edutopia**

<https://www.edutopia.org/article/architecture-ideal-learning-environments>

**Mosaic Active Learning Classroom**

ALC for Pre-service Teachers' CSCL

- Active learning classroom supported collaborative learning for pre-service teacher education



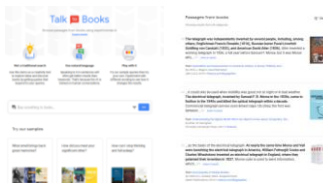
January 20, 2016 Learning is More Blended Universities tap growth of craft beer, offer classes, Chicago Tribune

<https://www.chicagotribune.com/business/ct-springcraftbeer-011716-story.html>



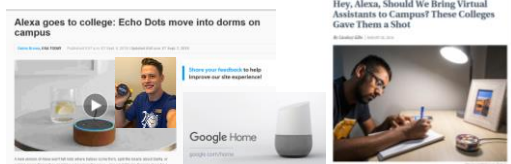
September 17, 2018 Learning is More On Demand Talk to Books

<https://www.google.com/talktobooks/>
<https://www.google.com/talktobooks/> for the first time, google is offering new search tool will answer any question by reading thousands of books.



August 2, 2018 Learning is More On Demand Hey, Alexa, Should We Bring Virtual Assistants to Campus? These Colleges Gave Them a Shot Lindsey Ellis, The Chronicle of Higher Education

<https://www.chronicle.com/article/Hey-Alexa-Should-We-Bring-244129>



January 9, 2017 Learning is More On Demand

Jill Watson, Round Three, Georgia Tech course prepares for third semester with virtual teaching assistants, Jason Maderen, Georgia Tech News Center
The Terribly Thin Conception of Ethics in Digital Technology, David Golumbia, Uncomputing
<http://www.uncomputing.org/>
Bot teacher that impressed and fooled everyone, Donald Clark, Plan B
<http://www.planb.com/2017/01/09/bot-teacher-that-impressed-and-fooled-everyone/>



Question Answering: Level 1 – Level 5

smile My Groups

Create a New Question

Question

What is turbulence?

Answer:

Turbulence or turbulent flow is any pattern of fluid motion characterized by chaotic changes in pressure and flow velocity.

Level1 question; 99.999118% confidence

Show evaluation metric

Diagnose! Submit your evaluation below

Level 1 Level 2 Level 3 Level 4 Level 5

smile My Groups

Create a New Question

Question

Why is turbulence dangerous to small airplanes?

Answer:

Water turbulence is exacerbated by a pair of vortices that spin from the wings. The vortices are mostly created when a plane is flying close and the wings are working hardest to produce lift. The bigger the plane, the bigger the wakes. The most violent wakes leave smaller planes more vulnerable should they run into one.

Level1 question; 99.999988% confidence

Show evaluation metric

Diagnose! Submit your evaluation below

Level 1 Level 2 Level 3 Level 4 Level 5

November 8, 2018
Learning is More Personalized
AI Question Asking
Paul Kim keynote in Taiwan
Education 4.0 Conference

Level 1

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

Level 2

- What are the things Tesla designed?
- What were the things Tesla couldn't determine the cause of?

Level 3

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

Level 4

- 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"?

Level 5

- 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 1880, what would have been the consequence?

(Paul Kim, Taiwan, November 2018)

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>

Can Artificial Intelligence Make Teaching More Personal?

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-analysis tool**.

July 28, 2016 (Customization)
Learning is More Massive
Udemy: "Get cozy with a class"
<https://www.udemy.com/>

Where Will Learning Take You?
 You only have one more day to there with 50% off all* courses!
 Explore More Courses

Get Cozy With a Course
 Udemy is the world's largest online marketplace for buying and selling your course. You can create and sell your own course, or you can buy a course from a creator. You can also find a course that you want to take, and you can enroll in it. You can also find a course that you want to take, and you can enroll in it.

October 30, 2017
Learning is More Massive
Report: 59% of employed data scientists learned skills on their own or via a MOOC
 Alison DeNisco Rayome
<https://www.techrepublic.com/article/report-59-of-employed-data-scientists-learned-skills-on-their-own-or-via-a-mooc/>

Report: 59% of employed data scientists learned skills on their own or via a MOOC
 Data scientists are high demand, in-demand, and they keep learning. According to a new report from Higgs, 59% of employed data scientists learned skills on their own or via a MOOC.

HOW TO KICKSTART A DATA SCIENCE CAREER

ALISON DENISCO
 Data Analyst, Entrepreneur

October 12, 2018 (Customization)
Learning is More on Modular
edX Expands MicroMasters Programs With Data Science ("nanodegrees")
 Digital Leadership and More, Sri Ravipati, Campus Technology
<https://campustechnology.com/2018/10/12/edx-expands-micromasters-programs-with-data-science-nanodegrees/>
 Lindsay McKenzie, Inside Higher Ed
<https://www.insidehighered.com/news/2018/10/12/edx-nanodegrees>

edX Expands MicroMasters Programs With Data Science, Digital Leadership and More

edX, a consortium of leading universities, has announced the launch of two new MicroMasters programs: Data Science and Digital Leadership. These programs are designed to provide students with the skills and knowledge needed to succeed in the digital economy. The Data Science program is a 12-month program that includes courses in statistics, machine learning, and data visualization. The Digital Leadership program is a 12-month program that includes courses in digital marketing, digital strategy, and digital innovation. Both programs are designed to be flexible, allowing students to complete the program at their own pace.

MOOCs and Open Education Around the World
<http://routledge-ny.com/books/details/9781138807419/>

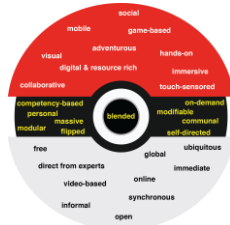
MOOCs and Open Education Around the World
 Around the World

MOOCs and Open Education Around the World
 Around the World

MOOCs and Open Education Around the World
 Around the World

MOOCs and Open Education Around the World
 Around the World

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



We are entering a jumping off point...

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



Things are heating up!

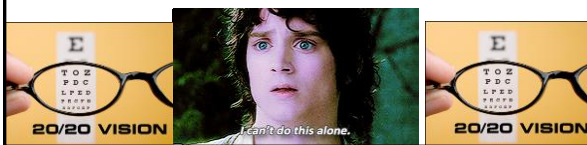


The Learning Revolution is coming within reach!



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

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Any Questions or Comments?

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