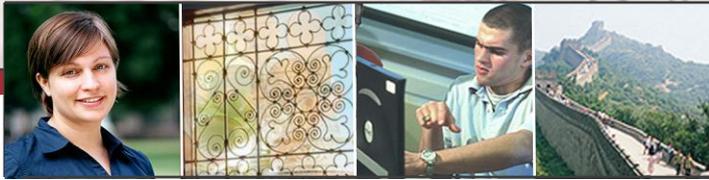


Unlocking Knowledge, Empowering Minds.

Prof. Steven R. Lerman, Dean for
Graduate Education, MIT

30 April 2008

MITOPENCOURSEWARE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



Unlocking Knowledge

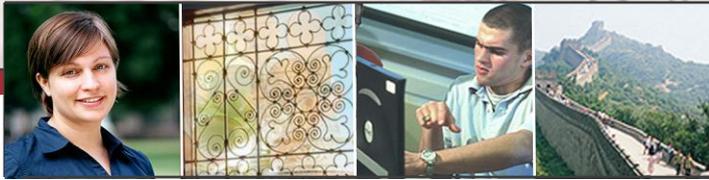
What is OCW?

MIT OpenCourseWare IS NOT:

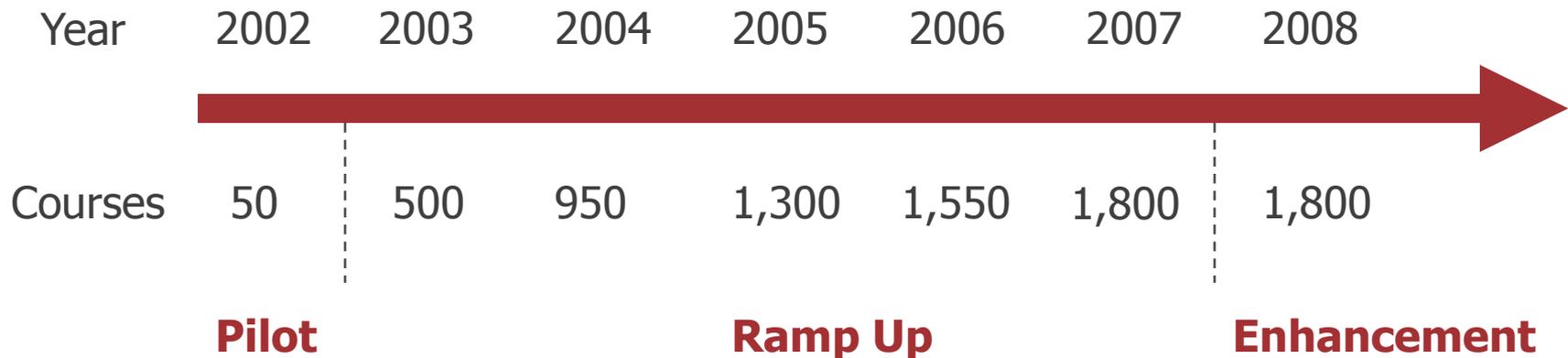
- An MIT education
- Intended to represent the interactive classroom environment
- Degree-granting

MIT OpenCourseWare IS:

- A Web-based publication of virtually all MIT course content
- Open and available to world
- A permanent MIT activity



Unlocking Knowledge Project Phases



In May, 2001 MIT committed to making the materials we use for teaching virtually all our courses freely available on the Web for any research or educational use.



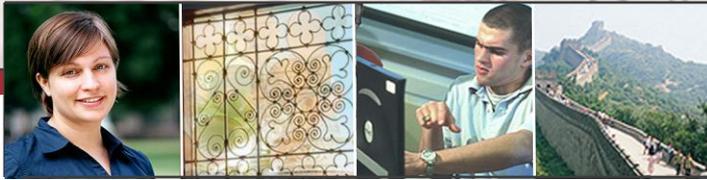
Unlocking Knowledge A Community Achievement

Covers:

- The entire undergraduate and graduate curriculum
- 33 academic departments

Voluntary contributions from:

- 90% of MIT faculty
- 2,600 members of the MIT community
- More than 5,000 individuals and organizations in total



Unlocking Knowledge 1,800 Courses

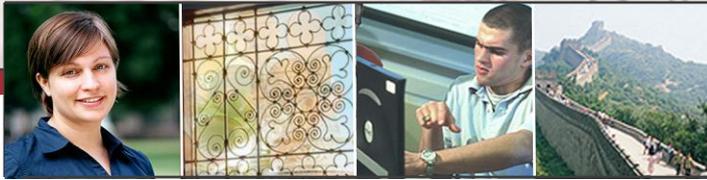
- 1,800 Syllabi & reading lists
- 15,000 lecture notes
- 9,000 problem sets
- 900 exams

Many include:

- Audio/video (~60)
- Complete texts (~30)
- Simulations/animations

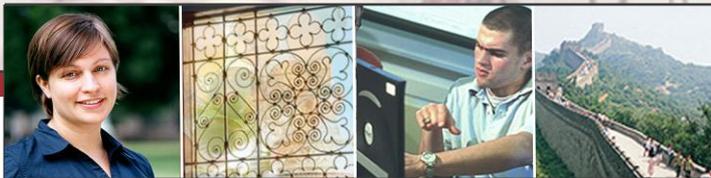
The screenshot shows the MIT OpenCourseWare website homepage. At the top, it says "MIT OPEN COURSEWARE MASSACHUSETTS INSTITUTE OF TECHNOLOGY". There are navigation links for Home, Courses, Donate, About OCW, Help, and Contact Us. A search bar is visible. The main content area features a large banner with a photo of a smiling woman and the text "Unlocking Knowledge, Empowering Minds." Below this, there is a quote from a student and a "DONATE NOW" button. To the left, there is a sidebar with "Get Started with OCW" and "Find Courses" sections. At the bottom, there is a "NEWSLETTER" sign-up section and a footer with copyright information and logos for MIT and the OCW Consortium.

<http://ocw.mit.edu>

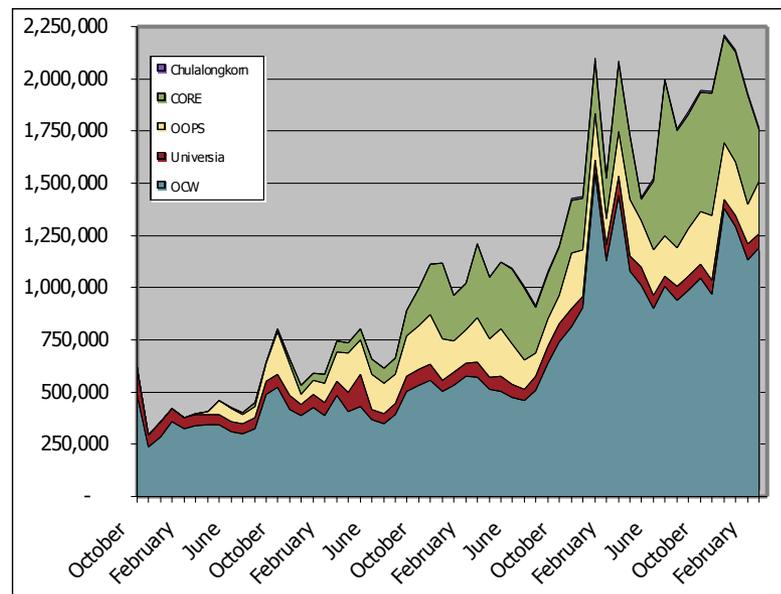
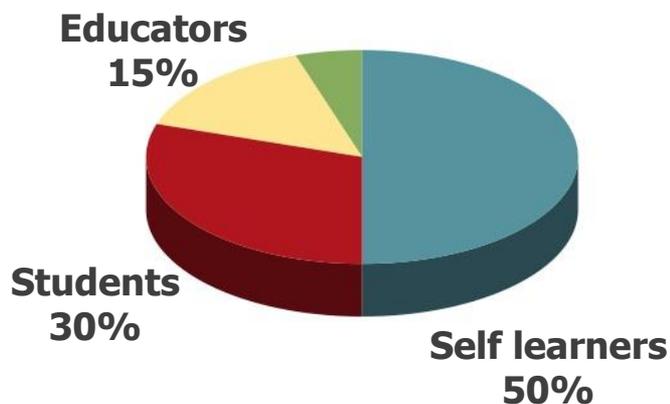
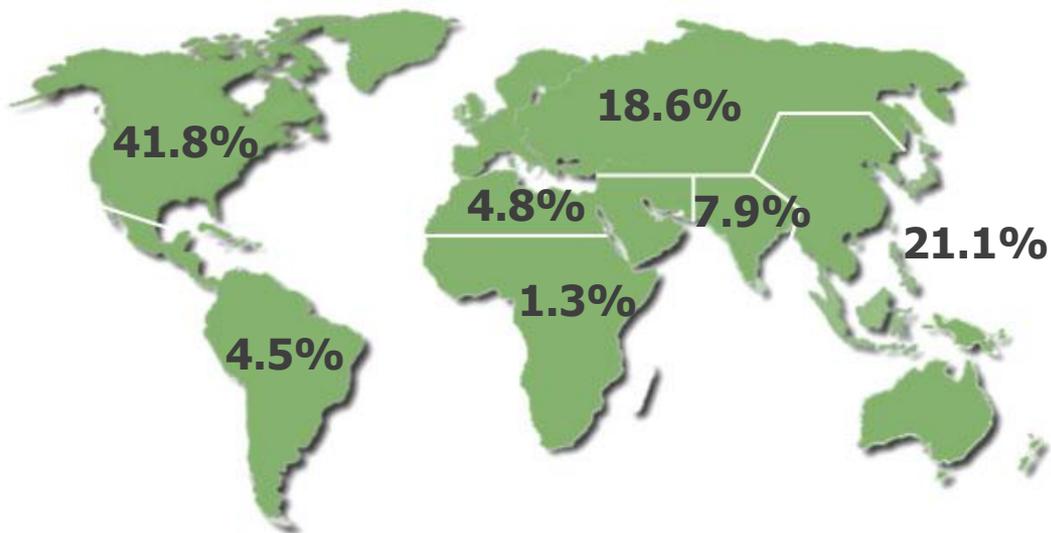


Unlocking Knowledge Translations

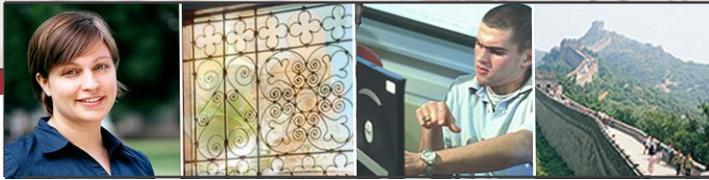
- Chinese (395)
- Spanish (99)
- Portuguese (95)
- Thai (15)
- Farsi



Empowering Minds A Global Audience

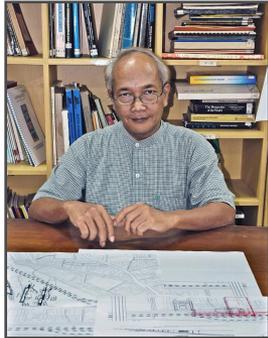


Visits since 10/03



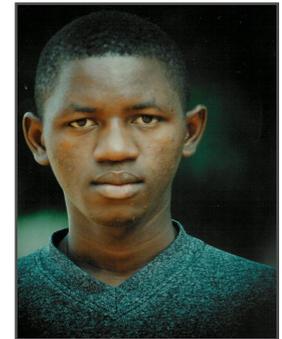
Empowering Minds

Case Studies

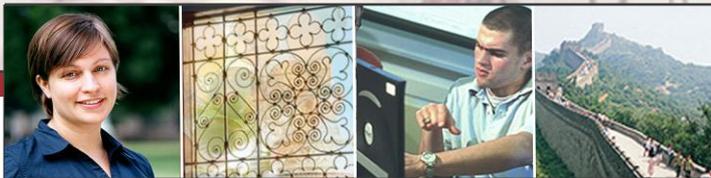


"It's not simply the information that's valuable, but also the glimpse OCW offers into how MIT has structured its teaching and research." - **Educator, Indonesia**

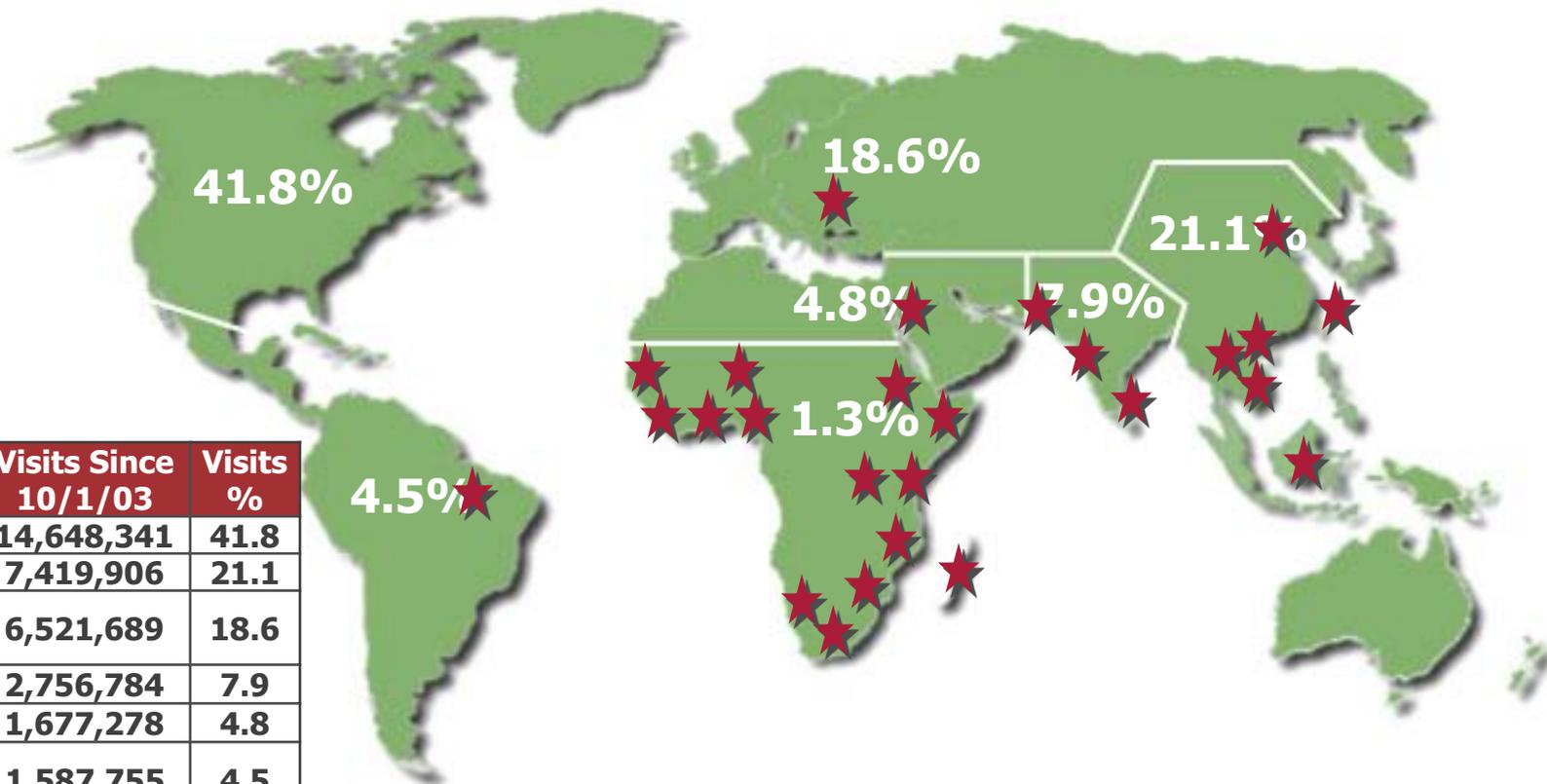
"Last semester, I had a course in metallurgical engineering. OCW helped me gain a deeper understanding of the material." - **Student, Nigeria**



"Communications for Managers' is an excellent presentation of how managers can improve communication. That was something I could use and apply immediately." - **Self learner, Bahrain**

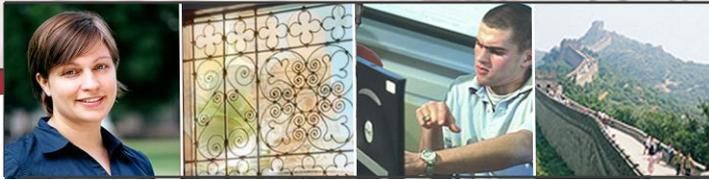


Empowering Minds Traffic by Region



Mirror sites — Approx. 172 around the globe

Region	Visits Since 10/1/03	Visits %
North America	14,648,341	41.8
East Asia/Pacific	7,419,906	21.1
Europe/Central Asia	6,521,689	18.6
South Asia	2,756,784	7.9
MENA	1,677,278	4.8
Latin America/Caribbean	1,587,755	4.5
Sub-Sah. Africa	469,691	1.3
TOTAL VISITS	35,081,444	



Empowering Minds

Traffic by Country – Mar 08

Country		Visits
1	United States	493,417
2	India	150,555
3	China	123,747
4	South Korea	73,859
5	Canada	40,473
6	Germany	35,641
7	Brazil	35,389
8	United Kingdom	33,813
9	Turkey	21,305
10	Italy	19,497

Country		Visits
11	Iran	18,449
12	Ukraine	17,990
13	France	17,158
14	Australia	14,998
15	Vietnam	13,148
16	Spain	12,987
17	Japan	12,444
18	Pakistan	11,015
19	Egypt	10,704
20	Singapore	10,096



The Challenge Ahead

Inspire a Movement

Other OCWs:

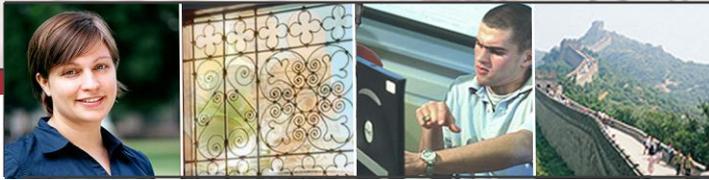
- 190+ institutions
- 92 live OCW sites
- ~5,500 courses



A photograph of a young man with short hair and glasses, smiling broadly. He is wearing a grey button-down shirt over a white t-shirt. The background is a blurred view of a large, classical-style building with many white columns, likely a university building, with green trees in the foreground.

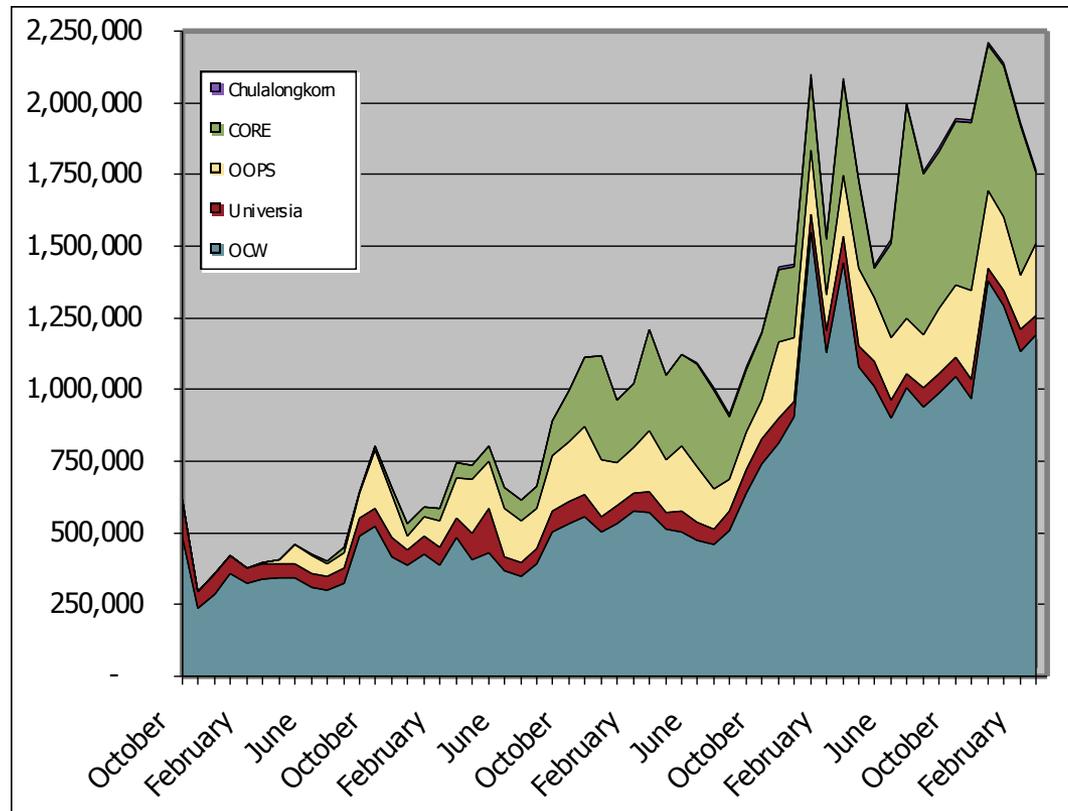
Thank You!

Visit MIT OpenCourseWare online at
<http://ocw.mit.edu>

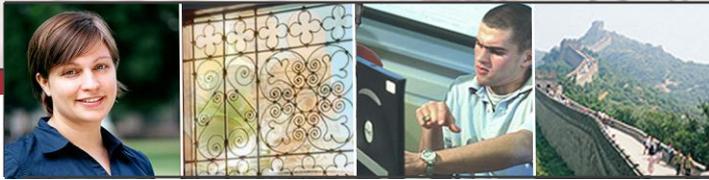


Empowering Minds

Visits to OCW and Translations



Visits since 10/1/2003

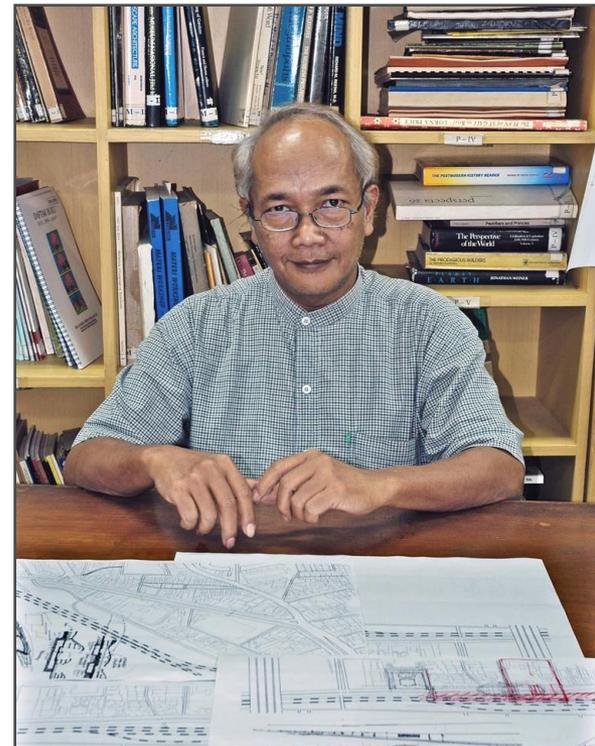


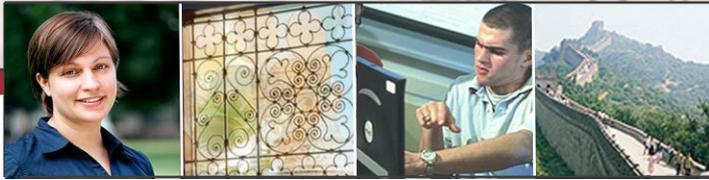
Professor Triatno Harjoko

Head of Department of Architecture at University of Depok, Indonesia, is using OCW to add interactivity to architecture instruction by his faculty.

"Critical thinking and creativity demand the liberalization of learning and information. It's not simply the information that's valuable, but also the glimpse OCW offers into how MIT has structured its teaching and research."

Empowering Minds Institutional Use



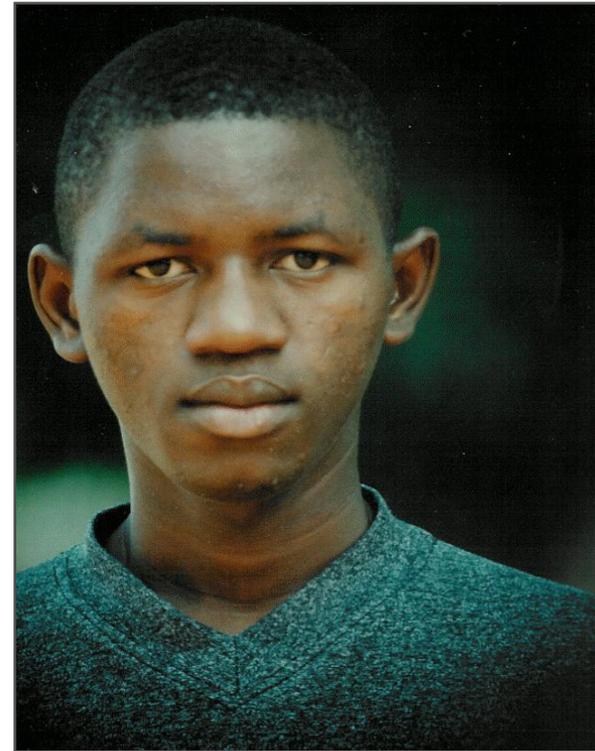


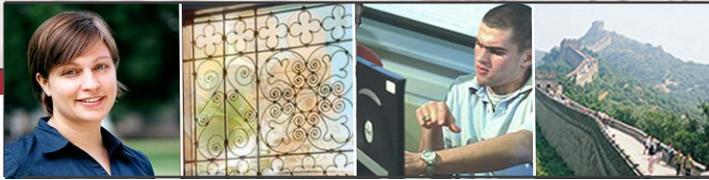
Kunle Adejumo

Engineering student at Ahmadu Bello University in Zaria, Nigeria, develops a deeper understanding of his class topics with OCW.

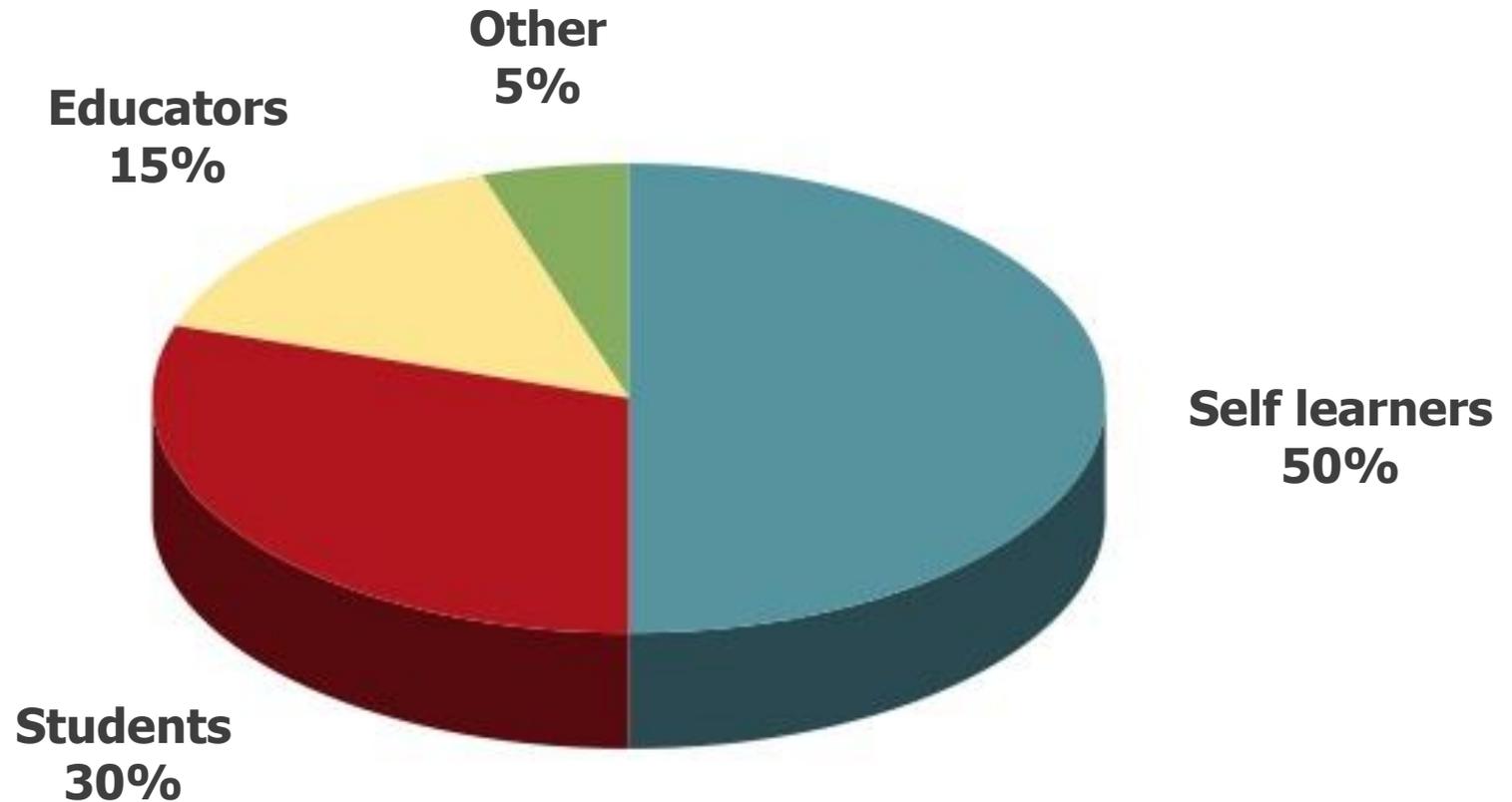
*"Last semester, I had a course in metallurgical engineering. I didn't have notes, so I went to OCW. I downloaded a course outline on this, and also some review questions, and these **helped me gain a deeper understanding of the material.**"*

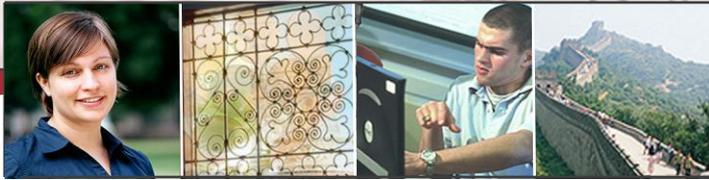
Empowering Minds Student Use





Empowering Minds Visitors by Role

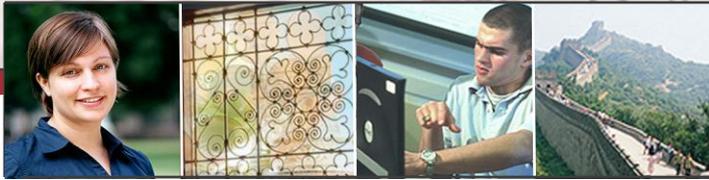




Abstract

Not for Projection

Announced in 2001, the MIT OpenCourseWare (OCW) program publishes core teaching material—including syllabi, lecture notes, assignments and exams—from virtually the entire MIT undergraduate and graduate curriculum. The OCW concept developed from a faculty committee's study of lifelong learning and has grown from a 50-course pilot in 2002 to a comprehensive resource representing more than 1,800 total courses. The site is unprecedented in the depth and richness of its educational content, with notes from more than 15,000 lectures, 9,000 assignments and 900 exams—plus a wealth of animations, simulations and more than 1,000 hours of classroom instruction on video. To date, OCW materials have been viewed by an estimated 35 million individuals from 220 countries and territories worldwide. Nearly 600 OCW courses have been translated into languages including Chinese, Spanish, Portuguese and Thai; more than 100 complete copies of the site have also been distributed to universities in bandwidth-constrained regions. In addition, MIT OpenCourseWare has sparked a global movement that now includes more than 160 universities, which together share materials from more than 5,000 courses. MIT continues to build upon the success of OCW, updating the courses and enriching the content, building new programs on top of the OCW platform, and working with other universities freely sharing educational resources to create a global network of open knowledge.



Empowering Minds Institutional Use

Full Case Study - **NOT FOR PROJECTION**

The liberalization of learning *Triatno Yudo Harjoko, the University of Indonesia at Depok*

Triatno Yudo Harjoko has a long and close association with the University of Indonesia in Depok, Indonesia. A graduate of the institution, Harjoko has also been a professor of architecture at the school since 1979, and is currently head of the architecture department. In addition, Harjoko has designed several of the university's buildings, including the expansive Faculty of Engineering complex, and the stunning University Mosque.

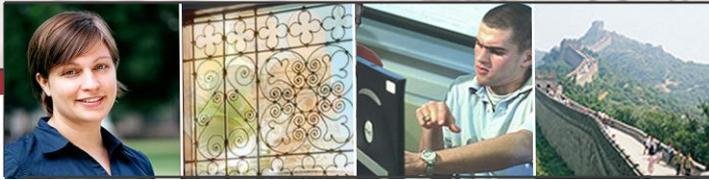
Harjoko characterizes the learning atmosphere at the University of Indonesia as primarily a one-way street, in which professors are assumed to be knowledge-bearers, and students are expected to master a predetermined knowledge base. This approach, while typical of many Indonesian institutions, is something that Harjoko has been attempting to change in his department. Together with his colleagues, Harjoko is redesigning the teaching model, moving toward an active, student-centered learning process.

Harjoko describes the main goal in this transition as "encouraging students to learn by themselves, and to be both critical and creative."

In the redesign process, MIT's OpenCourseWare — to which Harjoko was introduced by a colleague several years ago — has served as an immense comparative database for Harjoko and his fellow professors. Rather than directly transposing MIT OCW syllabi to University of Indonesia courses, Harjoko and his colleagues have been scrutinizing MIT's courses to better understand how they were designed and developed. "We try to understand how the MIT courses are formulated," Harjoko explains, "and what the expected outcomes are. This gives us an important perspective on the learning process."

Two courses for which this approach has been particularly helpful, he adds, are architectural theory and structure.

"I was surprised and amazed that such a renowned university as MIT would freely give access to almost all of its educational information to the world," continues Harjoko. "This is important, because critical thinking and creativity demand the liberalization of learning and information. But I also believe that it's not simply the information that's valuable, but also the glimpse it offers into how MIT has structured its teaching and research to become such a prestigious institution."



Empowering Minds Educator Use

Full Case Study - **NOT FOR PROJECTION**

Brushing up... and then some
Richard Hall, LaTrobe University in Melbourne, Australia

Richard Hall received a Ph.D. in computer science from LaTrobe University in Melbourne, Australia, in 2002. Shortly thereafter, Hall found himself playing a different role in LaTrobe's laboratories and lecture halls: teaching courses in introductory information systems, beginning microprocessors, and advanced computer-aided software engineering.

In early 2005, Hall learned that he would also be teaching a fourth-year computer graphics course later in the year. Hall knew immediately that the subject would demand a lot of work on his part, since he had had little experience with this rapidly changing field over the previous 10 years. While casting about for a means to brush up on the topic — intensively, and in hurry! — Hall recalled hearing something about MIT's OpenCourseWare from a member of LaTrobe's technical support staff. He decided to visit the site to see if he could find a solution there.

To his great relief, Hall quickly located the lectures and labs from MIT's [Course 6.837 – Computer Graphics](#), which guided him through an in-depth review of the subject. In fact, Hall credits the 6.837's labs — which he completed over the course of several months — with not only fine-tuning his existing skills, but also adding new techniques to his repertoire. The whole process, according to Hall, saved him “an enormous amount of time and stress.”

Based on this experience, Hall plans to use a subset of the lectures and labs in his own course next semester. The MIT OCW resource has enabled Hall to offer a course at what he calls a “stunning” level of quality. One of the best things about the MIT OCW computer graphics materials, reports Hall, is how quickly and completely the students are empowered. “The students can get to the fun stuff immediately,” Hall notes. “They're generating aesthetic pictures right from the start, and all the while their math understanding is growing almost visibly in the background.”

And Hall is equally impressed by the aesthetic approach of the materials. “I was also delighted by the weaving in of historical art techniques,” he adds, “and the way the material is so coherently presented. It is truly inspiring to see this level of excellence.”



Empowering Minds Student Use

Full Case Study - **NOT FOR PROJECTION**

'Students need to know about this'
**Kunle Adejumo, student at Ahmadu Bello University
in Zaria Nigeria**

Kunle Adejumo is finishing up his fourth year of engineering studies at Ahmadu Bello University in Zaria, Nigeria. By all rights, he should now be in his fifth and final year, but local strikes and instability in Nigeria have added almost a full year to his studies at Ahmadu Bello.

Established in 1952, Ahmadu Bello is Nigeria's largest university, with 35,000 students. Though the university boasts a large and well-maintained physical infrastructure, its Internet access — like that of almost all Nigerian universities — is extremely limited. Even the computer lab does not have a Web connection. And because of the large number of students and the limited number of terminals, students can sign up for only 20 minutes each week on university computers.

When Adejumo was first introduced to MIT's OpenCourseWare through a CD-ROM in the university computer lab, therefore, he had only 20 minutes to look through the material. Immediately impressed with the content, he asked the computer lab for a copy of the CD; when they were unable to give him one, Adejumo decided to find the site on his own, and copied down the Web address. From his home computer, he has enjoyed regular access to MIT OCW, and has used it to complement the course materials he has gotten through Ahmadu Bello.

"For example, last semester, I had a course in metallurgical engineering," offers Adejumo. "For one of the lectures, having to do with ion making, I didn't have notes, and I couldn't find the information I needed, so I went to OCW. I was able to download a course outline on this, and also some review questions. I actually took these to the university and gave them to the lecturer to answer. He was able to answer these questions, and helped me gain a deeper understanding of the material."

As much as Adejumo has benefited from MIT OCW, it worries him that this resource is not available to the vast majority of students in Nigeria. "You see," he explains, "in this part of the world, only the rich can afford Internet access. Probably only 500 students at Ahmadu Bello have an Internet connection. In my own case, I visit about four times a week. But most cannot do this."

For this reason, Adejumo hopes eventually to work with the local radio station to broadcast MIT OCW course material, as well as publicize the site. "I run the Web site for a local radio station," he says, "and they are interested in broadcasting educational programs. OCW would be the perfect fit... And in the process, more students will learn about the site. Students need to know that these things are available."