

## To See or not to See: Access Restrictions on Course Web Sites

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### Abstract

Last November's issue of ASEE Prism had a cover story [1] on the MIT Open Courseware Initiative. MIT attracted widespread attention earlier in 2001 for its decision to make all its course Web sites publicly available over the Web. However, not everyone is following suit. The number of courses with access restrictions has surged in the past year, with perhaps the majority of course sites now having some restriction that prevents non-students from accessing them.

Certainly, some kinds of materials should *not* be publicly accessible. Solutions to textbook problems are an example. Aside from the problem of copyright infringement, it also makes it possible for students at other institutions to "do" their homework by surfing the Web. But many instructors restrict much more than solutions. Some keep their work under wraps because they worry that it is not polished enough for public consumption. Others restrict because that's the default in their courseware management system (e.g., WebCT). Finally, some universities are moving to assert ownership over course materials developed by faculty, and require them to be licensed instead of given away. This is not widespread at the moment, but will be an increasing problem as online assessment and testing systems become more commonplace. This paper will explore the reasons for restricting course materials, the current extent, and the implications of such restrictions.

### 1. Introduction

In the process of working on our Course Database project [2, 3], we have occasion to visit many course Web sites. Recently we have been noticing that many of them are hiding behind passwords, inaccessible to the public eye. This is a discouraging development, for it seems that the relatively open world of academe is becoming more cloistered. In practical terms, it means that if I or my students surf the Web for new material related to our fields of study, we are likely to find less material, or older material. Consequently, my students will get less help in their studying, and I will get less help in updating my lectures. It is a shame that the Web, which once gave us access to a whole new world of information, is now beginning to snatch it away.

When someone declines to furnish material for our course database, we ask why. We have been finding two reasons [3]: Copyright concerns—some instructors had taken their material from textbooks, and some of them were thinking of including it in books they were writing—and diffidence—many instructors just simply didn't think that their work was good enough to be viewed by people at other schools. Both of these would seem to motivate instructors to keep their material out of public view on the Web.

In conversations with colleagues, we learned of other reasons. One such reason was universities' desire to commercialize their courses [4]. This has been dubbed the "second academic revolution" by sociologist Henry Etzkowitz; the university's traditional interest in the

“advancement of knowledge” is increasingly being tempered by its interest in the “capitalization of knowledge” [5]. If faculty are willing to “give their courses away,” then how can universities commercialize the growing market for distance education? Welsh writes, “As the scholarship of teaching is increasingly digitized, the marginalization of faculty in the decision-making process is increasingly alarming” [6]. Indeed, one colleague who did not want to be identified said that his university asserts ownership rights over course materials that faculty develop, and will not allow his project to give away their question database. The provost, he said, commented that “universities must not repeat the mistake they made with textbooks.”

Another reason is the novice status of faculty as users of course-management software. Packages like Blackboard and WebCT, perhaps for reasons of privacy, restrict access to the sites they create to those possessing a valid password. Usually it is possible to change this, but few instructors go to the effort to manipulate configuration files while they are still in the process of learning to use the software.

## 2. Our Studies

To gauge the current state of access restrictions on course sites, we broadly disseminated a survey for faculty with course Web sites. Our survey was sent to three groups:

- the users of our Course Database, approximately 130 in number,
- the Engineering Technology listserve, etd-1, of the ASEE Engineering Technology division, with more than 2000 members, and
- the SIGCSE.members mailing list, with approximately 800 members of the Association for Computing Machinery’s Special Interest Group on Computer Science Education.

About 250 responses were received.

As can be seen from Table 1, syllabi are the most numerous items on course Web sites. In fact, syllabi are mentioned frequently in policies on Web sites; four of the respondents said their department policy requires all instructors to post their syllabus publicly on the Web. Next most common is homework assignments, followed by labs. In fourth place is lecture notes, but only about 50% of the instructors reported they posted these, compared with 85% whose syllabus was on line. Some instructors said they didn’t post their notes because they were handwritten or incomplete. One said it was important for students to take their own notes, but two others said that they distributed notes that had blanks for students to fill in during lecture.

Exams are posted less frequently than the above materials; comments suggest that these are usually old exams for students to study from. Solutions to homework or exams are rarer still; two reasons seem to emerge: Many instructors don’t do solutions in machine-readable format, and those who do fear that too many students will print them out and make it difficult to use the same problems in the future.

Among the “other” materials housed on course Web sites are policies, grading rubrics, multimedia lectures, examples, and links to other resources. One instructor has a program that permits students to check their grades, and two others claim that grades are posted in the public area of their Web site (one hopes that they are mistaken).

Less than 8% of the respondents say that their university has a policy on making course materials publicly available over the Web. Of those who made comments, the most frequent single comment was that the respondent was not sure what his/her institution's policy was. So it seems that policies rarely exist, and even more rarely are known. Seven respondents mentioned policies on access by non-students. Most of these said that the accepted practice was to use a course-management system (either WebCT or Blackboard) that required passwords, but instructors were allowed to make material freely available if they chose. Such policies presumably tend to draw more class materials into private areas because they provide support to teach instructors how to use tools that restrict access, while not helping them to make their materials public. One respondent said that there were rumors that his school would like to claim lecture notes as its intellectual property.

Table 1: Answers to Survey Questions 1–4

<b>Question 1.</b> Which of the following materials on your course Web site(s) are accessible to the general public without password or registration? (Check all that apply.)	Number
1 Syllabus	213
2 Lecture notes	133
3 Homework (without solutions)	172
4 Homework solutions	47
5 Labs	147
6 Exams (without answers)	69
7 Exam answers	38
8 Other (please describe).	87
9 None of the above.	26
 <b>Question 2.</b> Does your <i>university</i> have a policy on making course materials publicly available over the Web?	 Number
1 Yes	19
2 No	233
 <b>Question 3.</b> Does your <i>department</i> have a policy on making course materials publicly available over the Web?	 Number
1 Yes	20
2 No	232
 <b>Question 4.</b> If some materials are not available on your course Web site(s), is it because ... (Check all that apply.)	 Number
1 I may want to use them in a copyrighted work.	40
2 I (or my department) may want to charge a fee for access to them.	6
3 They are taken from copyrighted works (such as textbooks).	63
4 They are not yet polished enough to allow the world to see them.	69
5 So that I may reuse them without worrying that students have advance access to the answers.	109
6 To prevent students in other courses from finding out answers to their homework from my Web site.	63
7 My university prohibits it.	3
8 My department prohibits it.	1
9 Other (please describe).	72
10 All my materials <i>are</i> accessible on my Web site.	41

The same number of respondents said that their department had a policy on making course materials publicly available. (These were in general different people than those who answered affirmatively to the previous question; only 3 respondents reported that both their university and department had a policy.) Departmental policies tended to be better known; at least no respondent claimed to be unsure of his/her departmental policy. One department requires that its courses have a freely accessible Web site with course syllabus, outlines, etc. Another requires its distance-learning courses to be password protected. No other comments mentioned access policies.

## 2.1. Why keep material off the Web?

As to why materials are not on the Web, by far the most common reason was, “so that I may reuse them without worrying that students have advance access to the answers.” There was a virtual three-way tie for second place, as instructors said materials weren’t polished enough, they were taken from copyrighted works, or they would allow students in other courses to find out the answers to their homework. Presumably this latter reason refers to posting answers to textbook problems. One instructor actually caught students doing just that. He reported,

I am deeply concerned about the public access to homework and exam solutions. I found a team of three students last semester in a senior elective who [were] using Google to copy homework questions from posted solutions. They were only caught because they turned in the same identically strange answers to a homework assignment and had no idea what the answers meant.

The only other frequently cited reason was that the instructor might want to use them in a copyrighted work. Significantly, only 3 respondents (just over 1%) said that their department or university actually *prohibited* them from making materials public.

Of the “other” reasons cited by instructors, by far the most common (11 mentions) was that it would be too much work to put all materials into a format suitable for Web posting. Other good reasons for not making materials public include lack of server bandwidth (especially for multimedia), the desire to prohibit anonymous comments in class discussions, and confidentiality (for grades). A few instructors said they wanted their own students to learn to take notes.

Another take on the “too much work” problem is that some fear that they may be bothered with unwanted contacts. As one respondent put it, “the author may be exposed to an abundance of contacts which make ... a lot of work without compensation or gratification that someone else is getting anything out of it.” However, this is presumably a problem only if the material is useful, and then it must weighed against the name recognition and prestige that comes when one’s work is often consulted.

## 2.2. Course-management software

One of the reasons that turned up frequently in comments was that course-management software made it hard or impossible to allow public access to a course Web site. This led me to expand the survey by adding two more questions, summarized in Table 2. Because the questions were added midway through, there are not as many responses as to the earlier questions (though I did request previous respondents to fill in an update survey including the two new questions).

Perhaps the most striking fact that emerges from these questions is that fewer than half of the instructors even use the course-management software adopted by their university. And these are instructors who could be expected to be up to date on computers in education, by virtue of their membership on the mailing lists to which the survey was sent. Perhaps it is inertia, or perhaps it is that they don't like the features provided. Perhaps it is, as one respondent suggested, because these instructors are "early adopters," who put their course on the Web before the proliferation of course-management systems, and don't see a great payoff from investing time in converting their materials.

As to access, there seems to be a good deal of disagreement as to whether Blackboard and WebCT can be configured to allow password-free access. Almost twice as many instructors say it cannot be done as have managed to find out how to do it. This could be because the tools are configured on the administrator level to prevent instructors from making materials public. Or it could be because instructors are confused. The prose comments reveal that there is a great deal of dissatisfaction with course-management tools. One instructor wrote,

"I don't like the lack of freedom imposed by Blackboard and how it is run at our University. I can more easily make changes to my material without it."

Another commented,

"I choose NOT to use Blackboard. I find it cumbersome—particularly the lack of an HTML editor. I use a simple FrontPage-managed site—no access restrictions."

Table 2: Questions on Course-Management Software

<b>Question 5.</b> Does your institution use a course-management system such as Blackboard or WebCT to deliver content to students?	Number
1 Yes	147
2 No	35
3 Unsure	11
<b>Question 6.</b> If your institution uses a course-management system, which of the following apply to your course Web site(s)?	Number
1 Access to any course site requires an account and/or password, and there is no way to change it.	32
2 Access to my site requires an account and/or password because that is the default, and I have not bothered to change it.	6
3 Access to my site requires an account and/or password because I do not want non-students to be able to view the material.	14
4 Access to at least part of my site is public because I have configured it that way in the course-management system.	15
5 Access to at least part of my site is public because that is the way the course-management system is configured in my institution or department.	6
6 I have explicitly placed some of my course materials outside the course-management system so that they would be publicly available.	31
7 My institution prohibits me from placing any course materials outside the course-management system.	0
8 I do not use the course-management system that my institution has adopted.	81
9 Other (please explain)	32

One instructor noted he used to be able to provide an anonymous guest account for viewing Blackboard materials, but was now having difficulty getting it to work reliably. He also complained that his materials had to be hosted at Blackboard rather than at the university. There were no similar comments about difficulty with WebCT, though it was noted one must go out of one's way to make material public with WebCT.

If there was a single complaint voiced more frequently than the rest, it was that these tools encouraged instructors to bring their site under wraps. The comments in the first paragraph of the introduction of this paper were echoed frequently.

The most enthusiastic response was about OpenACS (<http://www.openacs.org>), which is an open-source toolkit for building scalable, community-oriented Web applications. He said he had used it at his former institution, and that MIT's Sloan School of Management is currently in the process of switching to a system based on OpenACS. They have paid a consulting company to build a course-management system on top of OpenACS, and will make it freely available to everyone sometime in mid-2002.

One encouraging note is that no institution covered in the survey prohibits its faculty from going outside the course-management system to make materials freely available. This should be a sign that while universities may be talking about asserting ownership of courses, they have not yet moved aggressively in this direction.

### 3. Other Evidence

Of course, what we see among respondents to the survey may not reflect the state of access restrictions in general. Our respondents tend to have a high level of interest in educational technology and a predilection to oppose access restrictions. To check out the state of the Web in general, I had a student, Mihir Dharia, survey electrical engineering and computer science and engineering courses from 42 of the top 50 colleges and universities as ranked by *US News & World Report*. He perused course Web sites from these schools. He reported that, of those sites providing course notes or slides, all but 15 allowed access without a password. Of those sites providing homework, only 15 restricted access.

The Electrical and Computer Engineering Department at Carnegie Mellon University lists all of its course Web sites [7]. Sites which require password permission are highlighted in pink. Only 12 out of 55 courses require passwords, and in these cases, guest passwords are freely available.

### 4. Conclusion

Currently, access rights to intellectual property from academic courses are in flux. There are some indications that university administrations will attempt to assert ownership rights over online course content. This survey has revealed that it is too early to see the effects of such an effort. Access to content is not very frequently restricted, but those restrictions appear to be growing. The main impetus behind these restrictions, however, seems to come from the default settings of course-management software, not from institutional policies, which seem to be having little impact of any kind. Offsetting this is a real desire on the part of many faculty to share course

materials with each other. There is also the hope that future course-management tools will make it easy to place course materials in public areas of the Web.

We recommend that access to all materials be unrestricted unless there is a good reason for restricting it. Most faculty appear to want free access, and it is in accord with academic tradition in most fields. Good reasons for restricting access include (i) pre-existing intellectual-property requirements, (ii) preventing students from gaining unauthorized access to homework or test answers, (iii) protecting confidentiality of student work and student evaluations, and (iv) preventing limited bandwidth for multimedia from being consumed by people not enrolled in the course. We further recommend that course-management software manufacturers configure their software to allow access by default to all matter that does not need to be protected for one of these reasons.

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