Resource Sheet 2

Web Design Standards & Accessibility

Introduction

This resource sheet offers guidance on website design standards and accessibility. It provides an overview of key technical issues for voluntary and community organisations developing web based projects or procuring web design services.

Are Standards Important

The Internet is a fast moving environment and software is constantly being updated.

If your web project is to enjoy the longest possible shelf life it is important to ensure it is developed with the latest technologies in mind.

The World Wide Web Consortium (W3C) is the guardian of web standards. These standards aim to ensure the web browsers that will be used to view your website operate consistently. Ensuring your site complies with these standards will help ensure your website works as expected.

Specifying Web Standards

When procuring web design / development services it is good practice to specify the standards you expect. These should be clearly stated in your project brief.

Standards for HTML & XHTML

HTML is the code used to write web pages. A web browser interprets the code and displays the page. Inaccurate code can cause the page to display incorreclty in one or more browser.

HTML is specified in a “Document Type Definition” (DTD). This sets out acceptable use of HTML Code. The current version of HTML is 4.01. There are different versions of the DTD aimed at enabling migration from older browsers and code to more recent standards.

- HTML 4.01 Transitional DTD allows code to be verified with deprecated (out of date) code
- HTML 4.01 Strict DTD does not allow deprecated code

HTML itself is being superceded. XHTML reflects the increasing use of web browsers on platforms other than PCs (e.g. mobile phones). The current version of XHTML is 1.0. As with HTML there are strict and transitional versions.

HTML 4.01 and XHTML 1.0 are closely related. For most current web purposes specifying compliance with the HTML 4.01 Transitional DTD would be sufficient. If it is anticipated the project would involve access from other platforms (or to be bang up to date) specify compliance with XHTML 1.0 Transitional DTD.

Cascading Style Sheets (CSS)

Cascading Style Sheets provide a significant change to website design. Older websites often use tables (using HTML) to layout webpages. This approach is out of date and the use of CSS for page layout is recommended. Whilst the W3C is already developing CSS 3, Internet Explorer 6 (possible the most commonly used PC browser) uses CSS 1.

Using CSS for webpage styling has significant benefits for the long term management of a website. Page appearance, site wide, can be updated from just one file, for example.

Current recommendations are that CSS should be used for page layout. HTML tables should only be used for tabulating data. Specifying this approach in your project brief will help ensure your site is up to date and can be maintained effectively.

Dynamic HTML - Javascript

Javascript is widely used to provide a range of functions from roll over buttons to verifying form data. Javascript is called a “client side scripting language”. This is because it runs on a user’s PC. As a consquence Javascript is reliant on local settings. Additionally different browsers can interpret Javascript in different ways.

To ensure your project can be used across browsers it is important to specify that javascript is compatible across browsers. Given that users can also disable Javascript, consideration may also be given to limiting its use to non-critical functions or providing alternative means of access to those functions (e.g. plain text menus).

Accessibility

On a technical level an accessible website uses HTML code appropriately to:

- utilise accessibility features, e.g. alternative text for images
- enable local browser settings to over-ride page styling (e.g. enlarging text)
- ensure technologies such as screen readers can interpret pages correctly

However, aesthetic issues are also important, these include high contrasts between background and foreground colours and text size.

Priorities

Accessibility has three priority levels. Priority 1 (A) being the least accessible and Priority 3 (AAA) being the highest level of accessibility. Compliance with Priority 1 is a basic requirement for some groups to be able to use web documents.

Priory 2 (AA) is widely used as an acceptable standard in the public and voluntary sector.

Frames

Frames are a collection of two or more pages, which appear simultaneously in the browser window. They are often used to provide a menu in one frame, whilst content changes in the second frame. The use of frames is problematic in accessibility terms and their use is not recommended by the W3C accessibility guidelines.

Tables

W3C accessibility guidelines recommend tables are used for tabulating data only.

Accessible Design

As with print, issues of colour choice, font style and size relate to accessibility. Specific parameters should be set out in a project brief where possible.

A fundamental of accessible web design is the use of relative dimensions. Relative sizes enable the pages to adjust to a user's browser settings (e.g. large print). A default font size may be specified in absolute terms (i.e 12pt) but otherwise all dimensions should be relative.

Other featues, for example Access Keys, exist in HTML to enhance accessibility. If accessibility is a priority there are several web based resources offering further advice and information.

Cross Browser Compatibility

Different web browsers can handle web pages differently. The standard setting role of the W3C is aimed at improving uniformity and browsers are becoming more consistent in the way they use CSS and Javascript.

A website specification can, and should, require that a website works properly with specific browsers. For a general purpose site it is useful to provide a list of key browsers which you expect the site to be tested in.

Major browsers are:

- MS Internet Explorer 6 (PC)
- Netscape Navigator 8.1 (PC)
- Firefox 1.5 (PC)
- Safari (MAC)

For a website commissioned for restricted use (for example an intranet), where there is certainty over the platform and browser which will be used to access the site, the specific details can be provided.

A judgement needs to be made about ensuring compatibility with older browsers, any particular requirements should be clearly stated in a specification or brief.

Costs and Benefits

Any new product needs testing and some level of testing needs to be accomodated within a project budget. However, the more stringent a specification is, the more time testing and fine tuning the site will take and this has a cost implication. An appropriate balance needs to be struck to ensure project priorities are met within the available budget.

Testing a Website

Prior to completion it is good practice to test your site. A good starting point is to view the site in any specified browsers.

The W3C provides online validators for HTML and CSS code (see resources below). These provide automated checks on the code and report any errors.

Accessibility can also be tested online and faults reported. However, automated testing will not identify issues of default font size or colour contrasts.

More Resources

Web Standards:

www.w3.org
e-Government Guidelines

Information on accessibility:

W3C Web Accessibility Initiative
RNIB Web Access Centre
AbilityNet

Testing and Validation:

W3C HTML Validator
W3C CSS Validator
WebXact Watchfire (Bobby Test)