

# Guidelines to ensure website accessibility



**This checklist is designed as an aid for those who want to implement accessible websites. It assumes a basic knowledge of the Internet (World Wide Web) and Web Browsers.**

**The Internet is a powerful medium for business and can be accessed in many ways. If you offer a particular service, particularly an educational one, and do not provide website accessibility you may be leaving your company open to the possibility of being sued.**

## 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

A web site or page is accessible if anyone can peruse the content regardless of the display medium they use and any physical disability they may have. The goals of accessibility are to make a website *perceivable, operable, understandable, robust*. Accessible websites are designed to consider non-standard browsers (including older versions of obsolete browsers), display mediums (e.g. mobile phones, interactive t.v., speech readers, machines without mouse or keyboards), operating systems (e.g. not just Microsoft) and browser setup (plug-ins or lack of them, screen readers, etc.).

Section 21 of the Disability Discrimination Act 1995 states that organisations must "make reasonable adjustments to make sure blind and partially sighted people can access your service". Many online traders and information services are breaking the law by not being fully accessible and if action is taken they won't have a valid defence.

## The advantages and disadvantages of website accessibility

### **The advantages of website accessibility**

- ▼ The rules to implement website accessibility are easy to understand
- ▼ Website accessibility can be tested and measured by hand and free software validators
- ▼ An accessible website helps search engines read and rank your site
- ▼ Accessibility potentially increases the amount of people who will be able to 'read' your site

### **The disadvantages of website accessibility**

- ▼ Following accessibility rules may restrict your ability to create a super 'flashy' website
- ▼ Providing an accessible alternative to your usual website may be time consuming

## Website accessibility checklist

### **1. In brief: Make your website perceivable, operable, understandable, and robust**

Ensure that:

- ▼ Your website contents can be 'seen' by any user (e.g. pictures have a text description associated with it)
- ▼ The interface elements in the content are operable by any user (e.g. you don't need a mouse)

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- ▼ It is as easy as possible to understand the content and all controls (e.g. software can recognise what language your site is in and the buttons, tabs you use because they are labelled)
- ▼ Your website doesn't crash or give error messages or shows blank boxes if someone looks at it in an old browser version or a new one

## **2. Provide alternatives to images, video, and all multi-media (Perceivable)**

Provide text descriptions (e.g. use an 'alt' or 'longdesc') of any graphical image (e.g. symbols), image map, applet, animated gifs, buttons, boxes, tables frames, scripts, images, spaces; sounds, soundtracks; any multi-media presentation (movie or video, animation)

## **3. Don't rely on colour alone**

Make sure that colour alone doesn't indicate what can be clicked. Look at the website in black and white and see if images and text is still understandable. Use web conventions such as underlying links in order to indicate linking pages. Ensure that there is sufficient contrast between the background and the text (e.g. black text on white background).

## **4. Use HTML mark-up and style sheets**

Cascading style sheets (or style sheets) enable you to take out the specifications of text colour, font, background etc. and 'tags' that are in HTML code and put them in one file which all your website web pages can access. This enables you to provide uniform web pages. It also helps users to read the web using their own style sheets. This keeps your content and your presentation separate.

Be consistent with your page layout and style sheets so that people can become familiar with your site.

Make sure your HTML code is grammatically correct. Check this using a validator.

## **5. Write clear text**

Clearly define all acronyms and abbreviations. The primary language of the web page should be indicated. Any foreign text should be clearly marked so that screen readers can identify and accurately pronounce it.

## **6. Create 'readable' tables**

Avoid using 'layout' tables for page design as they cannot be read by all browsers. Clearly label tables, their rows and columns and data cells and their headers as such. Provide a summary of the table for those who cannot access them.

Some browsers will strip out the tables and present each column as a separate paragraph. Does your table still make sense?

## **7. Ensure that pages with new technology can be read with old browsers**

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.

## **8. Ensure users are in charge of time sensitive content changes**

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

## **9. Ensure direct accessibility of embedded user interfaces**

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.

## **10. Design for device-independence**

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Realise that all users may not have a keyboard and mouse and try to design for this. Again, access keys can be used to help navigation. Enable users to 'tab' through your interface.

### **11. Use temporary solutions**

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 handle empty boxes in tables with 'spacer.gif's in them. Provide a solution. Alternatively, provide an alternative page.

### **12. Use conventions, technologies and guidelines as provided by W3C**

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.

### **13. Provide content and orientation and clear navigation information**

Group similar items in the navigation menus. Label all buttons and tabs (using 'alt' or 'long desc' tags). Use 'meta-data' on each page. Provide a text only with hyperlinks site map. Be consistent. Use plenty of white space and provide headings and leading information at the start of a paragraph or list so that users can skip the following paragraph or list if the information they are looking for is not there.

### **14. Ensure that your website is clear and simple**

Be consistent in page layout and style. Write in the clearest and simplest English possible.

## *Dos and don'ts for effective web accessibility*

### **Do**

- ▼ Use access keys
- ▼ Use 'alt' tags to describe any images and animations you have
- ▼ Have transcripts of any audio or video multimedia
- ▼ Use headings, lists and consistent structures of pages
- ▼ Summarise graphics and charts using the 'longdesc' attribute
- ▼ Provide alternative content to scripts applets and plug-ins

### **Don't**

- ▼ Use tables without having summaries
- ▼ Forget table may be stripped of their dividing lines
- ▼ Use frames
- ▼ Forget to check your work. Use checklists, software validator tools and guidelines

## *Glossary of terms associated with 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)
- ▼ usability engineering - the process of using specific usability guidelines (e.g. World Wide Web Consortium WC3) to be made as explicit requirements and then measuring their implementation

## *How to assess website accessibility effectiveness*

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- ▼ Look at it using different browsers. These can be downloaded from netscape and microsoft
- ▼ Try using a screenreader or if you have voice recognition software try surfing your site with it
- ▼ Turn off images. Does the site still work?
- ▼ Turn off sound
- ▼ Change font size
- ▼ Set screen resolution
- ▼ Use tab keys
- ▼ Read links out of context
- ▼ Look at graphs and charts do their descriptions make sense
- ▼ Strip down the tables. Do they still make sense? Are they being displayed in the right order?
- ▼ Validate against World Wide Web Consortium (WC3) validators

### Related checklists

- ▼ Defining and supporting usability and accessibility objectives with software
- ▼ Guidelines to ensure website usability

### 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](http://www.legislation.hmso.gov.uk/acts/acts1995/Ukpga_19950050_en_1.htm)

World Wide Web Consortium <http://www.w3.org>

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

### Useful addresses

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

### Thought starters

- ▼ Think about the frustrations you have with sites that require plug-ins you do not have? Does the content absolutely need that way of being presented? Could simple text work equally as well?
- ▼ Look at award winning websites (e.g. BBC, : <http://www.bbc.co.uk/education/betsie/index.html>) and ones you enjoy using. What do they do to help accessibility?
- ▼ Before you employ Flash or JavaScript ask if it is absolutely necessary?

### Further information

To be added by editor.