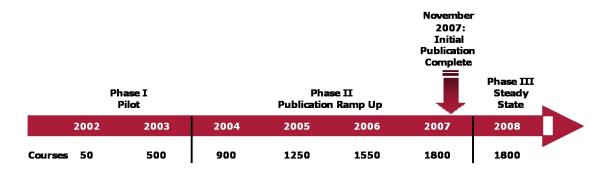
# MIT OpenCourseWare

MIT OpenCourseWare (OCW) is a free and open digital publication of high-quality educational materials organized as courses. Through the internet, MIT OpenCourseWare has opened MIT's curriculum and the course materials created by MIT faculty to a global audience of teachers and learners. Educators in the US and around the world use the materials for teaching and curriculum development, while students and self-learners around the globe draw on the materials for self-study or supplementary use.

At the close of AY2007, OCW included nearly 1,700 of MIT's 1,800 courses eligible for publication. The remainder will be published by November 2007, delivering on the original promise to make available virtually the entire undergraduate and graduate curricula in MIT's five schools and 33 academic units.



We have also updated and refreshed over 400 courses published earlier in the ramp-up process.

## **Highlights**

During this academic year, MIT OCW accomplished the following:

### **Publication**

- Published over 275 new courses, bringing the total number of courses available on OCW to 1,689
- Updated and refreshed nearly 200 previously published courses, bringing the total number of courses updated to more than 400
- Designed and began development of new global pages (OCW home page and general information pages)
- Improved accessibility features for users with disabilities
- Obtained approval and funding for and started development work on Highlights for High School, the first phase of the OCW Secondary Education initiative, to be launched in November 2007.

#### **Outreach**

- Set new records for monthly web traffic to MIT content, with over 2.1 million visits in January 2007
- Began the process of spinning off the OCW Consortium (OCWC) as a separate entity, funded with a two-year, \$1 million grant from the William and Flora Hewlett Foundation
- Expanded cost-effective mirror sites, with over 100 now in place in Africa and Asia
- Expanded ZIP downloads to most courses—through the end of AY2007 OCW serviced 2.5 million ZIP download requests.

## Sustainability

- Conducted the comprehensive 2006 annual evaluation process
- Developed sustainability plan and worked with MIT's Council on Educational Technology on explicit funding and organizational recommendations for OCW steady-state operations
- Received a new \$3.1 million grant from the Hewlett Foundation to support completion of the 1,800 courses and transition to steady-state operation.

### **AY2007 Evaluation Results**

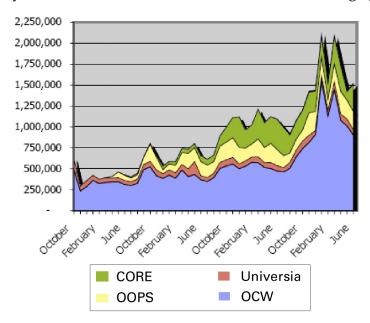
OCW's comprehensive evaluation process has both ongoing and episodic components. These components include web analytics, online intercept surveys, supplemental surveys, and interviews. The evaluation is designed to measure:

- Access—measures traffic as well as numbers and characteristics of OCW users
- Use—assesses how visitors use the site and how well it meets their needs
- Impact—identifies outcomes resulting from OCW site use.

What follow are highlights of the AY2007 evaluation.

### **Access**

- As of June 2007, OCW content received more than 40.6 million visits from an estimated 30 million unique visitors.
- The OCW site recorded 8.8 million visits in 2006, a 64% increase over the previous year; translation affiliates recorded 6.2 million visits, a 50% increase.
- OCW has distributed more than 120 mirrors of the OCW site to institutions and organizations in bandwidth-constrained regions, primarily Sub-Saharan Africa
- Nearly 60% of OCWs traffic originates outside of North America, with significant percentages of visits coming from Europe (19%), East Asia (19%), and South Asia (7%).
- Half of OCW visitors are self-learners, 30% are students enrolled in formal study, and 15% are educators.



## Monthly Visits to OCW and Affiliates, October 2003 through June 2007

#### Use

- Educators most frequently use the site to improve personal knowledge (34%), learn new teaching methods (21%), and incorporate MIT content into their own materials (18%).
- Students use the site most often to enhance personal knowledge (42%), complement materials from a course they are taking (37%), and plan their course of study (18%).
- Self-learners use OCW to explore areas of interest outside their professional field (40%), review basic concepts in their professional field (18%), and keep current on the latest professional developments (17%).

### **Impact Around the World**

- Ninety-three percent of visitors are successful at achieving their goals in coming to OCW.
- Nearly 90% of all visitors express satisfaction with site breadth, depth, and quality.
- Over 90% of educators say that OCW helps them improve their teaching and their courses.
- MIT OpenCourseWare has been widely featured in the media this year, including The Christian Science Monitor, Wall Street Journal, Chicago Tribune, New York Times, The Hindu (India), The Guardian (UK), The Manila Times (Philippines), and the Daily Times of Pakistan.
- More than 150 institutions have joined the OCWC, 55 of which already have live OCW sites.
- In total, OCWC members have published materials from over 4,200 courses.

## **Impact at MIT**

- About 90% of MIT faculty have participated in OCW by contributing their teaching materials for publication.
- Ninety-one percent of MIT students, 84% of faculty, and 51% of alumni and staff use the OCW site.
- Ninety-eight of undergraduates and 95% of graduates report a positive impact on student experience from OCW.
- One in four current MIT students who knew of OCW prior to choosing MIT indicate the site was a significant influence on their school choice.

## **Global Page Redesign**

This year we began the process of redesigning the OCW website. New features will begin rolling out in September 2007. The most obvious change will be a new look and feel for the OCW home page and several other general information pages, which will incorporate new graphics with updated and streamlined content. We will also be implementing new navigational paths and search capabilities to make it easier for users to find the content they are looking for. Significant evaluation research and user feedback have inspired the new design.

The principal goals for the website redesign are to:

- Improve user features, navigation, and overall readability/usability
- Pave the way for the new Highlights for High School program
- Enhance support for fundraising initiatives

These changes will *not* affect courses or other academic content on OCW. This is the first major overhaul of the OCW website since its launch in 2003. The upgrades are timed to coincide with this fall's major milestone—completing initial publication of MIT's 1,800 courses.

## **Highlights for High School**

Though OCW was originally aimed at serving university-level educators, students, and adult learners, extensive evaluation research has found that many thousands of high school teachers and students find valuable materials on OCW. High school students use these materials to supplement their coursework or to study subjects not offered in their schools.

We believe there is significant potential for MIT OCW to greatly expand impact in this area. Much research and extensive media attention have highlighted the problem of underperformance and flagging interest in science, technology, engineering, and math among high school and junior high schools students in this country. The pipeline of students who are qualified for today's technology-oriented workforce or for college-level studies in these disciplines is dwindling precipitously. In a speech before the National Education Summit on High Schools in February 2005, Bill Gates observed:

When I compare our high schools to what I see when I'm traveling abroad, I am terrified for our workforce of tomorrow. In math and science our fourth graders are among the top students in the world. By eighth grade, they're in the middle of the pack. By twelfth grade, US students are scoring near the bottom of all industrialized nations.

In a January 2006 survey commissioned by *The Chronicle of Higher Education*, only 32% of college faculty thought high school students were "somewhat well prepared" for college studies in math and science, and a mere 5% thought they were "very well prepared." Almost everyone recognizes this as a national problem, or as some would say, crisis.

In answer to this problem, MIT is preparing to launch a pilot version of Highlights for High School in November 2007. This program takes advantage of our strengths and our trove of exceptional teaching resources in a way that will better serve high school constituencies. The initial plan is to:

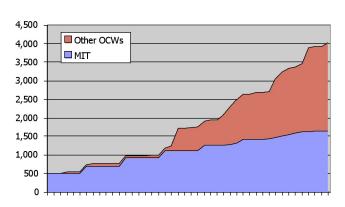
- Leverage existing materials. We have already started to identify and tag existing MIT OCW course materials that are relevant to high school studies in the areas of calculus, physics, biology, chemistry, computer science, and engineering.
- Develop new high school-oriented materials. Initially we will experiment with
  a small number of new materials developed by MIT students in the Educational
  Studies Program (http://esp.mit.edu/). These students will design materials to
  be engaging, irreverent, and exciting, while still teaching advanced topics that
  young students would not likely be exposed to in high school.
- Customize access for the high school audience. We will create a special portal
  that organizes access to these resources, tailored to the needs and interests of
  high school students and teachers.
- Evaluate impact. We already have a strong portfolio of techniques such as web
  analytics, surveys, and interview protocols that we use to evaluate MIT OCW. We
  will adapt these tools to measure access, use, and impact of this pilot to find out
  what works and to determine whether and how to ramp the pilot up to be a more
  comprehensive resource for secondary education.

### **OpenCourseWare Consortium**

The OpenCourseWare Consortium is a collaboration of over 150 (so far) higher education institutions and associated organizations from around the world, creating a broad and deep body of open educational content using a shared model. The mission of OCWC is to advance education and empower people worldwide through OCW. The goals of the consortium are to:

- Extend the reach and impact of OCW by encouraging the adoption and adaptation of open educational materials around the world.
- Foster the development of additional OCW projects.
- Ensure the long-term sustainability of OCW projects by identifying ways to improve effectiveness and reduce costs.

The development of new OCWs is adding to the collective body of high-quality educational materials that comprise a broad spectrum of disciplines and teaching methods, that provide thorough coverage within subject areas, and that are offered freely and openly for educational purposes. Across all OCW websites, there are now more than 4,200 distinct courses. International interest in this movement, and the investment so many others are making, further validates the value of sharing educational materials openly.



**Total Courses Across All OCW Websites** 

MIT was instrumental in establishing OCWC and guiding its early collaboration efforts as an informal alliance. Now, the consortium is reaching a critical mass with many more active and committed participants. This spring, we proposed to the Hewlett Foundation that the time has come for the consortium to develop a more formal, self-sustaining organization structure with shared leadership. The foundation generously awarded \$1 million over two years to help advance the consortium in this direction.

We expect to establish a formal board structure by the fall. We have already hired an executive director, whose job over the next two years will be to oversee consortium activities

## Anne Margulies Executive Director

More information about OpenCourseWare can be found at http://ocw.mit.edu/.