Engage, Number One: This is the Next Generation

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The Next Generation is Here!

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/

Looking to the Past...

Life as an accountant/ CPA in a high tech company in the 1980s...

Fast Forward 25+ Years...
“Anyone can now learn anything from anyone at any time.”
February 20, 2013
Star Trek-like holodeck may be closer to reality than you think
Matt Hartley, Financial Post, Canada
http://business.financialpost.com/2013/02/20/star-trek-like-holodeck-may-be-closer-to-reality-than-you-think/?__lsa=054d-d58d

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

Learning is Changing
New Technologies = New Delivery Methods...

I. Learning is More Personal
iPotty Aims To Entertain Toddlers During Toilet Training, Mashable, Kate Freeman
(January 10, 2013)
http://mashable.com/2013/01/10/ipotty/

II. Learning is More Video-Based
Adora Svitak, WFP Youth Representative - 2013
ECOSOC Youth Forum, March 27, 2013

III. Learning is More Mobile

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Smartphones 139.3 million 657 million
Facebook 90 million 901 million
Twitter <1 million 300 million
Tweets / day 1.1 million 140 million
Tablets 0 54.8 million
App store downloads 100+ million 25+ billion
IV. Learning is More Open
(80-Year-Old WGU Texas Grad Keeps His Promise, November 30, 2012, Reeve Hamilton, Texas Tribune)

V. Learning is More Massive
April 16, 2013 (NovoEd)
New MOOC Provider Says It Fosters Peer Interaction
Chronicle of Higher Education, Jake New
http://novoed.com/

VI. Learning is More Flipped
One Man, One Computer, 10 Million Students: How Khan Academy Is Reinventing Education,
Forbes, November 19, 2013, Michael Noer
The One World Schoolhouse (Twelve, Oct. 2, 2012)

VII. Learning is More Empowering
iPad gives voice to kids with autism
Supraja Seshadri, CNN, May 14, 2012
iPad gives voice to kids with autism
Sharia Siddiqui uses an iPad to help her communicate. Her father says it’s “given her a sense of control she never had.”
VIII. Learning is More Social
Facebook reaches one billion users, CNN Money, Aaron Smith, October 4, 2012

IX. Learning is More Collaborative
Collaboration and Discussion in Google Hangouts or with iPad, Jan. 28, 2013
(Carrie Gong from Beijing Normal University)

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

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

XII. Learning is More Ubiquitous
Flexible displays bend what’s possible for computers, Jon Swartz, USA Today (May 4, 2012)
XIII. Learning is More Instantaneous
April 9, 2013
Computer fashions face social test: Can wearable computers fit in? Scott Martin, USA Today

Google Glass
http://www.google.com/glass/start/what-it-does/

March 13, 2013
Will Google Glass find a home in healthcare?
HER Intelligence, Jennifer Bresnick
(i.e., magnify moles or injuries, see vital signs, live stream surgeries, access previous PT sessions, access research and drug info, etc.)
http://www.fiercemobilehealthcare.com/story/google-glasses-could-have-strong-potential-healthcare-use/2013-03-18

XIV. Learning is More Global
(Book Review by Dr. Mimi Miyounge Lee: Ed Tech Magazine, May-June 2013)
(e.g., TakingItGlobal (TIG), RoundSquare, etc.)
RoundSquare (http://www.roundsquare.org/) and
Taking It Global (http://www.tigweb.org/)

Learning is Changing the World
(Book Review: Ed Tech Mag, May-June 2013)

XV. Learning is More Web-Based
April 15, 2013
Google boss: Entire world will be online by 2020, Doug Gross, CNN
Two Cheers for Web U!
A. J. Jacobs, New York Times
http://www.nytimes.com/2013/04/21/opinion/sunday/grading-the-mooc-university.html?pagewanted=1&_r=3&emc=eta1

S. Korea Medical University - BYOD
Moving from lecture-centered to student interaction centered model
Developed local evaluation rubrics

Faculty Backlash Grows Against Online Partnerships
Chronicle of Higher Education, Steve Kolowich
http://chronicle.com/article/Faculty-Backlash-Grows-Against/139049/

Debate Over MOOCs Reaches Harvard
Chronicle of Higher Education, Dan Berrett

What did Jean-Luc Picard say?

That’s right, Engage!

Engage!
How can technology address diverse learner needs?

The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

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

Read 1a. Twitter Fed Class Discussions

Read 1b. Grammar Checkers (e.g., Grammarly)
http://www.grammarly.com/

The World’s Best Grammar Checker
Read 1c. Interactive Stories
(e.g., Meograph
http://www.meograph.com)

Read 1d. Online Crossword Puzzles
(e.g., http://www.eclipsecrossword.com)

Read 1e. Talking Dictionaries for
Rare Languages
The Wall Street Journal, February 18, 2002
http://online.wsj.com/article/SB10001424052970204880404577228982976760026.html#articleTabs%3Dvideo

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

Reflect 2a.
Reflect on Big Ideas
(on IQ Wall, April 22, 2013)
Final project, Mark Millard
Big Ideas in Distance and Flexible Learning (HD)

Reflect 2b. Workplace Internship,
Practicum, and Field Reflections
Reflect 2c.
Big Questions Online (BQO),
January 8, 2013, (e.g., Do We Have Souls?)
http://www.bigquestionsonline.com/content/do-we-have-souls

Reflect 2d.
Reflect on Virtual Timelines
(Dipity, xtimeline, Simile, etc.)

3. Visual Learners
• Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. Time Revealed Interactive Maps
Mapping the Dead: Gun Deaths Since Sandy Hook,
Huffington Post, March 22, 2013
http://data.huffingtonpost.com/2013/03/gun-deaths

Display 3b. Interactive Map Timelines
(adults with college degrees by county, May 7, 2012)
http://todayscampus.com/article/Keith_Hampson_Interviews_Josh_Keller_on__Interactive_Graphics_for_Higher_Education

Display 3c. Interactive Species Maps
USGS (US Geological Survey)
(Biodiversity Serving Our Nation or BISON)
http://bison.usgs.orl.gov/
Display 3d. Virtualize Words Used (e.g., Wordle, Taggedo, Tagul, WordSift, Word It Out)  
http://shellyterrell.com/2010/02/14/12-word-cloud-resources-tips-tools/

Display 3e. OER Rare Documents (e.g., Dead Sea Scrolls)  
http://www.deadseascrolls.org.il/explore-the-archive  
http://www.deadseascrolls.org.il/explore-the-archive/search#q=site_en:'Qumran,_Cave_4'

Display 3f. Visual Library Search  
DPLA (Digital Public Library Of America)  
http://dp.la/

Display 3g. Video Art Tutorials  
ArtMaker.com  
http://artmaker.com

4. Tactile/Kinesthetic Learners  
• Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

Do 4a. Course Recap Prezi Presentations  
Jeff Pankin, MIT, Prezi, Emerging Learning Technologies  
http://prezi.com/tzbawrgjrnzf/emerging-learning-technologies/?auth_key=4ec2f45a718fab699b35ea460e91a46d9e1bdac7  
Jeffrey Barnette, Today's World  
http://prezi.com/-ijzyothst-r/r685-final-project
Do 4b. Mobile Audio Tours
Locacious Final Class Project
(Michele Kelmer, April 22, 2013)
http://www.locacious.net/

Do 4c. Class or Community Oral Histories
(e.g., The History Harvest, December 21, 2012)
http://historyharvest.unl.edu/collections

Do 4d. Student Expertise
(e.g., Learnist)
http://learnist.org/category/featured/

Do 4f. Student Class Documentaries
Umida’s R546 Documentary Project
http://www.youtube.com/watch?v=EMLTzqCV_5A

Do 4g. Student Mobile App Creation
The App Builder: http://www.theappbuilder.com/
Mintian Guo (April 2013): http://myapp.is/r685final

Poll #1: What phase of the R2D2 Method did you get the most ideas from?
A. Read (Auditory and Verbal Learners)
B. Reflect (Reflective Learners)
C. Display (Visual Learners)
D. Do (Tactile, Kinesthetic, Exploratory Learners)
What was it that he said?

That's right, Engage!

Where would we all like to work?

Sleepy U?

Motivation Research Highlights (Jere Brophy, Michigan State University)

1. Supportive, appropriate challenge, meaningful, moderation/optimal.
2. Teach goal setting and self-reinforcement.
4. Novelty, variety, choice, adaptable to interests.
5. Game-like, fun, fantasy, curiosity, suspense, active.
6. Higher levels, divergence, dissonance, peer interaction.
7. Allow to create finished products.
8. Provide immediate feedback, advance organizers.
9. Show intensity, enthusiasm, interest, minimize anxiety.
10. Make content personal, concrete, familiar.

How do we engage online?
Framework #2: TEC-VARIETY for Online Motivation and Retention

1. **Tone/Climate**: Psych Safety, Comfort, Belonging
2. **Encouragement, Feedback**: Responsive, Supports
3. **Curiosity**: Fun, Fantasy, Control
4. **Variety**: Novelty, Intrigue, Unknowns
5. **Autonomy**: Choice: Flexibility, Opportunities
6. **Relevance**: Meaningful, Authentic, Interesting
7. **Interactive**: Collaborative, Team-Based, Community
8. **Engagement**: Effort, Involvement, Excitement
9. **Tension**: Challenge, Dissonance, Controversy
10. **Yields Products**: Goal Driven, Products, Success, Ownership

Examples of TEC-VARIETY

1. **Tone/Climate: A. React to Maps**
   The happiest and saddest states according to Twitter
   Heather Kelly, CNN Tech, February 19, 2013

2. **Tone/Climate: B. Share Visuals**
   (e.g., Panoramio, [http://www.panoramio.com/](http://www.panoramio.com/))
2. Encouragement, Feedback, etc.: A. Voice Feedback
Vocaroo: http://vocaroo.com/
http://vocaroo.com/i/s1mJ8jmSTgNl

2. Encouragement, Feedback, etc.: B. Quizlet (online quiz tools)
http://quizlet.com/

3. Curiosity, Fun, Fantasy, Control:
A. Online Database Activities
(e.g., WolframAlpha)
http://www.wolframalpha.com/

3. Curiosity, Fun:
B. Something in the News
(e.g., Fauja Singh, 101, finishes last race, February 24, 2013)

3. Curiosity, Fun:
C. Blog Adventures
Tracing the fate of Algal Carbon Export in the Ross Sea, Antarctica TRACERS: The NBP13-02 Cruise, February 12 to April 5, 2013
http://tracers-nbp1302.blogspot.com/p/the-project.html
From: Cassandra Brooks [cbrooks1@stanford.edu] Sent: Thursday, January 31, 2013 12:09 AM
Subject: I’m heading out today to New Zealand, then flying to Antarctica where we pick up our NSF icebreaker. We’ll be at sea for about 54 days.

4. Variety, Novelty, Intrigue, Unknowns:
A. Class Sync Collaboration and Discussion in Google Hangouts
(Spring, 2013)
5. Autonomy, Choice:
   A. Demonstrate, Explore, and Share Websites
      Commonwealth of Learning, March 2013

5. Autonomy, Choice:
   B. Assign to Explore and Rate Web Resources
      Center for Open Educational Resources and Language Learning
      http://www.coerll.utexas.edu/coerll/
      LRC (Language Resource Center)
      http://www.nflrc.org/

Poll #2: (Tone, Encouragement, Curiosity, Variety, Autonomy)
Any light bulbs going off in your head so far...? If so, where?
   A. Yes definitely
   B. Maybe
   C. No

6. Relevance, Meaningfulness:
   A. Design Multimedia Glossaries
      Ozgur Ozdemir, December 2012
      http://r685glossary.shutterfly.com/

6. Relevance, Meaningfulness:
   B. Design Reusable Web Resources
      Umida Khikmatillaeva, Creating a Global Classroom
      World is Open for Language Learners

7. Interactive, Collaborative:
   A. Collaboration and Discussion in Google Hangouts
      (January 29 and February 25, 2013)
7. Interactive, Collaborative:

B. Negotiate Meanings Online
(e.g., PiratePad: http://meetingwords.com/)

MeetingWords is a simple text editor for the web. Your text is saved on the web, and more than one person can edit the same document at the same time. Everybody's changes are instantly reflected on all screens. Work together on meeting notes, brainstorming sessions, homework, team programming and more!

C. Organizing Online Teams
17,380 students. I haven't met 98. I am shocked to see students from places where Internet is very limited. You will find students from even Zanzibar!!! Many teams are formed and they meet f2f in the region where they live.
http://venture-lab.org/education/

8. Engagement, Effort:

http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline

B. Life on Timeline
How Jimmy Wales’ Wikipedia Harnessed the Web as a Force for Good, Ted Greenwald, March 19, 2013, Wired Magazine
http://www.wired.com/wiredenterprise/2013/03/jimmy-wales-wikipedia/2/

C. Visualizing Careers
Harrison Ford takes the field in ‘42’
Scott Bowles, USA Today, April 11, 2013

D. Timelines with Oral Histories, Slavery and the Making of America
Time and Place, PBS
http://www.pbs.org/wnet/slavery/timeline/1857.html
8. Engagement, Effort:
E. Visualizing Emancipation (June 12, 2012, Chronicle of HE, Angela Chen, Interactive Map “Traces Slaves’ Path to Emancipation) http://dsl.richmond.edu/emancipation/

9. Tension, Challenge, etc.:
A. Cage Match or Debate

9. Tension, Challenge, etc.:
B. Final Four-Like Competitions

9. Tension, Challenge, etc.:
C. Decision-Making Scenarios
(e.g., Articulate Storyline) http://articulate.s3.amazonaws.com/broken_co-worker/story.html

9. Tension, Challenge, etc.:
D. Peer Ratings on Final Projects
(Note: from Paul Kim’s MOOC, Stanford)

10. Yields Products, Goals:
A. Final Product Video Summaries
(on I/Q Wall, April 22, 2013)

Piercarlo Abate
www.piercarloabate.com/IQwall
10. Yields Products, Goals:
B. Final Product Video Products
Kristen Needler, Self-Directed Simulation
http://www.youtube.com/watch?v=aT-Y2j-bR-g

Commitments:
Stop and Share:
Which principle(s) of TEC-VARIETY will you use?
- Tone/Climate
- Encouragement, Feedback
- Curiosity
- Variety
- Autonomy
- Relevance
- Interactive
- Engagement
- Tension
- Yields Products

Poll #3:
Do you feel “MOTIVATED” to try any of this out?
A. Yes, R2D2
B. Yes, TEC-VARIETY
C. Yes, both
D. Neither

Don’t just wish for a great 2013,
MAKE IT SO.

Stop and Share:
Three Words from Today’s Session!

Any Questions?
Try the R2D2 Model!
Try TEC-VARIETY too...

Slides at: TrainingShare.com
Papers: PublicationShare.com
Book: http://worldisopen.com/
Email: curt@worldisopen.com