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Auditing Classes at M.I.T., on the Web and Free

By Carey Goldberg

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Other universities may be striving to market their courses to the Internet in hopes of dot-com wealth. But the Massachusetts Institute of Technology chosen the opposite path: to post virtually all its course materials on th free to everybody

M.I.T. plans on Wednesday to announce a 10-year initiative, apparent biggest of its kind, that intends to create public Web sites for almost all 2,000 courses and to post materials like lecture notes, problem sets, sylla exams, simulations, even video lectures. Professors' participation v voluntary, but the university is committing itself to post sites for all its co at a cost of up to $100 million

Visitors will not earn college credi

The giveaway idea, President Charles M. Vest of M.I.T. said, came
''traditional Eureka moment'' as the institute -- like nearly every other un
-- brainstormed and soul-searched about how best to take advantage
Internet

Called OpenCourseWare, the initiative found broad resonance among the
members, said Steven Lerman, the faculty chair

''Selling content for profit, or trying in some ways to commercialize one
core intellectual activities of the university,'' Professor Lerman said, ''s
less attractive to people at a deep level than finding ways to dissemina
broadly as possible.

Universities have been flocking into ''distance learning'' -- offering co
online to off-campus paying students -- and commercial ventures have
investingtens of millions of dollars in the idea. But those ventures tend t
and choose among courses and professors, rather than trying to offer a
university in one swoop

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At the same time, on campus, universities have begun creating a grea
course Web sites. The University of California at Los Angeles creates a si
every undergraduate course. But those are generally only for internal u
the M.I.T. initiative appears to dwarf even those internal prog

''I think everybody else besides M.I.T. is in the position of being more cau
and watching to see what Internet strategy works best, said David Brac
provost for learning technologies at Stanford Unive

A software entrepreneur in Washington, D.C., Michael Saylor, pledged
million to create an online free university a year ago, but he would build it

scratch, and the value of his stock has plummeted. M.I.T.'s plan differs fro
Saylor's, President Vest said: "For one thing, it's going to ha

Another difference between the M.I.T. plan and other Internet initiatives :
makes no effort to offer full-fledged, for-credit courses online. Rather, i
offer course materials as ingredients of learning that can then be combine
teacher-student interaction somewhere else -- or simply explored b
professors in Chile or precocious high school students in Bangla

Still, is the institute worried that M.I.T. students will balk at paying
$26,000 a year in tuition when they can get all their materials or

"Absolutely not," Dr. Vest said. "Our central value is people and the h
experience of faculty working with students in classrooms and laboratori
students learning from each other, and the kind of intensive environm
create in our residential universi

"I don't think we are giving away the direct value, by any means, that we
students," he said. "But I think we will help other institutions around the

Most of the 940 or so faculty members support the plan, Professor Lerma
others said, but some have reservations. Some argued that the institute w
giving away a valuable asset that could be used to subsidize the resid
students. (The question of whether university knowledge can be turn
online gold remains a big one, however; most firms that are trying it, D
said, have encountered "much rougher sailing" than exp

Other faculty skeptics questioned whether it would be a good use of prof
time to labor over Web sites, and still others have questioned whether s
Web sites might not end up reflecting badly on M

Then there is the question of intellectual property, already a thorny
academia as the promise of Internet riches exacerbates the question of w
the electronic rights to a professor's lectures and research. Some professo

Lerman said, may end up having two Web sites: one for internal use wit
large portions of a soon-to-be-published textbook, and one for externa

But he and others said that issues of intellectual property had surfaced
the months of faculty discussion of the initiative. Rather, they s
willingness, even an eagerness, to share appeared to dom

''This is a natural fit to what the Web is really all about,'' Dr. Vest said. ''
learned this lesson over and over again. You can't have tight, closed-up sy
We've tried to open up software infrastructure in a variety of ways and
what unleashed the creativity of software developers; I think the same th
happen in education

In fact, M.I.T. is a hotbed of the ''open source'' software movement; and t
Internet initiative is based on a similar idea, said Hal Abelson, a profes
computer science and engineering who is involved in

''Fundamentally, they proceed from the same ethic, which has to d
sharing,'' Professor Abelson said. ''In the Middle Ages people built cath
where the whole town would get together and make a thing that's great
any individual person could do and the society would kind of revel in tha
don't do that as much anymore, but in a sense this is kind of like buil
cathedral.'

The initiative is to begin with a two-year pilot program to put materials
more than 500 courses on the Web, work to be done by a combinati
professional staff and teaching assistants. One of the advantages of the in
M.I.T. officials said, will be that it will unite all the posted courses in
electronic place, allowing students to see how they flow into each oth
search the whole repository and to jump from one to the next when they
reference each othe

Professor Abelson and others estimated that at most 20 percent of pro
already have substantive Web sites for their cou

University officials said they were not worried that, with extensive c
materials posted online, students would be less likely to come to class. I
the university's provost, Robert A. Brown, said, when course materi
already posted, ''it pushes the faculty in the direction of 'How do I best u
contact hours so that people learn?' which is clearly cri

Over all, the vision for 10 years from now, Provost Brown said, was ''a wo
which you'll find students able to search what will be huge reposito
content'' and ''they'll be able to use content from many places educationa
we'll be using other people's as much as they'll be using

Dr. Vest said he did not rule out the possibility that M.I.T. might seek to d
profit-oriented Web programs in the future. But as for this initiative, he s
suspected its greatest impact might come overseas, among institutic
cannot attract world-class facul

''I also suspect,'' he said, ''in this country and throughout the world, a lot
bright, precocious high school students will find this a great playground
ultimately, he said, ''there will probably be a lot of uses that will really su
us and that we can't really predi

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