

## **Web Accessibility - standards and more.**

### **Practical illustrations of key web accessibility and usability issues from an end user's perspective - covering a range of impairments and access technologies.**

Firstly for those who haven't heard of AbilityNet (quick summary of services). For more information go to [www.abilitynet.org.uk](http://www.abilitynet.org.uk).

This is intended to be a practical introduction to some of the key issues of website accessibility using a range of websites and videos as illustrations.

It is by no means a comprehensive review.

We will try to take each area of impairment at a time - but sites often display a range of issues that cross different areas of impairment.

## **Vision Impairment Issues**

### **Screen reading software**

Blind users rely on speech output (known as screen reading software) as do many users with dyslexia or cognitive difficulties (known as text to speech software).

First we'll look at some of the main issues a screen reader or text to speech user encounters when surfing.

### **Unlabelled Images**

Amazon - <http://amazon.co.uk>

We'll start with unlabelled images - the most crippling and common issue found on most websites.

Firstly we will look at what Amazon was like a few months ago - the main tabs at the top of the page (arguably critical navigation) were unlabelled and hence screen reading software has to resort to reading the target of the link) and the site is almost unusable

Today the same tabs have been labelled - but very poorly as each one has an identical alt tag!

Lastly let's look at what those same tabs sound like when properly labelled.

### **Links out of Context**

Screen reader users often pull all links on a page into a list to more quickly access the one they require. Links must make sense when pulled out of context in this way.

## **Magnification software**

Magnification users have a limited viewport with which to access the screen contents. They move it around by dragging the mouse.

Disney website - <http://disney.co.uk>

This site has a lot of mouse-triggered movement and text becomes pixelated at higher magnification levels.

Images of text should be avoided - as images pixelate at higher resolutions

Dynamic menus and other movement can be confusing

Other issues for this group of users -

- Page objects should be thoughtfully and consistently placed (e.g. isolated form fields over to the RHS and out of the vertical 'flow' of the form are often missed)

## **Resizing Text**

Times Online - <http://www.timesonline.co.uk>

Websites mustn't 'hard-code' their text size (i.e. it must resize easily with View menu/Text Size option)

If hard-coded then need to override in the Accessibility option

When text size is made larger there mustn't be any cropping or overlapping of text

Learndirect - <http://catalogue.learndirect.co.uk/courses/>

Another example of considerable cropping/overlapping when text enlarged

Also text disappears black on black when a user has chosen high contrast white on black for his Windows colour scheme (common choice)

To avoid this define both background and foreground colours and ideally offer a styleswitcher (such as on [www.abilitynet.org.uk](http://www.abilitynet.org.uk))

Other issues for this group of users -

- Avoid using images of words as they cannot be resized or have their text style or colours altered.

## **Colour Choice**

Many people have difficulties seeing certain colour combinations - use the filters at <http://www.juicystudio.com> and <http://www.vischeck.com>

## **Keyboard and Mouse Difficulties**

Many people have difficulties using (or are unable to use) a standard keyboard or mouse. Others are unable to use their hands at all.

### **Clickable Areas**

Many mouse users find it difficult to control a mouse accurately.

Lastminute.com - <http://www.lastminute.com>

Clickable areas must be a decent size and not too close together (Under the Travel link on the LHS there is a list of links that are very close together)

Google - <http://www.google.co.uk>

A good example of well spaced out links is Google's links to further pages of search results.

### **Keyboard Users**

Many users cannot use a mouse at all and surf entirely from the keyboard.

The official site of the Vatican - [http://www.vatican.va/phome\\_en.htm](http://www.vatican.va/phome_en.htm)

This site has a crazy tabbing order on the home page. This is confusing for keyboard users. Also it is very difficult to see which is the active link.

Also instances of serif text (not as easy to see as sans serif)

Text is quite small and size is hard-coded - text should be a decent size by default

### **Voice Recognition Software**

BBC website - <http://www.bbc.co.uk>

We use the BBC website to show how voice recognition users can simply say all or part of a link to click it. When there are multiple instances of that text each link is numbered and the correct number is chosen to click the link.

Flash breaks this 'say what you see' ability of voice recognition software. You have to use a series of verbal commands to manually drive the mouse pointer to the desired area and click ('mousegrid')

## **Hearing Impairment and BSL Issues**

### **Captioning Multimedia**

We have already seen (in Macromedia's Flash movie on accessibility) how important it is to offer text alternatives to audio.

We have also seen examples of captioned videos (magnification and voice recognition videos)

## **BSL and Signing**

BSL users have a limited vocab and different sentence structure - use plain language and offer a glossary (or 'jargon buster' as on <http://www.bbc.co.uk>)

Sign Community - <http://www.signcommunity.org.uk>

You could go so far as to offer a BSL signed version of your content using videos or automated avatars.

## **Cognitive Considerations**

For our purposes we are considering people with a cognitive difficulty, learning disability, dyslexia or literacy difficulty in this wide-ranging group.

### **Movement**

People with cognitive or vision difficulties are easily distracted by movement.

Chelsea Football Club - <http://www.chelseafc.com/index.asp>

Has lots of animated images down right hand side and one across the top as well as scrolling text along the middle of the site.

If movement is required limit it to two or three cycles before stilling the animation.

Other key issues for this group of users –

- Use plain language
- Use white space to separate page elements
- Do not fully justify text
- Be consistent in layout and navigation

### **Flash issues**

We won't have time to look at this in the session but feel free to take a look yourselves in your own time.

Flash has a number of issues with accessibility and often people with a wide range of impairments find it very difficult to access Flash content.

The Flash movie we will now look at illustrates not only issues for blind users but also for other disability groups too. It is found on Adobe/Macromedia's site in their section that demonstrates the accessibility features of Flash:

Accessibility of Flash - <http://adobe.breezecentral.com/p16268622/>

Here are a number of Flash movies and we will look at the movie entitled 'Flash Accessibility , Part 3 – Key Concepts' by Bob Regan, Sr. Product Manager, Macromedia.

We don't actually need to go any further than the first slide in this Flash movie to see a number of issues:

- No text alternative to audio track for hearing impaired users
- Next and Previous Slide buttons not obvious (they could equally be Fast Forward and Rewind) - no tool tips on them.
- Similarly the Change View button not obvious what it is - no tool tip.
- When click the Change View button Jaws (screen reading software) and Home Page Reader (HPR) (specialist text browser) cannot see the text that has appeared as a result.
- When using Jaws the Pause button does not appear to change to Play when pressed. - although it does in HPR
- Insufficient colour contrast with white text on the orange background as it gets lighter towards the bottom of the slide
- Also insufficient colour contrast with the Slide title and Duration headings (which come up when you have clicked on the
- Change View button - bottom right) which are grey on a slightly darker grey background

And all on the first slide!

More general issues which apply to all Flash movies -

- Cannot change text colours or style - may be vital for many users
- Can increase text size by zooming in on the content - but this crops the movie (no text wrapping as is possible in HTML)
- Cannot control Flash using voice recognition - we'll see this later)
- Flash also cannot be accessed by many using other specialist browsers not as sophisticated as HPR, or screen readers not as sophisticated as Jaws