

In the January 2014 Newsletter

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Current Events in Context



Image courtesy of Andrew Ho and Isaac Chuang.

MIT and Harvard release working papers on open online courses (MIT News)

MIT and Harvard University today announced the release of a series of working papers based on 17 online courses offered on the edX platform. Run in 2012 and 2013, the courses analyzed drew upon diverse topics — from ancient Greek poetry to electromagnetism — and an array of disciplines, from public health to engineering to law.

The working paper series features detailed reports about individual courses; these reports reveal differences and commonalities among massive open online courses (MOOCs). In the coming weeks, data sets and interactive visualization tools will also be made available.

Led by Isaac Chuang, a professor of electrical engineering and computer science at MIT, and Andrew Ho, an associate professor in Harvard's Graduate School of Education, the collaborative research effort was in service of a mutual goal — “to research how students learn and how technologies can facilitate effective teaching both on-campus and online” — part of a mission statement established when MIT and Harvard joined to form edX, the not-for-profit online learning platform, in May 2012.

The papers analyze an average of 20 gigabytes of data

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per course and draw on interviews with faculty and course teams as well as student metrics.

Key takeaways

Takeaway 1: Course completion rates, often seen as a bellwether for MOOCs, can be misleading and may at times be counterproductive indicators of the impact and potential of open online courses.

> [Read the complete article](#)

New Courses

- [3.024 Electronic, Optical and Magnetic Properties of Materials](#)
- [7.346 DNA Wars: How the Cell Strikes Back to Avoid Disease after Attacks on DNA](#)
- [21W.758 Genre Fiction Workshop](#)
- [ES.S60 The Art and Science of Happiness](#)
- [WGS.115 Gender and Technology](#)
- [WGS.S10 Reproductive Politics in the United States](#)

Updated Courses

- [4.241J Theory of City Form](#)
- [6.851 Advanced Data Structures](#)
- [8.07 Electromagnetism II](#)
- [9.17 Systems Neuroscience Lab](#)
- [11.308J Advanced Seminar: Urban Nature and City Design](#)
- [21M.030 Introduction to World Music](#)
- [21W.742 Writing About Race](#)

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Highlights for High School

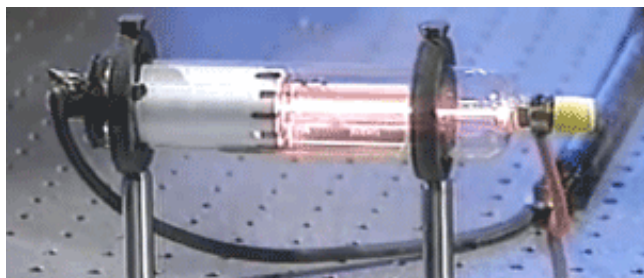


Image of helium neon laser turned on.



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MIT offers a number of [outreach programs](#) for high school students and teachers. One such program is the [Lambda Project](#) which brings chemistry to life for local high school students.

The project recently introduced students to [laser spectroscopy](#). Students worked in an MIT lab and learned about waves, nanometers, and picoseconds.

You can learn about these subjects on our Highlights for High School and OCW sites:

- See a select collection of [physics demonstrations](#) on waves
- [Gain an understanding of light](#) as a flow of particles from sources, including the relationship between flux, luminosity and distance which is part of spectroscopy
- Watch video demonstrations in [Lasers and Optics](#) on OCW, and
- Understand the fundamentals and physical intuitive interpretation of [laser and fiberoptic phenomena](#) and their applications.

[> Visit Highlights for High School](#)

MIT Professional Education offers first online course



Professionals can register now for “Tackling the Challenges of Big Data”

MIT will offer its first online professional course, Tackling the Challenges of Big Data, to a global audience beginning March 4. The four-week online course, aimed at technical professionals and executives, will tackle state-of-the-art topics in big data ranging from data collection, storage, and processing to analytics and visualization, as well as address a range of real-world applications.

Teaching the course will be 12 faculty experts from the world-renowned MIT Computer Science and Artificial Intelligence Laboratory at the School of Engineering.

The course will be offered through MIT Professional Education, the arm of MIT that provides professional education and training for science, engineering, and technology professionals. It will be the first of a new line of professional programs to be delivered globally using the open-source online education platform edX.

The course will provide companies and organizations the ability to offer training and education to their employees on big data – a topic that confronts most industries today. Upon completion, participants will receive an MIT Professional Education certificate of completion and access to MIT Professional Education's expansive professional alumni network. The cost is just \$495.

[> Learn more and register today](#)

MITx News: MITx expands ID verified certificate offerings

Last fall *MITx* introduced certificates using the new edX ID verification system, which provides additional identity assurance for work completed on the edX platform.

ID verified certificates were available for students participating in last fall's 6.002x Circuits and Electronics course at a cost of \$100.

This spring, *MITx* will offer ID verified certificates on a wider selection of *MITx* courses, including 16.110x Flight Vehicle Aerodynamics, 15.071x The Analytics Edge, 15.390x Entrepreneurship 101: Who is your customer?, and 6.002x Circuits and Electronics.

ID verified certificates are also required for component courses of MIT's new XSeries programs, which provide recognition for the completion of a series of *MITx* courses.

[> View MITx courses offering ID verified certificates.](#)

Views from Supporters



"Education is the only thing that will ultimately solve all of the world's issues.

The courses that MIT provide are used by people all over the world.

Beyond feeding the hungry, because you can't learn if you are starving, education is the cause I am most passionate about.

MIT OpenCourseWare will become one of my charities of choice going forward. Great cause!"

- Laurie, Independent Learner, USA

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