Defining and supporting usability and accessibility objectives using software

✔ **This checklist is designed as an aid for those who want to know what software can aid them in defining and support their endeavours to create accessible and usable websites. It assumes a basic knowledge of the Internet (World Wide Web) and Web Browsers.**

The Internet is a powerful medium for business. Having a usable and accessible website illustrates that your company is demonstrating its social responsibility as well as trying to increase its market share and audience reach and reduce any legal liability. The use of software in measuring websites can be a speedy and accurate way of meeting usability and accessibility targets.

MCI Standards

This checklist has relevance to the MSC National Occupational Standards for Management: Key Roles A and B - Manage Activities and Manage Resources.

Definition

Creating usable and accessible websites is a time-consuming process. Software exists which can check many aspects of a website either on-line or locally on a machine. Appreciating how others will 'read' your site may enable you to provide more accessible and usable sites. Deciding on how usable and accessible your website is one way of deciding who you are creating the site for and which segments of the population you are targetting as your prospective customers.

The advantages and disadvantages of using software to define and support usability and accessibility

The advantages of using software to define and support usability and accessibility

▼ Errors can be more easily spotted by software than by the human eye
▼ Many software validators are free
▼ Software validated websites can be read more easily by search engines

The disadvantages of using software to define and support usability and accessibility

▼ It can sometimes be difficult to see what the free software's messages mean
▼ Correcting website errors can be time-consuming but definitely worth the effort

Using software to define and support usability and accessibility checklist

1. Guidelines

There are many lists of guidelines in books and online. Places to look:

- ▼ The World Wide Web Consortium (W3C) accessibility guidelines can be found at http://www.w3.org/TR/WCAG10/
- ▼ The government has usability guidelines for their websites http://www.e-envoy.gov.uk/Resources/WebHandbookIndex1/fs/en
- ▼ If you are designing for brand new technologies, try and find an interim solution so that users with older browsers can still use the site. For example, do not have new windows pop up with the information a user has requested, users who cannot see will not know to 'read' the new window. Older browsers cannot read empty boxes in tables which are there just to make the layout look pretty. Provide solutions for this. Alternatively, provide an alternative page. Such advice is given at http://www.tasi.ac.uk/advice/advice.html
- ▼ Human-computer interaction (HCI) is the study of people interacting with computers and the Internet. Many guidelines can be found at the HCI bibliography http://www.hcibib.org/

2. Grammatical correctness: HTML and style sheets (CSS)

Ensuring your website is grammatically correct can be difficult to do by hand. There two WC3 validators which will point out any coding errors you may have in your HTML and your CSS:

- ▼ http://validator.w3.org/
- ▼ http://jigsaw.w3.org/css-validator/

3. How others 'see' your site

Designing for people who do not see things the same way you do can be a difficult process. There are facilities on line to enable you to see how your website will be rendered in another browser

- ▼ http://www.w3.org/WAI/References/Browsing introduces screen readers and adaptive browsers for those who cannot see or are hard of hearing
- ▼ http://www.508compliant.com/tools.htm will help you see your site as if you were colour blind or as if you do not have CSS working
- ▼ http://www.vischeck.com/vischeck/vischeckURL.php illustrates colour blindness

4. Different levels of accessibility

There are different levels of detail in the guidelines at http://www.w3.org/WAI/References/Browsing. For most companies just the Priority 1 or top level is sufficient. However, if you wish to comply with the lower priorities and then have them checked automatically http://aprompt.snow.utoronto.ca/download.html is the place for you.

5. Create alternative text only pages

Creating alternative text only pages can be time consuming and often sites who have them do not always update them as much as they do the more attractive sites. The BBC can help you quickly create alternative text pages only at http://www.bbc.co.uk/education/betsie/index.html

6. Evaluating transformation pages

Make sure that your pages work even users have browsers that do not support style sheets, applets, scripts, etc. If users still can't see something then provide an alternative page.

- ▼ Check if your website is accessible using bobby http://bobby.watchfire.com/bobby/html/en/index.jsp or wave http://wave.webaim.org/index.jsp
- ▼ Check if your site is 'transforming' i.e. it can handle new technologies and old and doesn't leave your user just looking at a great white box where some new technology should be impressing them http://www.w3.org/WAI/ER/existingtools.html
- ▼ Get the BBC to create you a page stripped of your extra tables and layout and see how it looks then http://www.bbc.co.uk/education/betsie/index.html

▼　　Provide ways of allowing users to turn off any moving, blinking, auto-updating and scrolling objects or pages

7. Reading websites

Ensure that any navigation that has buttons or tabs etc, are clearly labelled and can be operated without having the need to use the mouse button. Access keys are one solution where users can type in a letter which corresponds to the required page as it is defined in the HTML code.

▼　　Sample access keys can be found on any government website http://www.e-envoy.gov.uk/Resources/WebGuidelines/fs/en

▼　　Screen readers can be found at http://www-3.ibm.com/able/solution_offerings/hpr.html and http://www.w3.org/WAI/References/Browsing. It is worth closing your eyes to listen to what your HTML code says

8. Other browsers

Realise that all users may not have a keyboard and mouse or a standard browser try to design for this.

▼　　http://www.anybrowser.com/EngineView.html will show you your site at different screen sizes and in different browsers to save you downloading the various versions

▼　　Access keys can be used to help navigation. The UK government are trying to standardise theirs over all the websites they use http://www.e-envoy.gov.uk/Resources/WebGuidelines/fs/en

▼　　Enable users to 'tab' through your interface and then test it http://www.delorie.com/web/lynxview.html

▼　　Test your website on old versions of Netscape and Microsoft Internet Explorer

▼　　www.netscape.com/archive.html?cp=dowarc,

▼　　www.oldversion.com/msie.shtml

9. Tools and methods

The World Wide Web Consortium develops standards and reviews current technology such as HTML, CSS, access keys, etc., and by adopting their conventions you are adopting an international standard. There are many tools and methods which exist and which are simple to use. To find out about usability methodologies look at http://www.usabilitynet.org/tools/list.htm and see if any would be useful.

10. Extensions for your web developers

Macromedia Dream weaver is an industry standard now for developing websites and there are extensions you can plug in to make sure you are developing accessible websites. The plug-in will highlight when you should be adding tags etc. to make your website more usable http://www.usablenet.com/

Dos and don'ts for defining and supporting usability and accessibility objectives with software

Do

▼　　Ask if you need your website to be thoroughly accessible. Would priority 1 of the WAI guidelines be sufficient for your customers?

▼　　Try out different types of software and see which one you prefer using

Don't

▼　　Be disheartened by the error messages. Quite often one error can generate many messages and correctly one syntax slip can get rid of lots of messages

▼　　Be afraid to alter your HTML code. HTML is easy to learn and fix

Glossary of terms associated with software for usability and accessibility

- ▼ usability - the goals of designing an interface (or website) to be effective, efficient and satisfying from the user's point of view

- ▼ accessibility - is the above as well as taking into consideration that users may 'read' web pages with other types of technology that do not handle graphics or plug-ins (screen readers, old browsers, WAP enabled telephones)

How to assess software for usability and accessibility website objectives effectiveness

- ▼ Is the software easy to use and quick to get results from?
- ▼ Can I understand the results and act upon them?

Related checklists

- ▼ Guidelines for designing website usability
- ▼ Guidelines to ensure website accessibility

Useful reading

Special Educational Needs and Disability Act 2001
http://www.legislation.hmso.gov.uk/acts/acts2001/20010010.htm

Disability Discrimination Act 1995
http://www.legislation.hmso.gov.uk/acts/acts1995/Ukpga_19950050_en_1.htm

Royal National Institute of the Blind http://www.rnib.org.uk/

Jakob Nielson usability advice given in bi-weekly columns www.useit.com

Useful addresses

Management Information Centre, Institute of Management, Management House, Cottingham Road, Corby, Northants, NN17 1TT
Tel: 01536 204222

Thought starters

- ▼ What are my website priorities and goals? Is it to be user-friendly? Accessible?

- ▼ Now I know my website goals, what do I want to test with software to see if I am meeting my goals?

- ▼ Look at award winning websites (e.g. BBC) and ones you enjoy using. What do they do to help accessibility?

- ▼ Do I want 2 versions of the site: text-only and one with plug-ins?

Further information

To be added by editor.