

# Comparing Course Authoring Software: WebCT vs. Blackboard

## Introduction

The number of higher education courses offered online has grown significantly in the past 5 years, and the World Wide Web is being recognized as a powerful medium for distributing course based information (Hazari, 1998). Furthermore, the past 5 years has also seen a shift in the learning theory driving instructional methods from a cognitive theory to a constructivist theory. Traditional classroom based learning had previously been driven by the transfer of knowledge directly from the teacher, who controls the pace of learning, to the students. However, the constructivist model is student-centered. The instructor simply facilitates learning by being a moderator, while allowing the students to set the pace and even help choose content. Interestingly, the web is a great place to implement this constructivist model (Dabbagh & Schmitt). It allows for discussion groups, text, graphics, audio, video, file transfer over e-mail, and even synchronous chat sessions (Hazari, 1998).

As faculty members of higher education institutions adopt this new teaching method, many are also beginning to adopt the use of web-based instruction. Many of these teachers lack the technical ability to create these web-based courses themselves and are purchasing course management tools to aid in this process. *Wired News* labeled

WebCT and Blackboard as the leaders in this industry; as of the year 2000, more than 48,500 faculty members use WebCT to teach courses to over 6.9 million students, while Blackboard has over 2.1 million users at 3,600 schools. These numbers demonstrate that web-based learning is growing significantly, and that successful software is needed to create and manage these web-based courses.

## **Significance**

When designing any course, the needs of the instructor and students must be considered. However, when designing a web-based course several other considerations must also be taken. For example, how will student's access the course, how many users can it support, what software will the users need, how will the students communicate, how will the students complete assignments, and many more. When shopping for software that will create and manage the web-based course, all of these considerations are important to ensure that the software will meet the needs of the users. This paper will compare the functionalities of WebCT and Blackboard, the leaders in course authoring software, to provide information to help future users decide which might be better for their specific web-based courses.

## **Discussion**

### **WebCT**

WebCT's strategy is to deliver the best-of-breed learning tools, robust content management capabilities, dynamic learning information management, enhanced learning personalization, enterprise-class architecture, and strategic implementation services that institutions will need to compete effectively, today and years from now ([www.webct.com](http://www.webct.com)). Now what does this really mean to those using this software to create and manage their courses? WebCT is committed to giving institutions the best learning tools available provided within WebCT, and is also compatible with third-party tools that one might wish to integrate. It allows course creators to reuse and share learning objects and to track how content is used. Finally, WebCT provides a highly customizable learning experience that is altered by the instructor and the students, as well as provides multiple levels of interactivity.

#### **Tools for creators:**

As stated above, the creator of a WebCT course has a lot of flexibility as far as the design and use of tools goes. First, the creator can track the progress of the students. This tool can provide information about date and time of access, time spent in the system, number of postings on the bulletin board, and even percentage of articles read. This can help the instructor gauge the interest of the students and assess the interest and difficulty

levels of specific pages. Timed online quizzes can be given at any specific time. Once graded, the score and comments are then available for the student to view and automatically entered into the grade database. A student management tool is also provided that allows the instructor to view class lists in various formats, to enter grades manually, weight grades, and generate final grades to be made available for the students to view. WebCT also provides a course calendar to the students. This allows the students to see when assignments are due, when to take tests ,and more. Finally, WebCT allows the course look and feel to be specified by the designer. This can be anything from layout of links and color schemes to tools available for each page.

### **Tools for Students:**

Along with the creator, the students participating in WebCT courses are also provided with a large number of tools to work with. However, keep in mind that the creator must make these tools available to the student when setting up the design of the course. The bulletin board allows participants of the course to communicate with each other at all times. This takes the form of an asynchronous discussion. Similarly, e-mail facilities can be added to allow one to one communication between students. The chat tool provides real-time communication options for the participants. WebCT provides a student self-evaluation section that can be added to any page of notes within the course. This provides the students with multiple choice questions that are automatically scored by the program. This can help students test their learning throughout the course. A glossary

of terms can be provided, allowing students to click on highlighted terms to get a definition or allowing students to go to the glossary and search for a particular topic. WebCT can also provide presentation areas for students. Here students can create their own web pages for the instructor and the rest of the class to view. As mentioned in the tools for creators, timed online quizzes can be delivered through WebCT, and the score on each quiz can be posted for the students to view. External references can be linked to throughout the course content. The page annotation tool allows students to make personal annotations to any page of notes. This is a great way for students to take and view notes online. Finally, the grade tool is also provided to the students where they can view their individual scores, minimums, maximums, and average grades for each course component.

### **WebCT 3.6:**

The latest version of WebCT is 3.6. This version provides all of the tools discussed above, as well as some added features. This new version is compliant with Section 508 of the United States Rehabilitation Act of 1973, allowing students with disabilities to fully use the software. It introduces IMS Content Migration Utility, which makes it easy to share content within and among institutions. WebCT 3.6 offers an enhanced calendar, which allows students to view one central calendar tracking all of their online courses. This will be extremely helpful to students taking multiple web-based courses. The new version provides Palm Datebook integration, and additional

operating system support. This will allow users to view their calendars from their Palm pilots, and allow more users running various operating systems to use WebCT. Finally, WebCT 3.6 offers improved system management, providing automation functionality for end of year tasks required of administrators.

**Method of Access:**

WebCT can be accessed through any web browser, such as Internet Explorer or Netscape Navigator. Additional plug-ins may be required to view media files (Real Player, Quicktime Player, ...).

**Cost:**

WebCT can be downloaded for free for evaluation purposes. However, a license is required as soon as student accounts are created. Prices are determined by number of student users. As reported by Siekman, prices for WebCT 3.1 range from \$335 for up to 50 students and extra for faculty support or \$4000 for unlimited students (2000).

However, these prices have likely changed with the introduction of WebCT 3.6.

Furthermore, some state university systems may obtain state-wide licenses at individually negotiated prices.

Pricing information can be acquired by calling a sales representative at (877) 932-2863 or by filling out and submitting the information form provided at [www.webct.com](http://www.webct.com)

**Other services:**

In addition to the WebCT course authoring software, WebCT also offers professional development and training support, consulting services, and support services.

**Blackboard**

Blackboard has a similar strategy and mission as WebCT. Blackboard is dedicated to simplicity, making sure it is easy to use for student's and faculty, and to developing an all-encompassing teaching and learning solution that is scalable, easy to integrate with other tools, flexible, and customizable ([www.blackboard.com](http://www.blackboard.com)).

**Tools:**

At first glance, Blackboard tools seem very similar to WebCT's tools. Blackboard also has discussion functionality, where students can contact one another asynchronously. This functionality is labeled as discussion boards rather than bulletin boards, but provides the same functionality. E-mail is provided, however, Blackboard's email system is external whereas it is internal in WebCT. A virtual chat area is provided for synchronous discussions, allowing instructors to have "online" office hours, or to have discussion sessions at specific times when all students can be involved. Students can exchange files by using a dropbox. This will allow students to submit assignments, or to share notes. A calendar is also provided to keep students up to date with assignments, office hours, and test dates. Blackboard also has functionality to offer online quizzes, however, this is not quite as advanced as WebCT's online quiz

functionality. Blackboard does not offer as many options on the types of questions available and the delivery of these questions. Blackboard does not offer any self-test quizzes to the students. Grades are stored into a gradebook that can be made viewable to the students by the instructor.

### **Blackboard 5.5:**

Blackboard's latest version is 5.5, which provides new features and functionality in addition to the tools described above. Timed release of content is now available.

Creators can post new content and remove content as needed. This can help keep students interested and engaged, knowing that the material may change periodically.

Learning Units within Blackboard have been set up to allow the creator to build learning paths within a course. This will allow for specific assignments or note pages to be added to particular lessons or chapters. The gradebook has been enhanced, adding new sorting, improved calculation and grade weighting abilities, and improved grade reporting.

Assessments enhancements have also been added. The creator can place assessments in any content area of the course. Blackboard 5.5 offers the capability to plug in third party tools. Finally, scalability has been increased, allowing single sites to support thousands of courses.

**Method of Access:**

Blackboard can be accessed through any web browser, and may require additional plug-ins to view various types of media files.

**Cost:**

Blackboard offers free evaluation courses. Licenses are obtained based on level of course manager and support. Four levels are currently available. Level four provides a fully integrated online learning environment, while Level one allows for course management and can be incrementally upgraded. Siekmann reported prices between \$5000 to \$60,000 per year, varying by level and support, for Blackboard 5.0 (2000). Like, WebCT, with Blackboard some state university systems may obtain state-wide licenses at individually negotiated prices.

Additional pricing information can be obtained by calling 1-800-424-9299 ext. 4, or by requesting information on the blackboard website at <http://company.blackboard.com/contactus/index.cgi>.

**Other services:**

In addition to the Blackboard course authoring software, they also offer various training sessions and support services.

**Comparison at a glance**

	<b>WebCT</b>	<b>Blackboard</b>	<b>Preferred Tool</b>
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<b>Ease of Use</b>	WebCT is more sophisticated, but also more difficult to use.	The navigation of Blackboard is straightforward and easy to use	Blackboard
<b>Customization</b>	WebCT allows you to customize the look and feel of the course. It also allows you to import images.	Blackboard allows you to choose among things that are already provided for you.	WebCT
<b>Communication Functionality</b>	-bulletin boards  - <b>internal</b> e-mail -virtual chats -file exchange area	-discussion (bulletin)board - <b>external</b> email -virtual chats -file exchange area	Either
<b>Assessment</b>	-timed online tests -surveys -question types: MC, short answer, matching, paragraph/essay, <b>calculated</b> -settings: randomization, <b>conditional release, variable scoring</b> - <b>self-assessments</b>	-timed online tests -surveys -question types: MC, short answer, matching, paragraph/essay, <b>ordering</b> -settings: randomization <b>-no self-assessments</b>	WebCT
<b>Grading</b>	-auto-grading -all assignment grades can be entered into gradebook -grades can be viewed by students	-auto-grading -all assignment grades can be entered into gradebook -grades can be viewed by students	Either

\* information for chart provided by Siekman, 2000, and web related links listed below.

## **Summary**

After reviewing both WebCT and Blackboard, I have come to realize that both of these tools provide similar functionalities and begin to mirror each other with each new release of a product. Blackboard has been labeled as more “user friendly” by instructors and students, meaning it is easier to navigate in a web-based course created by Blackboard than WebCT. Also, Blackboard makes it somewhat easier to create the content of the course materials. No knowledge of HTML is needed, and course materials can be published in Microsoft Word. However, WebCT is more sophisticated than Blackboard. WebCT offers more testing options, both in the types of questions that can be offered and the delivery of these questions. WebCT is also more sophisticated in designing the look and feel of the course. The creator has complete control in WebCT, whereas in Blackboard the creator must choose from pre-determined layouts. Overall, both course management solutions provide the tools and support needed to create and manage a web-based course.

## **References**

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## Related Links

Blackboard's website:

[www.blackboard.com](http://www.blackboard.com)

Center for Instructional Technologies at the University of Texas at Austin:

<http://www.utexas.edu/cc/blackboard/about/why.html>

<http://www.utexas.edu/cc/webct/about/tools.html>

<http://www.utexas.edu/cc/webct/about/why.html>

Emerging Technologies for Distance Education: The Use of Blackboard (formerly

CourseInfo) and WebCT for course and Information Delivery:

<http://cml.indstate.edu/~libhard/ASIST2000x/DistEd.html>

Learning Space, Blackboard, and WebCT: A Comparison:

<http://fdc.uwsuper.edu/comp.html>

WebCT's website:

[www.webct.com](http://www.webct.com)

WebCT Vs Blackboard:

[http://iserv.tay.ac.uk/webcthelp/whywebct/webct\\_vs\\_blackboard.htm](http://iserv.tay.ac.uk/webcthelp/whywebct/webct_vs_blackboard.htm)

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