

<http://chronicle.com/weekly/v50/i21/21b02001.htm>

INFORMATIONTECHNOLOGY

Why MIT Decided to Give Away All Its Course Materials via the Internet

By CHARLES M. VEST

The great landmarks of higher education in the United States -- the establishment of land-grant colleges in the mid-19th-century and the GI Bill at the close of World War II -- spread knowledge and opportunity across our landscape on an unprecedented scale. As we have progressed from World War II to the age of the World Wide Web, we have built a system of higher education that is the envy of the world, and we have developed the Internet as a universal medium for rapidly distributing and finding information.

Since the middle of the last century, graduates of our cutting-edge institutions have transformed the colleges and universities where they became faculty members by bringing with them the class notes, syllabi, and other materials they had used as students. They based their teaching on those materials -- shaping, expanding, and improving them to fit their new contexts and students. Today at the Massachusetts Institute of Technology, we plan to speed up that process to Internet time, by making the primary materials for nearly all of our 2,000 courses available on the World Wide Web, accessible to anyone anywhere in the world, through our OpenCourseWare initiative. A faculty member at a new engineering university in Ghana, a precocious high-school biology student in suburban Chicago, a political scientist in Poland, a literature professor in upstate New York, or an executive in a management seminar down the hall at MIT will all be able to use the materials our professors rely on in teaching our full-time students. Together they will build a web of knowledge that will enhance human learning

worldwide.

That is the goal of MIT's OpenCourseWare.

Ten years from now, I expect that OCW will have become firmly planted in MIT's educational landscape. More important, it is my sincere hope that the idea will have taken root at many other universities and colleges around the world, and that they too will be supplying knowledge freely and openly to anyone, anywhere in the world.

I believe that we can achieve that goal within such a time frame. After all, it was in only in the fall of 1999 that Robert A. Brown, MIT's provost, asked a faculty committee to provide strategic guidance on how the institute should position itself in the distance, or e-learning, environment. At first many members of the group assumed that their work would lead to an "MIT.com" venture. But after a year of analysis, market research, and development of business scenarios, the committee concluded that a revenue-generating distance-education model was not viable for MIT.

However, the group did not abandon the idea that MIT had something special to offer. The committee members went back to the drawing board and -- convinced that open software and open systems were the wave of the future -- came to a very simple conclusion: We should use the Internet to give our teaching materials away.

I instantly recognized the simplicity and brilliance of that idea. It seemed to me that it would be a way to advance education, by constantly widening access to our information and inspiring other institutions to do the same with theirs. We now have more than 500 courses available online, with 200 more scheduled for posting in March.

As Bob Brown has said, MIT will be a very different place once all of our courses have been posted online. In fact, OCW has already had an impact on our campus.

In the first 500 courses, we have published teaching materials from more than a third of our 950 faculty members. In doing so, OCW staff members worked with faculty members to transcribe lecture notes, deal with intellectual-property issues,

and provide assistance with graphics and Web design. A significant portion of our professors have told us that they are already using OCW materials -- the lecture notes, syllabi, problem sets, and exams of their colleagues within their own disciplines and others -- to prepare for their classes, do research, and help their students.

An MIT structural engineer, for example, discovered the work of a colleague in ocean engineering and incorporated that material into a book on wave vibration. Over time, we expect that such collaborations will spur innovations in all kinds of interdisciplinary education and research. And by digitally archiving our faculty's course materials, we are preserving a record of MIT's continuously evolving curriculum.

Our alumni also are very enthusiastic about OCW and the opportunities it offers them to stay current in their fields. I have been touched by how many of them tell me that they are able to keep building on their MIT education even years after graduation, and that, because of OCW, they have never been prouder of the Institute.

Although it is too early to tell what the long-term effects of OCW will be here at MIT, we hope that our classes will become more interactive, our students will come to class better prepared, and our faculty members will use classroom time in ways we have yet to imagine. I have no doubt that the way our professors teach, our students learn, and our alumni connect with MIT will be profoundly influenced by OCW in years to come.

But the real payoff of what we hope will become the open-courseware movement will be its effect on educators and learners around the world. Our goal is to create a model that other universities can follow and improve. Ultimately, we believe that the trend toward open knowledge will help bring people of all backgrounds together and promote greater mutual understanding among nations.

Since we announced OCW, we have received more than 13,000 e-mail messages from around the world endorsing our vision and the potential benefits of sharing knowledge freely. A typical message came from Andrew Wilson, an online student in Britain: "There can be no greater hope for humankind than

the belief that wisdom generated through increased learning will ultimately lead to a better world. With OCW, MIT has taken an ethical stand against the belief that knowledge should only be accessible to those who can pay for it or are in proximity to it."

In November 2003, we asked 21,500 random visitors to the OCW Web site to complete a brief survey. Of the 1,220 responses, 99 percent said that OCW will have a positive impact on education around the globe; 95 percent said that they would return to the site; and 35 percent of the respondents who identified themselves as faculty members said they would use OCW for "planning, developing, or teaching a course," as well as to enhance their understanding of specific subject matter.

Those results support the anecdotal evidence we have gathered via e-mail messages from visitors to the site. As the OCW concept spreads to other colleges and universities, we expect that access to the work of faculty members from diverse disciplines and institutions will increase by an order of magnitude the benefits to educators and learners who otherwise would not have access to such materials, whether for reasons of geography, cost, or culture.

Naturally, we have difficulties to overcome if we are to achieve our vision. Budgets are tight on campuses around the country. The first phase of OCW has been generously supported by the William and Flora Hewlett Foundation and the Andrew W. Mellon Foundation. We are committed to sharing all we have learned about putting course information online so that other institutions will be able to achieve similar results much less expensively.

We must also recognize that people in the developing world -- who may benefit the most from the open sharing of knowledge -- are hindered by a lack of Internet access and connectivity. We must not let that problem obscure our vision of the future, but rather take it as a challenge.

In fact, our challenge is simple: Can the decision makers of the world's leading educational institutions use what we are doing on our campuses to improve the lives of people around the world? History has proved that education and discovery are best advanced when knowledge is shared openly.

The beauty of working in higher education is that our task is never done. Our agenda must evolve to shape the future, and to respond to new challenges and opportunities. I believe the idea of open courseware is one such opportunity that we must seize during the next decade.

Charles M. Vest is president of the Massachusetts Institute of Technology.

<http://chronicle.com>

Section: The Chronicle Review

Volume 50, Issue 21, Page B20

[Front page](#) | [Career Network](#) | [Search](#) | [Site map](#) | [Help](#)

[Copyright](#) © 2004 by The Chronicle of Higher Education