Spring of 2018 (updated: June 6, 2018; 80 pages): R678 Only 3 Credits
Emerging Learning Technologies (The Famed "Monster Syllabus")

Indiana University, School of Education, Room 2101
Section 10675 FTF, Canvas: https://iu.instructure.com/courses/1688092
Section 12385 Online, Canvas: https://iu.instructure.com/courses/1688093
General Course Link to Canvas: http://canvas.iu.edu/

Instructor: Curt Bonk, Professor, Instructional Systems Technology Dept.
Online R678 Syllabus: http://php.indiana.edu/~cjbonk/Syllabus_R678_Spring_of_2018.htm
PDF, **Word**, **HTML**

Sync Chats/Q's: TodaysMeet: https://todaysmeet.com/R678_Emerging_Learning_Technologies
Office Hours: Zoom: https://IU.zoom.us/j/8123222878
Videostreaming: Join from PC, Mac, Linux, iOS or Android: https://iu.zoom.us/j/263198784
Telephone: +1 646 558 8656 (US Toll) or +1 669 900 6833 (US Toll); Meeting ID: 263 198 784

Multimedia Glossary Dec 2012 (from Ozgur Ozdemir): http://r685glossary.shutterfly.com/
Weekly Discussion Moderators: http://www.trainingshare.com/r685.php
Participant Bios and Interests: http://www.trainingshare.com/r678bios.php
Online Role Play: http://www.trainingshare.com/r678roles.php
Dropbox link for course files:
https://www.dropbox.com/sh/01h0hfi1lxxm6gi/AAAXz3PaMo5aAdqjRIeBLjiHa?dl=0

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Course Description and Rationale:

Instead of passive consumption-based learning, we are living in a participatory age where learners have a voice and potentially some degree of ownership over their own learning. Here at the start of the twenty-first century, emerging technologies and activities– such as blogs, wikis, podcasts, ebooks, YouTube videos, massive open online courses (MOOCs), simulations, virtual worlds, and wireless and mobile computing – are generating waves of new opportunities in higher education, K-12 schools, corporate training, and other learning environments.

And today's millennial learner, immersed in an increasingly digital world is seeking richer and more engaging learning experiences; and now the new "phigital" learner who is equally at home in the digital as well as physical world. Amid this rising tide of expectations, instructors across educational sectors are

exploring and sharing innovative ways to use technology to foster interaction, collaboration, and increased excitement for learning. It is time to take advantage of the new participatory learning culture where learners build, tinker with, explore, share, and collaborate with others online. It is also time to utilize free and open educational resources, opencourseware, learning portals, and open source software across educational sectors and income levels. Some of you will create and publish a cross-cultural Wikibook. Others will create video blogs, and still others will design YouTube-like videos. Some might even flip their classrooms. Still others will enroll in or perhaps even teach a massive open online course (MOOC).

The syllabus for this course is purposefully long. I refer to it as "the monster syllabus." I will be your online concierge or guide through masses of online resources. In an age when eyeball-to-eyeball learning is no longer necessary, effective online instructors do not simply teach, but moderate, coach, and assist in the learning process. Today a teacher, trainer, professor, or instructional designer often assumes the role of concierge with a wealth of freely available tools and resources to guide her learners. Or perhaps, after reading through this syllabus, you might be more inclined to call such a person a "curator" of quality content. Still others might focus on the "counseling" skills needed to help guide learners through their assorted instructional options. In this more open twenty-first century learning world, anyone can learn anything from anyone else at any time.

Course Goals and Objectives

After the course, students should be able to many of the items below (not all):

1. Explain and demonstrate the educational benefits of emerging learning technologies such as virtual games, augmented reality, synchronous conferencing, online tutorials, podcasts, wikis, blogs, virtual worlds, simulations, social networking software, digital books, mobile books, etc.
2. Track and report on trends related to emerging learning technologies.
3. Frame learning technology trends and issues from broader psychological, social, cultural, and educational perspectives.
4. Critique articles and review books related to emerging learning technologies.
5. Use, recommend, or create online resources and portals in a variety of educational settings.
6. Design an innovative research or evaluation project related to online learning;
7. Successfully submit research, grant, and other proposals related to learning technologies, open education (e.g., open textbooks), MOOCs, e-learning, etc. to conferences, foundations, summits, or institutes.
8. Recognize and potentially contact many of the key players and scholars in the field of online learning, open education, MOOCs, and emerging learning technologies.
9. Consult with organizations to develop strategic plans or evaluate the effectiveness of e-learning courses, programs, and events as well as MOOCs, open education, Web 2.0 technologies, etc.
10. Make recommendations regarding online learning initiatives, programs, and strategies as well as various emerging learning technologies, open educational resources, and innovative and nontraditional forms of educational delivery.
11. Obtain a model, guide, or framework for thinking about new technology tools and resources in education. Use this framework for strategic planning reports, retreats, consulting, and other situations where a macro lens on learning technology and educational reform is needed.
12. Obtain the skills to train fellow teachers as well as learners in emerging learning technologies and pedagogically effective instructional activities and approaches.

Required Texts (none)

Required Videos (you select)

Required Journal Article (you pick from a list)

Nothing required!!! The world of learning should be FREE!

Books that I will refer to (don't buy them):
1. Bonk, C. J. (July 2009). *The World is Open: How Web Technology is Revolutionizing Education.* San Francisco, CA: Jossey-Bass, a Wiley imprint. See: http://worldisopen.com/
2. Bonk, C. J., Lee. M. M., Reeves, T. C., & Reynolds, T. H. (Eds). (2015). *MOOCs and Open Education Around the World.* NY: Routledge. Book homepage: http://moocsbook.com/

Perhaps get this FREE one instead (it is free in English and Chinese):
3. Free **Book:** Bonk, C. J., & Khoo, E. (2014). *Adding Some TEC-VARIETY: 100+ Activities for Motivating and Retaining Learners Online*. OpenWorldBooks.com and Amazon CreateSpace. Note: Free eBook available at: http://tec-variety.com/; Paperback http://www.amazon.com/dp/1496162722/ and Kindle http://www.amazon.com/dp/B00KJ1FAC8

Curt Bonk's List of journals in educational technology and related fields:
http://www.trainingshare.com/resources/distance_ed_journals_and_online_learning_books.htm

Curt Bonk's 27 free 10 minute videos on how to teach online:
"Video Primers in an Online Repository for e-Teaching and Learning" (V-PORTAL)
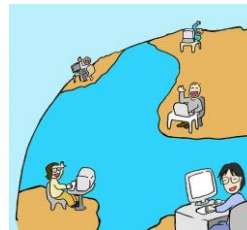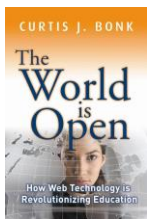1. **Watch & Find Resources in Bonk's YouTube Channel**: http://www.youtube.com/user/TravelinEdMan
2. **Read about Possible Uses**: http://www.trainingshare.com/keynotes.php#tasel

Technology Tools (we might try out):
Flipgrid: https://info.flipgrid.com/
Kahoot!: https://getkahoot.com/
PhET Interactive Simulations: https://phet.colorado.edu/
Sli.do: https://www.sli.do/

Tentative Tasks and Grading

40 pts	**A. Tidbit and Video Reflection Paper** (Tidbits: February 26)	
40 pts	**B. Discussion Moderator (pick a week:** http://www.trainingshare.com/r685.php**)**	
40 pts	**C. Discussion Participation in Canvas, CN, and Other (due each week)**	
50 pts	**D. Online Discussion and Lecture Reflection Paper** (Due: April 23)	
60 pts	**E. Report or Strategic Plan Analysis** (Due: February 26)	
70 pts	**F. Final: Wikibook, MOOC Project, Video, or Personal Selected Task** (Due: April 23)	
300	**Total Points**	

Total points will determine your final grade. I will use the following grading scale:

A+ = 300 high score	B- = 240 points
A = 280 points	C+ = 230 points
A- = 270 points	C = 220 points
B+ = 260 points	C - = 210 points
B = 250 points	F/FN = no work rec'd or signif. inadequate/impaired

Lateness Policy: I usually accept anything turned in within 48 hours of the original due date. After that, students lose 2 points for each day that it is past due without an approved reason.

Directions: Videostreaming live in Zoom and recorded each Monday at 7:00-9:45 pm:
1. From Google Chrome (preferred) or from Firefox.
2. Go to Zoom link: https://iu.zoom.us/j/263198784
3. Type your name.
4. Show video. Mute mic (unless speaking).

Videostreaming: Join from PC, Mac, Linux, iOS or Android: https://iu.zoom.us/j/263198784
Telephone: +1 646 558 8656 (US Toll) or +1 669 900 6833 (US Toll); Meeting ID: 263 198 784
Option: Watch the archived recording in Canvas.

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Projected Seminar Weekly Topics
Week 1. (January 8) Introduction to the Open World: Visionaries and Visions
Week 2. (January 15) Alternate Reality Learning: AR, VR, Gaming, and Simulations
Week 3. (January 22) Open Textbooks, E-Books, and Digitally Enhanced Books
Week 4. (January 29) The Expansion of Blended and Fully Online Learning
Week 5. (February 5) Extreme, Nontraditional, and Adventure Learning
Week 6. (February 12) Open Educational Resources (OER) and OpenCourseWare (OCW)
Week 7. (February 19) Open Education and Massive Open Online Courses (MOOCs)
Week 8 (February 26) More MOOCs and Open Education Around the World
Week 9. (March 5) Motivation in Informal and Self-Directed Online Learning Environments (including online language learning)
Week 10. (March 19) Connectivism, Social Media, and Participatory Learning
Week 11. (March 26) Interactive, Global, and Collaborative Learning (including wikis and learning spaces)
Week 12. (April 2) Shared Online Video and Audio
Week 13. (April 9) Flipping the Classroom
Week 14. (April 16) Mobile, Wireless, and Ubiquitous Learning
Week 15. (April 23) The Future: Networks of Personalized Learning and AI Agents
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Note: Learners and participants in this class can find their own articles for any week of the course and ignore any assigned articles in the syllabus. However, such self-directed participants are asked to place their list of alternative articles found, skimmed, or read during that week in the discussion thread in Canvas for that week. They must also nominate at least one article that they found and/or read that week that is worth assigning next year in this class and explain why they recommend it. Best of luck in your journeys.

Class Tasks

A. Tidbit and Video Reflection Paper (40 points: Due February 26)

Tidbits and Videos (40 points): Besides reading 3-4 assigned articles each week, during the semester, I want you to read at least 80 total tidbits during the semester from the list of tidbit readings or about 5 or 6 per week (preferably more than 80 tidbit articles; about half of which should be from tidbits from weeks in March and April). Typically, these are very short online news or magazine articles. I also want you to watch at least 5 videos listed below related to our course (or similar ones that you find). On February 26, you will turn in a list of your top 40 tidbits read so far (best ones at the top; including at least 10 from March and April…i.e., you must read ahead a bit) and top 2-3 videos watched. You might also note a few tidbits that you did not enjoy. After those lists, I want you to reflect for 1-2 single spaced pages on what you learned from those tidbits. I am **not** asking you to summarize each article or video; instead reflect on your learning in general. What themes, trends, or concepts were clarified for you? What new insights did you gain? What inspirations did you feel? You might include brief comments at the beginning or end of the paper on why you ranked the tidbits and videos the way you did. I will send an email with examples upon request. Be creative. Take a look at the examples provided. Post your tidbit reflection to Canvas or your Dropbox account or send to me via email.

B. Discussion Moderator (40 points)

Summarizer and Starter Activities Related to the Readings (40 points): At the start of each week, I want one person in the online section of this class to post a short summary to Canvas or Course Networking (The CN) on at least 4 of the main articles assigned for that week. That person is the starter for discussion. Other students will add to their conversation with their reflections and reactions. As a summarizer or starter, you might: (1) state reactions, questions, and suggestions for the upcoming readings; (2) point out the relationship of upcoming week topic or articles to past lectures or readings; (3) discuss the position of a researcher or pioneer in the field (or perhaps even write to him/her); (4) discuss a recent speech or colloquium you attended related to the week or a visit to a technology center or exhibit; or (5) generally relate the articles for the week to prior learning and discussion in the course. At the end of the week, you might react and reflect on the class discussion that transpired as well as the questions and concerns raised. You can sign up for this task at: http://www.trainingshare.com/r685.php

Sample Discussion Moderator Recap:
1. Prezi from Thuy Han for R678 class Week 4 (February 8, 2015): https://prezi.com/r4vkwqolkrn9/httpswebarchiveorgweb20040303191129httpwwwnetco/?utm_campaign=share&utm_medium=copy
2. Jennifer Webeck, April 2, 2015, As an overview of our discussion in bubbl.us: https://bubbl.us/mindmap?h=290e70/52c975/26iay7HLVaIyo

C. Participation in Canvas (40 points)

Online student course participation in Canvas (40 points): We will do discussions each week in either Canvas or Course Networking. This is worth 40 points as follows: 36-40 for high participators; 32-36 for medium participators; 28-32 for low participators; and 0-31 for others. Course participation includes contributing to the online discussion in Canvas, sharing resources, responding to peers, providing feedback on tasks and resource recommendations, and so on. While these will be mainly assessed as to the number of posts, I will also take into consideration qualitative factors such as those listed below.

Face-to-Face student course participation in class (40 points): Students in the face-to-face section will participate in class on Monday nights for 40 points as follows: 36-40 for high participators; 32-36 for

medium participators; 28-32 for low participators; and 0-31 for others. Discussion in Canvas or Course Networking is semi-optional. It would be great to post to the online forums at times.

Participation considerations:
1. Diversity (some variety in ideas posted, and some breadth to exploration);
2. Perspective taking (values other perspectives, ideas, cultures, etc.);
3. Creativity (original, unique, and novel ideas);
4. Insightful (makes interesting, astute, and sagacious observations).
5. Relevancy (topics selected are connected to course content); and
6. Learning Depth/Growth (shows some depth to thinking and elaboration of ideas);

D. Discussion and Lecture Reflection (50 points: Due April 23)

Discussion and Lecture Reflection Paper (50 points): At the end of the semester, you are to reflect on what you learned from weekly discussions in Canvas each week as well as from my recorded lectures and discussions that I will deliver each week via videoconferencing. You should include at least 7 of the weeks in your reflection. What were the ideas, issues, concepts, facts, figures, diagrams, etc., that struck a chord with you? What did you learn during the semester? How did your thinking change in a particular week or over time? What inspired you? What did you find disappointing? What is next?

Using these questions as a guide, please write a 3 page single-spaced reflection paper (not counting any references, appendices, or tables created) on this activity by April 23rd (50 points). Though not required, it would help if you included a fourth page with a recap table, chart, figure, or some type of summary of key themes, concepts, terms, etc., mentioned in the reflection paper. This is to be a meta-reflection of your growth in the course, unique learning insights, personal gains, etc., at least in part, from your weekly discussions and responding to your peers. What were the key concepts you grappled with this semester? How has your thinking evolved? What are the gaps in the research that you might target now? What weeks or particular articles inspired you and why? Post your reflection paper to Canvas or your Dropbox account or send to me via email.

Reflection Paper Grading Criteria (50 Points; 10 points each):
1. Relevancy to class: meaningful examples, relationships drawn, interlinkages, connecting weekly ideas.
2. Insightful, Interesting, Reflective, Emotional: honest, self-awareness, interesting observations
3. Learning Depth/Growth: takes thoughts along to new heights, exploration, breadth & depth, growth.
4. Completeness: thorough comments, detailed reflection, fulfills assignment, informative.
5. Connections: linking threads in the discussion, lectures, and readings.

Storify Reflection:
Jenny Webeck, Spring 2015, My MOOC Story: Learning How to Support eLearners by Becoming One: https://storify.com/JWebeck/my-mooc-story

E. Report or Strategic Plan Analysis or Naturalistic Study or Critique or Other (60 pts—Due February 26; preferred to be done as a team, unless approved by the instructor)

Midterm Option 1. Summary Report or Strategic Plan Evaluation, Critique, and Extension

Find and evaluate a summary report, technical report, or a strategic plan of a company, university, non-profit organization, school, state, province, country, or region related to e-learning, blended learning, mobile learning, or emerging learning technologies of some type and critique it. For

instance, you might pick the state or country where you were born or perhaps where you plan to live after graduation. You might find the strategic plan online or request a hardcopy version. I want you to not simply read and critique the report but to also interview someone who created it or is/was affected by that report. You might discuss and critique the online learning technologies highlighted, proposed pedagogical plans, intended training methods, targeted skills or competencies, or evaluation methods detailed. You might visit the institution or organization or write someone an email. What might this organization do differently in planning for e-learning or using some emerging learning technology? What are its competitors doing, for instance? Has there been an update? You are encouraged to work in teams on this report. When done, you will present an overview of the report to the class. Testimonials, graphs and trends of indicated growth, comparisons, and other data or handouts are welcome. You are also encouraged to directly contact the organization that developed the report or plan and receive additional product information (e.g., DVDs, brochures, white papers, technical reports, product comparison sheets, videotapes, company annual report, customer testimonies, data sheets, Web site information, etc.). Your evaluation, critique, and extension paper should be 4-6 single-spaced pages (excluding references and appendices; those working in teams are expected to have 7-10 single spaced page papers, not counting references and appendices). Please post it to your Canvas or to your Dropbox account or send to me via email on or before February 26th.

Sample reports:
1. United States Department of Education, State Technology Plans:
   https://www2.ed.gov/programs/edtech/techstateplan.html
2. United States National Education Technology Plan: https://tech.ed.gov/netp/
3. U.S. Army Learning Concept 2015:
   Department of the Army, United States of America (2011, January 15). The U.S. Army Learning Concept for 2015. TRADOC Pam 525-8-2.
   http://www.tradoc.army.mil/tpubs/pams/tp525-8-2.pdf (72 pages). **Video (Army Learning Concept 2015):** http://www.youtube.com/watch?v=KD9NGAV3-3k (4:26 minutes)
4. IU Strategic Plan for Online Education (2011, March 9):
   http://online.iu.edu/_assets/docs/schnabel-strategicplan.pdf
5. The Bicentennial Strategic Plan for IU, December 5, 2014:
   https://strategicplan.iu.edu/doc/plan.pdf

Summary Report/Strategic Plan Grading (10 pts for each of the following dimensions)
1. Review of Plan or Document *(clarity, related to class, organized, facts, data, relevant, style)*
2. Relevant Resources and Digging *(citations/refs, linkages to class concepts, extensive)*
3. Soundness of Critique *(depth, clear, complete, practical, detailed, important, coherence)*
4. Creativity and Richness of Ideas *(richness of information, elaboration, originality, unique)*
5. Knowledge of Topic *(learning breadth & depth, growth, displays understanding of topic)*
6. Recommendations, Insights, and Implications *(contains relevant recommendations, guides)*

Midterm Option 2. Naturalistic Study
   You have options to the midterm. For instance, you might perform a case study or pilot observation of workers, students, etc. using tools or instructors interacting with employees, students, other instructors, etc. while they use a web-based learning tool, resources, project, or curriculum application. For instance, you might decide to complete a case study of a child, young person, or adult using a particular learning tool for the first time. Such naturalistic studies should include at least five careful observations and commentary of the person and tutor/teacher. The commentary should reflect your learning and provide insights as to how to

make this tool more educationally meaningful. If you are looking at student-teacher-tool interaction patterns, teacher guidance, or simply tool use, you will need to design coding schemes and observation log sheets to help interpret tool functionality in this environment.

When done with your *brief* study, you might interview an instructor, learner, instructional designer, or some other person in that environment about the phenomenon that you observed. Interviewees might come from corporate, K-12, military, government, or higher education settings. These optional interviews can be live (face-to-face), via videoconferencing, phone- or Skype-based, or conducted through email.

Your naturalistic study report should be 4-7 single-spaced pages (excluding references and appendices; those working in teams are expected to have 7-10 page papers, not counting references and appendices). In your report, I want you to reflect on what you learned about e-learning from this assignment. How has it opened your eyes? What might you have done differently next time in your study? What recommendations do you have and what implications do you see? How might you put your new ideas to use in training programs or in your own future teaching? Please post it to Canvas or your Dropbox account or send to me via email on or before February 26th.

Sample Format Naturalistic/Research Activities:
  I. Title Page (Name, affiliation, topic title, acknowledgements)
  II. Topic Literature and Method
    1. Res topic & materials;
    2. Brief stmt of problem and why impt
    3. Brief review of the relevant literature
    4. Methods:
        a. Subjects & design (i.e., who/how selected);
        b. Materials/setting (i.e., hard/software, text)
        c. Procedure (i.e., how data was obtained)
        d. Coding Schemes & Dep. meas/instr (i.e., how segment/code data);
        e. Analyses or comparisons
  III. Results and Discussion 1. Preliminary Results; 2. Discussion of results
  IV. References (APA style: see syllabus for example)
  V. Appendices (e.g., pictures, charts, figures, models, tests, scoring criteria, coding procedures)

Sample Grading of Major Project (60 Total Points or 10 pts each dimension)::
    1. Review of the Problem/Lit/Purpose *(interesting, relevant, current, organized, thorough, grounded)*
    2. Hypothesis/Research Questions/Intentions *(clear, related to class and theory, current, extend field)*
    3. Method/Procedures *(subjects/age groups approp, materials relevant, timeline sufficient, controls)*
    4. Research Activity/Design/Topic/Tool *(clear, doable/practical, detailed, important)*
    5. Overall Richness of Ideas *(richness of information, elaboration, originality, unique)*
    6. Overall Coherence and Completeness *(unity, organization, logical sequence, synthesis, style, accurate)*

Midterm Option 3: Review or Critique
A third option is to review and critique a special journal issue, a special conference symposium or summit, or edited book related to any week of this course. What are the strengths and weaknesses of it? Why or why not would you recommend that others read or explore it? How does the content of it relate to R678 content? If you choose this option, please run the special issue, symposium, summit, or book that you selected by the instructor. This critique will be a 4-6 page single spaced report. This is due Monday February 26th.

Note: See below for examples of special issues on Massive Open Online Courses (MOOCs) that you might read and critique. These special issues are from the *Journal of Online Learning and Teaching* (JOLT) and the *International Review of Research on Open and Distributed Learning* (IRRODL).

     a. Special Issue (2017, June): Outcomes of Openness: Empirical Reports on the Implementation of OER, *International Review of Research in Open and Distributed Learning*, *18*(4). Available: http://www.irrodl.org/index.php/irrodl/issue/view/85

     b. Special Issue (2017, February): Advances in Research on Social Networking in Open and Distributed Learning, *International Review of Research in Open and Distributed Learning*, *18*(1). Available: http://www.irrodl.org/index.php/irrodl/issue/view/84

     c. IRRODL *16*(6), 2015, Special Issue: Towards a European perspective on Massive Open Online Courses: http://www.irrodl.org/index.php/irrodl/issue/view/72

     d. IRRODL *16*(5), 2015, Special Issue: OER and MOOCs: http://www.irrodl.org/index.php/irrodl/issue/view/71

     e. IRRODL *15*(5), 2014, Special Issue: Research into Massive Open Online Courses: http://www.irrodl.org/index.php/irrodl/issue/view/64

     f. JOLT: June 2013, 9(2), http://jolt.merlot.org/Vol9_No2.htm

     g. JOLT: March 2014, 10(1), http://jolt.merlot.org/Vol10_No1.htm

     h. January 1, 2015, Comunicar: Media Education Research Journal, 22(44) Dr. Manuel Cebrián-de-la-Serna - University of Malaga – Spain, and Dr. Philip Desenne - Harvard University - USA http://www.revistacomunicar.com/index.php?contenido=revista&numero=actual Comunicar: Media Education Research Journal: http://www.revistacomunicar.com/

Midterm Option 4: Software or Technology Tool Review

In the fourth option, you are to review at least 3 emerging technologies for learning. What are the key features? How could they each impact on education? What skills do they potentially enhance? What audience do they each serve? Who are the stakeholders? List at least 5 pedagogical ways in which each of these tools or applications can be used in education or training? For each emerging technology, please identify at least 3 features you like best and explain why and how these features can foster or enhance teaching and learning. Please also list at least 3 features you think need improvement and detail why and what can be done to add, modify, change, or delete different features. You should also detail how you would redesign these technology tools or products to improve them for educational use if you were the educational product designer. This review will be a 4-6 page single spaced report (excluding references and appendices; those working in teams are expected to have 7-10 single spaced page papers). This is due Monday February 26th.

For a list of emerging educational technology companies, please see:

     1. **USA (mainly):** The Ed Tech Market Map: 90+ Startups Building The Future Of Education, CB Insight, June 21, 2017, https://www.cbinsights.com/research/ed-tech-startup-market-map/?utm_content=buffer6565b&utm_medium=social&utm_source=linkedin.com&utm_campaign=buffer

     2. **China:** August 20, 2016, China's E-Learning Revolution: The 10 Hottest Chinese Online Education Companies of 2016, https://www.whatsonweibo.com/10-hottest-chinese-online-education-companies-2016/

Midterm Option 5: Other (requires instructor approval)
Other options to the midterm might be grant proposals, research interventions (as opposed to observations), technology tool design proposals, curriculum integration plans, or conference research papers. If one of these appeals to you, please write to the instructor for additional information and guidance. This is due Monday February 26th.

F. Web 2.0 Final Project (70 points—Due April 23; project recommended to be conducted with a partner, unless approved by the instructor)

Option 1. Wikibook Online Work (WOW)

In this option, you help with a Wikibook related to emerging technologies. About seven years ago, students from five universities designed a wikibook on "The Web 2.0 and Emerging Learning Technologies" (The WELT); see http://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies. If you write a unique chapter for the WELT, it should be a minimum of 2,000 words. A 2-3 page reflection paper (3-4 pages if with a partner) on what you learned from this wikibook activity needs to be included (not counting references and appendices). Describe what you learned from the task including specific course concepts and ideas mentioned in your chapter as well as ideas related to the social construction of knowledge. Attached to your reflection paper will be documentation of what you contributed to the wikibook, including your chapter (with highlights or special notations of your contribution), highlights to the chapters worked on, and perhaps even print outs of the wikibook chapter editing history. Your paper and chapter will be graded according to the dimensions listed below.

Example:
Robert Halford, Spring 2015, Wikibook Chapter on Professional Developmnet:
https://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies/Professional_Development#Technology_as_a_tool_for_learning
Greg Snow, Korea, Spring 2016, Wikibook Chapter on Virtual Reality,
https://en.wikibooks.org/wiki/Virtual_Reality
Luci Mello, April 26, 2017, Mobile Learning (mash-up),
https://www.softchalkcloud.com/lesson/serve/eqpRyOTbxGsCmr/html
https://en.wikibooks.org/wiki/Mobile_Learning

Wikibook Grading (60 Total Points or 10 pts each dimension):
1. Chapter and reflection paper relevance: Contribution is meaningful to class, we learn from it
2. Chapter and reflection paper coherence: flow, well organized, good layout, enjoyable to read
3. Chapter and reflection paper completeness: Sufficient coverage of info, extends topic and class
4. Overall chapter creativity: Original and distinctive ideas, insightful points, something unique in it such as a figure, model, graph, timeline, comparison chart, acronym, quote or set of quotes, etc.
5. Overall reflection paper insightfulness, depth of thought, flow, informational content, etc.
6. Shared and discussed in Canvas and in Class
7. Overall quality of assignment

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Option 2. Cool YouTube Video Creation
So you want to be cool? You want to be creative? In this option, you are to create a shared online

video (e.g., YouTube) related to this class. You cannot be the only person in it. What do different topics in this course mean to you? Alternatively, you can design a YouTube video for someone else. You should post this video of at least 5 minutes in length. You will turn in a 2-3 page single-spaced summary reflection of your design (3-4 pages if with a partner). Your video and paper will be graded according to the dimensions listed below.

Video Grading (70 Total Points or 10 pts each dimension):
1. Insightfulness, creativity, and originality;
2. Design and visual effects;
3. Coherence and logical sequence;
4. Completeness;
5. Relevance and accuracy of the content;
6. Shared and discussed in Canvas and in class;
7. Overall quality of assignment

YouTube Video Final Project Examples (from R685 from 2010, 2011, 2012, 2016, etc.):
1. Cesur Dagli (Animal perspectives on course): http://www.youtube.com/watch?v=cDeTEIdO5lc
2. Julie Rust (Participatory Learning): http://www.youtube.com/watch?v=cHx_SbRWV0M
3. Lisa Yoder (eLearning a Walk in the Park): http://www.youtube.com/watch?v=paot_zzG_wU
4. Lynn Deno: Tech, Enhancing Home School: http://www.youtube.com/watch?v=ts45BkAnqTs
5. Mag Webber (Virtual Learning - Is it for You?): http://www.youtube.com/watch?v=xiwSIryPzsQ
6. Miguel Lara (Web 2.0 FREEDOM): http://www.youtube.com/watch?v=8cmCFWi9lW8
7. Olgun Sadik (R685 overview): http://www.youtube.com/watch?v=unaBQIqVo8Y
8. Shuya Xu and Yue Ma (Blog my online lrng): http://www.youtube.com/watch?v=im7GQM9fzhc
9. Verily Tan, Recollections from R685, Fall 2011; http://vimeo.com/33090590/
10. Anjali Kanitkar: The World Is Open (Video), Fall 2011: http://vimeo.com/33123125
11. Qi Li (Oppa Gagnam Style: What's Your Learning Style), December 3, 2012, http://www.youtube.com/watch?v=7Q429lqxZaU&feature=youtu.be
12. Valerie Cross (Mobile Thanksgiving), December 5, 2012, Vimeo: http://vimeo.com/55011832
13. Troy Cockrum, April 2016, The Making of an Adventurer (video), https://www.youtube.com/watch?v=ew6e7Chd9I8
14. Kim Vincent-Layton, April 25, 2016, Supporting a 21st Century Learning Journey, https://www.youtube.com/watch?v=4Ic39_rYLII
15. Rosanne Samir, May 3, 2017, Schultz-Zaki Interview - Global Collaboration in Egypt https://vimeo.com/215838867#t=0s
16. Kimberly Farnsworth, April 28, 2017, Student-Directed Learning, https://www.youtube.com/watch?v=3fZYT5rGCfY&feature=youtu.be

Option 3. R685/R678 Course Syllabi Historical Evaluation:
Perhaps, like me, you like history. A version R678 was first co-taught at West Virginia University by Dr. W. Michael Reed and myself back in the fall of 1990. Since that time, this course has evolved into many formats. Below are links to more than a dozen syllabi from the course including the present one. Unfortunately, I have yet to locate the original version but did find an outline of the topics addressed. If you select this option, I want you to track the history of this course over time. For instance, you might explore the topics, people, concepts, etc., that were popular in the 1990s, 2000s, and today. You will turn in a 4 to 6 page single spaced paper on what you discovered (7-10 pages with a partner); not counting references and appendices. Additional pages may be attached such as reference lists, visuals depictions mapping out trends over time, correspondences with researchers about their articles from previous versions of the

course, and interviews with scholars about their perceptions of changes in the field over time. You might, in fact, gather oral histories or accounts from experts as well as former students about how the field has changed.

Many questions can be asked. Among them, are there any topics that remain popular over the past two decades? How did the focus of this course change over time? Is this course more or less important today than it was back in the 1990s? Is the total number of pages any indicator of how the field has changed? If so, in what ways? Please compare the tasks from 1995 to those in 2001 or 2002 as well as 2010, 2012, 2013, 2015, and 2016. Please look at the books, journals, new sources, online resources, etc. that now comprise this course and note how they have changed over time. Is there anything from the 1990s that remains important today and should be added back to the current syllabus? Are there any tasks, activities, or articles that you found interesting and want to know more about? Is there anything that remains missing despite the fact that the current syllabus is now over 60 pages long? What do see about the field of education or educational technology from browsing through these syllabi and resources?

You should end your paper with 1-2 page single spaced reflection of your own learning in this course. Included in that summary should be an account of what inspired or mattered to you. In addition, you might reflect on the areas wherein you learned or grew the most during the semester.

Sample Prior P600/R685/R678 Syllabi:
1. Spring 2018: http://php.indiana.edu/~cjbonk/Syllabus_R678_Spring_of_2018.htm
2. Spring 2017: http://php.indiana.edu/~cjbonk/Syllabus_R678_Spring_of_2017.htm
3. Spring 2016: http://php.indiana.edu/~cjbonk/Syllabus_R678_Spring_of_2016.htm
4. Spring 2015: http://php.indiana.edu/~cjbonk/Syllabus_R678_Spring_of_2015.htm
5. Spring 2013: http://php.indiana.edu/~cjbonk/Syllabus_R685_Spring_of_2013.htm
6. Fall 2012: http://php.indiana.edu/~cjbonk/Syllabus_R685_Fall_of_2012.htm
7. Spring 2012: http://php.indiana.edu/~cjbonk/Syllabus_R685_Spring_of_2012.htm
8. Fall 2011: http://php.indiana.edu/~cjbonk/Syllabus_R685_Fall_of_2011.htm
9. Fall 2010: http://mypage.iu.edu/~cjbonk/Syllabus_R685_Fall_of_2010.htm
10. Fall 2009: http://php.indiana.edu/~cjbonk/Syllabus_R685_Fall_of_2009.htm
11. Fall 2008: http://curtbonk.com/Syllabus_R685_Fall_of_2008.htm
12. Fall 2007: http://php.indiana.edu/~cjbonk/R685-Fall-2007.htm
13. Fall 2005: http://mypage.iu.edu/~cjbonk/syllabus_p600_and_r685_fall_of_2005.htm
14. Fall 2003: http://php.indiana.edu/~cjbonk/p600syl2.htm
15. Fall 2002: http://mypage.iu.edu/~cjbonk/Syllabus--2002.html
16. Fall 2001: http://php.indiana.edu/~cjbonk/P600-R685-2001.htm
17. Fall 1999: http://php.indiana.edu/~cjbonk/P600-R685-1999.htm
18. Fall 1997: http://php.indiana.edu/~cjbonk/P600-R685-1997.htm
19. Spring 1995: http://php.indiana.edu/~cjbonk/P600-R685-1995.htm
20. Fall 1990: http://travelinedman.blogspot.com/2012/09/the-evolution-of-monster-22-years-of.html

History Evaluation Grading (70 Total Points or 10 pts each dimension):
1. Insightfulness, creativity, and originality;
2. Learning growth displayed;
3. Coherence and logical sequence;
4. Completeness and fulfills spirit of the assignment;
5. Relevance and accuracy of the content;
6. Shared and discussed in Canvas and in class;
7. Overall quality of assignment

Option 4. Analysis of Issues and Challenges in the Field of Learning Technologies:
In this option, you will identify and briefly outline 10-20 key issues in the field (e.g., institutional supports for nontraditional learners, corporate recognition of microcredentials and nanodegrees, faculty awareness of open textbooks and OER, cost effectiveness and consumer utility of virtual and augmented reality, teacher training for online and blended forms of learning; instructional design challenges for MOOC instructors and the instructional support team, etc.). What are the issues that you have noticed when doing the readings for this class, watching the videos, talking to your peers, and attending the lectures? What are some open research questions? To create an historical context for your paper, you might indicate in a timeline when each of these issues arose or potentially make become more salient in the future. You will turn in a 4-6 single spaced paper if working alone and 7-10 page paper if with a partner (plus any references, charts, graphs, appendices, etc.) on the issues and challenges in the field of emerging learning technologies. Meina Zhu and I want to know if you have a grasp of the key issues. We also want to know what your role might be in resolving these challenges or issues after graduation. Among these issues and challenges, choose one or two that you are highly interested in or want to address most and describe your possible plan on addressing them or map out some possible future research. Finally, please do not limit your references to our assigned course readings. You are encouraged to add at least half of your references from articles, books, and other resources that are not listed in our class readings. A minimum of 15 references should be used. Please follow APA guidelines when writing your paper.

Option 5. Student Selection Option (e.g., Usable Class Product):
Students choosing Option 4 might design their own final project or combine ideas together into something truly unique (i.e., a mash-up). As part of this effort, they might create or perform a meaningful activity for the class. For example, you might summarize the learning principles embedded in different articles or readings for each week of the course. Or, they might create a unique categorization scheme of the technology tools and resources studied during the semester. The more ambitious of you might create an interactive multimedia glossary or comprehensive Website for the course as an individual or as part of a team. Still others might create an online database of articles from two or more open access journals related to emerging learning technologies including links to the major themes and trends in those journals over a significant period of time (e.g., 3-5 years).

There are still more options. Among them, you might create a mobile application, an educational activity in a virtual world, an interesting global collaboration activity or partnership, or a mobile book. Others might organize a class mini-conference or real conference symposium or demonstrate a set of e-learning tools to your school, company, or organization and then reflect on it. Such tools might have relevance in K-12, military, corporate, or higher education settings or perhaps in more informal settings such as a museum, zoo, or computer club.

You might also engage in a major problem-based learning project related to this class with a school, company, organization, or institution. In this option, you make the contact and find out what needs to be resolved and then get it approved by the instructor. The final product might be a distance learning evaluation project. It might involve the design of e-learning tools and resources. It might entail the creation of a strategic plan, white paper, or vision statement. Whatever the

problem or task, it must be authentic. Anyone selecting this option should include a 2-4 page single-spaced reflection paper on what your learned; slightly longer with a partner (not counting references and appendices). Note: any final project report to an organization or institution can substitute for that final reflection paper. The grading scheme will be project specific.

Student Selected Option Examples:
1. Abdullah Altuwaijri (Prezi on class): http://prezi.com/8h7grxlyaymv/the-world-is-open/
2. Annisa Sari: Article Database for R685 Class: http://r685articledatabase.weebly.com/
3. Kevin McGrath: Open Newsroom Learning: http://newslearning.wordpress.com/
4. Laurie McGowan (presentation for teaching 1st year students at U. of Notre Dame): http://www3.nd.edu/~lthiel/portfolio/documents/Information_Literacy_Tutorial_Presentation.pdf
5. Ozgur Ozdemir: Multimedia Glossary in Shutterfly for R685, December 2012 http://r685glossary.shutterfly.com/
6. Mo Pelzel. Academic Technology Resource Guide, December 2012 Screencast video: http://www.youtube.com/watch?v=8N1RIwpQcjg&feature=plcp
7. Jeff Pankin, MIT, Prezi, Emerging Learning Technologies: http://prezi.com/tzbawrgjrnzf/emerging-learning-technologies/?auth_key=4ec2f45a718fab699b35ea460e91a46d9e1bdac7
8. Jeffrey Barnette, Today's World: http://prezi.com/-ijzyothst-r/r685-final-project
9. Jenny Webeck, March 2015, IU, Pinterest, Emerging Learning Technologies Bonk's Emerging Learning Technologies, https://www.pinterest.com/jennifertwebeck/emerging-learning-technologies/
10. Jill Kaufman, April 26, 2015, The World is Open, https://www.youtube.com/watch?v=ZRGV0Mg5Vmw&feature=youtu.be
11. John Falchi, March 12, 2016, Timeglider, An Abbreviated History of Distance Education http://timeglider.com/t/50843d8903a48008?min_zoom=1&max_zoom=100
12. Meina Zhu, April 27, 2016, Pinterest, Design Article Database in Pinterest, https://www.pinterest.com/zhumeina0000/r-678-emerging-learning-technology/
13. Sarah McDonough, May 2, 2017, OER Video Evaluation Rubric: https://www.rcampus.com/rubricshowc.cfm?code=DX8375W&sp=yes

Volunteerism Note: If you want to volunteer your services as part of your final project, you might check out Designers for Learning: http://designersforlearning.org/

Option 6. OpenCourseWare (OCW) or MOOC Review Option
Recently, there is a huge explosion of open educational contents. Among these new learning resources are open educational resources (OER), OpenCourseWare (OCW), and massive open online courses (MOOCs). OCW and OER typically are freely available contents without direct contact with instructors. MOOCs are instructor-driven courses which are usually free and open to the world community, thereby involving large enrollments. An optional assignment idea for this class is to explore or enroll in one or two massive open online courses (MOOCs) related to learning, cognition, and instruction. Even if you do not select this task, you might explore a few of these MOOCs and observe how they are conducted. And then reflect, reflect, reflect!

You could replace the midterm or final by enrolling in one or more MOOCs and writing a 2-4 page single spaced reflection paper (4-6 pages with a partner) on what you learned as it relates to various topics from this course (not counting references and appendices). Note: you might include a recap table or chart at the end summarizing key concepts or ideas mentioned in your paper. You would NOT have to complete the course; just sit in and lurk if you want. Your MOOC review paper should include your insights about the

learning environment and learning theories relied upon as well as a few specific examples of instructional tasks and ideas from the course. It will be graded for: (1) connections to course content; (2) coherence and organization; and (3) overall insights and conceptual understandings.

If you complete the course or get a certificate (Coursera calls these "Signature" courses), you can replace your final assignment. Even if you do you not complete a MOOC, you could replace your final assignment if you write a longer reflection paper or extend the assignment in some way (e.g., interview the MOOC instructor(s) about their instructional approaches and beliefs about learning; interviewing other participants/students taking this course about their learning experiences; etc.). As part of these efforts, you might also explore some of the open educational portals and contents listed in your syllabus or that you find online.

Some questions you might ask before writing your paper:
- What is the overall feel of this learning environment? Is there any particular learning approach or philosophy that you feel or experience?
- What aspects of learning and instruction are addressed in this MOOC or by this open educational resource? Stated another way, what theory of learning and instruction does the instructor or the course design tend to rely upon?
- What learning theory or perspective might be used to improve the course? How might you improve this course if asked?
- Are there any specific learning concepts and principles embedded in any module or in multiple modules of the course?
- How does the MOOC utilize existing OER content? How might it better take advantage of such resources?
- Which tasks or activities seem most effective and why? What are the most creative?
- What is the least effective aspect of this course and why?
- What aspects of learning and instruction or theoretical perspective do you understand better now? And why?

Portals to MOOC courses:
1. MOOC Provider Companies and Organizations:
2. Canvas: https://www.canvas.net/
3. Coursera list of courses: https://www.coursera.org/courses?orderby=upcoming
4. CourseSites: https://www.coursesites.com/webapps/Bb-sites-course-creation-BBLEARN/pages/mooccatalog.html
5. edX courses: https://www.edx.org/course-list
6. FutureLearn: https://www.futurelearn.com/courses/upcoming
7. iversity: https://iversity.org/
8. NovoEd: https://novoed.com/
9. Open Education (powered by Blackboard): https://openeducation.blackboard.com/site/
10. Open Learning Initiative Stanford: http://oli.stanford.edu/
11. Open2Study: https://www.open2study.com/
12. Udemy: https://www.udemy.com/
13. Udacity: https://www.udacity.com/courses#!/all

MOOC Lists:
1. Class Central: https://www.class-central.com/subject/education
2. The MOOC List: http://www.mooc-list.com/
3. Open Culture: http://www.openculture.com/free_certificate_courses
4. TechnoDuet: http://www.technoduet.com/a-comprehensive-list-of-mooc-massive-open-online-

MOOC Review Grading Criteria if a Final Project (70 Points; 10 points each):

1. **Insightful/Originality:** innovative ideas, insightful relationships drawn about MOOCs and open education, helps the reader form new understandings about MOOCs.
2. **Interesting:** engaging writing, unique perspective on MOOCs and open education.
3. **Completeness:** thorough, detailed, dig deep, effort, fulfills spirit of the assignment.
4. **Relevance:** concepts and ideas from MOOC experience appropriate and related to class, perhaps includes a recap list or summary table of what learned.
5. **Content:** learning displayed, made several key connections to class from MOOC experience, highly informative reflection (helps the reader form new understandings).
6. **Exploratory and Reflective:** pushing out, metacognitive, reflecting on oneself as a learner or on how fellow learners benefit from MOOCs, shows that one was reflecting on the experience both as a learner as well as in light of the content of this class.
7. **Coherent, Logical Flow, and Well Organized:** easily read, transitions, conclusions, logical flow to the critique or review of MOOCs or MOOC experience, well organized review, sequence of ideas makes sense.
8. **I will also look for:** breadth/depth of thought, knowledge growth displays, understands theories, concepts, and principles in relation to the MOOC experience. And I will want to see some critical thinking displayed including sound analysis and evaluation of instructional approach taken in MOOC, logical, backs up claims.

Grading Note #1: I will use a rubric for the above. Write me an email if you would like to see that rubric.

Grading Note #2: Extra consideration (and the potential for bonus points) given for those who cite references on MOOCs or open education, create a summary or recap table of terms or concepts mentioned in their reflection paper, participate in more than one MOOC, and those who actually complete the course. Summary or recap tables are especially welcome.

Class Sharing of Final Projects: If possible, I would like you to post your final projects to Canvas (my instructional assistant, Meina Zhu, can help). In addition, during our final class session on April 23, some people "might" briefly share their final projects. Online students, do not have to worry about the presentation part. I will contact you ahead of time if needed. But I do take volunteers.

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Weekly Reading Requirements

We will read 3-4 main articles and 5-6 tidbits per week and watch some of the embedded videos—it is your choice what to read.

Projected Seminar Weekly Topics:

Week 1. (January 8) Introduction to the Open World: Visionaries and Visions

1. January 2017, Higher Education Supplement to the National Education Technology Plan, U.S. Department of Education, Office of Educational Technology, https://tech.ed.gov/files/2017/01/Higher-Ed-NETP.pdf

2. Vannevar Bush (1945, July). As We May Think. *The Atlantic Monthly; Volume 176, No. 1; pages 101-108.* http://www.theatlantic.com/unbound/flashbks/computer/bushf.htm

3. Infed on Ivan Illich: Deschooling, conviviality and the possibilities for informal education and lifelong learning. http://www.infed.org/thinkers/et-illic.htm (Ivan Illich. *Deschooling Society* (New York: Marion Boyars. 1970).

4. Sections from: Bonk, C. J. (July 2009). *The World is Open: How Web Technology is Revolutionizing Education.* San Francisco, CA: Jossey-Bass, a Wiley imprint. (Book homepage: http://worldisopen.com)
   a. Bonk, C. J. (2011). Prequel: Sharing…the Journey. *The World is Open: How Web Technology is Revolutionizing Education* (pp. xi-xxx). San Francisco, CA: Jossey-Bass, a Wiley imprint. Available: http://worldisopen.com/misc/prequel.pdf (written for softcover/paperback edition)
   b. Bonk, C. J. (2011). Postscript: An Open Letter to the Learners of this Planet. *The World is Open: How Web Technology is Revolutionizing Education* (pp. 415-422). San Francisco, CA: Jossey-Bass, a Wiley imprint. Available: http://worldisopen.com/misc/postscript.pdf
   c. Bonk, C. J. (2011). Foreword to the Chinese Edition. *The World is Open: How Web Technology is Revolutionizing Education.* Shanghai, China: South China Normal University. Available: http://worldisopen.com/China_Foreword.pdf

(**Note:** The above three sections of the book are combined and available at: ***http://publicationshare.com/pdfs/World%20is%20Open_2011_Prequel_and_Postscript_for_paperback_and_Foreword_for_China.pdf*** and *http://publicationshare.com/1*)

5. Charles A. Wedemeyer, University of Wisconsin
   a. Wikipedia: http://en.wikipedia.org/wiki/Charles_Wedemeyer
   b. Introduction to Distance Education: Theorists and Theories—Charles Wedemeyer: http://distance-educator.com/introduction-to-distance-education-theorists-and-theories-charles-wedemeyer/
   c. A Brief History of Distance Education: http://www.seniornet.org/edu/art/history.html
   d. In Memorandum: http://www.tandfonline.com/doi/abs/10.1080/08923649909527031#preview
   e. Learning at the Back Door: Reflections on Nontraditional Learning in the Lifespan (1981), by Charles A. Wedemeyer, Reissued: September 2010. Available: https://etda.libraries.psu.edu/files/final_submissions/6491
      i. http://www.amazon.com/Charles-A.-Wedemeyer/e/B001KDB9TM (used books)

6. Douglas Engelbart: https://en.wikipedia.org/wiki/Douglas_Engelbart
   "The Mother of All Demos" is a name given retrospectively to Douglas Engelbart's December 9, 1968, demonstration of experimental computer technologies that are now commonplace. The live demonstration featured the introduction of the computer mouse, video conferencing, teleconferencing, hypertext, word processing, hypermedia, object addressing and dynamic file linking, bootstrapping, and a collaborative real-time editor."
   a. The Mother of All Demos, presented by Douglas Engelbart (1968) Original Video on YouTube (140:52): https://www.youtube.com/watch?v=yJDv-zdhzMY
   b. Douglas Engelbart Interviewed by John Markoff of the New York Times, (113:50), https://www.youtube.com/watch?v=VeSgaJt27PM

Videos:
   a. **Videos:** July 12, 2017, re:Learning on Video (various expert interviews), Goldie

Blumenstyk, The Chronicle of Higher Education, http://www.chronicle.com/specialreport/re-Learning-on-Video/127

b. **Video** (11:34), April 13, 2016: The Fourth Industrial Revolution: https://www.youtube.com/watch?v=khjY5LWF3tg

c. **Video** (2:28), CNN Money (Tech), August 6, 2016: http://money.cnn.com/2016/08/06/technology/world-wide-web-25-years-old/index.html?iid=hp-stack-dom

Week 1 Tidbits:

a. April 8, 2018, How Ed Tech Is Exploiting Students, Chris Gilliard, *The Chronicle of Higher Education*, https://www.chronicle.com/article/How-Ed-Tech-Is-Exploiting/243020?cid=cp197

b. November 13, 2017, The Greatest Computer Network You've Never Heard Of Ernie Smith, *Motherboard* https://motherboard.vice.com/en_us/article/pa3vvg/the-greatest-computer-network-youve-never-heard-of

c. September 27, 2017, A Newer Education for Our Era, Cathy Davison, *The Chronicle of Higher Education*, http://www.chronicle.com/article/A-Newer-Education-for-Our-Era/241313

d. August 24, 2017, The New, New Education, Colleen Flagherty, *Inside Higher Ed*: https://www.insidehighered.com/news/2017/08/24/cathy-davidson%E2%80%99s-new-book-manifesto-teaching-students-and-institutions-how-survive

e. June 21, 2017, The Ed Tech Market Map: 90+ Startups Building The Future Of Education, *CB Insight*, https://www.cbinsights.com/research/ed-tech-startup-market-map/?utm_content=buffer6565b&utm_medium=social&utm_source=linkedin.com&utm_campaign=buffer

f. June 13, 2017, VR in Education: Genuine Learning Applications but Commercialisation Unclear, Futuresource Consulting, https://www.futuresource-consulting.com/Press-Immersive-Tech-0617.html

g. June 3, 2017, How PLATO changed the World…in 1960, By Cait Etherington ElearningInside News, https://news.elearninginside.com/how-plato-changed-the-world-in-1960/

h. April 30, 2017, 'Those Jobs Are Gone', Steve Kolowich The Chronicle of Higher Education, http://www.chronicle.com/article/Who-s-UpWho-s-Down-in/239964

i. May 4, 2017, Prepare For Future Learning, Dr. Marie Bountrogianni, Dean, The Chang School, Ryerson U, Huffington Post, http://www.huffingtonpost.ca/dr-marie-bountrogianni/prepare-for-future-learni_b_16407756.html

j. March 11, 2017, Tim Berners-Lee calls for tighter regulation of online political advertising, Olivia Solon, The Guardian, https://www.theguardian.com/technology/2017/mar/11/tim-berners-lee-online-political-advertising-regulation
Video 1:04: http://curtbonk.com/berners-lee.html

k. January 3, 2017, College is Over, Roger Schank, LinkedIn, https://www.linkedin.com/pulse/college-over-roger-schank/

l. Ben Myers & Erica Lusk, December 15, 2016, The Digital Era: How 50 years of the information age transformed college forever, *The Chronicle of Higher Education* http://www.chronicle.com/interactives/50-years-of-technology or http://trainingshare.com/temp/digital-era.html

m. Scott Carlson, September 5, 2016, How Gopher Nearly Won the Internet, Chronicle of

Higher Education, http://www.chronicle.com/article/How-Gopher-Nearly-Won-the/237682

n. Schwab, Klaus (2016, January 14). 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/

o. Book: The Fourth Industrial Revolution, Klaus Schaub https://www.amazon.com/Fourth-Industrial-Revolution-Klaus-Schwab-ebook/dp/B01JEMROIU

p. Lauren Camera, June 20, 2016, Coursera on a Mission to Help Refugees US News and World Report, http://www.usnews.com/news/articles/2016-06-20/coursera-on-a-mission-to-help-refugees

q. Knod, allows learner to 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, http://www.knod.net/

r. 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

s. Associated Press, March 7, 2016, Email is 35 years old!: Raymond Tomlinson, inventor of modern email, dies, USA Today, USA Today, (includes embedded video: 1:07), http://www.usatoday.com/story/tech/2016/03/06/tomlinson-inventor-modern-email-dies/81413414/

t. July 24, 2015, Ed Tech's Funding Frenzy, Inside Higher Ed, Carl Straumsheim, available: https://www.insidehighered.com/news/2015/07/24/investments-ed-tech-companies-reach-new-high-first-half-2015

u. Nisen, M. (2013, May 23). Three stories about Steve Jobs, Einstein, and Ben Franklin prove that creative beats smart. *San Francisco Chronicle*. Retrieved from http://www.sfgate.com/technology/businessinsider/article/Three-Stories-About-Steve-Jobs-Einstein-And-Ben-4543503.php

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2. Dr. Michael Young (was Sasha's advisor), University of Connecticut, http://education.uconn.edu/person/michael-young/; michael.f.young@uconn.edu; http://web2.uconn.edu/myoung/
3. Dr. Kurt Squire, https://www.gameslearningsociety.org/bio_kurt.php; https://website.education.wisc.edu/kdsquire/; kdsquire@education.wisc.edu
4. Dr. Constance Steinkuehler, Co-Director, Associate Professor, Education, Games Learning Society, http://www.gameslearningsociety.org/bio_constance.php; steinkuehler@wisc.edu
5. Dr. Sasha Barab, Arizona State University, http://sashabarab.org/; https://gamesandimpact.org/team/sasha-barab/; Sasha.Barab@asu.edu; https://education.asu.edu/sasha-barab

6. Dr. Bonnie Nardi, UC Irvine, nardi@uci.edu; http://www.artifex.org/~bonnie/ (known for ethnography and virtual worlds and activity theory and human-computer interaction); https://mitpress.mit.edu/authors/bonnie-nardi
7. Dr. Sara de Freitas, Pro Vice Chancellor (Learning and Teaching), Murdock University, Australia, http://www.seriousgamesinstitute.co.uk/applied-research/Sara-de-Freitas.aspx, S.deFreitas@murdoch.edu.au (formerly head of the Serious Gaming Center in Coventry, UK; see also http://www.seriousgamesinstitute.co.uk/applied-research/Sara-de-Freitas.aspx)
8. Dr. David Gibson, Curtin University, Australia, David.C.Gibson@curtin.edu.au; http://oasisapps.curtin.edu.au/staff/profile/view/David.C.Gibson
9. Dr. Karl Kapp, http://karlkapp.com/, karlkapp@gmail.com (gamification books) (Keynote at the Madison conference in August)
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Note: Rajiv Jhangiani, Surrey, BC, Canada, rajiv.jhangiani@kpu.ca, teaches psychology at Kwantlen Polytechnic University.
University Homepage: http://www.kpu.ca/arts/psychology/faculty/rajiv-jhangiani
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13. The Global Text Project (creating books for underdeveloped countries): http://globaltext.terry.uga.edu/
14. Google Books: http://books.google.com/books
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18. LibiVox: http://librivox.org/
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20. ManyBooks.net: http://manybooks.net/
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23. OCLC (Online Computer Library Center): https://www.oclc.org/en-US/home.html?redirect=true
24. Open Book Publishers, Cambridge, UK: http://www.openbookpublishers.com/
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27. OpenStax College: http://openstaxcollege.org/
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30. Rethink Books (BookShout): http://www.rethinkbooks.com/
31. Rosetta Books: http://www.childrensbooksonline.org/ABC_Bicycle_Book/index.htm
32. Seeds of Empowerment (Paul Kim, creating tools for the underdeveloped world; e.g., iPhone applications for storytelling and social entrepreneurship) http://seedsofempowerment.org/
33. Subtext: http://subtext.com/
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Open Ed, Outdoor/Environmental/Adventure Learning People and Web Sites:
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2. Aaron Doering (University of Minnesota): http://www.cehd.umn.edu/ci/people/doering.html and http://chasingseals.com/; the Changing Earth: http://chasingseals.com/the-changing-earth/
3. Brian J. Ford: http://www.youtube.com/user/tellymonitor and http://www.brianjford.com/
4. Cassandra Brooks: http://www.cassandrabrooks.com/
5. The Changing Earth (from Aaron Doering): http://thechangingearth.com/
6. Charlie Miller (Univ. of Minnesota): http://www.cehd.umn.edu/ci/people/miller.html
7. Chasing Seals (from Aaron Doering): http://chasingseals.com/ (and on Twitter: https://twitter.com/chasingseals)
8. Code.org: https://code.org/ (and **Video** (2:33): https://www.youtube.com/watch?v=mFPg96gdPkc
9. Dead Sea Scrolls: http://www.deadseascrolls.org.il/explore-the-archive
10. Earthducation: http://lt.umn.edu/earthducation/
11. Eve Beglarian's River Project: http://evbvd.com/riverblog/about/
12. The Expert Café: http://expertscafe.com/
13. Explo.tv: http://www.exploratorium.edu/tv/index.php
14. Explore.org: http://explore.org/
15. Exploratorium Ice Stories: http://icestories.exploratorium.edu/dispatches/
16. Explore Arctic: http://www.explore.org/search/?q=arctic
17. ExplorersWeb: http://www.explorersweb.com/ (ExplorersWeb.com (community): http://www.explorersweb.com/community/; ExplorersWeb (Mount Everest): http://www.mounteverest.net

18. The Freshwater Switchyard of the Arctic Ocean: http://psc.apl.washington.edu/switchyard/overview.html
19. Geothentic Learning: http://lt.umn.edu/geothentic/
20. GoNorth!: http://www.polarhusky.com/
21. Google Map Gallery (New September 16, 2014): http://maps.google.com/gallery/
22. History for Music Lovers: http://www.youtube.com/user/historyteachers
23. TEDxHonolulu - History Teachers.m4v: http://www.youtube.com/watch?v=oWZl_ATuo0o
24. Ice Stories: http://icestories.exploratorium.edu/dispatches/
25. Impossible to Possible: http://impossible2possible.com/home (Atacama Extreme 2011: http://impossible2possible.com/atacama/home)
26. Jason Project: http://www.jason.org/public/whatis/start.aspx
27. Jessica Watson (youngest solo global sailor): http://www.jessicawatson.com.au/
28. Jon Bowermaster (Notes from Sea Level): http://www.jonbowermaster.com/
29. Journey North: http://www.learner.org/jnorth/
30. The Last Ocean Project: http://lastocean-project.org/ and http://www.lastocean.com
31. Laura Dekker: http://www.lauradekker.nl/English/Home.html
32. Mark Beaumont: http://www.markbeaumontonline.com/
33. Michael Perham: http://www.mikeperham.co.uk/
34. Minoru Saito: http://www.saito8.com/
35. Mountainworld Productions: http://www.mountainworldproductions.com/
36. Nautilus Live: http://www.nautiluslive.org/
37. Newseum Ed: https://newseumed.org/ and https://newseumed.org/activity/free-to-hate-historical-case-study/
38. Noodle: https://www.noodle.com/
39. Ocean.com: http://www.ocean.com/
40. OER World Map: https://oerworldmap.org/
41. Omnium Outreach Projects: http://omniumworld.com/ and http://omniumworld.com/oop/
42. One World Expeditions: http://www.oneworldjourneys.com/
43. OpenEd: http://www.opened.io/
44. Open Education Europa: http://openeducationeuropa.eu/
45. OpenLearning: https://www.openlearning.com/
46. Openwords: https://www.facebook.com/Openwords
47. Outschool: https://outschool.com/
48. Patrick Hollingworth: http://patrickhollingworth.com/
49. Penguin Science: http://www.penguinscience.com/index.php
50. Polar Bears International: http://www.polarbearsinternational.org/
51. Polar Husky: http://www.polarhusky.com/
52. The Poles.com: http://www.explorersweb.com/polar/
53. PolyglotPal's Channel: http://www.youtube.com/user/PolyglotPal
54. Reef Videoconferencing, (Great Barrier Reef, Australia), http://www.reefhq.com.au/education-at-reef-hq-aquarium/reef-videoconferencing
55. Rich Wilson (Sailor in the Spotlight Interview): http://yachtpals.com/rich-wilson-american-4013
56. Wayne Hodgins: http://waynehodgins.typepad.com/about.html
57. Travel Blog: http://www.travelblog.org/
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Live and Immediate Science
1. The Brain Observatory: https://www.thebrainobservatory.org/
2. The Link: http://www.revealingthelink.com/
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Week 6. (February 12) Open Educational Resources (OER) and OpenCourseWare (OCW)

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   d. A Preliminary Exploration of the Relationships Between Student-Created OER, Sustainability, and Students Success, David Wiley, Ashley Webb, Sarah Weston, & DeLaina Tonks, http://www.irrodl.org/index.php/irrodl/article/view/3022/4222
   e. Student Perceptions of College Faculty Who Use OER, Gabrielle Vojtech & Judy Grissett, http://www.irrodl.org/index.php/irrodl/article/view/3032/4215
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   h. Exploring Open Educational Resources for College Algebra, by Marcela Chiorescu, http://www.irrodl.org/index.php/irrodl/article/view/3003/4223

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3. Stephen Downes (2011, August). *Free Learning: Essays on open educational resources and copyright*: Available: http://www.downes.ca/files/books/FreeLearning.pdf
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   c. December 19, 2017, Use of Free Textbooks Is Rising, but Barriers Remain, By Beth McMurtrie, The Chronicle of Higher Education, https://www.chronicle.com/article/Use-of-Free-Textbooks-Is/242086
   d. November 28, 2017, Connections, 22(2), Commonwealth of Learning Newsletter Learning for Sustainable Development, http://oasis.col.org/handle/11599/2761
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Inexpensive Online Learning and MOOC Related Organizations and Institutions:

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2. edX: https://www.edx.org/
3. edX high school initiative: https://www.edx.org/high-school-initiative
4. edX partners: https://www.edx.org/schools-partners
5. FutureLearn: https://www.futurelearn.com/
6. Global Freshman Academy, edX: https://www.edx.org/how-it-works
7. Handbook of Open Universities: http://wikieducator.org/Handbook_of_Open_Universities
8. MITX: https://www.edx.org/university_profile/MITx
9. NovoEd: https://novoed.com/
   1. Philanthropy University: https://novoed.com/philanthropy-initiative?referral_token=NOVOED-CC
10. Peer 2 Peer University (P2PU): https://www.p2pu.org/en/

11. Straighter Line: http://www.straighterline.com/courses-run-by-professors.html
12. Udacity: http://www.udacity.com/
13. Udemy: http://www.udemy.com/
14. University of the People: http://www.uopeople.edu/

Somewhat Shady and/or Nefarious Websites (there are many others):
- ✓ BoostMyGrade.com: http://www.boostmygrade.com/
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   a. ESL: http://esl.about.com/
   b. French: http://french.about.com/
   c. German: http://german.about.com/
   d. Italian: http://italian.about.com/
   e. Japanese: http://japanese.about.com/
   f. Mandarin: http://mandarin.about.com/
   g. Spanish: http://spanish.about.com/
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3. BBC Learning English: http://www.bbc.co.uk/worldservice/learningenglish/
4. Babbel: http://www.babbel.com/
5. Chatterbox (learn languages with refugees): https://wearechatterbox.org/
6. ChinesePod: http://chinesepod.com/
7. Coffee Break Spanish: http://radiolingua.com/shows/spanish/coffee-break-spanish/
8. Duolingo: https://www.duolingo.com/
9. English Central: http://www.englishcentral.com/
10. German Online: http://www.dw-world.de/dw/0,,2547,00.html
11. iTalkie: http://www.italki.com/
12. Japanese Online http://japanese-online.com/
13. Japanese: https://www.nihongomaster.com/
14. KanTalk: http://www.kantalk.com/
15. Korean Online http://learn-korean.net/
16. Langscape (maps of languages): http://langscape.umd.edu/map.php
17. Langscape Univ of Maryland https://languagescience.umd.edu/beyond-umd/langscape
18. Livemocha: http://www.livemocha.com/
19. LoMasTV (online Spanish immersion TV): https://spanish.yabla.com/
20. Mango Languages: http://www.mangolanguages.com/
21. The Mixxer (uses Skype): http://www.language-exchanges.org/
22. OpenLanguage: http://openlanguage.com/
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   b. Enriching Higher Education with Social Media: Development and Evaluation of a Social Media Toolkit, http://www.irrodl.org/index.php/irrodl/article/view/2656/4043
   c. The Effects of Integrating Social Learning Environment with Online Learning, http://www.irrodl.org/index.php/irrodl/article/view/2645/4031
   d. Properties of Teacher Networks in Twitter: Are They Related to Community-Based Peer Production?, http://www.irrodl.org/index.php/irrodl/article/view/2644/4036

    e.   Using Social Learning Networks (SLNs) in Higher Education: Edmodo Through the Lenses of Academics, http://www.irrodl.org/index.php/irrodl/article/view/2623/4037

    f.   Analysis of Social Media Influencers and Trends on Online and Mobile Learning, http://www.irrodl.org/index.php/irrodl/article/view/2640/4027

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   i. The Conflict of Learning Theories with Human Nature: http://www.youtube.com/watch?v=xTgWt4Uzr54&feature=related
   ii. The Changing Nature of Knowledge: http://www.youtube.com/watch?v=YMcTHndpzYg&feature=related
   iii. The Impact of Social Software on Learning: http://www.youtube.com/watch?v=grI_h88vs3g
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10. December 7, 2017, A Small Town School Embraces a Big Vision, Suzie Boss, Edutopia, https://www.edutopia.org/article/small-town-school-embraces-big-vision
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Examples of Interactive Online Timeline Tools:
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2. Path to Protest; Arab spring: an interactive timeline of Middle East protests, The Guardian): http://www.guardian.co.uk/world/interactive/2011/mar/22/middle-east-protest-interactive-timeline
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Collaborative Projects:
1. Asia Society:http://asiasociety.org/education;
2. Center for the Study of Global Change: http://www.indiana.edu/~global/
3. Choices Program (Brown University): http://www.choices.edu/
4. ePals: http://www.epals.com/ (now is part of Cricket Media: www.CricketMedia.com)
5. Flat Connections Project: http://www.flatconnections.com/
6. Global Education Benchmarking Group: http://gebg.org/
7. Global Nomads Group: http://gng.org/
8. iEARN: http://www.iearn.org/
9. Infinite Family: http://www.infinitefamily.org/
10. Mentor.net (for engineering, science, and mathematics): http://www.mentornet.net/
11. The News Literacy Project: http://www.thenewsliteracyproject.org/ (mentoring young people into journalism)
12. Omnium Outreach Projects: http://omniumworld.com/oop/
13. Penguin science: http://www.penguinscience.com/education/postcards.php
14. Soliya: http://www.soliya.net/
15. TakingITGlobal: https://www.tigweb.org/
16. Teach the World Online (TWOL): http://www.teachtheworldonline.org/
17. Tutor/Mentor Institute (Daniel Bassell): http://www.tutormentorexchange.net/

18. World Leadership School: http://www.worldleadershipschool.com/
19. World Savvy: http://www.worldsavvy.org/

Tools for Collaboration:
1. Adobe Connect Pro: http://www.adobe.com/products/adobeconnect.html
2. AnyMeeting: http://www.anymeeting.com/
3. Collanos: http://www.collanos.com/
4. ConceptShare: http://www.conceptshare.com/
5. Course Networking: https://www.thecn.com/
6. Google Groups: http://groups.google.com;
7. Google Docs: http://docs.google.com
8. Diigo: http://www.diigo.com/
9. Elluminate: http://www.elluminate.com/
10. Facebook: http://www.facebook.com/
11. FreeConferenceCall: https://www.freeconferencecall.com/
12. Google Hangouts: http://www.google.com/
13. GoToMeeting: https://www3.gotomeeting.com/
14. GroupTweet: http://www.grouptweet.com/
15. Ning: http://www.ning.com/
16. OpenStudy: http://openstudy.com/
17. PBworks: http://pbworks.com/
18. Piratepad: http://piratepad.net/front-page/
19. PrimaryPad: http://primarypad.com/ (recommended by "TypeWithMe")
20. SlideRocket: http://www.sliderocket.com/
21. Skillshare: http://www.skillshare.com/learn
22. Skype: http://www.skype.com/
23. Slideshare: http://www.slideshare.net/
24. StartWright (virtual teams): http://www.startwright.com/virtual.htm
25. TodaysMeet: https://todaysmeet.com/
26. Twiddla: http://www.twiddla.com/
27. Twitter: http://twitter.com/
28. Ustream: http://www.ustream.tv/
29. WebEx: http://www.webex.com/
30. Wikispaces: http://www.wikispaces.com/
31. Yahoo! Groups: http://groups.yahoo.com;
32. Zoho Writer: http://writer.zoho.com/home?serviceurl=%2Findex.do
33. Zoom: https://zoom.us/

Week 12. (April 2) Shared Online Video and Audio

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http://www.cluteinstitute.com/ojs/index.php/TLC/article/view/9182/9203

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   c. Dian Schaffhauser, July 18, 2016, Survey: Video Usage in Ed Continues Ramp-up, THE Journal, https://thejournal.com/articles/2016/07/18/research-video-usage-in-ed-continues-ramp-up.aspx
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      See: Degreed: https://degreed.com/

***Video Resources and Portals (56 shared online video portals):*
http://www.trainingshare.com/resources/Summary_of_Ways_to_Use_Shared_Online_Video.htm
(e.g., YouTube EDU, TeacherTube, Link TV, Book TV, Clip Chef, Big Think, Google Video, TV Lesson, Wonder How To, National Geographic videos, CNN videos, BBC News, Video, and Audio, Academic Earth, EduTube, iHealthTube, CurrentTV, SchoolTube, Viddler, MasterChef, etc.)

Video Tools:
1. Dotlearn (reduce file size): https://www.dotlearn.io/
2. ForaTV (Live and On-Demand Videos from the World's Best Conferences and Events) http://library.fora.tv/
3. GoAnimate: https://goanimate.com/
4. TED-Ed: http://education.ted.com/
5. TubeChop: http://www.tubechop.com/
6. Vialogues: https://vialogues.com/
7. Screencastify: https://www.screencastify.com/
8. WeVideo: https://www.wevideo.com/

Oral History Tools
1. StoryCorps: http://storycorps.org/

Oral History Resources:
1. The History Harvest: http://historyharvest.unl.edu/
2. Slavery and the Making of America: http://www.pbs.org/wnet/slavery/index.html

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   Or: Guo, Y., Zhang, M., Bonk, C. J., & Li. Y. (2015). Chinese Faculty Members' Open Educational Resources (OER) Usage Status and the Barriers to OER Development and Usage. *International Journal of Emerging Technologies in Learning* (iJET), *10*(5), 59-65. Available: http://online-journals.org/index.php/i-jet/article/view/4819 and

http://publicationshare.com/pdfs/IJET_2015.pdf

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b. Regular: https://www.youtube.com/watch?v=V2LeFfywSPM

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3. Ohio State Chemistry Flips the Classroom, (Video: 1:10), https://www.youtube.com/watch?v=6FA_hCmfsp8
4. Flipping The Large Enrollment Psychology Classroom - NC State (Video: 3:45), https://www.youtube.com/watch?v=QTDQaaVWEzI
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10. Flipping the Class, Penn State (3:23 video), https://sites.google.com/site/flippingclass/
11. Teaching for Tomorrow: Flipped Learning (2:52); https://www.youtube.com/watch?v=4a7NbUIr_iQ
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More from Paul Kim

Pocket School and other projects (e.g., Seeds of Empowerment: http://seedsofempowerment.org/ ote: See Canvas for many articles on mobile learning from Paul Kim at Stanford. He was the class guest in the fall of 2010.). Paul Kim's Homepage: http://www.stanford.edu/~phkim/ Various articles: https://www.dropbox.com/sh/xrvmtpkhe5vhrn1/AABy84P4pjuWo37ZlZa4K-Hja?dl=0

Seeds of Empowerment videos (Paul Kim, Stanford):
1. Seeds of Empowerment: http://seedsofempowerment.org/
2. India Pocket School video: http://www.youtube.com/watch?v=OKyP_kWPifM
3. Mexico Pocket: http://ldt.stanford.edu/~educ39107/paulk/IFL/trip1/Camalu1_0004.wmv
4. Argentina: http://www.youtube.com/watch?v=Hd8JEI-k6Zg (my son Alex created)
5. Tanzania (which my son Alex did): https://www.youtube.com/watch?v=Y3vWhJHsgYo; Tanzania PPT: http://www.slideshare.net/SeedsofEmpowerment/smile-symposium-presentation-elizabeth-buckner
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Samsung ticks forward with new Gear S3 smartwatch
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j. May 14, 2015, Smartphone separation anxiety: How bad is your nomophobia?, Today Health, Meghan Holohan, Available: http://www.today.com/health/smartphone-separation-anxiety-how-bad-yours-t20786

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Week 15. (April 23) The Future: Networks of Personalized Learning and AI Agents

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