

Believe It Or Not, Education is Frequently Free (or nearly so)

John P. Rudy

john.rudy@alum.mit.edu

781-861-0402

June 24, 2020

Some History of Education

Universities -- formal legal corporation, large, gave degree

- University of Bologna 1088; then Paris, Oxford, Cambridge, ...
- University controlled by students, set up a guild, set up rules for professors, dorms
- 4-5 years to get a BA; then MA in law, medicine, theology

Textbooks --

- Didn't appear en-mass until mid 1800's
- Threatening to professors and guilds
- Some textbooks now cost >\$200
- Some textbooks can be rented <https://www.knetbooks.com/> <https://www.ecampus.com/> <https://www.amazon.com/gp/rental/buy/rentalfaq/displays/mobile.html> <https://www.campusbooks.com/rental>
- Short-term, by quarter, by semester
<https://www.amazon.com/Kindle-eTextbooks/b?ie=UTF8&node=2223210011>

Today's Objective

- There is a nearly infinite amount of information out there
- Provide an insight into the types of formal and other opportunities that are available.
 - Brick-and-mortar opportunities.
 - Formal courses from universities on the Internet.
 - Courses on CD and/or DVD.
 - Ad hoc lectures and mini-courses.
- Encourage browsing for more and more educational opportunities. Since they are free, there is no downside to exploration.

Start by Playing Around

- If I only have 3 minutes
 - <http://bigthink.com/>
- If I have 15 minutes
 - Find a 10-15 minute video
 - TED Talks: 11 of the most popular at http://www.ted.com/playlists/77/new_to_ted.html
- If I have an hour
 - Find a lecture
 - Kennedy Library <http://www.jfklibrary.org/Events-and-Awards/Forums.aspx?f=2012>
- If I can put in some quality time
 - Let's find a course: Coursera, Edx, etc. There are thousands!!

A variety of programs are available at “modest” cost through universities and towns.

NOTE: Check website for up-to-date pricing and options.

OSHER Lifelong Learning Institutes

- **Osher Lifelong Learning**

- Funded by Bernard Osher in 2001
- ~120 programs across the country, 4 in Massachusetts. “Must” be 50 or older.
- Osher Lifelong Learning Institute homepage: <http://www.osherfoundation.org/index.php?olli>
Prices vary as do length of courses. Most have supplemental lunchtime seminars and other benefits
- Primarily peer-taught courses; varies by program
- No tests, No papers, No grades (usually)
- Osher provides seed funding and occasional replenishment

Osher Lifelong Learning Institute at Brandeis University (BOLLI)

60 Turner Street; Waltham, MA 02454-9110

Website <http://www.brandeis.edu/bolli>

Osher Lifelong Learning Institute at Tufts University

039 Carmichael Hall, Tufts University; Medford, MA 02155

Website <http://ase.tufts.edu/lli>

Osher Lifelong Learning Institute at University of Massachusetts, Boston

McCormack Hall, 3rd Fl.,

UMass Boston, 100 Morrissey Blvd; Boston, MA 02125-3393

Website <http://www.olli.umb.edu/>

Example: Brandeis BOLLI Program

- 50 peer-led study groups/semester, most are 10 weeks long
- ~500 members
- 2 courses/semester plus third optional
- Noon-time Distinguished Speaker Program
- Enhancement programs including courses during intersession and summer
- Seminars by Brandeis faculty members
Language affinity groups, Book club, Theater parties,
New Yorker fiction salon, Play readings, Film viewings etc.
- Access to Brandeis concerts, museums and libraries
- ~\$350/semester

Example: UMass Boston OLLI Program

- Over 120 courses offered/year, typically 4-12 weeks long.
 - Approx. 80 lunchtime Brown Bag (BB) presentations per year.
 - Many classes video conferenced from Boston to Hingham and Plymouth.
 - Full members (\$175/yr.) may take 3+ courses/semester, space permitting.
 - Full members have free access to UMass Boston fitness center, pool, etc.
 - Associate members (\$50/yr) may attend BBs, social events, domestic and international travel programs, Special Interest Groups and Book Clubs.
 - Diverse membership of over 1,000 adults (ages 50+).
 - Accessible by public transportation (JFK/UMass station – MBTA Red Line)
- http://www.umb.edu/news_events_media/news/umass_bostons_first_mooc_offers_a_classroom_in_the_cloud
- <http://www.umb.edu/olli>

Non-OSHER Lifelong Learning programs

- Regis College (LLARC); Weston MA
 - <https://www.regiscollege.edu/academics/lifelong-learning-regis>
 - Open enrollment. Pay for courses only, or membership includes lunchtime programs
 - \$425/year
 - 25+ Peer taught courses, Tuesday Lunch & Learn
- Lifelong Learners: An Independent Collaborative -- (LLAIC)
 - <http://www.llaic.org/home>
 - \$80 plus \$90/course. ~300 members; since 2014
 - Temple Shir Tikvah in Wayland
 - Peer taught
 - ~30 courses, some 5-week and others 10 weeks
- Harvard Institute for Learning in Retirement -- (HILR)
 - <http://hilr.harvard.edu/>
 - HILR is restrictive and you must pass an interview to be selected
 - \$800 per year; ~550 students in program
 - ~65 courses/semester, lunchtime programs, Friday seminar series
 - Peer taught courses; up to 3/semester
- Boston University Metropolitan College (minimum age 58)
 - <http://www.bu.edu/met/>
 - Audit course @ \$185/course
 - Attend individual special lectures @ \$50

Many other places offer courses p1

- Town of Lexington OWLL at the COA since 2013 <http://friendsofthecoa.org/owll.asp>

Poetry Workshop

Instructor: Gavin Moses

Tuesdays, March 3, 10, 17, 24, & 31, 10:00AM - 11:30AM
Cary Library

Participants will use everyday senses to explore universal themes in their lives. The workshop will include crafting poems and reading established poets to inform discussions.

Neuroscience for the Layperson

Instructors: Wellesley College faculty (listed right)

Wednesdays, 2:00PM - 3:30PM, March 4, 11, 18 & April 1, 8 (Snow date April 15)
St. Brigid Parish Center

Returning by popular request, five members of the Neuroscience faculty at Wellesley College will share new insights to help lay people better understand the brain and its functions.

Art of the Isabella Stewart Gardner Museum

Instructors: Mary Newell DePalma

Monday, April 13 (Temple Isaiah) and
Tuesday, April 21 (Temple Isaiah), 10:00AM - 11:30AM, in Lexington
Tuesday, April 27, trip to tour the Museum

Delve into the history of Mrs. Gardner's exciting life, discuss her many acquisitions, and learn about her manner of arranging art in the Venetian palace she designed to house it. In the final session, the group will travel by bus for a guided tour of the Gardner Museum.

Taking a Play from Page to Stage with New Rep Theatre

Instructor: Bridget Kathleen O'Leary and guest presenters

Tuesdays, March 3, 10, 17, & 24, 1:30PM - 3:30PM
St. Brigid, 1981 Mass. Ave.

Focusing on the play, *Scenes from an Adultery*, the class will explore all aspects of theatrical production including story approach, design, and directing. A group outing to the New Rep Theatre at reduced rates will be an optional add-on.

Course Instructors:

Barbara Beltz - From Blood to Brain: What Does Research in Model Systems Teach Us About Ourselves?

David Ellerby - Mechanics and Control of Movement: An Evolutionary Perspective

Deborah Bauer - Schizophrenia and the Brain

Michael Wiest - The Neuroscientific Approach to the Mystery of Consciousness

Marc Tetel - The Brain and Sexual Orientation

Who the Dickens? A Cultural History

Instructor: Tatiana Holway

Thursdays, 10:00AM - 11:30AM, March 5, 12, 26 & April 2
First Parish UU

Through a survey of the economic, social, and political dimensions of Charles Dickens' career, explore how he became one of the most influential figures in his times and why his works continue to resonate so powerfully today.

Many other places offer courses p2

- Cambridge Center for Adult Education <http://www.ccae.org/>
 - Over 100 courses; many are practical

BAKE Baking Intensive: Three Weeks to Becoming a Better Baker

Looking to dramatically improve your baking skills? Explore concepts and terms, hone your skills, and get suggestions for continued improvement. We'll tackle yeast breads from France and Italy and non-yeast techniques, from biscuit, creaming, muffin, and egg-foam methods to laminated dough and beyond. Lunch, take-home containers, and reci [MORE](#)

Section	Start Date	Time	Location	Cost	Availability	Action
BAKE-WI15.01	Feb 28, 2015	10:00 AM	Cambridge Center	\$ 245.00	10	 

BAKS The Science of Baking

Join us in the kitchen to learn the basics of the science of baking. Side-by-side experiments will illustrate how the ingredients you choose and how you prepare them creates both the flavor and texture of what comes out of your oven. Make your "perfect" chocolate chip cookie—whether that's thin and crispy or soft and chewy. Bake the ultim [MORE](#)

Section	Start Date	Time	Location	Cost	Availability	Action
BAKS-WI15.01	Jan 24, 2015	11:00 AM	Cambridge Center	\$ 90.00	5	 

Many other places offer courses p3

Merrimack College offers free courses for seniors if there is available space.

- Contact Registrars Office at regoff@merrimack.edu to register using the senior audit policy.

Lowell University has a similar program

University Courses through the Internet

MOOCs

Four Major Consortia offer MOOCs: *Massive Open On-line Courses*

- Outgrowths of free programs begun at Stamford, MIT and elsewhere.
- Free to all registrants.
- Generally no prerequisites, or they are offered as suggestions.
- May have restrictions on start and completion dates.
- Most have many optional quizzes and tests, all computer-graded.
- Those who complete all material may get certificates.
- 10-20% (maybe) complete the material.
- Many enroll merely for enjoyment.
- Four largest programs are Coursera, Udacity and edX, Canvas.
- See <http://www.skilledup.com/blog/the-best-mooc-provider-a-review-of-coursera-udacity-and-edx/>

Comparison of Programs

	Coursera	Udacity	EdX
Biology & Life Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business & Management	<input type="radio"/>	<input type="radio"/>	
Computer Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economics & Finance	<input type="radio"/>		
Education	<input type="radio"/>		
Electrical & Materials Engineering	<input type="radio"/>		<input type="radio"/>
Food & Nutrition	<input type="radio"/>		
Health and Society & Media Ethics	<input type="radio"/>		<input type="radio"/>
History			<input type="radio"/>
Humanities	<input type="radio"/>		
Information technology & Design	<input type="radio"/>		
Law	<input type="radio"/>		<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicine	<input type="radio"/>		
Music, Film & Audio Engineering	<input type="radio"/>		
Physical & Earth Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Sciences	<input type="radio"/>		
Statistics & Data Analysis	<input type="radio"/>	<input type="radio"/>	

Coursera <https://www.coursera.org/>

- 118 Universities currently participate ranging from Brown to Berklee College of Music. Currently 940 courses available
- Courses taught in English (783), 19 other languages: Spanish, French, Chinese (122) and Italian
- 23 Categories range from humanities to Computer Science to Law



Data Science
Johns Hopkins University



Entrepreneurship:
Launching an Innovative
Business
University of Maryland, College
Park



Digital Marketing
University of Illinois at Urbana-
Champaign



Data Mining
University of Illinois at Urbana-
Champaign

Coursera Cont'd

- Varying durations
- Must be begun after start date; material kept on the web for some time.
 - Take courses on YOUR schedule (sort of).



Columbia University

Financial Engineering and Risk Management

with Martin Haugh, Garud Iyengar & Emanuel Derman

Feb 24th 2013

10 weeks long



Columbia University

Natural Language Processing

with Michael Collins

Feb 24th 2013

10 weeks long



Emory University

AIDS

with Kimberley Sessions Hagen

Feb 25th 2013

9 weeks long

edX <https://www.edx.org/>

- 2900 courses



Availability	
Current	62
Starting Soon	103
Upcoming	89
Self-paced	20
Archived	158

- “I took <https://www.edx.org/course/mit-edx-6.002-1x> [secret-of-life](#) “MIT’s introductory biology course, covering topics in biochemistry, genetics and genomics”. Just finished Civil War (Columbia)
- Walter Lewin’s three basic physics courses were available through MIT, now Electricity and Magnetism is redone for EdX.

edX Cont'd

- I took Sandel's excellent Justice course on-line directly from Harvard.

NEW
7.00x Introduction to Biology - The Secret of Life →



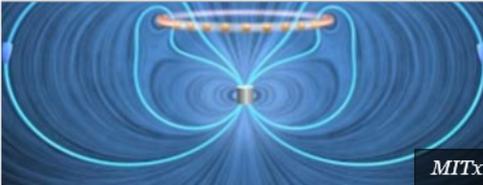
MITx

CS191x Quantum Mechanics and Quantum Computation →

$$\frac{1}{\sqrt{2}}|\uparrow\rangle + \frac{1}{\sqrt{2}}|\downarrow\rangle$$

BerkeleyX

8.02x Electricity and Magnetism →



MITx

NEW
CB22x The Ancient Greek Hero →



HarvardX

NEW
ER22x Justice →



HarvardX

NEW
PH2/8x Human Health and Global Environmental Change →



HarvardX

NEW
2.01x Elements of Structures →



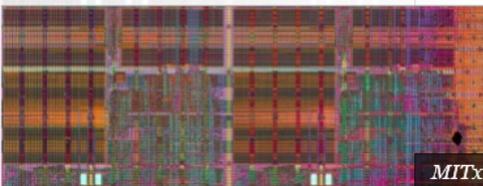
MITx

NEW
CS184.1x Foundations of Computer Graphics →



BerkeleyX

NEW
6.002x Circuits and Electronics →



MITx

edX Offers Master's Degree in Computer Science

- https://www.edx.org/masters/online-master-data-science-utaustinx?utm_source=sailthru&utm_medium=email&utm_campaign=jira_masters_ut_ds_learnrs_announcement_20200602
- Partnered with University of Texas



\$10,000



10 courses



Fully Online



1.5-3 years

Master's Overview

The Department of Statistics and Data Sciences at The University of Texas at Austin has partnered with the Department of Computer Science to offer a Master of Science in Data Science. This new online master's program embodies the defining principles of Data Science, combining the leaders from both fields, to present a curriculum designed from the ground up to offer a solid foundational knowledge in Statistical theory upon which to build a Computer Science application. Course curriculum incorporates

Udacity <https://www.udacity.com/courses>

- Beginner, Intermediate and Advanced; Technical and Business.
- Available at all times.
- I took Stanford's Artificial Intelligence.



JavaScript Design Patterns NEW

■■■ Advanced

PROJECT **Neighborhood Map**

Learn the importance of code organization and how to implement it with either vanilla JavaScript or an organizational library or framework.



Intro to iOS App Development with Swift

■■■ Intermediate

NEW

PROJECT **Make your first iPhone app**

Take the first step in becoming an iOS Developer by learning about Swift and writing your first app.



Data Visualization and D3.js NEW

■■■ Intermediate

Learn the fundamentals of data visualization and apply design and narrative concepts to create your own visualization.

Built by **Zipfian**

Udacity: First opportunity to use MOOCs for a degree

Georgia Tech Masters in CS

In partnership with Georgia Tech and AT&T, Udacity offers access to individual Georgia Tech Online Masters in Computer Science courses. These advanced courses are taught in the full degree program from Georgia Tech and cover topics such as Artificial Intelligence and Machine Learning.

Canvas Network <https://www.canvas.net/>

Started with Stanford AI course: 160K students from 190 countries

Introduction to Computer Science University of Virginia	Self paced	★★★★★ 33
Programming Languages University of Virginia	Self paced	★★★★☆ 5
Design of Computer Programs Stanford University	Self paced	★★★★☆ 4
Web Development	Self paced	★★★★☆ 9
Artificial Intelligence for Robotics Stanford University	Self paced	★★★★★ 5

- 108 universities
- Hundreds of free courses, usually with a specific set of dates
- Many are less technical
- Many are short
- Anyone can submit a course

Other On-line Courses from Universities

- Open University. <http://www.open.ac.uk/openlearn/home.php> Open University is UK's largest academic institution with ~600 courses BUT MOST NOT FREE
- Carnegie Mellon. <http://oli.web.cmu.edu/openlearning>. CMU offers about a dozen free online courses and materials.
- Tufts University. <http://ocw.tufts.edu/TuftsOER>. Courses are sorted by school (i.e., School of Arts & Sciences, Medicine, etc.) and include assignments, lecture notes and other materials. But Arts & Science has only 15 courses and the material is pretty sketchy.
- University of Southern Queensland. <http://ocw.usq.edu.au> 10 courses including Introduction to Tourism. All available as text and audio, with an Australian accent..
- iTunes U has more than 100,000 educational audio and video files from top universities, famous museums, public media organizations, and other cultural institutions from around the world.
 - In *iTunes*, click *iTunes Store* (below Store).
 - Click *iTunes U* at the top of the iTunes Store window.

Universities Online (Cont'd)

- Kutztown University of Pennsylvania. http://kutztownsbdc.org/course_listing.asp. Kutztown's Small Business Development Center offers 44 free business programs including accounting, finance, government, business law, marketing and sales. Comprehensive text, interactive case studies, slides, graphics and streaming audio are available. To utilize the material you must become a member, free, at their home page. Each state has something like this, but there is no standardization.

Jonathan Haber – A Pioneer

- Jonathan is a Lexington resident who decided to see whether he could get the equivalent of a 4-year BA degree in Philosophy in one year through MOOCs.
- Accomplished in 2013
- Provided a weekly blog and a web page <http://degreeoffreedom.org/>

Sign up for the Degree of Freedom weekly news

Read course reviews, follow my progress, and read about trends in online learning – right in your inbox!

- Excellent book *MOOCs: The Essential Guide*, MIT Press, 2014

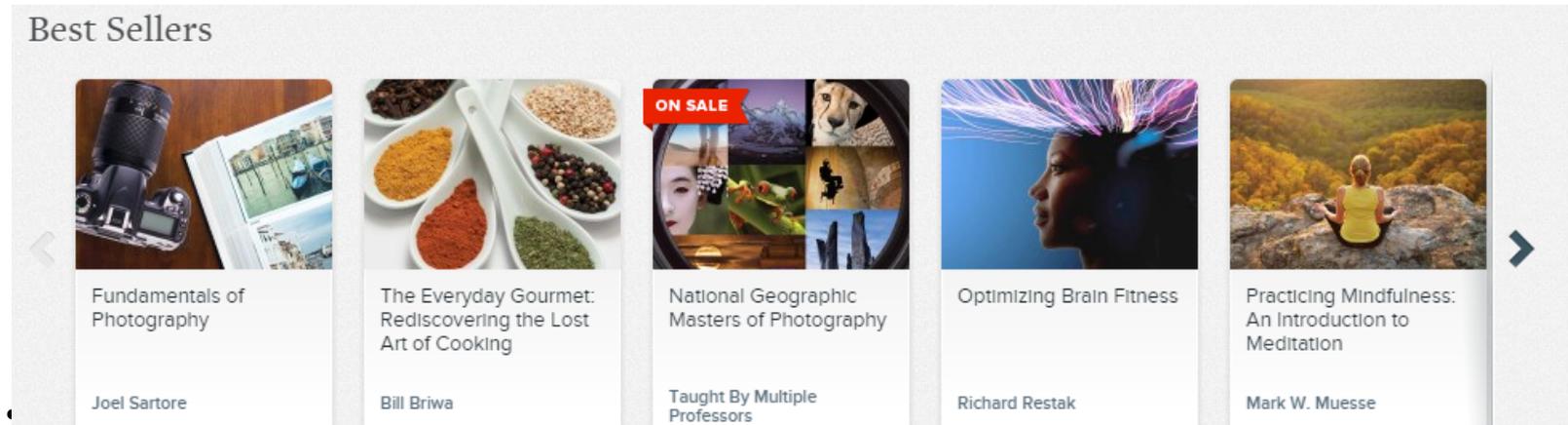
Purchase Courses or Borrow from the Library

Massachusetts Libraries

- The Minuteman Library Network <http://www.mln.lib.ma.us/> includes 35 towns and 7 colleges (mostly small). See list at <http://www.mln.lib.ma.us/info/>
- The Merrimack Valley Library Consortium permits cross sharing of library cards <http://www.mvlc.org/>. Includes another ~35 libraries.
- All assets from these libraries can be searched on-line and sent to the library of your choice (except for DVDs).
- Massachusetts has a Virtual Catalog <http://mblc.state.ma.us/books/catalogs/vc/index.php> providing searching across Massachusetts. Search capabilities are limited and it is best to have an ISBN.
 - Different libraries and library systems have different ways of coding objects, making it difficult to locate things like Voice CDs

CD and DVD Courses p1

- *Teaching Company* has ~500 “Great Courses”.
 - <http://www.teach12.com/teach12.aspx?ai=16281>
 - Nearly all as DVD (also as CDs). Length from 6 to 30+ hours
 - Minuteman shows 285 records (some duplicates); Merrimack shows 298.
 - Very broad range of subjects; very high quality



- Personalized *Teaching Company* calendar of upcoming “cultural events” near Boston and 18 other cities. Arranged by subject matter, they complement many of the courses.
 - <http://www.thegreatcourses.com/tgc/accounts/events.aspx?ai=52597>

CD and DVD Courses p2

Modern Scholar has about ~175 courses

Many available through local libraries

Also a lot of books on “tape”

<http://www.learnoutloud.com/Resources/Publishers-and-Retailers/Modern-Scholar/80>

1.



[Alexander of Macedonia](#)

by Robin Lane Fox

Available on: **Audio Download (\$34.95)**

▶ **PLAY**

Alexander the Great is the most famous king and conqueror known in the ancient world. In his lifetime, he was given honors equal to those of the gods.

2.



[American Inquisition: The Era of McCarthyism](#)

by Ellen Schrecker

Available on: **Audio Download (\$34.95) | Audio CD | Audio Cassette**

▶ **PLAY**

During the early years of the Cold War, the anticommunist witch hunt that we now call McCarthyism swept through American society. As we will discover, McCarthyism was much more than the career of the blustering senator from Wisconsin who gave it a name.

www.Linda.com

Charges ~\$25/month for access to thousands of courses about computers and software.

Includes:

- [Photography](#)
 - [Photoshop](#)
 - [Web](#)
 - [3D + Animation](#)
 - [Developer](#)
 - [Audio](#)
 - [Video](#)
 - [Business](#)
 - [Microsoft](#)
- [Apple](#)
[Adobe](#)
etc. etc. etc.

Khan Academy

<http://www.khanacademy.org/>

- *Time Magazine* named Salman Khan in annual 2012 list of 100 most influential people in the world.
 - MIT: BS in mathematics '97, BS in electrical engineering and computer science, and an MS in computer science; MBA from Harvard Business School.
 - Retired as Hedge Fund Manager in 2009 to develop videos full time.
- >4,000 short videos including arithmetic to physics, finance, history and Test Prep (SAT, etc.)
- Link to “ABOUT” and view 11-minute video on offerings.
- Great for your grandchildren.

Other Educational Opportunities

Free Books On-line

- <http://www.ebooksread.com/>. Currently 324,000 free ebooks from 122,000 authors.
- Project Guttenberg <http://www.gutenberg.org/catalog> 42,000 free ebooks (as of 3/2/2013)
 - Partners and affiliates to Project Guttenberg have another 100,000 titles. http://www.gutenberg.org/wiki/Gutenberg:Partners%2C_Affiliates_and_Resources
 - Free kindle books, download them or read them online.
 - PG ebooks are free in the United States because their copyright has expired.
- Most Libraries now provide eBooks.

Podcasts

Podcast technology: Once you load/subscribe a podcast you can have it automatically download additional shows as they become available. There are 100K – 150K.

- BBC-4
 - <http://www.bbc.co.uk/podcasts/>
 - <http://www.bbc.co.uk/ahistoryoftheworld/> History of the world in 100 objects, each in the British Museum. 15 minute podcasts, but additional information is available through the BBC website.
 - <http://thehistoryofrome.typepad.com/> is currently at 179 episodes and is available as podcasts or directly through the web
- Scientific American: <http://www.scientificamerican.com/podcast/>
- National Geographic: <http://www.nationalgeographic.com/podcasts/>
- Smithsonian: <http://www.si.edu/podcasts/> (this is vast!!!)
- Etc. etc. etc.

Stumbleupon Learns Your Interests

- <http://www.stumbleupon.com/> has 15 million members and provides internet recommendations on a weekly and/or ad-hoc basis.
- I receive recommendations weekly.
- The system is seeded by your identification from >500 areas of interest
 - As you rate what is identified to you it refines its knowledgebase
 - Areas can be added or deleted
- There is a good 1 minute explanation of the site <http://www.stumbleupon.com/productdemo/>
- And here is something interesting I found there
<http://www.stumbleupon.com/su/1k0CXS>
The scale of the universe.

Technology, Entertainment & Design: (TED)

www.ted.com

- Formed in 1984, a nonprofit devoted to “Ideas Worth Spreading.”
- Currently over 1,700 talks.
- All sub-titled in English
- Funded by ~25 major corporate sponsors: Microsoft, IBM, Coca-Cola
- See the following site for a fascinating talk on cheap water filtration.

http://www.ted.com/talks/lang/eng/michael_pritchard_invents_a_water_filter.html

Show talks subtitled in
English

Show by event
All Events

Show by length
All lengths

Show talks related to:

- all
- technology
- entertainment
- design
- business
- science
- global issues

Order talks by:

- Newest releases
- Date filmed
- Most viewed
- Most emailed this week
- Most comments this week
- Most popular this month
- Rated jaw-dropping
- ... persuasive
- ... courageous
- ... ingenious
- ... fascinating
- ... inspiring
- ... beautiful
- ... funny
- ... informative

TED Talks Cont'd



Sugata Mitra: Build a School in the Cloud

22:31 Posted: Feb 2013
Views: 277,173 | Comments: 154

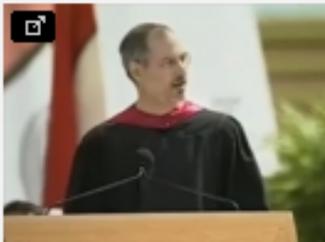
Rated: **Inspiring** Fascinating ...



Mitch Resnick: Let's teach kids to code

16:48 Posted: Jan 2013
Views: 327,847 | Comments: 84

Rated: **Inspiring** Informative ...



Steve Jobs: How to live before you die

15:04 Posted: Oct 2011
Views: 10,104,688 | Comments: 1262

Rated: **Inspiring** Courageous ...



Erik Schlangen: A "self-healing" asphalt

06:50 Posted: Feb 2013
Views: 225,363 | Comments: 91

Rated: **Ingenious** Informative ...



Pranav Mistry: The thrilling potential of SixthSense technology

13:50 Posted: Nov 2009
Views: 9,683,393 | Comments: 1125
Rated: **Jaw-dropping** Inspiring ...



Fahad Al-Attiya: A country with no water

08:46 Posted: Jan 2013
Views: 261,902 | Comments: 77

Rated: **Informative** Inspiring ...

Saturday Morning Physics

- <http://www.saturdaymorningphysics.org>_from U. of Michigan since 1985.
- Free on-line courses in Spring and Fall semesters.
- Classes remain on the web for a number of years.
- Find descriptions of past events at: <http://www.lsa.umich.edu/physics/events/saturdaymorningphysics/pastevents>
- Find Lecture Archives at: <http://lecb.physics.lsa.umich.edu/CWIS/SPT--BrowseResources.php?ParentId=184>

Kennedy Library Forums

- Kennedy Library runs free Forums.
 - Mostly during rush hour.
 - Reserve seats; seating is tight
 - 617-514-1643 or <http://www.jfklibrary.org/webcast>

OR

- View Forums at your leisure on the internet:
 - <http://www.jfklibrary.org/webcast>
 - Archived forums from 1998 to the present.

YouTube -- started 2005

Viewership <https://merchdope.com/youtube-stats/>

- Owned by Google (\$1.65B)
- ~30 million unique users visit YouTube each day.
- >5 billion video hours watched each day.
- 300 hours of video are uploaded to YouTube every minute.
- 80% of YouTube traffic comes from outside the US
- YouTube is localized in 53 countries and across 61 languages
- Available in 76 languages

Many Courses are available through YouTube. For example:

Yale: <http://www.youtube.com/watch?v=pnm3plYUs2A>

Stanford: <http://www.youtube.com/user/stanforduniversity>

The **richest YouTuber** in the world is a 8-year-old Ryan Kaji. He started his own **YouTuber** channel at the age of 3 and put up toy-reviews. His videos are watched by more than a billion people. Net worth \$30M

Lexington Veterans - Monthly

1:15 - 3:00 PM

Cary Memorial Library FOR INFORMATION

1874 Massachusetts Avenue (781) 862-2502

Lexington, Massachusetts A300Bill@Gmail.com

<http://www.lexmavets.org/> Talks are recorded

Monday 9 March - Wartime Lessons that Have Informed Civilian Medicine - (Cancelled)

Dr. Michael Rosenblatt, Chief Medical Officer, Lahey Hospital Burlington, *of the lifesaving medical advances commonly used today came about from treating battlefield casualties.*

Monday 13 April - We Stood Our Ground - (Cancelled)

Alex Cain, author, historian, educator, and member. *Lexington's transformation from a peaceful farming town to a hotbed of political ferment during the 1760's and 1770's.*

Monday 11 May - Prosthetics – Past, Present, and Future - (Cancelled)

Arthur Graham, Certified Prosthetist and Clinical Mgr, Next Step Bionics & Prosthetic *Current technology and how the advent of bionic technology is changing how we are able to restore function to amputees considered impossible a few years ago.*

Monday 8 June - Crash Landing: Gliders - The Flying Coffins of World War II -

Jim Ramsey, former Navy Lieutenant and Seabee Company Commander in Vietnam *Aircraft with no motors, no parachutes, canvas skins and wooden wings, these aviators deliberately crash landed behind enemy lines and then fought as infantrymen.*

In Summary

- This education is mostly flexible; sample what you wish
- Hundreds of thousands of options available.