UNIVERSITY OF BRADFORD
MAKING KNOWLEDGE WORK

Code of Practice: Web based materials

World Wide Web Advisory Board

http://www.brad.ac.uk/webid/

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Learner Support Services welcomes feedback on its documentation. Please email any comments on the content of this document to: *suggestions@bradford.ac.uk*.

If you need to view this or any other LSS documents in an alternative format, please see: *http://www.brad.ac.uk/lss/*.

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1 Introduction

The Code of Practice is issued by the University World Wide Web Advisory Board. *It is not a static document, but will be updated and reissued as requirements change.*

Its objectives are

- to inform staff of the structure of the University Web site,
- to inform staff of the measures they must take to ensure Web based materials comply with University policy and legal requirements.

Non-compliance is deemed to be in breach of University Regulation 21 on the Use of Computer Facilities and the Campus Network for which there is a disciplinary procedure – see *http://www.brad.ac.uk/lss/regulations/policy/reg21.php*. However, matters brought to the attention of the Web Administrator in Learning Support Services will be discussed with the appropriate person and support offered. If this does not give results, the matter will be escalated to the Chair of the Web Advisory Board and a meeting with the Dean/Head of Planning Unit arranged to discuss an appropriate way forward within a given timescale. Pages that then fail to comply will be removed from the Web server and disciplinary procedures will commence.

1.1 Document Conventions

For the purposes of this document the following apply:

- **Planning Unit** – the name used to represent each of the following:
  School of Archaeological and Environmental Sciences
  School of Engineering, Design & Technology
  School of Health Studies
  School of Informatics
  School of Lifelong Education and Development
  School of Life Sciences
  School of Management
  School of Social and International Studies
  Corporate and Central Services
  Learning Support Services
  Graduate School
- **Department** – the name used to represent a sub division of one of the above Planning Units.
- **Web co-ordinator –** the person nominated by the planning unit as their representative on the WWW Advisory Board and the Information Providers' Forum.
- **Web officers** – the person formally appointed to maintain Planning Unit Web sites.
- **Information Providers** – the person nominated by the Head of Department to maintain departmental Web pages and to sit on the Information Providers' Forum.

- **Web authors** – any other member of staff publishing Web based materials.
- **Web contributors** – a collective name for all of the aforementioned.

The document makes use of the World Wide Web Consortium's (W3C) Curriculum on Web Content Accessibility Guidelines (*http://www.w3.org/WAI/wcag-curric/*) - an extensive online curriculum that explains and gives examples for the Web Content Accessibility Guidelines. To take advantage of this, you will need to be connected to the Internet. Clicking on 🕮 in the right-hand margin will take you to the appropriate guideline and clicking on ☑ will take you to an example of how to do a particular task. Hovering over an icon will display a screen tip giving details of the page to which it links. For example, the links on this paragraph show an overview detailing the full list of guidelines and examples.

🕮 ☑

For those reading this as a paper-based document a full list of guidelines and examples and their appropriate Web addresses are given in the appendices -

Important:

"Web Content Accessibility Guidelines *(WCAG)* 1.0 was approved in May 1999 and is the **stable and referenceable version"** *http://www.w3.org/WAI/intro/wcag.php* [accessed 31 August 2005]

Although WCAG 2.0 is in mature stages of development, resources to aid Web developers and accessibility checking tools for this are so limited it is impractical to use this version as a base for this Code of Practice at the present time.

All Web contributors should start to familiarise themselves with WCAG 2.0 requirements - *http://www.w3.org/WAI/intro/wcag20.php*. The *Mapping Between WCAG 1.0 and the WCAG 2.0 Working Draft* will assist this process. Further guidance will be given to Information Providers in due course.

Throughout the document, World Wide Web is abbreviated to WWW.

If you require this document in another format, please e-mail *info-admin@bradford.ac.uk*.

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2 Summary of Key Points

The Code of Practice covers all information delivered via the WWW, including VLE/MLE materials. Non-compliance is deemed to be in breach of University Regulation 21 for which there is a disciplinary procedure.

2.1 Quality of content

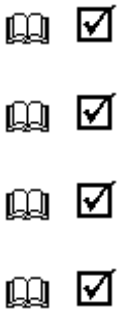
- Planning Unit/Department home pages should contain the minimum baseline content and follow the University's Corporate Identity *[see 5.1/6]*.
- All content must be appropriate to a university Web site. WWW contributors are personally responsible for complying with University Regulations and with legal and contractual requirements. *[see 5.2/11]*
- The textual content of Web pages should meet the same high standards required in paper documents and all Web pages should be checked for errors before publication *[see 5.3].*
- Pages should be kept up to date, and the date of the last review included on the page *[see 5.4]*.

2.2 Corporate identity

- The Corporate Identity standard font for Web pages is Arial, however, you should always offer alternatives
  eg Arial, Helvetica, Sans-Serif *[see 6]*.
- Title tags should be informative and the words "University of Bradford" must be included in the titles of all main pages *[see 6.1]*.
- Content should refer to University of Bradford Web addresses as www.bradford.ac.uk/… *[see 6.1]*
- The University logo must appear at the top of each Planning Unit/Department home page and image sources for all University logos and images should use <IMG SRC="http://www.brad.ac.uk/img/imagename"> *[see 6.2]*.
- Planning Unit Web sites should predominantly use their school colour or the Corporate claret and grey *[see 6.3]*.
- The use of University logos, colours and images must adhere to guidelines – http://www.brad.ac.uk/webid/ *[see 6.2]*

2.3 Technical standards

- Pages should be structured using appropriate heading styles with markup that validates to W3C standards *[see 7.1].*
- Format should be separated from structure through the use of Cascading Style Sheets *[see 7.4].*
- Graphics files should be saved in an appropriate format and include the "`alt`", "`height`" and "`width`" attributes in the `<img>` tag *[see 7.7]*.
- Enhancements, such as rich media, Java applets and Javascripts should be implemented with care *[see 7.8/7.9]*.



- Pages should be optimised for use by search engines and be free of broken links [see *8.2*/*8.5*]

2.4 Ensuring accessibility

- Ensure all Web based materials (including those for VLE/MLE) meet accessibility requirements [see *9*/*10*]
- Ensure all W3C Priority 1 and 2 requirements are met and work towards meeting Priority 3 requirements *[see 9.1]*.
- Provide a text only alternative for any content that cannot be accessed in text mode *[see 7/9]*.
- Provide a low vision option using BETSIE or equivalent and avoid using frames *[see 9.2]*.
- Pages should be tested using a variety of set-ups *[see 9.4]*.
- Structure Microsoft® Office documents appropriately, add alternative texts to images and choose appropriate file formats for all documents delivered via the Web *[see 10].*

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3 About the University Web site

3.1 How information is organised

The University Web site holds approximately 30,000 items containing a vast array of information. All these pages are organised into a series of directories and sub-directories on the central Web server. Originally there were three main directory trees: admin - for all pages from administrative units; acad - for all pages from academic units; and university - for all generic university information. Over the years this structure has been relaxed to accommodate the development of the Web as a marketing tool with the need for more user-friendly URLs.

Each directory and its contents are the responsibility of a nominated representative (or representatives) within Planning Units/Departments who have the appropriate user ids and passwords to allow them to publish and update pages.

In addition to the central Web server, some Planning Units/Departments have opted to have their own Web server or use an external host. **All pages that are core to the University's business are governed by this Code of Practice** wherever they may be hosted.

There are also staff and student Web servers, where staff and students may be allocated a limited amount of file space to publish personal Web pages. These are for holding staff/student Web pages for personal, professional and non-commercial purpose; staff or students are personally responsible for their pages and must ensure that they are fully compliant with current legislation and with appropriate University Regulations and Codes of Practice.

3.1.1 e-Strategy

Full details of the University's e-Strategy are available from *http://www.brad.ac.uk/corporateplan/e-strategy/*.

"The vision was set out in the University's Corporate Plan. Using a range of Information and Communications Technology (ICT) applications to support three parallel developments:

- A web enabled campus supported by mobile computing and wireless networking.
- A smart administration for flexible learners.
- A teaching and learning strategy that integrates the key skill of "communicating in the information age".

Earnshaw R, 2004, "Introduction to the e-Strategy at the University of Bradford"
http://www.brad.ac.uk/corporateplan/e-strategy/e-strategy-intro.pdf

This Code of Practice forms an integral part of achieving this vision to ensure that reasonable steps are taken to make the University's Web based services universally accessible. It does not, however, stand in isolation and reference should be made to the many other strategy documents being developed to meet the aims of the University's Corporate Strategy. For example, the

introduction of Bradford's virtual learning environment (VLE), currently using Blackboard™ software provides the medium for publishing teaching and learning materials. In time, all such materials should be provided to students using this technology. They should still, however, meet the requirements of this Code of Practice and the e-Learning Strategy.

3.1.2 Classification of Web pages

Three broad categories, or tiers, of information have been identified on the University Web site. The purpose of defining content in this way is to make it easier for WWW contributors to follow the guidelines laid out in this document.

Tier 1: Top-level pages

The top-level pages of the University Web site provide the framework under which the rest of the site is organised. To accommodate the diverse needs of our audiences, users are automatically directed to one of two entry pages; one for external users and one for internal users. The external entry page is predominantly a marketing tool for potential students and staff, visitors, and commercial services. The internal entry page predominantly serves the needs of existing staff and students. Permanent links are provided to all second tier pages, and other pages may be highlighted by temporary links if they provide information that is new or particularly timely. In addition, the top-level pages contain general information about the University that is of interest to visitors, such as maps, views of the campus and details of the attractions that Bradford offers.

Tier 2: Planning Unit home and top-level pages

The external Tier 1 pages provide the primary Web marketing tool for the University and its Planning Units. Planning Units should use these pages as their primary source for marketing purposes with their Planning Unit Web site providing the more detailed "added value" information about its activities and personnel. The content and layout of the Planning Unit home page and other top-level pages is entirely the responsibility of the Planning Unit concerned, providing they meet the requirements detailed in this Code of Practice; however, Planning Units are strongly advised to have representation from Marketing & Corporate Communications and Learning Support Services during the design process. *The minimum baseline content for Planning Unit home pages is defined in section 5.1.1.*

A summary of the key points can be found at the beginning of this document. Any difficulties in understanding or meeting the requirements should be referred to the Web Administrator in Learning Support Services (contact 3336, or e-mail *info-admin@bradford.ac.uk)*.

To help ensure that standards are maintained across the University Web site, Planning Unit pages are periodically reviewed and any problems notified to the appropriate person.

Tier 3: Planning Unit sub-level pages

The top-level pages of any Planning Unit's Web site tend to describe the activities and purpose of the Unit to outsiders. Very often there is another level of information beyond this directed primarily at specific types of users (for

example, other staff, existing students, colleagues at other institutions.) This type of page is classified as Tier 3, and includes such things as details of projects and initiatives and links to Web-based resources. Materials in Blackboard also fall within this category.

As with Tier 2 pages, those responsible for Tier 3 pages should abide by the requirements detailed in this Code of Practice.

Personal pages on the staff/student Web servers

Staff/students may request space on the staff or student WWW server - *http://www.staff.brad.ac.uk http://www.student.brad.ac.uk/;* these are for holding staff/student Web pages for personal, professional, non-commercial purpose within the bounds of regulations and the law.

The University exercises no direct editorial control over the content of pages on these servers, however, the content of personal pages **must not** contravene the University regulations as outlined in full on the Learning Support Services Web pages at *http://www.brad.ac.uk/lss/regulations.*

Web pages may link to other sites relating to hobbies and pastimes, but must not run Web pages for such societies from this area.

Materials used for departmental/academic purposes should be held on the University's main Web server and staff should seek the advice of their Web Officer.

3.1.3 Web provision responsibilities

Tier 1: Top-level pages

Tier 1 pages are maintained centrally in accordance with guidelines agreed by the WWW Advisory Board. The Web Officer in Marketing and Corporate Communications maintains the external top-level pages, and the Web Administrator in Learning Support Services maintains the internal top-level pages.

Tier 2: Planning Unit home and top-level pages

Planning Units are encouraged to form a School Web Board to determine the design and ensure the accuracy and quality of its Web provision. Each School Web Board should appoint a Web Co-ordinator as their representative on the WWW Advisory Board.

Planning Units are also encouraged to resource and appoint a full-time Web Officer to maintain Planning Unit Web pages and offer guidance and support to other Information Providers and Web authors in their Planning Unit.

Tier 3: Planning Unit sub-level pages

These pages are generally maintained by departmental Information Providers and/or Web authors.

3.2 Technical information

Learning Support Services Technical Services Team supports the central Web server. It runs Apache software, has sufficient hard disk space to meet users'

needs and offers a search engine. There is also a development Web server - *http://www.dev.brad.ac.uk* - where users should test their pages before making them live on the central server. PHP (Hypertext Preprocessor) support is available on the main and development Web servers.

New and amended files should be transferred using FTP; users do not have the ability to access the server using Telnet. There is currently no limit to the amount of disk space allocated to those publishing to the central Web server.

Learning Support Services maintains a comprehensive set of CGI scripts that should meet most requirements for server side processing (such as the handling of Web-based forms). If you wish to publish something that requires the use of a script, contact *ictservicedesk@bradford.ac.uk* with details.

FrontPage extensions are **not** implemented on the Web server.

The campus network is protected by a firewall that includes rules to control access to internal services from outside of the University, eg incoming Web requests will be allowed to known Web servers but stopped from reaching other machines. Planning Unit/Departments running their own servers **must** register them with Learning Support Services in order for the outside world to gain access to them.

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4 Support and development

4.1 The World Wide Web Advisory Board

The World Wide Web Advisory Board reports to the Information Strategy Sub Committee - *http://www.brad.ac.uk/admin/planning/committees/ISSC/Homepage.htm*. It has the following responsibilities with the full terms of reference available at *http://www.brad.ac.uk/lss/it-services/internet/www-ab/terms.pdf*:

- To oversee the quality of information provided by Information Providers.
- To oversee the security classification of information provided through the Web.
- To ensure accessibility of information by all potential users.
- To support WWW contributors and ensure appropriate training is available.
- To support as appropriate the use of the Web for Teaching and Learning.
- To encourage widespread use of the Web to support the University's mission.

4.2 Learning Support Services

The Technical Services team provides and supports the infrastructure underpinning the WWW Information Service, offers technical guidance, registers users and is represented on the WWW Advisory Board. Requests for assistance should be made via *ictservicedesk@bradford.ac.uk*.

The Web Administrator administers top-tier University pages for the internal face of the site, services the Information Providers' forum, has a seat on the WWW Advisory Board, manages the development of this Code of Practice and offers training, guidance and support to WWW contributors.

4.3 Marketing and Corporate Communications

Provides guidance and support on all issues appertaining to marketing via the Web, particularly student recruitment, corporate communications and developing the Corporate Identity. The Web Officer administers top-tier University pages for the external face of the site, assists in servicing the Information Providers' forum, has a seat on the WWW Advisory Board and offers guidance and support to WWW contributors.

4.4 IT Officer for disabled people

Provides guidance and support on all issues associated with disability.

4.5 Training resources

The WWW Advisory Board, Information Providers and Web Authors have their own electronic discussion lists for seeking/circulating guidance and access to

an extensive list of resources on the Web at *http://www.brad.ac.uk/lss/it-services/internet/resources/*

Additionally, the Information Providers have access to an on-line community via Blackboard; this has the added advantage of archived discussion boards.

A training programme on aspects of Web design, accessibility and usability is offered to all members of staff - *http://staffdev.bradfordcollege.ac.uk/cgi-bin/staffdev/enduser_courselist.pl*

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5 Quality of content

5.1 Baseline content for Planning Unit pages

It is essential that Planning Unit home pages contain certain elements that will help ensure that users find the information they are looking for. University requirements for content on Planning Unit home pages are as follows:

5.1.1 All Planning Units

- The University of Bradford logo that follows the Corporate Identity requirements - *http://www.brad.ac.uk/admin/pr/corporate/* - at the top of the page.
- A link to the University of Bradford home page.
- The full name of the Planning Unit.
- The full postal address of the Planning Unit.
- The name of the Planning Unit and the words "University of Bradford" contained in the `<title>` tag.
- Links to the prospectus order form and *course-enquiries@bradford.ac.uk* as per the external home page.
- A telephone number for Planning Unit general enquiries.
- The name and method of contacting the maintainer of the page (note: this should **not** be a named individual; a mailto link to a general e-mail box is required).
- The date that the page was last checked or revised.

5.1.2 Academic Planning Units

In addition to the above, the home pages of academic Planning Units should provide clear links to information about courses offered, including the appropriate contact details for admissions. A centralised course directory can be found at *http://www.brad.ac.uk/courses/* and academic Planning Units should link to the information contained here or use PHP to include the information for use in their pages. All course information presented on Planning Unit pages should be up to date and in line with the central University course directory.

5.1.3 Academic departments

The home pages of academic departments should carry the baseline content outlined above together with the name and a link to the Planning Unit home page.

5.2 Appropriateness

All material published on any of the University's WWW servers will inevitably be associated by users with this institution. It is the responsibility of WWW contributors to ensure that all the pages that they control contain only content that is appropriate to a university Web site. Similarly contributors are

responsible for links (URLs) that reference inappropriate material (eg non-compliant with the DDA or offensive material) on other sites, since a URL constitutes promotion of the content so linked.

Web pages should be, therefore, of a high quality both in terms of content and of presentation. All content should comply with University Regulations and with the legal requirements summarised in *section 11*. Planning Units are encouraged to introduce procedures for verifying the appropriateness content.

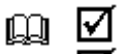
Care should be taken when providing links to external Web sites. It is recommended that a disclaimer be used when linking to Web sites outside the brad.ac.uk domain:

DISCLAIMER: This page may include links to information provided by external services that are not in any way under the control of the University of Bradford. The University cannot, therefore, be held responsible for their content or accuracy.

Such a disclaimer is provided at *http://www.brad.ac.uk/webid/uobdisclaimer.html* for use as a PHP include; it has a div id="uobdisclaimer" to allow formatting via CSS.

5.3 Style and structure

The textual content of Web pages should meet the same high standards required in paper documents. The WWW attracts a wide, multi-cultural audience, and so it is particularly important that the language contained in Web pages is clear and correct.



Keep sentences short. It is harder to read from a computer monitor than it is from paper, and users generally find it more difficult to follow complex sentences. Make use of bullet points to break sentences down into manageable phrases and use numbered bullet points for instructions.

Avoid words, phrases and other usages that might not be understood outside the United Kingdom. For example, do not use the abbreviated date format: 7/8/02. Users accustomed to US English will take this to mean the 8 July 2002. Months should be written out in full (eg 7 August 2002).

Expand an abbreviation the first time it is used in a page and always use the `<abbr></abbr>` tag for all occurrences in (X)HTML.

5.4 Currency

Web pages should be current and accurate. Information that is no longer current (eg the contents of past newsletters) should be clearly apparent to the user. Web pages should be reviewed at suitable intervals and when necessary updated. Even if information contained does not change frequently, it is worth indicating that it has been reviewed. This helps reassure visitors about its currency. The date of review should be recorded on the page. *[see 5.1.1]*

Users are responsible for ensuring that redundant files are removed from the Web server in a timely manner.

5.5 Spelling and grammar

Web pages should be checked for errors before publication. Documents should be proof read in order to pick up errors not found by automatic checking tools.

Planning Units are encouraged to introduce procedures for proof reading and verifying content.

5.6 Information about the campus, Bradford and the surrounding area

General information about the University, the Campus and Bradford and the surrounding area is provided on Web pages maintained by Marketing and Corporate Communications - *http://www.brad.ac.uk/external/geninfo/surround.php* and *http://www.brad.ac.uk/external/visit/visitors.php*. WWW contributors wishing to offer visitors this type of information should link to these centrally maintained pages. This will ensure that users are viewing consistent, up-to-date and accurate information about the University and its environs.

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6 Corporate Identity

- The use of the University's corporate identity (ie logo and corporate colours) is used throughout Tiers 1 and 2, and is encouraged on Tier 3 pages.
- The Corporate Identity standard font for Web pages is Arial, however, you should always offer alternatives eg Arial, Helvetica, Sans-Serif. Alternative fonts may be used to provide greater clarity to navigation links, etc.

6.1 Permissible use of the University's name

- The name of the University should be included in the titles of all Web pages. For example:
  `<title>Learning Support Services, University of Bradford</title>`
- The text of `<title>` tags should be concise - bookmark lists and search engine results will truncate a long title. University of Bradford is the recommended form of the University's name for use in title tags. 'School/Department of' need not precede names.
- Content should refer to University of Bradford Web addresses as www.bradford.ac.uk/…

6.2 Permissible use of the University's logo and images

- The University logo must appear at the top of each Planning Unit/Department home page. A range of logos in different sizes, orientations and colours can be found at *http://www.brad.ac.uk/webid/*. The University logo must be in one of the forms found on this page. Logos may not be altered in any way.[1]
- Images used on the externally facing Web site are stored in *http://www.brad.ac.uk/img*. If you need images of different subjects or sizes, please contact *corp-comms@bradford.ac.uk*.
- Image sources for all University logos and images should use `<img src ="/img/imagename ">` to:
  - avoid duplication of logos across the Web server;
  - minimise download times for the end user;
  - ensure changes to the logo/images flow across the Web site.

[1] Any variation must be approved formally by the University (through Marketing & Corporate Communications and the WWW Advisory Board), eg substitution of the University logo by an alternate School logo or the addition of stakeholder or other logos.

6.3 Permissible use of Corporate Colours

Planning Unit Web sites should predominantly use their school colour or the Corporate claret and grey - see *http://www.brad.ac.uk/webid/*

When using colour:

- Do not rely on colour alone to convey information.
- Ensure that foreground and background colour combinations provide sufficient contrast.

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7 Technical issues

"The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential."

http://www.w3.org/

All Web contributors should make their Web pages W3C standards compliant as this optimises the accessibility and forward compatibility of the University's Web provision. Similarly, standards are being developed for other educational Web based services, eg IMS Global Learning Consortium aims to support the adoption and use of learning technology worldwide – see *http://www.imsglobal.org/*; such standards should also be adopted as appropriate.

7.1 Semantic structure

It is strongly recommended that structure should be separated from design with the latter handled by cascading style sheets (CSS). This allows greater flexibility for accessibility, and optimises your page for search engines. Structure depends on heading styles being used appropriately.

Check semantic structure using the W3C validator - *http://validator.w3.org/detailed.html* - and selecting the "Show outline" checkbox.

7.2 (X)HTML

HyperText Markup Language (HTML) was introduced in 1989 when Tim Berners-Lee devised it as a simple informal specification for displaying plain text and hyperlinks in character mode browsers. Since then, the WWW Consortium (W3C), of which Tim Berners-Lee is the Chair, has produced standard specifications for HTML - see *http://www.w3.org/MarkUp/*. HTML standards were developed to Version 4.01 when W3C announced that it had no plans to develop another version. HTML is now being reformulated as XHTML (Extensible Markup Language) so that it adheres to the Extensible Markup Language (XML) standards. XHTML is considered as "the foundation language for the future of the Web"[2]. However, as the University supports Microsoft Frontpage® as its Web authoring software and the current version of this produces HTML by default rather than XHTML code, recommendations are made with this in mind.

Pages should use semantic structure and be marked up using only tags contained in the official (X)HTML recommendations drawn up by the W3C.

Do not use the Save as Web page options available from the File menu in Microsoft Office products as these files often include features that can

[2] Musciano C & Kennedy B (2002:xviii), HTML & XHTML The Definitive Guide, Sebastopol CA, O'Reilly & Associates Inc

only be read in a Microsoft browser and do not meet W3C standards. In Microsoft® Word, however, there is an option from the Save As window to save the file as type "Web page, filtered" that goes some way towards fixing these errors.

7.2.1 HTML

The current W3C recommendation is HTML 4.01 - *http://www.w3.org/TR/html4/* - and Web contributors who are restricted by the limitations of Web authoring tools should use this standard:

- When using CSS (recommended) – use HTML 4.01 Strict
  <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN"
  "http://www.w3.org/TR/html4/strict.dtd">
- If not using CSS – use HTML 4.01 Transitional
  <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">

7.2.2 XHTML

The current W3C recommendation is XHTML 1.0 - *http://www.w3.org/TR/xhtml1/* - and WWW contributors who are not restricted by the limitations of Web authoring tools should use this standard:

- When using CSS (recommended) – use XHTML 1.0 Strict
  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
- If not using CSS – use XHTML 1.0 Transitional
  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

7.2.3 Validating to current (X)HTML standards

To ensure your code meets (X)HTML standards, **all** Web pages should be validated using the W3C free validation service at *http://validator.w3.org/*

Pages that do validate should display the W3C icon as per their instructions; however, the icon is available from *http://www.brad.ac.uk/img/valid-html401.gif*

7.3 Web authoring tools

The University's supported Web authoring tool is currently FrontPage 2003. The HTML created by this and other Web authoring tools may contain errors or proprietary tags that are not part of the official W3C recommendations and will need amending to meet W3C HTML standards. *[see also 7.2]*

7.4 Cascading Style Sheets (CSS)

Where (X)HTML deals with the structure of Web pages, CSS deal with their formatting and layout and offer far greater flexibility for making Web pages accessible and reducing re-design time.

W3C are currently developing CSS 3, however, CSS 1 is the only specification supported by most, if not all, graphical browsers. It is recommended that CSS

1 be used, supplemented with those aspects of CSS 2 that have the widest browser support.

7.5 Hypertext Preprocessor (PHP)

PHP support is available on the main and development Web servers. This offers the potential for content to be used more than once through the use of file includes for navigational elements. Limited training and support is available for implementing relatively simple elements of PHP and the Technical Services team will offer advice wherever they can. There are, however, no resources for major development work to be undertaken, eg database development.

As incorrect use of PHP may have disastrous affects on the Web server, all PHP pages must be tested on the development server before being moved to the main Web server.

7.6 CGI Scripts

Learning Support Services maintains a comprehensive set of CGI scripts that should meet most requirements for server side processing (such as the handling of Web-based forms). If you wish to publish something on the main Web server that requires the use of a script, contact *ictservicedesk@bradford.ac.uk* with details.

A CGIwrap utility is available on the staff Web server that allows users to run their own CGI scripts safely. For more details see *http://www.brad.ac.uk/lss/it-services/internet/tech/index.php*.

7.7 Graphics

Images contained in Web pages should be saved using either GIF, JPEG or PNG file format. It is important that images should be saved using the most appropriate file format:

- Use GIF for images without subtle variations in colour, for example logos, icons, drawings and diagrams.
- Use JPEG or PNG for photographs and other photo-realistic images.

Images saved using an inappropriate file format will display poorly and lead to unnecessarily large file sizes.

Inline images (ie images embedded in pages) should be kept to a reasonable size. Large images can lead to long download times, particularly for visitors accessing the Web via modems or slow network connections. If a single image is bigger than 50k, consider providing a thumbnail or a descriptive text link rather than embedding the full-size image, so that the user can decide whether to download it or not; thumbnails and/or text should indicate the size of the full image.

Always include the `"alt" "height" and "width"` attributes. However, if an image does not have an informative purpose – for example a horizontal rule or a bullet point – use a null value with the `"alt"` attribute. This will prevent the screen reader software reading out pointless descriptions. `"alt"`

text should end with a full stop - this will allow the screen reader to distinguish between the description of the image and the rest of the text.

Animated images should be used sparingly, if at all. Many users find them distracting or irritating. As a rule, there should be no more than one animated image in a page.

Care should be taken when using images from clipart collections. While many Web sites and CD ROMs offer 'free' images, there may still be restrictions attached to their use. *[see also 11.3]*

Images should be of a high quality. When using images, WWW contributors should take care to avoid the following:

- Shapes and text with jagged edges. Jaggedness can be eliminated by the use of anti-aliasing.
- GIF images where the background of the image can be seen against the background of the page (this can be avoided by ensuring that the image background is transparent).

Avoid using images to represent text.

Images should be stored in http://www.brad.ac.uk/img/ for Tier 1 pages or a shared "images" folder for Tiers 2 and 3 to:

- avoid duplication across the Web server
- minimise download times for the end user
- update image changes across the Web site

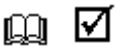
Appropriate consent should be obtained when using photographs on the Web *[see 11.1.1]*

7.8 Rich media

Rich media content can greatly enhance the value of a Web site.

However, the use of rich media files needs to be considered carefully, as poor implementation will alienate users and reflect badly on the institution. WWW contributors wishing to incorporate rich media content should bear in mind the following points:

- Rich media files should be used only where appropriate; ie where they contribute to the content, and are not simply presented as a gimmick.



- Rich media content is expensive in terms of bandwidth, so when creating the material, make sure that it is appropriately encoded for your expected target audience's available bandwidth.
- To access the content of rich media files, users are required to have the correct plug-in installed *[see 7.10]*.
- Some users are unwilling or unable to download the required plug-in. Provision should be made for these users. *[see also 7.10]*
- Delivery of accessibly developed flash content is dependent on Operating System, Plugin, Web Browser and Assistive Software versions. In particular, compatibility with screen reading software is a significant issue.

Flash content should, therefore, be made available in more conventional formats where possible.

- The creation of high quality rich media content is not a trivial task. It requires the appropriate tools, plus an understanding of a range of technical and aesthetic issues. **Before deciding to make use of rich media, WWW contributors should seek advice from Learning Support Services Technical Services Team via *ictservicedesk@bradford.ac.uk*.**

7.9 Web programming languages

Added functionality can be given to Web pages by the use of programming and scripting languages such as Java, Javascript, ActiveX and Flash. Contributors should bear in mind that:

- Not all users have browsers capable of handling such technologies.
- Javascript and other scripting languages are handled differently by the major browsers, and by different versions of the same browser. Some screen readers may also be adversely affected.
- The use of Java can significantly increase the amount of time it takes to download a page.
- Pages incorporating Java, Javascript etc should be thoroughly tested on as many different browsers as possible. Scripts and applets should not be used if they cause problems for users whose browsers do not support them. Scripts and applets should not be used to convey information that is central to the purpose of the page, unless an alternative method is provided for accessing the same information.

7.10 Content requiring 'Plug-ins'

Plug-ins are programs downloaded by users to extend the functionality of their browsers. Examples include RealMedia Player (to play sound and video clips), Flash (to view Shockwave Flash animations), and Acrobat Reader (to view files in PDF format). When adding content to a Web site that requires the use of a plug-in, WWW contributors should be aware of the following issues:

- Many users will not be prepared to download and install the required plug-in if they do not already have it.
- Many users access the WWW from machines over which they have no control (eg public access computers in schools and libraries), and may, therefore, be unable to download a plug-in even if they wish to view your content.

When content requiring a plug-in is used, WWW contributors should:

- make clear precisely what plug-in is required (including what version), and from where it can be obtained;
- provide a link to the page where the plug-in can be downloaded (if the software can be downloaded from a UK or European site, this should be one of the links offered);

- offer an alternative method of accessing the content (for example, a text transcript of an audio or video clip, or a text-only version of a PDF file).

Notes:

- Microsoft Word 2003 viewer *http://www.microsoft.com/downloads/details.aspx?FamilyId=95E24C87-8732-48D5-8689-AB826E7B8FDF&displaylang=en*
- Microsoft PowerPoint 2003 viewer *http://www.microsoft.com/downloads/details.aspx?FamilyID=428d5727-43ab-4f24-90b7-a94784af71a4&displaylang=en*
- Microsoft Excel 2003 viewer *http://www.microsoft.com/downloads/details.aspx?FamilyID=c8378bf4-996c-4569-b547-75edbd03aaf0&DisplayLang=en*
- PDF Reader *http://www.adobe.com/products/acrobat/readstep2.html*
- Adobe offers online conversion tools for Adobe PDF documents – see *http://www.adobe.com/products/acrobat/access_onlinetools.html*. The online Web form does not work with PDF files that are restricted by a .htaccess file. However, if such files are saved on the hard disc, and then submitted for conversion as attachments through the Adobe E-mail tool (and also Trace Research Centre) they work OK and produce html or text files as requested.
- Flash player – see *http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash*

7.11 Domain names/aliases/redirects

Learning Support Services can register domain names and create aliases to give more user-friendly URLs. However, these should not be assumed and should be requested via *ictservicedesk@bradford.ac.uk* **before** publicity materials go to print. It is important to recognise that the use of aliases increases the load on the Web server.

Similarly, redirects also increase the load on the Web server; they also fail to alert users to the fact that a page has moved. When a Web page is moved to a different location, users should replace the original page with a message that redirects visitors to the new location. This should be deleted after an appropriate time period.

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8 Web Site Management

8.1 General maintenance

- The information contained in Web pages should be up to date and accurate. *[see also 5.4]* It is particularly important to review photographs that often date quickly.
- When a Web page is moved to a different location, users should replace the original page with a message that redirects visitors to the new location. This should be deleted after an appropriate time period.
- Web pages that are no longer required should be removed from the Web server and any links to them in remaining pages should be deleted. (It is particularly important to delete links to redundant pages, otherwise search engines will continue to index them.)
- If a page is no longer current, but still of interest (for example, a previous issue of a newsletter), then it should be apparent to users that they are viewing information that may be out of date. *[see also 5.4]*
- The maintenance of Web pages need not necessarily be time-consuming, but it should be recognised that the task is at least as important as that of creating a Web site in the first place.

8.2 Promoting a Web site

8.2.1 Links

When new pages are created, it is important to ensure that they have a link from an appropriate place in the existing Web site. If a page does not have a link to it, then search engines will not index it.

If appropriate, a link can be made from Tier 1 pages of the University Web site. WWW contributors are asked to bear in mind that in order to provide a clear, uncluttered and easily navigable interface, permanent links from Tier 1 pages, in the main, are only provided to Tier 2 pages (although there are some exceptions). However, information on other Tiers can be highlighted using temporary 'news' links from one or several Tier 1 pages. To request such a link, e-mail *ictservicedesk@bradford.ac.uk.*

8.2.2 Search engine optimisation

Contributors can improve the chances of their pages appearing in search engine rankings by:

- Using semantic structure/markup.
- Making use of `<meta>` tags in the `<head>` of a page. see *http://www.brad.ac.uk/lss/it-services/internet/tech/index.php* for `<meta>` tags specific to the University's search engine.
- Using `<title>` tags to give pages informative and descriptive titles.
- Ensuring that key words and phrases occur near the top of a document - if graphics form the first part of your document, provide a text alternative.

- Using headings containing key words and phrases.

8.2.3 Favourites icon

The University's Web server is set up so that the University's icon is displayed in the address bar and on the Favorites/Bookmarks list. This is picked up automatically by some browsers. To help other browsers find the favourites icon, the following code should be included in the `<head></head>` tag:

```
<link rel="SHORTCUT ICON" href="/favicon.ico">
```

8.3 Web statistics

WWW contributors can request statistics for their Web pages. These show how many times a particular file has been accessed; however, the numbers contained in the reports only give a very rough indication of activity relating to particular pages.

The number of hits does not relate to the number of visitors. The same file might be accessed many times by the same user. Robots performing indexing and routine maintenance tasks might generate hits.

The widespread use of institutional and national caches may hide the true number of times a page has been accessed.

To set up a statistics Web page, contact *ictservicdesk@bradford.ac.uk*.

8.4 Restricting access

It is a relatively simple matter to implement controls that will restrict who can view your pages. For example, access may be restricted to internal users by only allowing access to visitors with a valid username and password. It should be noted, however, that even if restrictions are in place, no document on the Internet is absolutely secure. Thus confidential or sensitive information should never be published in a Web page.

NB Campus only restrictions should **not** be used as a number of PCs on campus do not require user login; this restriction is, therefore, insecure.

For advice on restricting access, contact *ictservicedesk@bradford.ac.uk* with details of your requirements.

8.5 Checking links

The Web server records errors experienced by users trying to follow incorrect or redundant links. E-mail alerts can be sent to the contributor; it is important that these messages are acted upon promptly. Please contact *ictservicedesk@bradford.ac.uk* to request e-mail alerts.

Links to external sites should be checked on a regular basis. Many Web authoring tools and some Web sites offer an automated way of doing this - such tools may be available for download from *http://www.brad.ac.uk/lss/it-services/internet/resources/*

9 Web Accessibility

"The idea of accessibility of web-based technology is based on far more than the implementation of standards and technological solutions. It embodies the idea that everyone has the right to information and that everyone has the right to be included in society, regardless of disability, geographical location, language barriers, or any other factor. Accessibility of Web pages is one part; one step in the inclusion of all in the benefits of the Information Society in particular and in society as a whole."

Thatcher J et al 2002, "Constructing Accessible Web Sites", Glasshaus, P1

The University recognises its moral and legal duty under the Special Educational Needs and Disability Act 2001 that amended and formed Part IV of the Disability Discrimination Act (1995), and is committed to ensuring reasonable adjustment is made to make its Web based services as accessible as possible. In its broadest sense, the concept of accessibility is not restricted to disability and is inevitably related to usability and this Code of Practice is written with this in mind.

Many Web accessibility resources are available from *http://www.brad.ac.uk/lss/it-services/internet/resources/*

It should be noted, however, that there is no one tool to check for accessibility. Creating accessible Web pages requires a high degree of skill and knowledge and Planning Units are urged to recognise this and find appropriate resources to support their Web provision.

9.1 W3C Web Accessibility Initiative

The University has adopted the Web Content Accessibility Guidelines set by W3C Web Accessibility Initiative as these have been used in recent court cases concerning Web Accessibility.

All Web pages hosted on the University's Web server must meet Priority Levels 1 and 2 and aim to also meet Priority Level 3.

Contributors should, however, be mindful of the criticism raised in a recent formal investigation conducted by the Disability Rights Commission[3] (DRC) that whilst following these guidelines human error may still render a page inaccessible, eg using alt text of "dog" on an image of a cat.

The DRC report made several references to the Government's Illustrated Handbook for Web Management Teams and contributors are advised to familiarise themselves with this - *http://www.cabinetoffice.gov.uk/e-government/resources/handbook/introduction.asp*.

[3] Web Access and Inclusion for Disabled People (2004) - A formal investigation conducted by the Disability Rights Commission - *http://www.drc-gb.org/publicationsandreports/report.asp*

9.2 Checking for accessibility

- Contributors must ensure they meet the requirements of the Special Educational Needs and Disability Act 2001 - *http://www.hmso.gov.uk/acts/acts2001/20010010.htm*.
- Providers should use the W3C Content Accessibility Checklist - *http://www.w3.org/TR/WCAG10/full-checklist.html* - to ensure that all Priority Levels 1 and 2 requirements are met, and work towards meeting Priority 3 requirements.
- Contributors should follow the W3C guidelines for evaluating Web sites for accessibility – see *http://www.w3.org/WAI/eval/*
- As a guide (but by no means an exhaustive list), the following measures will increase the likelihood that a page can be interpreted by a Web page-to-speech conversion utility, however, providers should offer a full text alternative for content with accessibility problems:
  - Use only HTML tags contained in the formal W3C standards and ensure pages validate to these standards.
  - Separate structure from content with the aid of CSS and ensure CSS validate to W3C standards.
  - Use the `"alt"` attribute to provide descriptive text for all images.
  - Use the BBC Education Text to Speech Enhancer (BETSIE) by providing a link to your page that is prefixed with *http://www.brad.ac.uk/cgi-bin/largetext/* eg *http://www.brad.ac.uk/cgi-bin/largetext/www.brad.ac.uk/lss/.* Whilst this goes some way to providing accessibility to those with visual impairment, it cannot be relied upon, as it does not work with pages that have restricted access. Files should also be transferred to the Web server in text rather than binary format.
  - Frames should be avoided. If they are used, offer an alternative means of access for users whose browsers do not support frames.

9.3 Keyboard access

WWW contributors should ensure that visitors can “Tab” through the page using a logical tab order and offer a “skip links” option to skip to the main page content.

The following access keys should be used:

0 Accesskey definition page

1 Home (with a view that Alt+1 will take users through the various levels eventually back to the UoB homepage)

2 Search

3 Low vision/text only

9.4 Cross-system and cross-browser compatibility

There are sometimes noticeable variations in the way Web pages are displayed in different browsers, in different versions of the same browser, and in the same browser running on different platforms. For example, when viewing a page in a graphical browser running on a Macintosh, the size of the text will be 2 or 3 points smaller than when viewing the same page in a browser running under Microsoft Windows.

The specification of the system being used to access the Web will also have a significant bearing on what the users see. A page displayed on a monitor with a resolution of 1024x768 capable of displaying millions of colours will look substantially different when viewed on a screen with a resolution of 800x600. WWW contributors should also bear in mind emerging developments such as mobile 'phones and PDAs.

It is recommended that WWW contributors check all pages using as many different configurations as possible. At the very least, pages should be checked to ensure that they are usable:

- in Internet Explorer, Opera, Firefox, Mozilla;
- on different platforms, eg Windows, Macintosh;
- in a text-only browser (telnet to muser.brad.ac.uk, login and type lynx);
- at a screen resolution of 800x600.

9.5 Information architecture

"The fundamental organizing principle in Web site design is meeting users' needs."

Lynch P J, Horton S, 2002, "Web Style Guide" 2nd edition
http://www.webstyleguide.com/site/index.html

It is worth time and energy determining what your users' want from your site as this will help to determine how best to organise the information. Lynch and Horton (2002) give five basic steps in organising information:

1. Divide your content into logical units
2. Establish a hierarchy of importance among the units
3. Use the hierarchy to structure relations among units
4. Build a site that closely follows your information structure
5. Analyze the functional and aesthetic success of your system.

For further guidance see - *http://www.webstyleguide.com/site/index.html*

9.6 General advice about navigation aids

- Give pages clear, informative titles using the `<title>` tag as this is what the user will see first – very often several seconds before the rest of the page is loaded. A clear title will also help users find the page again in a bookmark or history list.

- Every page should have at least one link in it to another page in the site. Users will not necessarily be able to use the forward and back options in their browsers to navigate around a site, as they may have jumped to it from somewhere totally unrelated. Therefore, a link to at least one other page in the site is essential.
- All main pages in a site should link to the Planning Unit's home page, which in turn should have a link to the University home page.
- Navigational links should be consistent in their appearance and location on the page as this aids those with cognitive difficulties – the user will quickly learn to look for them there.
- If a page is long enough to require vertical scrolling, the navigational links should be placed at both the top and bottom of the page to save the user from having to scroll. If a page is very long, links should be inserted to allow the user to jump quickly to the top or bottom.
- If an image map is used, then alternative text links should be provided.

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10 Virtual/Managed Learning Environments (VLE/MLE)

This Code of Practice applies to the use of a VLE/MLE or other Web-based materials used within the University; therefore, it has implications for clerical, academic and other staff involved in creating documents that are delivered ultimately via the Web.

The University recognises that the learner experience is central to e-learning; however, it is important to give guidance on a minimum baseline standard to ensure the legal implications of the Special Educational Needs & Disability Act 2001 are met. The Teaching Quality Enhancement Group and Learning Support Services offer support and guidance on providing an accessible curriculum. Additional support is available from TechDis - a JISC-funded service (Joint Information Systems Committee). "TechDis aims to enhance provision for disabled students and staff in higher, further and specialist education and adult and community learning, through the use of technology" (*http://www.techdis.ac.uk/*).

The University is expected to make reasonable adjustments to make information accessible. This does not mean making **everything** accessible to **all** people, focusing on disabled students and forgetting the rest, or spending an inordinate amount of time making extra teaching materials. It does mean being aware of the issues, making appropriate adaptations and ensuring adapted materials are available in a timely manner. For many it will mean having to make changes to the way they work, and undertaking development activities to equip them to make such changes.

Learning Support Services has produced guidelines for using the accessibility options in Microsoft® Windows XP, making Microsoft® Word document accessible and creating accessible PDF files – available from *http://www.brad.ac.uk/cc/documentation/doc-list/*. Full training on how to use the Microsoft Office features outlined below is available to staff from Learning Support Services - *http://www.brad.ac.uk/lss/training/*.

Although the Web is a highly visual medium, those with hearing, motor and cognitive impairments may also encounter difficulties. Accessibility is also not restricted to disability as technological limitations may also render information offered via the Web inaccessible.

10.1 Word documents

Making Word documents accessible is relatively easy providing the user makes full use of the features offered by the software. Structuring documents with headings that use appropriate headings styles is one of the most important aspects of accessibility. Heading styles provide a:

- signal to screen readers to give appropriate emphasis;
- means by which those with keyboard/mouse limitations can navigate long documents more easily by using the Document Map feature;

- means of generating a table of contents that can also be used to speed navigation.

Generally, the use of styles also makes it far easier to offer the document in alternative font styles and sizes.

Documents should follow the Corporate Identity for font and size etc. They should also use clear and simple language with short sentences and plenty of white space. Lists of instructions should always use numbered rather than bulleted paragraphs.

For more detailed information see "Making Word Documentation Accessible" - *http://www.brad.ac.uk/cc/documentation/doc-list/index.php#Wordprocessing*.

10.2 PowerPoint files

Again, appropriate structuring, the use of heading place holders, bullets and white space are important. Colours should also be chosen carefully to ensure high contrast. Never rely on colour alone, eg follow the text in red; check your presentation in Greyscale Preview. Animated text, flashing/blinking elements and transitions should be limited and used carefully to minimise the risks to those with photosensitivity.

Graphical presentations may result in large file sizes. Always compress images (Format Picture – Compress) to keep overall file sizes to a minimum.

10.3 Microsoft Office Images

Always group drawing elements together, control the layout of text around the image by selecting an appropriate Text Wrapping style and lock the picture anchor to the relevant text. A correct and meaningful text alternative must be added to all images to give those using a screen reader a text description of the image.

10.4 Adobe Acrobat PDF files

Only the latest versions of Adobe Acrobat Writer ie v6 onwards, support accessibility features. Even then, pdf documents are only as accessible as the underlying document allows. Always use the Adobe Acrobat accessibility checker to check for errors.

Always ensure that Word is set up to create a "tagged" pdf file when converting Word files to pdf format; this makes the pdf file accessible to screen readers.

10.5 File formats

In all cases, users must be given guidance on how to access materials and be given the option of requesting them in alternative formats. Such alternative formats must be made available in a timely fashion.

Do not use the Save as Web page options available from the File menu in Microsoft Office products as these files often include features that can only be read in a Microsoft browser and do not meet W3C standards. In Microsoft® Word, however, there is an option from the Save As window to

save the file as type "Web page, filtered" that goes some way towards fixing these errors.

10.5.1 Word v PDF

Although PDF files give the widest access in terms of platform/software/printing, etc, this format does not allow users to change the font style and colours. It is recommended that Word files are also made available; however, users should be directed to the Word viewer in case they do not have the full application on their machine. As both PDF and Word files might require the use of additional plug-in software, saving the Word file in RTF (rich text format) may offer a better alternative for some. Providers are, therefore, encouraged to offer documents in PDF, DOC and RTF formats.

10.5.2 PowerPoint

PowerPoint files should be offered in their original format as this presents fewer problems for those wishing to print slides, etc; however, users should be directed towards the PowerPoint viewer in case they do not have the full application on their machine. As this has issues for those not using a Windows operating system, it is recommended that a PDF version is also made available and that the presentation outline is sent to Word and made available in RTF.

10.6 Further resources

- TechDis – Supporting your role - *http://www.techdis.ac.uk/index.php?p=6*
- TechDis staff packs - *http://www.techdis.ac.uk/index.php?p=3_3*
- TechDis has published jointly with the Association for Learning Technology, "Access All Areas: disability, technology and learning" - *http://www.techdis.ac.uk/index.php?p=1_1_20042209080936_20040610021026*
- ALERT – Accessibility in Learning Environments and Related Technologies – a project aimed to improve the accessibility of online learning in specific subject areas - *http://www.dur.ac.uk/alert/index.htm*
- Carol Doyle and Karen Robson of the Learning and Teaching Support Unit at University of Wales Institute, Cardiff, have produced a publication titled 'Accessible Curricula - A Good Practice Guide' - *http://www.uwic.ac.uk/ltsu/documents/accessible.pdf*
- Carol Doyle has also produced " Making your module accessible in Blackboard 5.5" - *http://www.uwic.ac.uk/ltsu/documents/5min_guide_module_accessible.htm*
- Blackboard accessibility statement - *http://www.blackboard.com/products/access/index.htm*
- Guidance on producing accessible PDF files is available from *http://www.adobe.com/products/acrobat/access_booklet.html*
- Links to a number of other resources *http://www.brad.ac.uk/lss/it-services/internet/accessibility/index.php#vle*

11 Legal and Contractual Requirements

WWW contributors are **personally** responsible for complying with University Regulations and with legal and contractual requirements. **Non-compliance** is deemed to be in breach of University Regulation 21 on the Use of Computer Facilities and the Campus Network for which there is a disciplinary procedure – see *http://www.brad.ac.uk/lss/regulations/policy/reg21.php*. However, matters brought to the attention of the Web Administrator in Learning Support Services will be discussed with the appropriate person and support offered. If this does not give results, the matter will be escalated to the Chair of the Web Advisory Board and a meeting with the Dean/Head of Planning Unit arranged to discuss an appropriate way forward within a given timescale. Pages that then fail to comply will be removed from the Web server and disciplinary procedures will commence.

Sensitive material, in particular potentially offensive or harassing material, should be avoided. If you are in any doubt, please contact the Corporate Communications office for advice in the first instance.

Further details on legal requirements may be obtained from the Registrar and Secretary.

11.1 Data Protection Act

If you process information about living individuals, you may have to notify the UK Data Protection Commissioner. The University has already registered a number of processing purposes. Further details are available on the Web at *http://www.brad.ac.uk/lss/regulations/policy/data_protection.php* or from the Registrar and Secretary.

Please note that all information on the server will be accessible worldwide unless deliberately restricted. You may need to restrict access to personal data if it is available on the Web.

If data that can identify an individual is gathered, eg cookies, Web forms, etc, contributors have a legal duty to tell the individual what exactly is being gathered, what use that will be put to and who will be given access to that information. Contributors also have to ask visitors if they are happy with that.

11.1.1 Consent for the use of photographs on the Web

The Data Protection Act requires the consent of individuals appearing in photographs on the Web. Verbal consent is adequate in most cases; however, parental consent is advisable for children under 18. It should also be explained what the image will be used for and who may have access to it. Recommended wording for definitions of purpose are:

“University promotional material, including Web publication”

“Illustrations in student and staff information and guidance, including Web information”

Web contributors should be wary of accidental implications eg product endorsements and are advised to reduce the risk of challenge by obtaining explicit written consent and keeping an audit trail.

Groups

The act of posing for a group photo implies consent. For photographs taken in a public place consent is not required for instances such as a crowd at an event; however consent is required for a photograph of an individual.

For more information see *http://www.informationcommissioner.gov.uk/* and *http://www.hants.gov.uk/tc/cg/photosintro.html*.

11.2 Copyright, Designs and Patent Act

The Copyright, Designs and Patent Act requires that the permission of the owner or author of material be obtained before it is used on the Information Service. We recommend that written permission be obtained as a safeguard and that contributors make sure this covers use of material in both a modified or electronic form.

In this context, we stress that permission to use material in a written paper or an existing University document (eg the annual report) does not automatically extend to its use in Web pages. In addition, if you have already published material in a journal you must make sure that the rights have not been transferred to the publisher before you publish again through the Web.

Finally we stress that material that is freely available on the Web should not be incorporated into your own documents without obtaining prior permission. Free availability of material does not imply automatic freedom to copy and use it. The laws of copyright still apply. However, you may in general include a hyperlink to the original material.

However, the converse is also true. For example, if you make important training material available through the Web, you may lose control of it and thus a potential source of income. It is often worth safeguarding it, eg making a 'taster' available freely but restricting access to the full course using a number of available security controls.

Further details of the legal issues may be obtained from the University Librarian (Resources Management).

11.3 Defamation Act

Any defamatory statement is potentially a libel and is strictly forbidden. Once again it is the personal responsibility of WWW contributors to ensure that they comply with legal requirements. The University cannot check all entries on the information service since they are too numerous and, in consequence, takes no responsibility for material published through the Web by its members.

11.4 Computer Misuse Act

It is likely that material which incites, encourages or enables others to gain unauthorised access to a computer system would be found illegal under the Computer Misuse Act.

11.5 Criminal Justice and Public Order Act

This amends the Obscene Publications Act 1956, the Protection of Children Act 1978 and the Telecommunications Act 1984 to extend their provisions to transmission over a data communications network and add the concept of a transmitted image in coded form as a 'pseudo photograph'.

11.6 Special Educational Needs and Disability Act

The Special Educational Needs and Disability Act amended and formed Part IV of the Disability Discrimination Act 1995. The principle behind this legislation is that disabled people should have the same opportunities as non-disabled people to benefit wherever possible from whatever education or other related provision is available *[see 9].*

11.7 Race Relations Amendment Act

Under the Race Relations (Amendment) Act universities have a statutory general duty to work to eliminate unlawful racial discrimination, promote equality of opportunity, and promote good race relations. In this context, Web material must use appropriate language and images. Complaints about discriminative or harassing material must be handled effectively and in a timely manner.

11.8 Freedom of Information Act

From January 2005 organisations can request that the University provide any document in relation to its business and a charging scale has been set for printing documentation.

For more information see *http://www.informationcommissioner.gov.uk/.* Full details of the University's Publications Scheme is available from *http://www.brad.ac.uk/admin/foi/*

11.9 Use of JANET

Since the Web service is accessed through JANET, contributions must adhere to the *JANET Acceptable Use Guidelines*. This is a code of conduct for use of JANET issued by the United Kingdom Education and Research Networking Association (UKERNA). In particular, it disallows transmission of material of an offensive or indecent nature. A copy of the Policy is available from Learning Support Services.

Commercial advertising through JANET is also disallowed. If you feel that contributions fall into this category, you should contact the Director of Learning Support Services who will raise the matter with UKERNA

Guidelines: Web Accessibility Initiative Web Content Accessibility Curriculum

By Chuck Letourneau & Geoff Freed

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Examples: WAI Web Content Accessibility Curriculum

By Chuck Letourneau & Geoff Freed

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1.4 For any time-based multimedia presentation, synchronize equivalent alternatives with the presentation - *http://www.w3.org/WAI/wcag-curric/sam22-0.htm*

1.5 Until user agents render text equivalents for client-side image map links, provide redundant text links for each active region of a client-side image map - *http://www.w3.org/WAI/wcag-curric/sam24-0.htm*

2.1 Ensure that all information conveyed with color is also available without color, for example from context or markup - *http://www.w3.org/WAI/wcag-curric/sam25-0.htm*

2.2 Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen - *http://www.w3.org/WAI/wcag-curric/sam26-0.htm*

3.1 When an appropriate markup language exists, use markup rather than images to convey information - *http://www.w3.org/WAI/wcag-curric/sam28-0.htm*

3.2 Create documents that validate to published formal grammars - *http://www.w3.org/WAI/wcag-curric/sam29-0.htm*

3.3 Use style sheets to control layout and presentation - *http://www.w3.org/WAI/wcag-curric/sam30-0.htm*

3.4 Use relative rather than absolute units in markup language attribute values and style sheet property values - *http://www.w3.org/WAI/wcag-curric/sam32-0.htm*

3.5 Use header elements to convey logical structure and use them according to specification - *http://www.w3.org/WAI/wcag-curric/sam33-0.htm*

3.6 Mark up lists and list items properly - *http://www.w3.org/WAI/wcag-curric/sam35-0.htm*

3.7 Mark up quotations. Do not use quotation markup for formatting effects such as indentation - *http://www.w3.org/WAI/wcag-curric/sam37-0.htm*

4.1 Clearly identify changes in the natural language of a document's text and any text equivalents - *http://www.w3.org/WAI/wcag-curric/sam40-0.htm*

4.2 Specify the expansion of each abbreviation or acronym in a document where it first occurs - *http://www.w3.org/WAI/wcag-curric/sam41-0.htm*

4.3 Identify the primary natural language of a document - *http://www.w3.org/WAI/wcag-curric/sam42-0.htm*

5.1 For data tables, identify row and column headers - *http://www.w3.org/WAI/wcag-curric/sam43-0.htm*

5.2 For data tables that have two or more logical levels of row or column headers, use markup to associate data cells and header cells - *http://www.w3.org/WAI/wcag-curric/sam45-0.htm*

5.3 Do not use tables for layout unless the table makes sense when linearized - *http://www.w3.org/WAI/wcag-curric/sam48-0.htm*

5.4 If a table is used for layout, do not use any structural markup for the purpose of visual formatting - *http://www.w3.org/WAI/wcag-curric/sam49-0.htm*

5.5 Provide summaries for tables - *http://www.w3.org/WAI/wcag-curric/sam50-0.htm*

5.6 Provide abbreviations for header labels - *http://www.w3.org/WAI/wcag-curric/sam51-0.htm*

6.1 Organize documents so they may be read without style sheets. When an HTML document is rendered without associated style sheets, it must still be possible to read the document - *http://www.w3.org/WAI/wcag-curric/sam52-0.htm*

6.2 Ensure that equivalents for dynamic content are updated when the dynamic content changes - *http://www.w3.org/WAI/wcag-curric/sam54-0.htm*

6.3 Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. If this is not possible, provide equivalent information on an alternative accessible page - *http://www.w3.org/WAI/wcag-curric/sam56-0.htm*

6.4 For scripts and applets, ensure that event handlers are input device-independent - *http://www.w3.org/WAI/wcag-curric/sam57-0.htm*

6.5 Ensure that dynamic content is accessible or provide an alternative presentation or page - *http://www.w3.org/WAI/wcag-curric/sam58-0.htm*

7.1 Until user agents allow users to control it, avoid causing the screen to flicker - *http://www.w3.org/WAI/wcag-curric/sam60-0.htm*

7.2 Until user agents allow users to control it, avoid causing content to blink - *http://www.w3.org/WAI/wcag-curric/sam61-0.htm*

7.3 Until user agents allow users to freeze moving content, avoid movement in pages - *http://www.w3.org/WAI/wcag-curric/sam62-0.htm*

7.4 Until user agents provide the ability to stop the refresh do not create periodically auto-refreshing pages - *http://www.w3.org/WAI/wcag-curric/sam63-0.htm*

7.5 Until user agents provide the ability to stop auto-redirect do not use markup to redirect pages automatically. Instead, configure the server to perform redirects - *http://www.w3.org/WAI/wcag-curric/sam64-0.htm*

8.1 Make programmatic elements such as scripts and applets directly accessible or compatible with assistive technologies - *http://www.w3.org/WAI/wcag-curric/sam65-0.htm*

9.1 Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape - *http://www.w3.org/WAI/wcag-curric/sam66-0.htm*

9.2 Ensure that any element that has its own interface can be operated in a device-independent manner - *http://www.w3.org/WAI/wcag-curric/sam68-0.htm*

9.3 For scripts, specify logical event handlers rather than device-dependent event handlers - *http://www.w3.org/WAI/wcag-curric/sam70-0.htm*

9.4 Create a logical tab order through links, form controls, and objects - *http://www.w3.org/WAI/wcag-curric/sam73-0.htm*

9.5 Provide keyboard shortcuts to important links (including those in client-side image maps), form controls, and groups of form controls - *http://www.w3.org/WAI/wcag-curric/sam76-0.htm*

10.1 Until user agents allow users to turn off spawned windows, do not cause pop-ups or other windows to appear and do not change the current window without informing the user - *http://www.w3.org/WAI/wcag-curric/sam77-0.htm*

10.2 Until user agents support explicit associations between labels and form controls, for all form controls with implicitly associated labels, ensure that the label is properly positioned - *http://www.w3.org/WAI/wcag-curric/sam78-0.htm*

10.3 Until user agents render side-by-side text correctly provide a linear text alternative (on the current page or some other) for all tables that lay out text in parallel, word-wrapped columns - *http://www.w3.org/WAI/wcag-curric/sam79-0.htm*

10.4 Until user agents handle empty controls correctly, include default, place-holding characters in edit boxes and text areas - *http://www.w3.org/WAI/wcag-curric/sam81-0.htm*

10.5 Until user agents render adjacent links distinctly, include non-link, printable characters (surrounded by spaces) between adjacent links - *http://www.w3.org/WAI/wcag-curric/sam82-0.htm*

11.1 Use W3C technologies and use the latest versions when they are supported by browsers - *http://www.w3.org/WAI/wcag-curric/sam83-0.htm*

11.2 Avoid deprecated features of W3C technologies - *http://www.w3.org/WAI/wcag-curric/sam87-0.htm*

11.3 Provide information so that users may receive documents according to their preferences - *http://www.w3.org/WAI/wcag-curric/sam89-0.htm*

11.4 If, after best efforts, you cannot create an accessible page, provide a link to an alternative page that uses W3C technologies, is accessible, has equivalent information (or functionality), and is updated as often as the inaccessible (original) page - *http://www.w3.org/WAI/wcag-curric/sam90-0.htm*

12.1 Title each frame to facilitate frame identification and navigation - *http://www.w3.org/WAI/wcag-curric/sam91-0.htm*

12.2 Describe the purpose of frames and how frames relate to each other if it is not obvious by frame titles alone - *http://www.w3.org/WAI/wcag-curric/sam92-0.htm*

12.3 Divide large blocks of information into more manageable groups where natural and appropriate - *http://www.w3.org/WAI/wcag-curric/sam93-0.htm*

12.4 Associate labels explicitly with their controls - *http://www.w3.org/WAI/wcag-curric/sam96-0.htm*

13.1 Clearly identify the target of each link - *http://www.w3.org/WAI/wcag-curric/sam97-0.htm*

13.2 Provide metadata to add semantic information to pages and sites - *http://www.w3.org/WAI/wcag-curric/sam98-0.htm*

13.3 Provide information about the general layout of a site (eg, a site map, or table of contents) - *http://www.w3.org/WAI/wcag-curric/sam100-0.htm*

13.4 Use navigation mechanisms in a consistent manner - *http://www.w3.org/WAI/wcag-curric/sam102-0.htm*

13.5 Provide navigation bars to highlight and give access to the navigation mechanism - *http://www.w3.org/WAI/wcag-curric/sam103-0.htm*

13.6 Group related links, identify the group (for user agents) and, until user agents do so, provide a way to bypass the group - *http://www.w3.org/WAI/wcag-curric/sam104-0.htm*

13.7 Enable different types of searches for different skill levels and preferences - *http://www.w3.org/WAI/wcag-curric/sam107-0.htm*

13.8 Place distinguishing information at the beginning of headings, paragraphs, lists, etc - *http://www.w3.org/WAI/wcag-curric/sam110-0.htm*

13.9 Provide information about document collections (i.e., documents comprising multiple pages.) - *http://www.w3.org/WAI/wcag-curric/sam111-0.htm*

13.10 Provide a means to skip over multi-line ASCII art - *http://www.w3.org/WAI/wcag-curric/sam112-0.htm*

14.1 Use the clearest and simplest language appropriate for a site's content - *http://www.w3.org/WAI/wcag-curric/sam113-0.htm*

14.2 Supplement text with graphic or auditory presentations where they will facilitate comprehension of the page - *http://www.w3.org/WAI/wcag-curric/sam115-0.htm*

14.3 Create a style of presentation that is consistent across pages - *http://www.w3.org/WAI/wcag-curric/sam117-0.htm*

Appendix A: Validation - *http://www.w3.org/WAI/wcag-curric/sam119-0.htm*

End of the Example set - *http://www.w3.org/WAI/wcag-curric/sam120-0.htm*

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