

WebCT Accessibility: Good Practice Guide

This good practice guide will help WebCT Designers remove unnecessary barriers to WebCT.

WebCT is designed to be accessible, in that the same guidelines for designing accessible web pages have been applied to the design of WebCT¹. As a WebCT designer however, how you build your WebCT course can increase or decrease the accessibility of the teaching and learning material you publish.

Unavoidable barriers to WebCT

While WebCT is accessible it has a number of significant barriers. *The Ultimate WebCT Handbook* suggests that these barriers, with a little preplanning, can be reduced or, in some cases, removed entirely.

- Frames on page are especially difficult²
- Specific tools in WebCT are not accessible, for example: Chat and Whiteboard.
- Popup windows and new browser windows are a barrier.
- Images without alt tags such as 'Banners' are a barrier
- The close placement of some navigation elements is difficult.³

1. WebCT Standards, <http://www.webct.com/accessibility/home>. WebCT (an American company) states that their software complies with the World Wide Web Consortium's Web Accessibility Initiative Standards (W3C WAIS), and the US Section 508 guideline.

2. For individuals using screen readers.

3. Especially for individuals with motor skill difficulties.

Ten Ways to Increase the Accessibility of a WebCT Course:

1. Provide simple instructions for using each WebCT tool.
2. Hide the Course Menu (drop down navigation menu).
3. Avoid using Chat and Whiteboard for giving significant or vital course materials or instructions.
4. Have all tools open in the same window, unless required by copyright or for printing of Microsoft Office files.
5. Do not use 'Add Banner Image'. Use HTML with an ALT tage for banner images.
6. You may need to provide open-ended or text alternatives to Quizzes or Self-Tests. Timed quizzes may not suit all students.
7. Divide the Discussions Tool by many topics.
8. Add Search and Glossary to the Homepage.
9. Do not put too many hyperlinks or too much information on any one web page.
10. Offer to provide alternative formats to all WebCT material. On the Homepage use a textbox with this statement:

"Please contact me via phone or email if you would like to request information contained in this WebCT course in another format"

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General Design Points

Navigation

- Aim for logical and well-planned navigation.
- **Use consistent headings and titles throughout the site.**
- Name icons and files meaningfully by using simple and direct language. For example: name the Discussion tool 'Discussion'.

Colour

- **Use high contrasting colours.**
- Colour should not be the only means of conveying important information. Some people will not be able to differentiate coloured navigation clues. For example: Avoid colouring text to indicate 'green means go'.
- Colour should be able to be adapted by the users browser preferences.
- To check what a colour blind person would see, visit the Vischeck website <http://www.vischeck.com>

Fonts

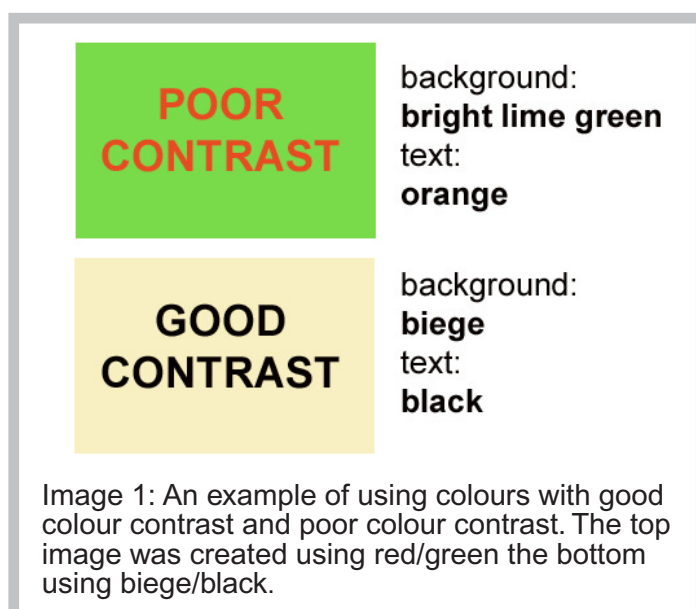
- Fonts should be easy to read
- **Use sans serif fonts such as Arial, Helvetica, Comic Sans, Verdana, Georgia, Tahoma and Trebuchet MS.**
- Clear definable letter shapes, clear spacing between letter combinations.
- Documents should use a minimum of **text size 12pt or 14pt.**
- Avoid underlining except for hyperlinks
- Use bold for emphasis

Readability

- **Use short simple sentences.**
- **Give clear instructions.**
- Use concise paragraphs with clear topic headings.
- Avoid long sentences of explanation.
- Use bullet points or numbering for lists.
- Use graphics to explain complex text.
- Aim for short pages to reduce the need to scroll.

Use Text files and Provide Text alternatives.

- Provide several alternative formats of the same documents.
- **Include notes that describe how to handle downloadable files.**
 - For example: *"This file is a PDF, which opens in Acrobat Reader. Depending on your browser's preferences you may be prompted to save the file or it may open in a new browser window."*



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Using Accessible files used in WebCT

You can add any file type to WebCT, however, your students must have the right software to open your file. **The golden rule to help students to open files is to provide two versions of the same file.**

Making Microsoft Word Accessible

- Word is very good for screen readers and for users who wish to alter the size of your text.
- **Save all word files as RTF** (allows all word processing applications such as Word Perfect to read the file. This may slightly change some of your formatting).
- Plan clear headings and subheadings in Word files. Use headings and styles in Word (allows fast navigation of long documents), see page 6.

Making Microsoft PowerPoint Accessible

- Choose high contrast colours for text and background.
- **Save a copy of the PowerPoint presentation as Outline/RTF.**
- Provide instructions for printing 6 slides per page.
- Provide Alt tags for all graphics in the PowerPoint presentation

by right mouse clicking on the graphic and selecting Format Picture then Web tab.

- Avoid converting PowerPoint to HTML.
- Record the audio of your lecture into your PowerPoint. Then have it converted into an Impatica talking PowerPoint 'movie'.

Making PDFs (Adobe's Portable Document Format) Accessible

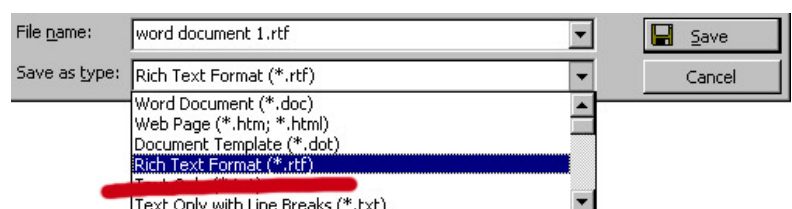
- **Convert PDFs to accessible HTML or a Word RTF file. Offer both file types.**
- PDFs are good for those using screen magnification and for printing.
- PDFs are not good for screen reading software (as used by blind users).
- Although Acrobat 6 now works with screen readers, it is still too early to promote the general use of PDFs.

Making Flash and Video Accessible

- Provide text captioning or transcripts for all Flash and Video
- Provide information about how to obtain plugins.

For example: *"To view this exercise you will require Flash. To install the plug-in visit <http://www.macromedia.co.uk>"*.

Image 2: A screen snap shot of Microsoft Word's 'Save as RTF' window.



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Making Graphics Accessible

- **Using imagery that explains the purpose of the icon.**
For example: a blue swirl icon wouldn't graphically represent the purpose of the Discussion tool.
- Use high contrasting colours in your design.
- Colour should not be the only means of conveying important information.
- **Use Alt tags** (brief text description that appears when you hover over an image) or add a link to a longer description using the LONGDESC tag.
- Diagram and equations also require Alt tags.
- Note: WebCT provides Alt tags for all icons, but not 'Banners'.

Making HTML Accessible

- WebCT pages can be keyboard driven as well as mouse directed. If you design HTML for WebCT use a combination of tab, enter and the arrow keys to test out the page.
- Tables should be line-by-line accessible. Use the tab key to check how your site will be read by a screen reader.
- Use Cascading Style Sheets (CSS) for layout rather than embedded formatting. Check that your page still makes sense when the style sheet is ignored by the browser/text/screen reader.
- Use HTML tags correctly. Screen readers may depend on the proper use of mark-up. Tags should not be misused to provide stylistic effects, use CSS instead.

- Check your pages using a validity checker:
 - o **WAVE** (<http://www.wave.webaim.org>) a **quick overview**
 - o **Bobby** (<http://www.cast.org/bobby>) gives a **much more comprehensive breakdown.**
 - o **W3C** (<http://validator.w3.org/>) **official markup validation service.**

WAI Quick AccessibleTips

For Complete Guidelines & Checklist:
www.w3.org/WAI

- Images & animations: Use the alt attribute to describe the function of each visual.
- Image maps. Use the client-side map and text for hotspots.
- Multimedia. Provide captioning and transcripts of audio, and descriptions of video.
- Hypertext links. Use text that makes sense when read out of context. For example, avoid "click here."
- Page organization. Use headings, lists, and consistent structure. Use CSS for layout and style where possible.
- Graphs & charts. Summarize or use the longdesc attribute.
- Scripts, applets, & plug-ins. Provide alternative content in case active features are inaccessible or unsupported.
- Frames. Use the noframes element and meaningful titles.
- Tables. Make line-by-line reading sensible. Summarize.
- Check your work. Validate it.

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What is Senda?

The Special Education Needs and Disability Act (SENDA, 2001) is legislation designed to ensure disabled students are not placed at a 'substantial disadvantage' in comparison to their non-disabled peers. The law makes it unlawful to 'unjustifiably' treat a disabled person 'less favourable' for a reason relating to their disability. Specifically, the law will make it unlawful to discriminate against a disabled person with regards to:

- Admissions,
- The services the college provided to students (including, for example, teaching, assessment, and learning resource provision).

'An Introduction to SENDA', Becta and the JISC TechDis Service, 2003

Sendra places an obligation on all education institutions to make reasonable adjustments to ensure disabled learners can participate equally in all aspects of the educational environment.

What are Assistive Technologies?

Disabled learners may use a range of Assistive Technologies and accessibility strategies in online environments. Assistive Technologies are piece of equipment, product or systems that increase, maintain, or improve the functional capabilities of persons with disabilities. For example: Screen readers are a term used for software that reads or speaks the computer screen aloud. Assistive Technologies only function well where accessible design practice is followed.

Independent Learning Unit

The Independent Learning Unit is a technical resource base and quiet study area for disabled and dyslexic students. The Independent Learning Unit has a wide range of assistive technologies to improve access to learning for disabled people. Training in the use of the equipment is provided and support and advice is available. The Unit has screen reading and screen enlarging software and Braille making facilities for visually impaired students. There is a Kurzweil machine which reads text aloud and a CCTV apparatus which allows the user to view materials in an enlarged format. There is also a text and graphics scanner which is linked to word processing and graphics software.

Phone: 020 7133 2452

Contacts

Disabilities and Dyslexia Service

North Campus, Tower Building

Tel: 020 7133 2188

Minicom: 020 7133 2281 (for deaf students)

Fax: 020 7753 5788

disabilities.north@londonmet.ac.uk

dyslexia.north@londonmet.ac.uk

City Campus, Calcutta House

Tel: 020 7320 2370/1122

Fax: 020 7320 1237/3528

dyslexia.city@londonmet.ac.uk

Teaching and Learning Technology Centre

Learning Centre, North Campus

Tel: 020 7133 2984

Email: t.waring@londonmet.ac.uk 5

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Further Reading – advice, guides, tutorials

Services for Disabled Students including: advice and information.

<http://www.londonmet.ac.uk/student-services/dyslexia-disabilities/disabilities/dropin.cfm>

W3C - HTML Techniques for Web Content Accessibility Guidelines 1.0

<http://www.w3.org/TR/WCAG10-HTML-TECHS/>

Seven precepts of Usability and Accessibility, TechDis

<http://www.techdis.ac.uk/seven/precepts.html>

Web Accessibility: Design-for-all

<http://www.netskills.ac.uk/workshops/descriptions/access.html>

BT's Safe Web colours for Colour Deficient Vision

<http://www.labs.bt.com/people/rigden/colours/>

Vischeck

<http://www.vischeck.com>

Glasgow Caledonian University Resource on Accessible e-Learning

<http://elisu.gcal.ac.uk/access/>

WebCT, Accessibility, Usability and the Disabled Student

<http://www.ultimatehandbooks.net/excerpts/accessibility.html>

Creating Accessible Microsoft Word & WordPerfect Documents by Using Markup

<http://www.cew.wisc.edu/accessibility/tutorials/structuralmarkuptutorial.htm>

Why use Microsoft Word's built-in heading styles? <http://www.shaunakelly.com/word/numbering/UseBuiltInHeadingStyles.html>

Teachability Project. Creating An Accessible Curriculum For Students With Disabilities

<http://www.ispn.gcal.ac.uk/teachability/index.html>

The Special Educational Needs and Disability Act 2001 (SENDA)

<http://www.hmso.gov.uk/acts/acts2001/20010010.htm>

The British Dyslexia Association

<http://www.bda-dyslexia.org.uk/main/home/index.asp>

Royal National Institute of the Blind (RNIB)

<http://www.rnib.org.uk>

Royal National Institute of the Deaf (RNID)

<http://www.rnid.org.uk/index.htm>

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