

December 1998

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Recommended Citation

Borchers, Andrew, "Examples and Characteristics of IS/IT On-Line Syllabi" (1998). *AMCIS 1998 Proceedings*. 352.
<http://aisel.aisnet.org/amcis1998/352>

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Examples and Characteristics of IS/IT On-Line Syllabi

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Abstract

Many business schools teach course work in Information Technology (IT). This paper analyzes the use of World Wide Web (WWW) resources in such course work. Using a sample of twelve technologically enhanced courses offered in response to an ISWORLD request for information, the author summarizes WWW features employed and the benefits obtained.

Introduction

Many business schools include course work in information technology (IT) and consider IT to be a business discipline. Recognizing this, ISWORLD maintains a set of World Wide Web (WWW) pages dedicated to advance the teaching of such courses. This paper offers an analysis of responses to a request made to the ISWORLD list for information on information system courses. It focuses on the role of the WWW in their execution.

Literature

Westerfall (no date) provides an interesting framework for viewing introductory IS courses called the Learning Needs Model. Beyond covering general IS principles and current technologies, Westerfall believes that students need to learn how to evaluate and assimilate new technical skills throughout their careers. Within his framework, the World Wide Web is a key enabler in imparting these essential skills. The model suggests a set of steps that students need to go through:

- Technology Self-assessment
- Learning to evaluate new technology and its value
- Using the Internet to find software that embodies relevant and important technologies
- Downloading, installing, and evaluating software located on the Internet.
- Finding sources of information on using software using the Internet.
- Practice assimilating software technologies, including HTML assignments.
- Term project - Brief write-up summarizing prior steps.

Several aspects of Westerfall's model are embodied in the courses described below.

Methodology

The author recently took responsibility for editing a page of course project ideas for MBA core courses in Information Technology (Borchers, 1997). An invitation to contribute course project ideas was made to the entire ISWORLD list of approximately 3,000 members. Twenty responses were received and posted at the web site. Although originally intended to identify projects used in MBA core courses in IT, a number of submissions were from other IS courses (such as electronic commerce, IT management, and the like). Of these 12 included an on-line syllabus so that the researcher could analyze how instructors use the World Wide Web in their course work. Two other postings provided interesting information on using the web, although they did not contain course-related details.

This sample is in no way representative of IT courses being taught in general. Indeed, due to the way participants were identified and the fact that they volunteered to participate, this sample represents particularly technologically savvy instructors. Analysis of this sample is worthwhile; however, as it reveals some forward thinking ideas about how to use the WWW to enhance course work.

In order to gauge the impact of the WWW on teaching information system courses, the author reviewed each posting and categorized them on the following characteristics:

- Course Title
- Level (undergraduate/graduate)
- Use of an on-line syllabus
- Use of an on-line bulletin board or meeting software
- On-line display of grades
- Homework submitted using HTML
- Use of a project repository
- On-line slides (such as PowerPoint)
- On-line class roster
- Other information

The appendix contains the results of this analysis. The web site that contains all the postings is http://www.ltu.edu/hosted_sites/icis/.

Results

The sample revealed that instructors are employing a number of WWW features. Notable in these courses, however, is the fact that the WWW is not replacing traditional classroom instruction. Instead, instructors use the web to enhance and add value to traditional ground based classes.

First, each of the instructors utilizes an on-line syllabus. Although each syllabus varies as to its content, common components include: Course Schedule, Course overview and rationale; Assignments, Grading, Link to instructor homepage and Links to useful Internet resources; an on-line syllabus offers several benefits. It reduces the need to produce paper copy, allows perspective students to browse the syllabus before signing up for a course, and allows for update of the syllabus during the term.

Seven of the twelve courses utilized on-line bulletin boards and/or chat rooms. Instructors used these in two ways. One approach was to have an on-going discussion for the entire course. Another approach was to establish bulletin boards for specific cases or projects. Students themselves established some of the latter. One instructor used a synchronous on-line chat (that is everyone in the course was on-line at one time) in replacement for a single traditional classroom meeting. Technology varies in this area. Most of the boards were Internet based while one instructor uses Lotus Notes.

Use of bulletin boards has much to offer students in IT courses. For commuting students a bulletin board allows for on-going discussion without the need to come to campus. For all students, on-line discussion encourages the student to frequently return to thinking about the course material. For many students in classes that meet only once a week, it is possible to forget about the course for five days between one class meeting and the night before the next. On-line discussion can help hold student interest throughout the week.

Six of the twelve courses had part, or in two cases all, of their work submitted in HTML format. In the two courses where all work is submitted in HTML, students are required to mark up all routine homework and their final project and make it accessible on the WWW. Several of these courses require students to create and post on the WWW a homepage for him or her self. In addition, some of the courses had students display their final course project in HTML on the WWW. One instructor had students develop an on-line form, while another had students develop a prototype web site for a firm. In most cases instructors included links to web resources to help students master HTML.

In five of the twelve courses, instructors post on-line rosters. In some cases these were simple lists of everyone in the class. In other cases, instructors used the class role to indicate team assignments for projects. One instructor allowed students, at their option, to submit their name, e-mail and web address to share with peers.

Three of the twelve courses provided on-line posting of grades. Using unique codes (not the student name) these sites allowed students to browse their case or homework grades. Such posting does raise a privacy question, however, as U.S. universities are required under the Family Educational Rights and Privacy Act of 1974 to maintain confidential records. If the coding scheme becomes public knowledge, the institution could be in violation of the law.

Three of twelve sites had some form of repository for projects done in previous terms. This feature allows students to review peers projects and get ideas for their own project work.

On-line slides are available in two of the courses. Using PowerPoint, the instructors allow students to view material presented in class in an on-line format. This is certainly helpful for review and for those students that are forced to miss a class.

Finally, there were two responses that were not course specific. One provided an on-line Jeopardy style game for use in courses. The other response (Westfall) offers an interaction model described above in the Literature section.

Summary

The course web sites reviewed show a number of ways to effectively use World Wide Web resources in Information System courses. As noted, none of the courses reviewed eliminated traditional classroom instruction. Instead, these courses enhance instruction and allow students to acquire technical skills by using the World Wide Web.

References

Westfall, Ralph. Using the Learning Needs Model. [Online]. Available <<http://www.cyberg8t.com/westfalr/lrn_need.html>>.
Borchers, Andrew. MBA Core Course in IT Course Projects. [Online]. Available <<http://www.ltu.edu/hosted_sites/icis/>> (January 27, 1998).

Notes - see http://www.ltu.edu/hosted_sites/icis/

1. Students required to create an HTML homepage
2. On-line lecture summary. All homework and term paper are required in HTML format.
3. Course project is submitted in HTML, involved diagnosis of strategic use of IT in a firm.
4. Develop a prototype WWW web site for a firm.
5. Evaluate a web site and suggest improvements.
6. Students required to create an HTML homepage, one class session meets on-line.
7. Students required to create an HTML homepage and an on-line form. Use Lotus Notes for class and group discussion.
8. Offers on-line lecture notes. All homework and term paper are required in HTML.
9. Includes an Internet Scavenger Hunt and an HTML page. Strong focus on process management.
10. Extensive repository of class projects.
11. Extensive on-line bibliography.
12. Maintained a project repository for all group projects written in the current year.

Appendix

Course	Level (U/G)	On-line Syllabus	On-line Board/meeting software	On-line grade reports	Work submitted via HTML	Homework/Project Repository	On-line Slides	On-Line Class Roster	Notes
IT and Telecomm.	G	Y-PDF	N	N	N	N	N	N	1
E Commerce	U&G	Y	Y	N	Y – All	Y	N	Y	2
Strategic MIS	G	Y	Y	N	Y - Paper	N	Y	N	3
IS Management	G	Y	N	Y	N	Y	N	Y	4
Information Resource Mgmt	G	Y	Y – bboard & chat	N	N	N	N	Y	5
MIS	G	Y	Y	Y	Y – Project	N	Y	N	6
Hardware/Software/Telecom	U	Y	Y – Lotus Notes	N	Y – Project	N	N	Y – optional	7
Telecom Mgmt	U&G	Y	Y	N	Y - All	Y	N	Y	8
IS in Practice	G	Y	N	Y	Y - Project	N	N	N	9
MIS	G	Y	N	N	N	Y – Extensive	N	N	10
IS	G	Y	N	N	N	N	N	N	11
IS & IT	G	Y	Y	N	N	Y	N	N	12