MIT OpenCourseWare

MIT OpenCourseWare (OCW) is a free and open digital publication of high-quality educational materials organized as courses. Utilizing 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 the developing world utilize the materials for curriculum development, while students and self-learners around the globe draw upon the materials for self-study or supplementary use.

For MIT OpenCourseWare (OCW), AY2005–2006 was one of milestones and achievements. In spring 2006, OCW published its 1,400th course; more than 75 percent of MIT's courses are now openly available online at http://ocw.mit.edu. Of the MIT faculty, 75 percent have now participated in OCW.

In addition, April 4, 2006, marked the fifth anniversary since MIT president emeritus Charles M. Vest announced the OCW project in a New York Times cover story on April 4, 2001. In that Times article, Vest said, "OpenCourseWare expresses our belief in the way education can be advanced — by constantly widening access to information and by inspiring others to participate." It is the second part of that statement, "inspiring others to participate," that marked the second major milestone for OCW in the last year: the creation of the OpenCourseWare Consortium. With more than 100 institutions around the world now joining MIT in the OCW Consortium, the OpenCourseWare movement has taken off on a global scale with membership in the United States, Africa, Asia, Europe, and South America.

OCW Consortium portal site was published in June 2006 with materials from over 2,000 courses.

The OCW Consortium portal web site was published on June 29, 2006. This portal site offers users the ability to search across the materials from more than 2,000 courses now openly published by universities in China, France, Vietnam, and the United States, including Johns Hopkins School of Public Health, Tufts University, Utah State University, and MIT.

So as the 2005–2006 academic year came to a close, the real impact of OCW on global education was expanding in many directions at once:

- In 2005, 8.5 million visits to the MIT OCW website, a 56 percent annual increase over 2004

- 80 mirror sites of MIT OCW content accessed in locations around the world, including Kenya, Sudan, Uganda, Vietnam, and Nigeria

- 52 other active "opencourseware" Web sites now available (in the US, China, France, India, Japan, and Vietnam) and 30 others under development around the world

- Combined OCW projects—including MIT—offer access to more than 2,000 courses total

- Of the site visitors educators make up 17 percent, students 32 percent, and self-learners 49 percent

  (Numbers accurate as of June 30, 2006.)

OCW continues to provide important benefits at home on the MIT campus:

- 35% of fall 2005-entering freshmen aware of MIT OCW prior to attending MIT indicate the site was a significant or very significant influence on their choice of school

- 71% of all MIT students (undergraduate and graduate) make use of MIT OCW in their research and studies

- 96% of MIT students using the OCW site report it has had a positive or extremely positive impact on their student experience

- 40% of faculty using OCW report that the site is a helpful tool in revising/updating courses; 38% use the site for advising students

The latest OCW survey yielded some interesting statistics on MIT OCW impact in general:

- 95% of users report that MIT OCW has or will help them to be more productive and effective

- 46% of educators have adopted MIT OCW content to improve their own teaching

- 38% of students use MIT OCW materials to complement a course they are taking; 34% use MIT OCW to learn about subjects outside of formal classes

- 56% of self-learners use MIT OCW to enhance personal knowledge; 16% use MIT OCW to stay current in their chosen field

- 96% of all users would recommend MIT OCW to others

Current Goals and Objectives

We continue to be focused on publishing courses from the MIT faculty; continually providing benefits back to the MIT community, its faculty, students, and alumni; and fostering the reach and impact of the opencourseware concept. Consistent with the 2004–2005 time frame, our organizational goals fall into three broad categories: publication, outreach, and sustainability.

Publication Goals

- Expand publication with new MIT course materials per established schedule
- Maintain currency of published content
- Continually improve depth and quality of OCW course materials
- Continually improve user features and site structure to optimize the user experience

Outreach Goals

- Expand access through translations and alternate distribution channels
- Foster use of OCW materials among educators and learners around the world, with added focus on developing regions
- Facilitate implementation of opencoursewares at other institutions
- Support MIT and its community

Sustainability Goals

- Continually develop the OCW team as a responsive, professional organization
- Maintain and improve efficient and effective processes
- Manage finances and secure long-term funding
- Evaluate and report on attainment of short-term goals and progress toward long-term goals
- Communicate the OCW story to build awareness and keep stakeholders informed

Achievements During Academic Year 2005-2006

Publication Goals

Expand OCW Publication

The 1,400 courses on the OCW site represent all five MIT schools and 33 academic departments in approximately the same proportion as the total course offerings of these schools and departments. In addition, we published 150 major course updates as part of our program of regular cyclical updates to keep OCW fresh and up to date. Work is

under way to publish an additional 150 new courses and 75 updates in fall 2006. The remaining 250 of MIT's 1800 courses will be published during the calendar year 2007.

Improve the Depth and Quality of the OCW Publication

One of the fundamental goals of OCW is to continually improve the depth and quality of the OCW publication. OCW faculty and department liaisons put extra emphasis on obtaining complete material. Last year we instituted a system that inventories course materials in detail and assesses their richness based on quantity of material, content type, and their completeness (the percentage of all materials, by content type, for each course actually published on OCW).

Maintain the Currency of the OCW Publication

In spring 2005, OCW began archiving some of its older courses and replacing them with updated versions. One hundred course updates were completed in the fall of 2005, and another 150 course updates have been completed to date in 2006.

Improve User Features and Site Structure

RSS Feeds

In an effort to help users stay informed of changes and additions to the OCW site, MIT OCW has added RSS feeds to the OCW website. By signing up for a particular feed, users will be notified whenever a new course is added to OCW or to a particular department. They will also be able to receive OCW newsletter highlights and notification of new video or audio available on the site. Instead of having to visit the OCW site and look through a department page or the list of all courses, users will be automatically notified.

MIT Google Search Appliance

We migrated our search functionality to leverage the MIT Google Search Appliance (MIT GSA). The change resulted in users being able to search a greater volume of content on our site, since the MIT GSA indexes not only HTML pages but also PDFs and Microsoft Office documents.

Download this Course

A new zip file download feature has been added to 1,040 OpenCourseWare courses to date. The purpose is to allow users to download the HTML and documents associated with a course on OCW. This is beneficial to users who want to repurpose content from courses and is also valuable to users in areas where access to internet connections is solely through internet cafes or other short term locations. Users can now download a course to their local machine and/or save it to a CD to read the materials at their leisure offline. It also allows people who travel frequently to have access to OCW materials while on the road. The downloaded zip file includes a copy of the HTML site along with the associated documents so users can navigate through the course just as they would experience it on OCW. We have also leveraged this functionality to serve the MIT community by providing faculty with copies of courses they post on OCW on CDs to allow for content reuse.

Outreach Goals

Expand Access

In addition to publishing MIT courses, a second fundamental mission of OCW is to extend the reach and impact of OCW. In particular, the translation and the MIT OCW in a Box programs have helped us to significantly extend the reach of MIT OCW materials throughout the world.

Translation Program

We strive to engage with credible, recognized organizations and institutions to help further access and use of OCW materials through translations. Our translation affiliates work within their regions or constituencies to provide translations of MIT OCW materials into local languages. Since September 2002, when the MIT OCW pilot phase opened to the public, MIT OCW materials have been translated into at least 10 languages, including Spanish, Portuguese, Chinese, Thai, French, German, Vietnamese, and Ukrainian.

To date, our most successful relationships have been with Universia, our Spanish and Portuguese translation affiliate, with 188 courses translated, and China Open Resources for Education (CORE), our simplified Chinese translation affiliate, with 126 courses translated. In addition, MIT OCW recently formed a partnership with the faculty of engineering at Chulalongkorn University to translate MIT OCW courses into Thai. With 15 translations completed as part of a pilot, they plan to expand their translation efforts in the upcoming year. Finally, the Opensource Opencourseware Prototype System (OOPS) is a volunteer-based initiative that translates MIT OCW course materials into traditional Chinese. OOPS translations are completed by volunteers distributed throughout the world, reviewed by editors, and finally approved by the OOPS review board, which is composed of content experts in the field, before being published on the OOPS site. As of the end of the academic year, they have completed 32 translations.

MIT OCW in a Box

The MIT OCW in a Box program focuses on installing local copies, or mirror sites, of the MIT OCW materials at educational institutions throughout the world. The materials are installed on local networks, thereby bypassing the need for an internet connection, which can be costly and unreliable in many parts of the developing world. Every MIT OCW in a Box package includes a complete copy of the MIT OCW site and supplementary tools and materials, provided on an external hard drive.

There are currently over 80 mirror sites of MIT OCW content found throughout the world. Thanks to in-kind contributions received from Maxtor Corporation and the United Nations Development Programme (UNDP), we are currently scaling up our efforts to distribute these boxes, with a focus on African educational institutions. Maxtor has donated 100 external hard drives and the UNDP has offered assistance in distributing the boxes to the participating institutions. Our goal is to have 100 additional mirror sites installed at African institutions by the end of 2006.

Foster Use

Presentations

Our most important efforts in pursuit of this goal have been our multipronged efforts to build awareness of OCW and educate people about its many uses and benefits. To this end, we have delivered more than 40 presentations at conferences and universities around the world, as well as individual institutions considering their own opencourseware initiatives.

One of the most significant presentations this year was made by MIT's Professor Shigeru Miyagawa at the United Nations' World Summit on the Information Society (WSIS) in Tunis in November 2005. More than 10,000 people from 120 countries attended the WSIS event, including more than 100 who participated in the parallel event on OpenCourseWare.

Email Newsletter

Our monthly email newsletter boasts 42,155 self-selected subscribers, a 24 percent increase over last year. The newsletter delivers valuable content on new courses, worldwide adoption through the OCW Consortium, and new features.

Website Traffic

In June 2006, MIT OCW website traffic averaged 36,480 daily visits, with a total of 1.1 million visits to MIT OCW content (MIT site plus translated versions). In terms of global reach, site traffic is from more than 215 countries, city-states, and geographic areas. Here at home, there have been over 300,000 visits from the mit.edu domain since November 1, 2003.

Facilitate Implementation of Other "OpenCourseWare" Projects

A major element of our outreach strategy is fostering the growth of the OpenCourseWare movement. There are currently at least 52 live opencourseware sites in addition to OCW (compared to 12 at this time last year), and roughly 30 more institutions have active projects under way to start their own sites.

The OpenCourseWare Consortium

The OpenCourseWare Consortium portal opened in the spring of 2006 (http://ocwconsortium.org) with participating institutions from Austria, China, Japan, Spain, Portugal, South Africa, Vietnam, the United States, and several translation and distribution affiliates. Goals of the OpenCourseWare Consortium are:

- Extend the reach and impact of opencourseware by encouraging the adoption and adaptation of open educational materials around the world.

- Foster the development of additional opencourseware projects.

- Ensure the long-term sustainability of opencourseware projects by identifying ways to improve effectiveness and reduce costs.

Sustainability Goals

Develop the OCW Team

We continue to enjoy tremendous success with the OCW departmental liaison (DL) program. DLs assist faculty with the development and compilation of teaching materials for use in both classroom teaching and publication of the OCW website. DLs are permanent staff within their respective departments and provide an invaluable service to MIT faculty and to OCW. The DLs have been instrumental in the success of OCW by fostering relationships with faculty, identifying and addressing potential copyright issues, producing technical illustrations to enrich the course materials, and leveraging their technical expertise in the subject matter to ensure high-quality course sites. We have focused on hiring recent MIT alumni—who have a familiarity with the faculty and their courses—to serve as DLs in the departments from which they received their degrees. The DL program is a cornerstone of OCW's long-term sustainability and success.

Evaluate and Report

Evaluation has always been an integral part of the OCW operation; evaluation and tracking mechanisms are built into the OCW website so that there is continuous monitoring and reporting of traffic and usage. In addition, we conduct an annual comprehensive evaluation to measure access, use, and impact of OCW. We have now completed three of these comprehensive evaluations.

Data sources for the June 2006 evaluation report include web metrics; surveys of OCW users, MIT faculty, MIT students, and MIT alumni; email feedback; OCW visitor interviews; and affiliate project data. The visitor survey, from which much of the data was drawn, includes responses from 4,115 site visitors. Major findings include:

- Access—online access to MIT OpenCourseWare content continues to grow dramatically on http://ocw.mit.edu/ and on translation sites, with currently more than one million monthly visits to OCW content, and a 56 percent annual increase in visits.

- Use—the OCW site is being used by educators, students, and self-learners to successfully accomplish a wide range of educational objectives, and visitors are widely satisfied with the breadth, depth, and quality of OCW content.

- Impact—individual educators and learners report high levels of current impact on their learning goals, with expectations of even higher impact in the future; institutions worldwide are both using MIT OCW materials and publishing their own materials openly—with more than 2,000 courses representing over 50 institutions currently available online.

Communicate the OCW Story

The goals of OCW's communications and outreach program include generating internal support for OCW, disseminating information about the overall progress and accomplishments of the OCW program, and highlighting available content on the OCW

site. This program includes elements of public relations, marketing, and partnership development, as well as dissemination of appropriate practical information and documentation relating to most aspects of the program. This activity is conducted in support of the overall program's goals, and generally works in close conjunction with evaluation activities and program leadership.

MIT OCW continues to be cited in both popular and professional literature as an influential open-sharing and educational technology project. This level of popular and critical attention demonstrates the impact the project is having as a model for providing open access to educational resources. Long-term media visibility is important to the success of the OCW project, as our evaluation data tell us that most users continue to locate the site via online and traditional media coverage.

MIT OpenCourseWare in the Popular Press

In the three years since MIT OCW launched its pilot project with 32 courses, the initiative has been covered in more than 300 media outlets around the world—including CNN, *U.S. News & World Report, Forbes, Wired Magazine,* c/Net, the *Guardian of London,* the *Saigon Times Daily* of Vietnam, and the *Economic Times of India.*

Student Newspaper Articles Advocating opencourseware Projects

The OCW project has had a significant impact on the thinking of students enrolled in formal programs of study. Student newspapers at leading US institutions including Harvard University, Yale University, Columbia University, Duke University, and the University of Pennsylvania have all run editorials urging those schools to share their teaching materials openly.

OCW in Professional Literature

MIT OpenCourseWare has also stimulated discussion among educators, academic administrators, and educational thought leaders. Articles have appeared in trade press, including the *Chronicle of Higher Education, University Business,* and *Campus Technology.* The project was included in congressional testimony and in testimony to the US Department of Education in fall 2005. Also in fall 2005, OCW was featured in an online discussion of open educational resources hosted by UNESCO that included more than 450 educators worldwide.

MIT Internal Communication

Internal communication with the MIT community continues to be a priority at every level, utilizing vehicles such as the MIT Faculty Newsletter, *The Tech,* and *TechTalk* to communicate the latest news about the OCW project with the community. We continue to focus on involving senior MIT leadership in internal communications to build both awareness and buy-in from faculty.

Give Now Campaign

During the past year, OCW initiated a campaign to solicit donations from the email newsletter readership. Called "Give Now: Support MIT OCW," this initiative is branded by a "Give Now" button on the OCW email newsletter with the following text:

In offering free and open access to MIT courses, the MIT faculty are giving their educational materials to the world. But maintaining these courses and evolving MIT OCW to meet the needs of our diverse user audience has its costs. Thus we depend on the generosity of users to sustain the MIT OCW project for the long term. We now offer a quick link to the "Donating to MIT OCW" section on every page on the MIT OCW site. Look for the button…hit this button and you will find that giving your gift to MIT OCW is easy, and that the "Giving to MIT Web Site" is a safe and secure way to financially support MIT OCW. MIT OCW will always be a free and open digital publication; however, your $50, $100, or $500 donation will enable us to continue to offer a high-quality publication of MIT's course materials.

Awards

Tech Museum

OpenCourseWare was honored last year with a Tech Museum Award as a Microsoft Education Award Laureate. The Tech Museum Awards is an international awards program honoring innovators from around the world who are applying technology to benefit humanity. On November 9, 2005, the Tech Museum, along with its partners and sponsors, celebrated the technological innovations of 25 laureates, including OCW. In recognizing OCW and four other $50,000 cash prize recipients, the Tech Museum of Innovation spotlighted technology solutions that are changing the lives of countless individuals from all backgrounds. Each of the five prize laureates is encouraged to reinvest the winnings in additional innovative programs that utilize technology to improve people's lives. For more information on the Tech Awards see http://www.techawards.org/about/.

Anne Margulies
Executive Director

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