

Open Educational Resources (OER)

Teaching, Learning, and Technology Center November 8, 2013 Open Educational Resources (OER) reside in the public domain and are free to use for teaching and learning. Within these repositories are a variety of multimedia, learning objects, tutorials etc. that offer quick ways to enhance any topic.

Websites such as National Geographic, Merlot, and Kahn Academy provide tutorials, multimedia, simulations and even assignments that can be easily added to any hybrid course, creating a richer learning experience. Certain OER's lend themselves to specific disciplines while others are inclusive to all disciplines.

During this workshop we will explore several OER's and how they can be used to enhance your hybrid course.



Questions for today...

What is an OER?

Why would I want to use an OER?

Where can I find one?

How can I use one in my class?



Open Educational Resources

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About OER

- Some are discipline specific
- Some require 'registration'
- Some don't know their OER

Look for 'creative commons'

Look for publicly displayed content



Why Use OER?

- Supplement existing material
- Offer alternative point of view
- Remediation
- Topic exploration

Don't reinvent the wheel!



In The News...

Quillen, I. (2013, February 5). Tips for Sharing Great Open Educational Content | MindShift. *KQED*. blog. Retrieved from

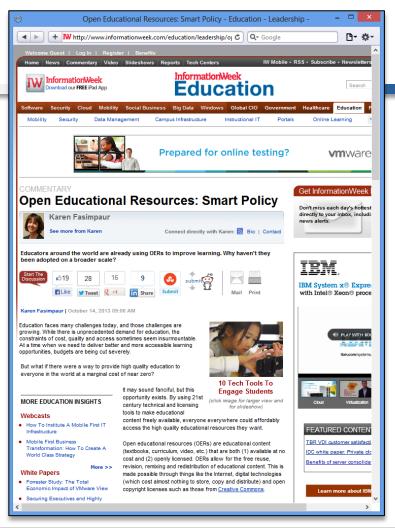
http://blogs.kqed.org/mindshift/2013/02/tipsfor-sharing-great-open-educational-content/





In The News...

Fasimpaur, K. (2013, October 14). Open Educational Resources: Smart Policy. *InformationWeek*. Retrieved November 6, 2013, from http://www.informationweek.com/education/leadership/open-educational-resources-smart-policy/240162546





Open Textbooks

http://openstaxcollege.org/





Open Textbooks











COLLEGE PHYSICS

INTRODUCTION TO SOCIOLOGY

BIOLOGY

CONCEPTS OF BIOLOGY

ANATOMY AND PHYSIOLOGY











STATISTICS

INTRODUCTORY

PRECALCULUS

CHEMISTRY

U.S. HISTORY

PRINCIPLES OF ECONOMICS



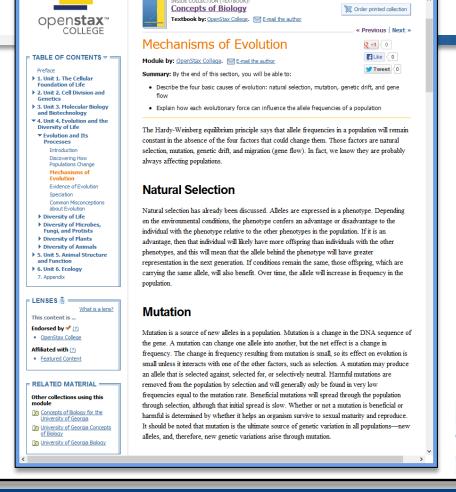




PRINCIPLES OF MICROECONOMICS



PSYCHOLOGY



Mechanisms of Evolution

★ http://cnx.org/content/m45489/latest/?collection=col11487/latest

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<u>□</u>- #-

Art Connections

Exercise 1

Figure 1 Do you think genetic drift would happen more quickly on an island or on the mainland?

Figure 1 Genetic drift is likely to occur more rapidly on an island, where smaller populations are expected to occur.

[Hide]

Multiple Choice

Exercise 2

Galápagos medium ground finches are found on Santa Cruz and San Cristôbal islands, which are separated by about 100 km of ocean. Occasionally, individuals from either island fly to the other island to stay. This can alter the allele frequencies of the population through which of the following mechanisms?

- a. natural selection
- b. genetic drift
- c. gene flow
- d. mutation

_

[Hide]

Exercise 3

In which of the following pairs do both evolutionary processes introduce new genetic variation into a population?

- a. natural selection and genetic drift
- b. mutation and gene flow
- c. natural selection and gene flow
- d. gene flow and genetic drift

В

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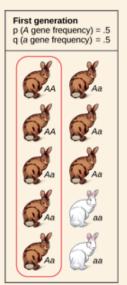
Free Response

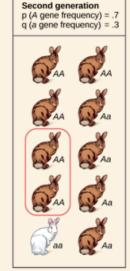
Exercise 4

Describe natural selection and give an example of natural selection at work in a population.

The theory of natural selection stems from the observation that some individuals in a population survive longer and have more offspring than others, thus passing on more of their genes to the next generation. For example, a big, powerful male gorilla is much more likely than a smaller, weaker gorilla to become the population's silverback, the pack's leader who mates far more than the other males of the group. The pack leader will, therefore, father more offspring, who share half of his genes, and are thus likely to also grow bigger and stronger like their father. Over time, the genes for bigger size will increase in frequency in the population, and the population will, as a result, grow larger on average.

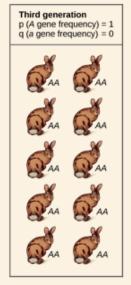
ART CONNECTION:





5 rabbits

reproduce



2 rabbits

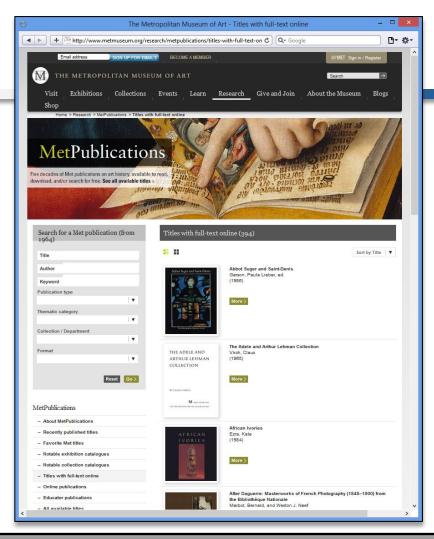
reproduce

Figure 1: Genetic drift in a population can lead to the elimination of an allele from a population by chance. In each generation, a random set of individuals reproduces to produce the next generation. The frequency of alleles in the next generation is equal to the frequency of alleles among the individuals reproducing.

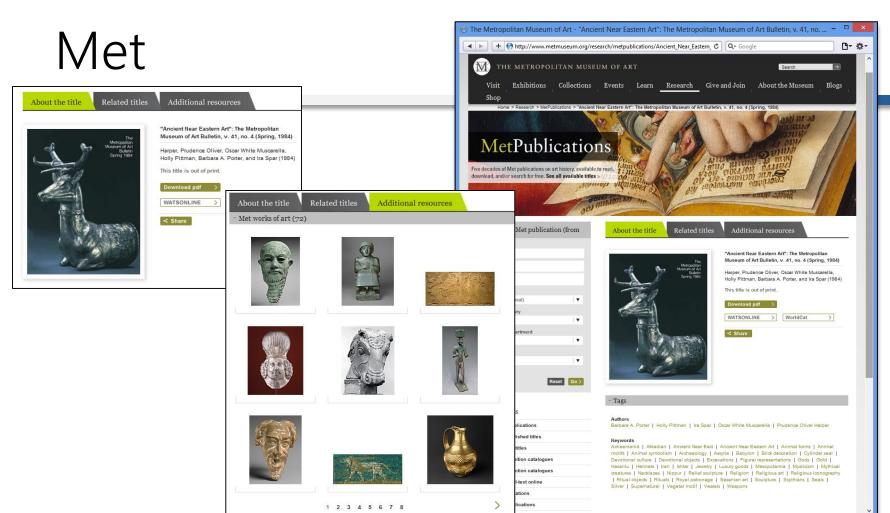
Do you think genetic drift would happen more quickly on an island or on the mainland?

Met

http://www.metmuseum.org/researc
h/metpublications/titles-with-fulltext-online?searchtype=F





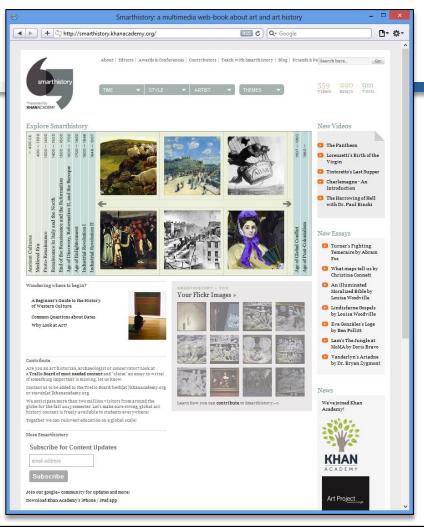




+ Heilbrunn Timeline of Art History (12)

smarthistory

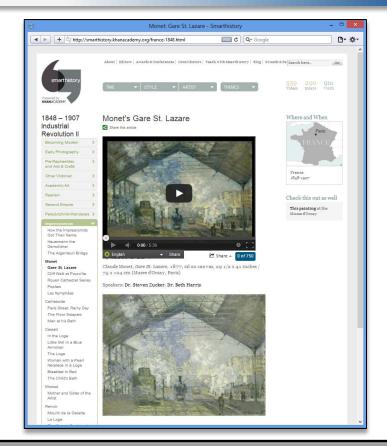
http://smarthistory.khanacademy.org/



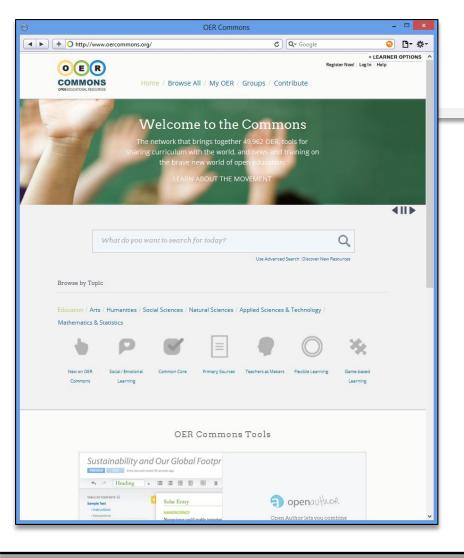


smarthistory





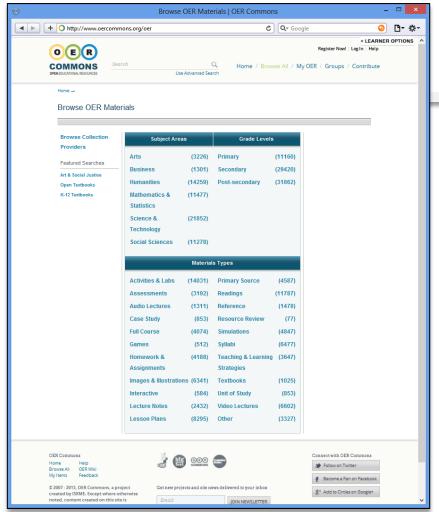




OER Commons

http://www.oercommons.org/



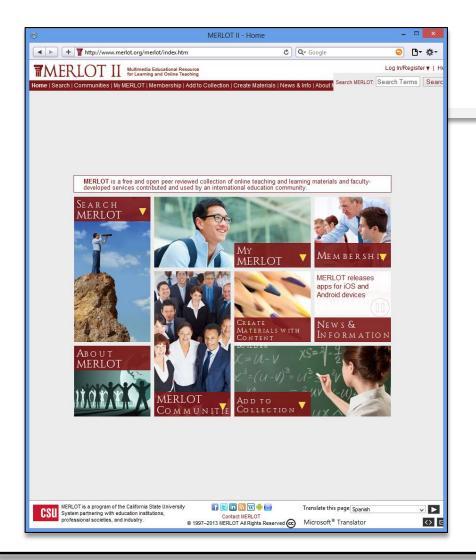


Browse All



Subject Areas		Grade Levels	
Arts	(2775)	Primary	(9698)
Business	(1306)	Secondary	(23147)
Humanities	(9181)	Post-secondary	(27063)
Mathematics &	(9626)		
Statistics			
Science &	(21140)		
Technology			
Social Sciences	(7435)		





Merlot

http://www.merlot.org

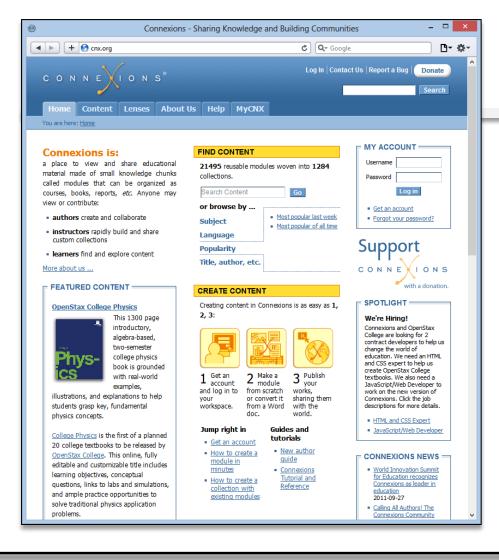




Learning Materials



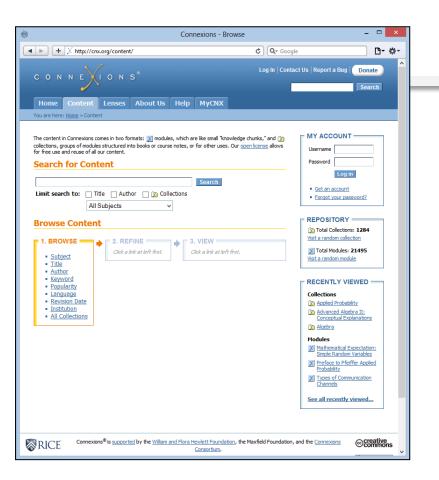




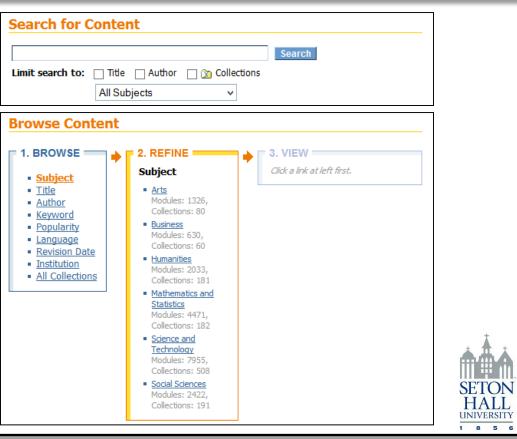
Connexions

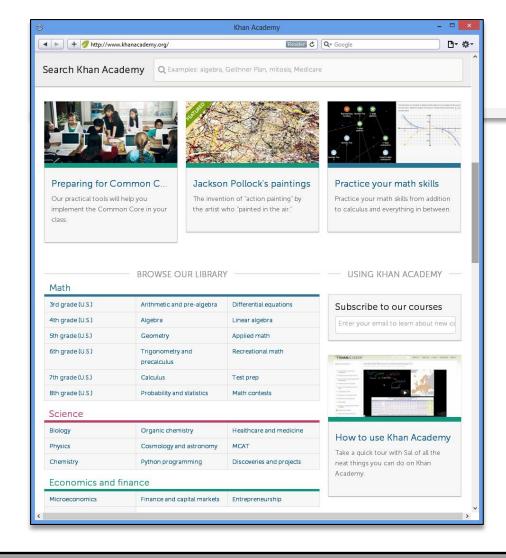
http://cnx.org





Content

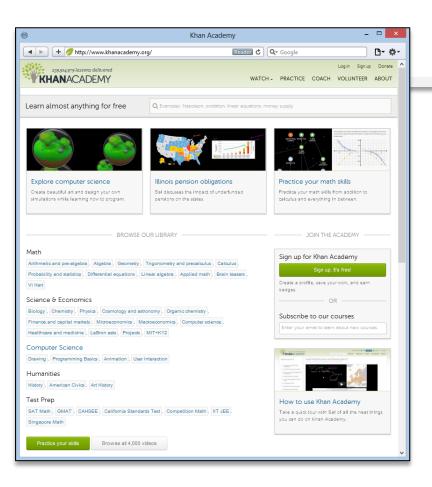




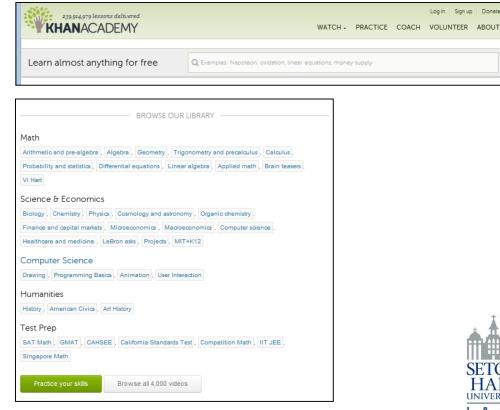
Khan Academy

http://www.khanacademy.org/





Browse our Library

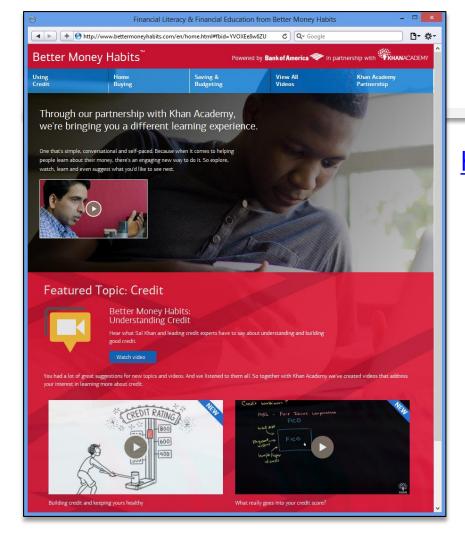


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"Bank of America and leading online educator, Khan Academy, have joined forces to create BetterMoneyHabits.com, a different kind of learning experience to help improve financial literacy that's simple, conversational and self-paced."

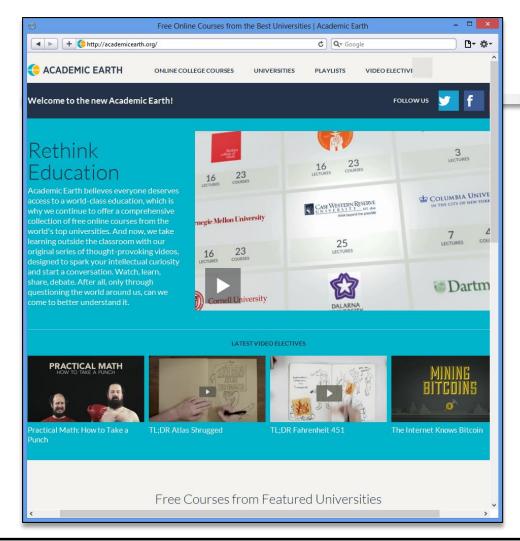
Mass Affluent Americans Pursuing More Aggressive Retirement Goals Instead of Paying Off Debt. (2013, October 28). MarketWatch. Retrieved November 7, 2013, from http://www.marketwatch.com/story/mass-affluent-americans-pursuing-more-aggressive-retirement-goals-instead-of-paying-off-debt-2013-10-28





http://www.bettermoneyhabits.com

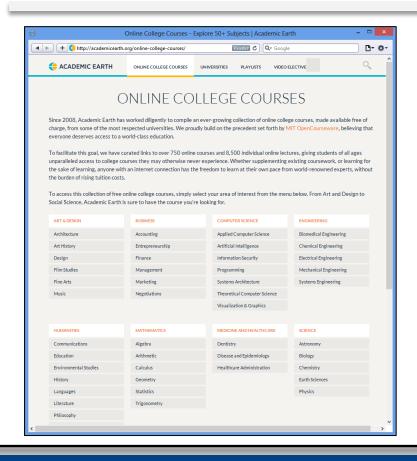


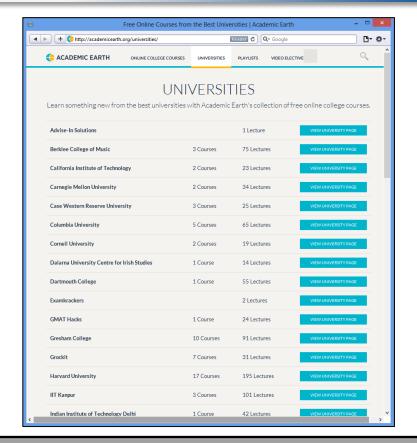


http://www.academicearth.org



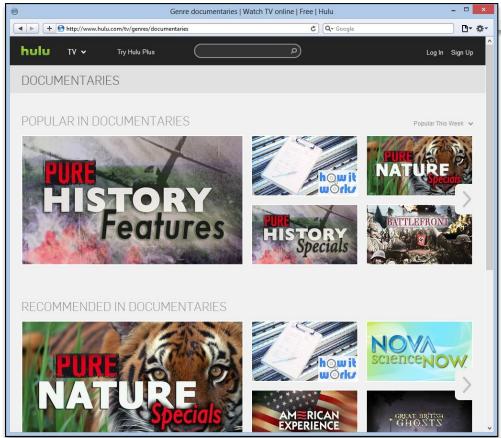
Subject / University







www.hulu.com/tv/genres/documentaries



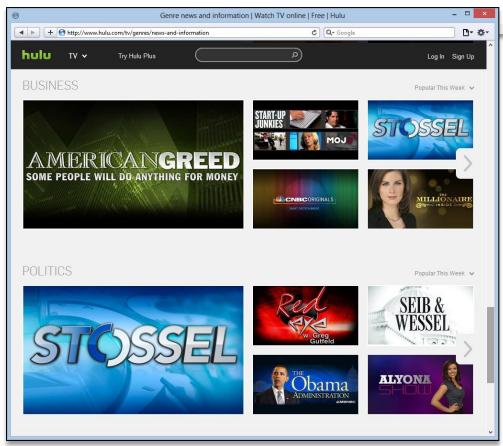


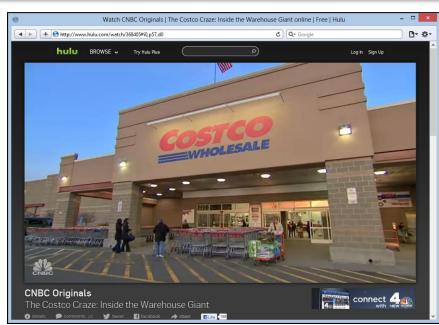
http://www.hulu.com/watch/196926#i0,p13,d0

American Experience | The Polio Crusade SEASON 21 EPISODE 2 | '/26/2009 | 53MIN



http://www.hulu.com/tv/genres/news-and-information





http://www.hulu.com/watch/368405#i0,p57,d0

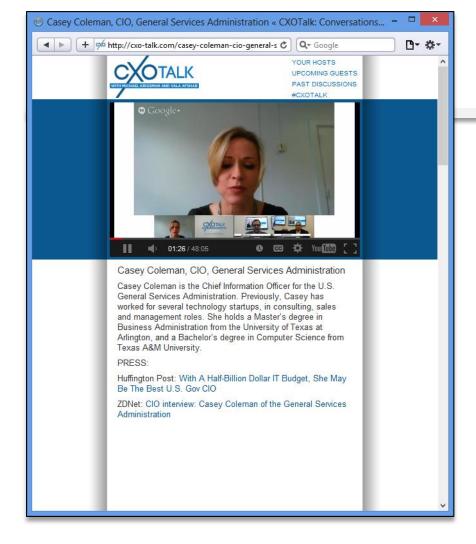
CNBC Originals Season 2 Episode 26 | 4/26/2012 | 43min The Costco Craze: Inside the Warehouse Giant





http://cxo-talk.com





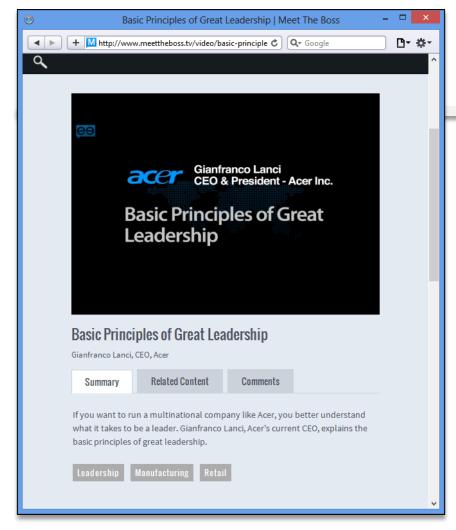
http://cxo-talk.com/casey-coleman-cio-general-services-administration/





http://www.meettheboss.tv





http://www.meettheboss.tv/video/basic -principles-great-leadership





http://fora.tv





http://fora.tv/2013/06/19/Deloitte CEO
Jim Moffatt Strategy Innovation Busi
ness



Activity

- 1. IDENTIFY a topic that your students struggle with semester after semester
- 2. LOCATE an OER for direct or supplemental instructional use
- 3. Share (what criteria did you use to select the OER, how will you utilize the resource?)



Websites

Interactive Simulations – University of Colorado at Boulder

(Interactive, research-based simulations of physical phenomena)

http://phet.colorado.edu/

NTNUJAVA Virtual Physics Laboratory | Enjoy the fun of physics with simulations!

http://www.phy.ntnu.edu.tw/ntnujava/

Molecular Workbench

http://mw.concord.org/modeler/

Biology Animations

http://biology-

animations.blogspot.com/search/label/chromosome

Solar System Simulator | NASA Jet Propulsion Laboratory, California Institute of Technology

http://space.jpl.nasa.gov/

Science Courseware

http://www.sciencecourseware.com/

Geology Online Labs

http://www.sciencecourseware.com/GLOL/

My Physics Labs – Physics Simulations

http://www.myphysicslab.com/



Websites

IRS – Understanding Taxes

http://apps.irs.gov/app/understandingTaxes/student/simulations.jsp

Population Biology Simulations – University of Connecticut

http://darwin.eeb.uconn.edu/simulations/simulations.html

The Khan Academy

https://www.khanacademy.org/

Microsoft Office Training

http://office.microsoft.com/en-us/support/training-FX101782702.aspx National Geographic

http://video.nationalgeographic.com/video/

PBS (NOVA | Frontline | PBS NewsHour | Washington Week | ...)

http://video.pbs.org/

Open Educational Resources: The Commons

http://www.oercommons.org/

United Nations Educational, Scientific, and Cultural Organizations (UNESCO)

http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/



Recent Articles

- Andreatos, A., & Katsoulis, S. (2012). Using Open Educational Resources in Course Syllabi. *American Journal Of Distance Education*, 26(2), 126-139. doi:10.1080/08923647.2012.663307

 http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=75125646&site=eds-live
- Conole, G. (2012). Fostering social inclusion through open educational resources (OER). *Distance Education*, *33*(2), 131-134. doi:10.1080/01587919.2012.700563 http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=78064137&site=eds-live
- de Langen, F. T., & Bitter-Rijkema, M. E. (2012). Positioning the OER Business Model for Open Education. *European Journal Of Open, Distance And E-Learning*, (1), http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ979599&site=eds-live
- Hardy, S. (2010). Open educational resources: freely available to support your teaching. *Clinical Teacher*, 7(2), 138-140. doi:10.1111/j.1743-498X.2010.00376.x http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=50636764&site=eds-live
- Harley, K. (2011). Insights from the Health OER Inter-Institutional Project. *Distance Education*, *32*(2), 213-227. doi:10.1080/01587919.2011.584848 http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=64318996&site=eds-live



Recent Articles

Nikoi, S., & Armellini, A. (2012). The OER mix in higher education: purpose, process, product, and policy. *Distance Education*, *33*(2), 165-184. doi:10.1080/01587919.2012.697439

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Olcott, D. (2012). OER perspectives: emerging issues for universities. *Distance Education*, *33*(2), 283-290. doi:10.1080/01587919.2012.700561

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Rolfe, V. (2012). Open Educational Resources: Staff Attitudes and Awareness. *Research In Learning Technology*,20(1), http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ973804&site=eds-live

Windle, R. J., Wharrad, H., McCormick, D., Laverty, H., & Taylor, M. (2010). Sharing and Reuse in OER: Experiences Gained from Open Reusable Learning Objects in Health. *Journal Of Interactive Media In Education*, http://ezproxy.shu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ910526&site=eds-live

