Living in Tech City: 50+ Technology Trends and Innovations Transforming Workplace Learning, Education, and Our Lives

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(Circa Confucius 551–479 BCE)

Poll #1:
Do you really remember those days of the lecture?

Audience Poll #2:
Has learning technology has ever transformed your life?

1862-1864
The Telegraph
Mr. Lincoln’s T-Mails: How Abraham Lincoln Used the Telegraph to Win the Civil War, Tom Wheeler (2008).
http://www.amazon.com/Mr-Lincolns-T-Mails-Abraham/dp/0061129801
January 25, 1915
How about the Transcontinental Telephone?
AT&T President Theodore Vail (with telephone) joined the opening ceremony for the first transcontinental telephone line from his home in Jekyll Island, Ga. (with Alexander Graham Bell in New York.)

[Source: http://www.jekyllislandhistorians.com/transcontinental.shtml]

November 7, 2014
The Problem with Learning Technology
Karen Wilcox, Chronicle of Higher Education


October 21, 2014
Teaching and the University of Tomorrow
Chronicle of Higher Education, Kelly J. Baker


1971
How about email?
Raymond Tomlinson, inventor of modern email, dies, USA Today (March 7, 2016)

[Source: http://www.usatoday.com/story/tech/2016/03/06/tomlinson-inventor-modern-email-dies/81413414/]

Poll #3:
Read any good books lately?

2. The Master Switch
The Rise and Fall of Information Systems
Knopf: New York
Tim Wu (2010)
http://www.amazon.com/Master-Rise-Information-Empires/dp/0307390993

3. The Innovators:
Walter Isaacson (2014)
http://books.simonandschuster.com/Innovators/Walter-Isaacson/9781476708690

4. Humans are Underrated:
What High Achievers Know that Brilliant Machines Never Will Know. Portfolio/Penguin.
Geoff Colvin (2015)
http://geoffcolvin.com/books/humans-are-underrated/

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

Poll #4: What if you read these books?

Life as an accountant/CPA in a high tech company in the 1980s...
Poll #5: Remember what technology you used to own?

Poll #6: Do you really remember Educational Technology 1.0???

Fast Forward 30+ Years...
“Anyone can now learn anything from anyone at any time.”

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

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

I. Learning is More Mobile
(e.g., mobile courses on smartphone)
April 2, 2015
Review: Samsung rises to challenge with Galaxy S6 and S6 Edge
April 9, 2015
I’ll Buy the Apple Watch
Ed Baig, USA Today

May 14, 2015
Smartphone separation anxiety: How bad is your nomophobia?
Today Health, Meghan Holohan

March 2, 2015
Beware the smartphone zombies blindly wandering around Hong Kong, Mark Sharp, South China Morning Post

January 7, 2015
II. Learning is More Flipped
When a Flipped-Classroom Pioneer Hands Off His Video Lectures, This Is What Happens, Jeffrey R. Young, The Chronicle of Higher Education

June 16, 2015
III. Learning is More Video-Based
Lynda.com Excel Training, IU Acquired for $1.5 Billion, April 23, 2015
Shubham Jaglan Overwhelmed by "Dream" Return Home After Double World Championship
Disha Chopra, NDTV Sports

August 5, 2015

Association for the Advancement of Computing in Education (AACE), YouTube Channel

April 5, 2016

IV. Learning is More Visual
110 Foot Engagement,
Elliott Masie’s Learning 2014

September 22, 2014

V. Learning is More Touch Sensored
Corporate Classrooms: Adapting to Change
Chief Learning Officer, Frank Kalman

October 16, 2013

VI. Learning is More Game-Based
Sexy iPad Air 2 is fabulous but not a must upgrade, Edward Baig, USA Today
http://www.usatoday.com/story/tech/columnist/baig/2014/10/21/ipad-air2-fabulous-tablet-is-not-must-upgrade/17658295/

October 21, 2014

VII. 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

April 2, 2015

NextVR crewmembers 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.
March 2, 2016
10 AR/VR sets that take you to another world
USA Today, Marco della Cava

Samsung Gear VR offers a virtual reality experience anchored to an Android smartphone.

February 23, 2016
A look at the Mobile World Congress in Barcelona, USA Today

June 10, 2015
VIII. Learning is More Augmented
Augmented reality promises 'superpowers', and people are listening
The USA Today, Marco della Cava

Letsee is an AR app from a South Korean consumer to scan a product and see reviews instantly overlaid.

March 26, 2014
IX. Learning also is More Collaborative
Flat Connections: Welcome to Flat Connections - Learning about the world, with the world
http://www.flatconnections.com/

October 7, 2013
6 collaborative writing applications for group projects or papers, Casey Brown, Elon University
MeetingWords, Google Docs, NowComment, MixedInk
http://www.mixedink.com/#_how_it_works

September 1, 2015
X. Learning is More Social
Facebook says 1 billion people used Facebook on Monday, USA Today
http://www.usatoday.com/tech/
XI. Learning is More Adventurous

May 7, 2015
XI. Learning is More Adventurous
Aaron Doering, Chasing Seals, TEDx
http://chasingseals.com/
https://twitter.com/chasingseals

XII. Learning is More Direct from Experts

February 2, 2015
XII. Learning is More Direct from Experts
Here Comes Professor Everybody: The ‘sharing economy’ meets higher education, Chronicle of Higher Education, Jeffrey R. Young
http://chronicle.com/article/Here-Comes-Professor-Everybody/151445/?cid=at

Kevin deLaplante, an associate professor at Iowa State U., makes an average of $2,500 per month teaching from his home studio (above) on sites like Udemy.

January-April, 2016 (Zoom)
XIII. Learning is More Synchronous
Weekly Guest Expert Chats
R511 Chat with Mike Molenda, IU
R511 Chat Charles Graham, BYU

Guest Chats with Former Students (in Adobe Connect)
(e.g., Minyoung Doo, Spring 2015)
https://connect.iu.edu/p25306841/
February 21, 2016
XIV. Learning is More Digital
No Rush to ‘Go Digital’, Carl Straumsheim, Inside Higher Ed

March 22, 2015
XV. Learning is More Immediate and Resource Rich
Madagascar marvel: Divers find fossils of extinct giant lemurs
Daisy Carrington, for CNN, March 22, 2015

May 14, 2016
Mastodon bones offer clues of earliest humans in North America, Faith Karimi, CNN
Abstract: http://advances.sciencemag.org/content/2/5/e1600375
Full Article: http://advances.sciencemag.org/content/2/5/e1600375.full
Supplemental materials (PDF): http://advances.sciencemag.org/content/suppl/2016/05/10/2.5.e1600375.DC1
PDF: http://advances.sciencemag.org/content/advances/suppl/2016/05/10/2.5.e1600375.DC1/1600375_SM.pdf

May 13, 2016
Pre-Clovis occupation 14,550 years ago at the Page-Ladson site, Florida, and the peopling of the Americas,
Science Advances, Vol 2(5)
Abstract: http://advances.sciencemag.org/content/2/5/e1600375
Full Article: http://advances.sciencemag.org/content/2/5/e1600375.full
Supplemental materials (PDF): http://advances.sciencemag.org/content/suppl/2016/05/10/2.5.e1600375.DC1
PDF: http://advances.sciencemag.org/content/advances/suppl/2016/05/10/2.5.e1600375.DC1/1600375_SM.pdf

November 19, 2015
New Species in the News…!
New daddy longlegs named after ‘Lord of the Rings’
Mary Bowerman, USA Today

June 29, 2015
XVI. Learning is More Informal
Is Facebook the next frontier for online learning?
Christine Greenhow, greenhow@msu.edu, Andy Henion
http://msutoday.msu.edu/news/2015/is-facebook-the-next-frontier-for-online-learning/
May 10, 2016
XVII. Learning is More Competency-Based
Developing a Flexible Degree
Cathy Sandeen, Inside Higher Ed
http://chronicle.com/article/College-On-Your-Own/147659/?cid=at

College, on Your Own: Competency-based education can help motivated students. Nichole Pollock, a student in Northern Arizona U.'s competency-based bachelor's-degree program, takes a Spanish exam online.

May 5, 2014
XVIII. Learning is More On Demand
Mobile MOOCs: New platform challenges conventional MOOCs
eCampus News (https://coursmos.com/)

February 2, 2015
XIX. Learning is More Hands-On
Makey Makey and the Kano
http://makeymakey.com/
https://vimeo.com/60307041

January 15, 2016
XX. Learning is More Participatory
Wikipedia at 15
Scott McLemee, Inside Higher Ed

March 2, 2016
XXI. Learning is More Personal
Florida lawmakers push personalized learning
Leslie Postal, Orlando Sentinel (eSchool News)

Learning is More Personal
Localization and Translation of Open Content
Coursera, Global Translator Community, Chronicle of Higher Education
https://www.coursera.org/about/translate
April 30, 2014
XXII. Learning is More Communal
New Learning Hubs Locations Hosted by The New York Public Library and Seven Other Int’l Partners, Coursera Learning Hubs
https://www.coursera.org/about/programs/learninghubs

April 28, 2016
Communities Shindig, Video Chat Tool
Future Trends Forum (with Bryan Alexander)
https://bryanalexander.org/

June 15, 2014
XXIII. Learning is More Online
Starbucks offers workers 2 years of free college, CNN Money, Gregory Wallace (from Arizona State online programs)

October 30, 2015
Focused Ga. Mom Completes College Exam While in Labor, Fox 5, Atlanta

November 18, 2015
Migrants get help through German online university
Mihret Yohannes and Jabeen Bhatti, Special for USA TODAY, USA Today
February 5, 2015
Learning is More Online
2014 Survey of Online Learning
Grade Level: Tracking Online Education in the United States, 2014, Online Learning Consortium (formerly Sloan-C), by I. Elaine Allen and Jeff Seaman

February 29, 2016
Instructional Design:
Demand grows for a new breed of academic
Chronicle of Higher Education, Dann Berrett
http://chronicle.com/article/Instructional-Design/235425

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

February 22, 2013
XV. Learning is More Modifiable
Inside Look: Learning Spaces, Meeting classroom teaching and collaboration expectations, University Business

May 8, 2012
XVI. Learning is More Comfortable
Design for Students, with Students, “Hub Central”, the $42 million University of Adelaide learning hub opened in October 2011, Mike Roberts
http://designbuildsource.com.au/design-for-students-with-students

April 13, 2016
XVII. Learning is More Ubiquitous
Facebook debuts terrestrial tech to deliver Internet, Jessica Guynn, USA Today

Terragraph places small nodes or boxes on lamp posts, buildings, bus stops and the like at distances up to 820 feet apart to bring high-speed Internet to dense urban areas.
(Photo: Facebook)
April 9, 2013

XVIII. Learning is More Instantaneous

HER Computer passes face social test: Can wearable computers fit? Scott Martin, USA Today

(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)


August 5, 2014

XXIX. Learning is More Free

OpenStax Aims To Bring Free Digital Textbooks to High Schools, David Nagel, THE Journal


The V-PORTAL (Bonk, IU)

“Video Primers in an Online Repository for e-Teaching and Learning” V-PORTAL, TravelinEdMan (27 free/open YouTube videos)

http://www.youtube.com/user/TravelinEdMan

Want something FREE?

Introducing the “TEC-VARIETY” book...

http://tec-variety.com/

February 2013

XXX. Learning is More Self-Directed

TED Talks

(Build a School in the Cloud; Self-Organized Learning Environments (SOLEs), TED Talk from Sugata Mitra

http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html

May 26, 2015

XXXI. Learning is More Global

Exploring by the Seat of Our Pants

National Geographic, Jessica Shea

http://blog.education.nationalgeographic.com/2015/05/26/exploring-by-the-seat-of-our-pants/

Two men living in Dadaab, a refugee camp in Kenya, would watch lecture videos and take online quizzes at a nearby United Nations compound. (InZone)
April 20, 2015
XXXII. Learning is More Open
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCsCounting-One/229337/1/app.js
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."

February 24, 2016
MIT OpenCourseWare
http://ocw.mit.edu/about/15-years/

January 13, 2016
As an Open-Access Megajournal Cedes Some Ground, a Movement Gathers Steam, Paul Basken, Chronicle of Higher Education
http://chronicle.com/article/As-an-Open-Access-Megajournal/234890/?key=V9WzHg4QbDkFuXONne07CiwpC5cgiOVgA5_Vr92e1bNrUktRMEhhLXpCT3hONUR3VHN1VWdLUk5ZdFVJUENKVFNWdkpscWJvWmFn

March 14, 2016
XXXIII. Learning is More Modular
How Nanodegrees Are Disrupting Higher Education
John Waters, Campus Technology
http://campustechnology.com/articles/2015/08/05/how-nanodegrees-are-disrupting-higher-education.aspx

September 2, 2014
XXXIV. Learning is More Massive
UPenn
Softcover ($30): http://www.parlorpress.com/invasion_of_the_moocs

State of the MOOC 2016: A Year of Massive Landscape Change For Massive Open Online Courses, Online Course Report

January 5, 2016
Use Of MOOCs And Online Education Is Exploding: Here's Why
Josh Bersin, Forbes
http://www.forbes.com/sites/joshbersin/2016/01/05/use-of-moocs-and-online-education-is exploding-here-s-why/290acdda7f09

Global Health Initiatives
October 7, 2014
Online Mooc courses deliver Ebola health advice, BBC News, Sean Coughlan

Disinfecting a room in Monrovia, Liberia: Online courses are providing health advice to fight Ebola.

January 20, 2016
Udemy: “Get cozy with a class”
udemy@email.udemy.com

October 7, 2015
MIT Master’s Program to Use MOOCs as ‘Admissions Test’
Jeffrey R. Young, Chronicle of Higher Education
http://chronicle.com/article/MIT-Master-s-Program/233685

May 26, 2015
Edtech and MOOC Times in China
Michael Trucano On Tue, 05/12/2015, EduTech

June 26, 2015
In China, Where Everything is a MOOC,
Education Week, Justin Reich, HarvardX Research Fellow
http://blogs.edweek.org/edweek/edtechresearcher/2015/05/in_china_where_everything_is_a_mooc.html?r=284759497

The most memorable line from my recent visit to China was this: "We have 12 million K-12 teachers in China who need to receive this particular in-service training, so we started with a group of about 200,000."
May 11, 2016
XXXV. Learning is More Voice Activated
Google may have its own Echo coming soon (i.e., codename of “Chirp”), Elizabeth Weise, USA Today

Let’s Review:
Learning is Changing…
(i.e., it’s more informal, video-based, ubiquitous, collaborative, self-directed, global, mobile, open, massive, etc.)

Frank Basile, an aircraft technician, took an MITx course on circuits and electronics to increase his knowledge.
Joe Alfonso, a financial adviser from Oregon, is taking the online finance course as a “refresher.”

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

Things are heating up!
http://routledge-ny.com/books/details/9781138807419/

Bonk Raffle…Book Raffle:
MOOCs and Open Education Around the World
http://routledge-ny.com/books/details/9781138807419/

Things are heating up!

Bonk, Lee, Reeves, & Reynolds

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

Things are heating up!
http://routledge-ny.com/books/details/9781138807419/

Bonk Raffle…Book Raffle:
MOOCs and Open Education Around the World
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Bonk, Lee, Reeves, & Reynolds

Frank Basile, an aircraft technician, took an MITx course on circuits and electronics to increase his knowledge.

Joe Alfonso, a financial adviser from Oregon, is taking the online finance course as a “refresher.”
15 More Technologies of Today...(35 + 15 = 50!)

On September 29, 2016, Elcho Wasser hosted a webinar discussing Learning Trends and Challenges in 2016. Below is the video from this dialogue.

May 10, 2016
Tech #36. Telepresence Robot Technology
How a telepresence robot is sparking engagement
Laura DeVaney, eCampus News,
https://revolverobotics.com/

Tech #37. Backchannel Chat (TodaysMeet)
https://todaysmeet.com/
R678_Emerging_Learning_Technologies
https://todaysmeet.com/R678_Emerging_Learning_Technologies

Tech #38. Virtual Expeditions
January 7, 2016
Google Cardboard saves baby’s life
CNN, Elizabeth Cohen
http://www.cnn.com/2016/01/07/health/google-cardboard-baby-saved/index.html
https://www.google.com/edu/expeditions/
http://www.youtube.com/watch?v=mlYJdZeA9w4

Tech #39. Big Data Visualization Tools (Harvardx and MITx)
http://harvardx.harvard.edu/harvardx-insights
4. World map of gender composition

March 24, 2015
Tech #40. Maps and Visualization Tools
Langscape, Language at Maryland
http://open.harvardx.harvard.edu/visualizations
http://thesource.cs.colorado.edu/visualizations
http://visualizations.umd.edu
http://langscape.umd.edu/map.php

Tech #40. Maps and Visualization Tools
Langscape, Language at Maryland
http://open.harvardx.harvard.edu/visualizations
http://thesource.cs.colorado.edu/visualizations
http://visualizations.umd.edu
http://langscape.umd.edu/map.php
Tech #41. Social Media Tools
Design Article Database in Pinterest, Jenny Webeck
https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/

Tech #42. Social Books
(e.g., Subtext; http://subtext.com/)

Tech #43. Goals Setting Tools
(e.g., I Done This, Milestone Planner, and 43 Things)
Changing your life is hard. Doing it by yourself is harder.

Start listing your goals now...

Tech #44. Focusing Technology
(e.g., "Stop Procrastinating", SelfControl, FocusWriter, Freedom, Concentrate, etc.)
http://www.stopprocrastinatingapp.com/

Tech #45. TEDEd
lesson about every single element on the periodic table

Tech #46. Video Editing and Commenting Tools
(e.g., TubeChop)

How Does It Work?
1. Find the video you want to chop.
2. Select & cut interesting part of the video.
3. Share it with friends.

Watch Examples
**Tech #47.**
Mobile Health (bio sensors)
7 new smartphone features that will help define your future
February 23, 2014, Stewart Wolpin, CNN

**July 15, 2015**
Tech #48. Wearable Vibes
A high-tech high: Wearable gives you good vibes, USA Today, John Shinal
http://www.usatoday.com/story/tech/columnist/shinal/2015/07/14/thync-hippie-culture/29774829/

Thync device ($300) (Photo: Thync, for USA TODAY)

**March 14, 2016**
Tech #49. Artificial Intelligence and Robots
Paul Basken, The Chronicle of Higher Education
Behind a Computer's Surprise Victory, Hints of Global Economic Upheaval
March 14, 2016

**May 11, 2016**
Tech #50. Not All Inventions Work
Interactive Whiteboards Facing Steep Decline Globally
Richard Chang, THE Journal ($1.257 billion market is declining 17 percent per year from 2016 to 2016)

**February 2016**
Welcome to Tech City!
NMC Horizon Report > 2016 Higher Education Edition

Activity #1:
Share Three Words from this Session!
Poll #7:
What happens next...?

END OF COURSE EXAMS?
I SHALL PASS!

Comments and Questions
CJBonk@Indiana.edu
Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://tec-variety.com/