Designing and building accessible courses and communities serve every age group from the young to the old, those with or without limited abilities, and those in ideal or difficult circumstances. Blackboard is committed to providing accessible applications and to promoting the principals of universal design in support of making learning, connecting, and sharing available to everyone.

ISSUES AND ANSWERS

Issue: How can I find information about using a screen reader with the Blackboard Learning System?

Answer: Blackboard has written a screen reader tutorial available at http://www.blackboard.com/docs/screen_reader_tutorial_release_6.htm

Issue: None of the students in my class have reported a disability. Why do I need to do this?

Answer: Due to the variety and range of disabilities, social pressures and various personal considerations, many students will not report their disability – in fact, many may not realize they have one. Creating content with Universal Design in mind will provide these hiding or unknowing users with an equal opportunity to learn. Fully online courses make it even more difficult for instructors to identify struggling learners – this can provide that extra leverage you need. Additionally, Blackboard makes it easy to reuse courses from term to term, and you may have disabled students in the future that you do not have today.

UNIVERSAL DESIGN

Course Menu Design • Folders • Links • Visual Text Box Editor

Universal design principles for online learning environments are based on the idea that a broad range of human ability exists and this is ordinary and normal. The creation of content needs to be made as usable as possible by as many people as possible regardless of age, ability, or situation. Usable content accommodates people with disabilities, older people, children, novice technology users and others in ways that benefits all users. Online courses and communities add the dimension of anytime, anywhere access, creating many different scenarios for students and instructors engaged in the process of teaching and learning not defined just by ability, but by time and place as well.

In support of these concepts, Web pages that can be read by someone with low vision are easier for everyone to read; buttons and links that can be easily clicked by someone with fine motor difficulties from arthritis or by being a young child are easier to click for everyone; and smaller files for downloading take less time for dial up users to access without penalizing broadband users. Designing for a wide range of users from the beginning of the building process can increase usability without significantly increasing the time it takes to build. The results benefit everyone and reduce modifications later when students, instructors or content change.

Build content that can be used equitably by people connecting to the Internet from a dial-up or broadband connection. For example, large PowerPoint presentations can be split into multiple files, or thumbnail image files can be used on content pages with larger images optionally available by clicking the thumbnail.

Content that is organized logically in well labeled folders is simple and intuitive to use. More folders containing fewer content items provide faster load time for slower connections. Allow students to access materials in folders by enabling the Detailed View of the Course Menu. Organize and label content in a consistent way. If students are using the course in a linear progression, grouping materials based on time or achievement such as "week 1", "week 2"or "unit 1", "unit 2", is easy to follow and use. If students are using material in the course based on the type of content, grouping it based on description such as "lecture notes" and "assignments" can be more intuitive. Include clear instructions and a description for every content item using the Visual Text Box Editor.

Content that is provided in a variety of formats is flexible, giving users the opportunity to choose the best ways to utilize the information. For example, documents can be created in the Visual Text Box Editor, and organized in a folder. The same documents can be supplied in the same folder as PDF files with links to download. Giving users the opportunity to read the same information on a computer screen or printed on paper empowers them to select the best ways to receive and use materials.

Information conveyed in course content items needs to be perceptible. Text has to appear in a font size, style and color that is clearly readable. Use the Visual Text Box Editor to format text so that it is large enough, provides enough contrast, and does not rely solely upon subtle colors cues to discern meaning. Images, charts and graphs need to have accompanying labels, titles and descriptions so that the information they contain is identified and summarized.

Content items adhering to universal design principals have tolerance for error. When designing assessments, allow for multiple attempts. Allow users to edit or remove their own postings on Discussion Forums wherever possible or moderate Discussion Forums and allow rejected postings an opportunity to resubmit.

Finally, create content items that do not create physical hardship. Eye strain, fatigue, and strain on wrists and fingers can result from prolonged reading and interactivity sessions. Break up reading into shorter pages, and supply documents in a format that can be downloaded and printed. Set a word limit to Discussion postings, and a time limit for Virtual Classroom sessions.

ISSUES AND ANSWERS

Issue: I am not sure how to add an ALT tag to a graphic file I uploaded to my course.

Answer: Filling in the Alt Text box with a description of your image will create an ALT tag when adding an image to a course using the Visual Text Box Editor.

Issue: Students complain that they cannot get the content on the accompanying CD to play within their course.

Answer: A student's Personal Information settings have to be set to identify their computer's CD-ROM drive letter correctly in order for the content to display in the course.

Issue: Some of my students have limited access to the Internet even though a wireless network covers our entire campus. How can they stay up to date when the course content changes on a daily basis?

Answer: Students may find themselves in a variety of situations where they will need to connect to their course but may not have the opportunity. Students may have a job off campus where they have study time, they may be doing field work or traveling with a sports team. Blackboard Backpack is an application that allows students to connect to the Internet briefly, download and synchronize new content and upload assignments. Students can then work off line with course materials, completing assignments and assessments, and connect again to hand in their work and receive new material.

ACCESSIBILITY

Visual Text Box Editor • ATL Tags •Links • Folders

The Blackboard Learning System and Community System applications are written to be compliant with the requirements of Section 508 of the Americans with Disabilities Act. However, this compliancy with accessibility legislation is not the same as having the content within Blackboard applications compliant and accessible. Extra care and consideration is needed when designing and building content so that accessibility standards are met. Specific policies and guidelines are usually provided at each institution.

Being aware of the variety of course users can guide you when creating content. There are many different types of disabilities including mobility impairments, learning disabilities like dyslexia, speech and language disabilities, emotional disorders, neurological disorders, hearing impairments, color blindness, low vision, and blindness. Content that clarifies information for one person may make learning difficult for another. For example, students with reading difficulties can gain a greater understanding of concepts when text is reduced and supporting graphics and illustrations are included. Those same graphics can hinder a person with low vision or certain cognitive disorders unless detailed descriptive text is also included.

Descriptive text is most accessible when it is included as part of the page that the image is on. The Visual Text Box Editor can be used to add a description to an image on a content page. Descriptive text can also be added to an image as a link that opens another page containing the text. The Visual Text Box Editor can be used to add a URL to the description.

Good teaching and learning practices require conveying information in as many ways as possible and this is true for creating accessible online courses as well. The flexibility of Blackboard provides the ability to create equivalent content, for example, a course could contain content folders to group images, videos, sound files, text files, and other rich content. This creates an environment where learners of many types and abilities can absorb and comprehend course information to achieve positive learning outcomes.

LEARNING STYLES

Multimedia • CD Drive • Blackboard Backpack

Students learn in a variety of ways; some students absorb material by listening intently to lectures while they doodle on a note pad, others are furiously writing down every spoken word, and still others are highlighting key concepts in their text books. Designing and building accessible online courses using universal design techniques offers the unique opportunity to build content that appeals to different learning styles as well.

The very nature of digital content lends itself to presenting material in multiple ways to support learning objectives. For example, to demonstrate an important concept, an animated movie clip with sound and with accompanying textual description and captions is provided in a course. The clip can be watched any number of times within the course, unlike when a film is shown only once in a face-to-face class.

Students who learn visually and by reinforcement can watch the clip as many times as necessary to grasp the concept. Starting and stopping the animation can also appeal to those who learn by doing something physical, called kinetic learning. The textual descriptions and captions provide the students who learn by reading and seeing text an extra dimension that watching the clip does not fulfill. The text is also searchable so that it can be used for study and writing. The sound can reinforce audio learners, and help them link the visual content to the understanding of the concept. Blackboard supports linked multimedia files containing synchronized equivalent alternatives to make them accessible and to address different learning styles.

If bandwidth is a concern, multimedia files can be burned onto a CD and distributed to students. Students can also use Blackboard Backpack to download course files and material, then disconnect from the Internet, do their work, and reconnect at a later time to upload assignments and receive new materials. With the course materials downloaded locally, students can highlight, annotate, and reorganize materials in a way that suits their learning style.

Educate. Innovate. Everywhere.