

## **Developing an Inventory of Companion Website Materials for Introduction to Computer Literacy**

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### ***Abstract***

*As the Internet continues to grow and develop, the traditional educational publishing field has been quick to adopt and supply elearning materials to education. The companion website materials for instructors which accompany the leading textbooks now make many of the new elearning tools readily available. These new teaching materials have been in existence for less than ten years and while their popularity is growing, most faculty have never given these materials a thorough review and many are not sure where they are or how to find them or use them with courses. This paper identifies companion websites for leading texts, catalogs features and evaluates these value-added materials related to coursework in Introduction to Computer Literacy.*

### **Introduction**

While publishers offer other textbook supplements like printed guides and test banks, CDs and DVDs with extra materials and premium services for a fee, this paper discusses companion websites that offer materials which students can access for free as part of the course. The basic procedures used for inventory and evaluation here however could be applied to any supplemental information and to other academic disciplines.

In a perfect world, faculty would like to be able to turn on their computers and with one click go to the website which accompanies the textbook for their course. It shouldn't take long to find the site, and faculty would hope to avoid wading through layers of menus and links to get to the actual course material. While publishing houses understand the importance of answering faculty inquiries quickly, some bumps are to be expected in an area which is less than ten years old and which has undergone a period of enormous growth. Some faculty will fall by the wayside when paths to the companion websites are not clear and take too long to find.

It appears that the speed with which materials are being produced, reorganized and placed on the web is so fast that even web gurus are reluctant to discuss 'best practices' because today's practices may already be out of date. And the value of companion websites may already be out of date even when faculty reviewed them recently.

The list of companion website materials included major texts for courses that cover the Introduction to Computer Science Literacy. The texts were chosen based on their sales volume and are the top-selling books available in 2004.\*

\*In the course of preparing this paper, it took numerous emails back and forth to illustrate the website access problem. When I sought to locate the companion website for a particular textbook, the publisher's rep assured me that the site could be found at a link which he attached and which turned out to be half Internet address and half email address. After three more emails the correct address was provided. One request ordinarily should be enough to obtain a link to a companion website. In a perfectly operating system, faculty wouldn't need guidance from a publisher's rep to find a companion site; their locations should be transparent.

In a second example, a publisher's rep provided a link to the companion website and later emailed back with an apology and an explanation that the old link no longer worked and asked us to try a new link. For another text, our search revealed two sites that were said to be the companion websites. A closer investigation of the two sites revealed that one site was apparently an early draft of what was to become the site to go with the textbook and was not meant to be available to faculty or students. Many faculty members stumbled across the draft site and were dismayed to find material that was not ready for prime time. Lastly, after finding a dead link on one site, it proved difficult to report the dead link to the publisher. There were two links -one to 'Technical Feedback' and one to 'Editorial Feedback.' A message was sent to each with information about the dead link. The editorial feedback was never acknowledged and the reply from the technical support representative again did not acknowledge the website problem but instead focused on selling me a copy of the textbook.

Table 1 at the end of the paper shows the text selected for further review.

### **Methodology**

Texts included for review in the introduction to computer science-literacy

were taken from searches of highest sales numbers in searches for computers and computer literacy. Dummies, Idiot and texts that were not available from academic publishers were discarded. The computer science program at Saint Xavier University was then asked to review the list and use the 20 years of experience each faculty has in teaching literacy to see if the list was an appropriate list of best selling titles for literacy. The department searched the shelves of the departmental library and found no titles missing and chose not to add any titles since other books for introductory courses included non-literacy topics like programming

### **Discussion**

Once the websites were located, a catalog of features was developed. Tables 2 and 3 at the end of the paper show the most common and less common features available on companion websites accompanying Computer Science Literacy textbooks. This field has consolidated to only two major publishers. This has led to a great deal of standardization in certain types of product offerings due economies of scale. This, however, did not mean that every book got every feature available from that publisher. Even among standard features such as Examview offered with several of the offerings from Course Technology some books had large test banks of questions and some had as little as two dozen questions per chapter available. Shelley had the most offerings and the most creative offerings, possible new features that will be added to other books the publisher makes available. Some books were totally abandoned and did not have a single common companion website feature. Two of the highest selling books made their materials available on CD-ROM packaged with the book at the time of sale as a method of making sure the student received the additional materials the publisher

intended to have used with the book. While many of the faculty may be unfamiliar with the publisher's site, which makes readily available online and downloadable materials for teaching, more and more students are asking about websites, blackboard or WebCT companion materials to their text that can be used outside of the classroom experience. Schools that have standardized and made a choice of a single platform such as Blackboard or WebCT often offer students a brief period of instruction on usage at student orientations. The student enrolls in classes expecting materials to be available.

Faculty members who do not adapt are often finding students vocally demanding some materials. In fact many publishers are now offering CD-ROM materials and companion websites for a fee to students even if the faculty chooses not to adopt such materials. Presently, many publishers give this material for free if the faculty requests it. This does save the students some time and money. There is some danger for the students when they make adoptions themselves, because often the materials need careful explanation and integration to be effective. A group of students were in the computer science lab downloading and printing online exams, unaware that if the exams were taken online they self-scored and gave remediation on readings from the text and page numbers for review. Even after it was pointed out to the group some could not understand how taking the tests online could be a time saving feature and good study aid.

As the push comes from students demanding materials and administrators promising all the latest and greatest additional teaching aids, many faculty members may feel overwhelmed! In the past, publisher's asked for reviews of text and even paid for long thorough well-thought-out reviews for their best selling text

to make improvements and help faculty familiarize themselves with the book. Faculty members could depend on peer reviews of text for help in making adoptions for teaching. It does not appear that any publisher is making peer reviews available of the features on the websites to accompany the books. It would be so easy to add these reviews on the very page! Publishers do not have years of experience in marketing value added materials and even credible and reputable publishers have occasionally missed deadlines and pulled bad materials.

Websites for each book were easy to find by putting the ISBN number directly into the main webpage of the publisher. This keeps the search engine from giving endless multiple titles. Each book had its own page and that page linked to faculty resources. Publishers required a name and password to access the faculty resource page. The request forms for name and password were online and request for examination of the materials for faculty use were answered affirmatively in e-mail in about 24 hours. Even after names and passwords arrived one company had dead links at the invitation to take the product demo. Some books offered materials to be published shortly but had left the date in the link the year 2002. This type of poor marketing and website management may reflect the fact that so few faculty are reviewing the additional materials on the web before making adoptions of a book. It still appears as if many faculty members adopt the book and then assume that additional materials are all equal or are just an added extra needs no evaluation. A new faculty in the computer science department adopted a new book for a short session course, and then became alarmed and tried to cancel his adoption when he learned he would not get the teaching aids he had come to depend on with the previous text.

Many sites now require a User Agreement sign-off page before browsing on

to the materials. These agreements restrict copy of materials or use of the materials without adoption of the text for a course. In order to keep these materials free of additional charges, faculty should respect these agreements.

Even with a text that has literally every available teaching aid on the resource page, this is no indication that the materials are going to be easy to use for teaching. In some cases the materials may not be usable. Several publishers offer Blackboard or WebCT materials for the text. However, to put those texts on Blackboard or WebCT the faculty member must either get the institution to give a Systems Administrator clearance to the faculty member or must be willing to download and install the materials for the faculty member. Many institutions may find both solutions unworkable for different reasons.

Prentice-Hall made a system called Course Compass available for many of its books which is a Blackboard clone. Prentice-Hall is willing to run the program on a server for the faculty member. Materials are available for the book and the instructor can customize additional work using Blackboard like controls. International Thomson made a system available called WebTrackII that provides automated delivery of tracking data from any student. Students just go to the WebTrackII Web page, insert the disk that contains the tracking data, and then enter their instructor's e-mail address to send a copy of their tracking data to a secure location. Instructor's just need to log in to their WebTrackII account and all student data is automatically transferred to the instructor's computer and added to the current reports.

Both web based delivery packages (BlackBoard and WebCT) are full featured and in common use. However, a package accompanying a book may be little more than converted quiz and test banks. The

instructor can modify the packages to more fully use the available features. Examview allows the instructor to publish online test banks for practice quizzing and final tests. There are a number of features that can be put into the package before publication such as remediation by chapter and page number. Grades are reported by e-mail to the instructor so the instructor can allow retakes or make a rigid time requirements as necessary for the class. Our exploration of companion websites revealed a variety of supporting materials available to students and faculty on the web. A closer look at materials across texts revealed that not all features are created equal. Some quizzing seemed adequate; students could get quick feedback on the effectiveness of their studying from their score on 10 to 15 multiple choice or true false questions. Other sites included multiple question types, feedback and remediation that were at times extensive. Used in this way, quizzing becomes a valuable teaching tool and goes beyond the goal of performance assessment. Flashcards also varied. Production values of some were limited while others were extensive. All sites with flashcards allowed students to select chapters for study and allowed students their choice of either starting with the definition or the key word or term. One site added audio pronunciation of the key terms which may broaden its appeal to students with a different learning style. Some sites included elaborate interactive maps and graphics which might be difficult for faculty members to produce or replicate. From an active-learning perspective, the interactive maps and graphics at several sites appeared to be especially capable of engaging students in the learning process.

Essay and discussion questions across sites were often similar, if not identical to those which appear in printed companion materials like instructors manuals. Some sites adopted a more interactive approach by

providing a direct link to a website or database where information could be gathered as students prepared an essay for submission. Questions could be answered online and most often could be submitted to an instructor for grading. These sites took advantage of the interactive nature of the Internet. Alternatively instructors could assign essays to be brought to class and turned in.

### **Conclusion**

A catalog of website features is a starting point for integrating the elearning into live or so-called 'hybrid' courses. Faculty will want to explore whether websites also include course management features. Faculty may want to use publisher's websites to post a course syllabus, track grades, and post announcements, features which are not always part of a companion website.

While not addressing this question, there is interest in knowing whether companion websites save class time. Online materials may save time if students take quizzes or review chapter objectives online and not during class. When students take advantage of online flashcards, audio and video clips, which are played and replayed outside of class, time may be saved. As more faculty members explore the use of online materials in the elearning environment, data will become available to know better whether online materials produce a real savings or not. Many of the new tools track student time and effort expenditure and will help in the analysis of elearning techniques as productive and efficient.

An inventory of easily available websites may help new faculty or faculty teaching a course for the first time. The quality and variety of interactive website exercises, and discussion questions constitute a rich resource capable of enhancing not only

the student learning experience but the faculty teaching experience as well.

We offer these suggestions as a continuing way of enhancing the faculty elearning experience with companion websites:

1. Faculty visits to these sites will improve if faculty have one-click access to textbook companion websites. A single list would drive more traffic to these valuable materials and publishers will find faculty more receptive when the materials are easy to retrieve.

2. Publishers should provide an effective way for faculty to provide feedback about websites (*dead links included.*)

3. A thorough evaluation of these websites is time consuming. We suggest exploring alternative ways of gathering initial website data (*e.g. use of work study students or teaching assistants to track down the links and/ or construct the tables' contents.*)

It would be interesting to point students at companion websites like those reported here, and ask them to report their experience with website features.

4. Publishers should pay for faculty reviews of companion websites as they do for print materials.

5. It would be helpful to have more peer evaluations of websites that are readily available for faculty considering adoption of specific texts.

It is surprising and pleasing to see the variety of new materials from the text publishers that can be used to enhance the elearning experience available on companion websites. The cataloging and investigation of features at the website frequently concluded with a feeling of excitement over the considerable possibilities of new Internet teaching strategies.

**Selected Endnotes**

- <http://www.blackboard.com>
- <http://www.course.com>
- <http://www.examview.com>
- <http://www.prenhall.com>
- <http://www.webct.com>

Prescott & Fricker, “An Inventory of web enhancements in two fields”, presentation Telelearning Conference, San Diego 2004.

Shelly, Cashman, Napier, et. al., “Discovering the Internet”, *Course Technology*, 2004.

**TABLE 1 Major Texts in Information Literacy Courses taught by Business Schools and Computer Science and Their Companion Websites**

<b>Discovering Computers 2003 Concepts for a Digital World Web and XP Enhanced, Complete, Shelly et. al, Course Technology, 2002.</b>	<a href="http://www.course.com/catalog/product.cfm?isbn=0-7895-6514-5&amp;CFID=5994673&amp;CFTOKEN=89438268">http://www.course.com/catalog/product.cfm?isbn=0-7895-6514-5&amp;CFID=5994673&amp;CFTOKEN=89438268</a>
<b>New Perspectives on Computer Concepts: Introductory, Parsons and Oja, 6 e, International Thomson Publishing, 2002.</b>	<a href="http://www.course.com/catalog/product.cfm?isbn=0-619-10004-4&amp;CFID=5994673&amp;CFTOKEN=89438268">http://www.course.com/catalog/product.cfm?isbn=0-619-10004-4&amp;CFID=5994673&amp;CFTOKEN=89438268</a>
<b>Computers, Long, 10e, Prentice-Hall, 2002.</b>	<a href="http://vig.prenhall.com/catalog/academic/product/0,4096,013009479X-IS,00.html">http://vig.prenhall.com/catalog/academic/product/0,4096,013009479X-IS,00.html</a>
<b>Personal Computer Fundamentals for Technology Students: Hardware, Windows 2000, Applications and CD-ROM ed., 2e, Herniter, Prentice-Hall, 2000.</b>	<a href="http://vig.prenhall.com/catalog/academic/product/0,4096,013025519X-IS,00.html">http://vig.prenhall.com/catalog/academic/product/0,4096,013025519X-IS,00.html</a>
<b>Computers: Tools for an Information Age, 8e, Capron &amp; Johnson, Prentice-Hall, 2003.</b>	<a href="http://vig.prenhall.com/catalog/academic/product/0,4096,0131405640-IS,00.html">http://vig.prenhall.com/catalog/academic/product/0,4096,0131405640-IS,00.html</a>
<b>Computers in Your Future 2004, Complete, 6e, Pfaffenberger et. al., Prentice-Hall, 2003.</b>	<a href="http://vig.prenhall.com/catalog/academic/product/0,4096,0131404504-IS,00.html">http://vig.prenhall.com/catalog/academic/product/0,4096,0131404504-IS,00.html</a>
<b>Understanding Computers: Today and Tomorrow 2003, 9e, Parker et. al., Course Technology 2003.</b>	<a href="http://www.course.com/catalog/product.cfm?isbn=0-619-18712-3&amp;CFID=5994673&amp;CFTOKEN=89438268">http://www.course.com/catalog/product.cfm?isbn=0-619-18712-3&amp;CFID=5994673&amp;CFTOKEN=89438268</a>
<b>Computer Confluence, Standard Edition with CD, 5e, Beekman, Prentice-Hall, 2002.</b>	<a href="http://vig.prenhall.com/catalog/academic/product/0,4096,0130778389,00.html">http://vig.prenhall.com/catalog/academic/product/0,4096,0130778389,00.html</a>

**Table 2 - The Most Common Companion Website Features  
By Author**

	Shelly	Parsons	Long	Herniter	Capron	Pfaffenberger	Parker	Beekman
<b>Testing Program</b>	X	X	X				X	
<b>Instructor Manual</b>	X	X	X				X	
<b>Power Point Presentations</b>		X	X				X	
<b>Companion Website</b>	X	X	X		X		X	X
<b>Blackboard Files</b>	X	X	X		X	X	X	X
<b>WebCT Files</b>	X	X	X		X	X	X	X

**Table 3 - Less Common Companion Website Features**

	Shelly	Parsons	Long	Herniter	Capron	Pfaffenberger	Parker	Beekman
Electronic Book			X			X		
Instructor's CD of Resources			X	X	X	X		X
Author's Website				X				
Presentation Materials on CD								X
Answer to Homework	X							
Crossword Puzzles	X							
Pre-Test/Post-Test	X							
Test-Out	X							