

Accessing the virtual world

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The Internet provides exciting new opportunities for global communication, exchange of information and a means of contact for everyone. Or does it? Upon closer inspection the World Wide Web isn't as accessible to as many people as we might initially believe. Accessibility should be one of the Internet's greatest strengths as reiterated by Tim Berners-Lee, inventor of the World Wide Web, "The power of the web is in its universality. Access by everyone regardless of disability is an essential aspect". Disabled users in particular, who often have restricted access to information in the real world as a result of physical barriers, should have much to gain from the Internet revolution and the virtual world. But in the rush to establish a presence on the Internet, accessibility is the one thing that many companies, organisations and web designers have overlooked.

Accessibility is a measure of how easy a website is to access, read and understand with the ultimate aim of ensuring that no potential user is excluded. All too often users are shut out of the new information age because of a disability or because they are using old browsers or slow Internet connections. Accessibility is an issue which affects a wide range of users. Some people are blind or partially sighted and can't view the images and text on the screen, some people are hard of hearing and cannot hear audio or video information, whilst some people use older computers or software and cannot view the site because they don't have the latest browser.

Unfortunately the requirements of all of these potential users aren't necessarily taken into consideration when a website is created. The reasons for this are numerous; in a number of instances accessibility is simply overlooked due to a lack of knowledge, or more frequently, the idea of making a site as accessible as possible is dismissed as not being commercially viable because it is too expensive or too complicated to implement. The number of users with accessibility problems is often dismissed as being too small to bother about. Another reason for skirting the issue of accessibility is that accessible sites are often perceived as being dull, boring and unappealing.

However, the factors listed above are not obstacles to achieving accessible sites but merely misconceptions based on the notion that developing accessible sites is fraught with difficulties. Moreover, significant benefits can be achieved by making a web site more accessible, not least the fact that your site can be reached by the maximum number of potential users. There are over 2 million blind people in the UK and over 750 million disabled people world wide, not all of them are on line, but it is a very large potential audience who may not be able to access your website. Developing accessible sites also has other positive spin offs, as they are easier to use on other devices such as handheld assistants and digital television and it also means that changes in browser technology can often be implemented without the need to rewrite sites.

So what do you need to take into account if you want your website to be as accessible as possible?

Blind users or those with impaired vision are most likely to be the people who are most affected by your web site's design. Most blind users use screen reader software, a speech enabled browser or a Braille display to "read" pages. Speech reading software can also be used by those with learning difficulties, as by simultaneously viewing the text and hearing it read aloud, they can take advantage of both auditory and visual skills to comprehend the material better. Many of these devices transform text into something that is accessible by literally reading the screen i.e. starting in the upper left-hand corner and reading from left to right. However, many web pages are designed to include columns or frames which can present these devices with navigational difficulties and can cause problems when it comes to understanding the text. Also any non-text item on a web page, such as an image, can be a potential problem if no alternative text is supplied.

Accessible design means taking into account how speech readers work and designing compatible sites and simply, supplying alternative text for any non-text element. Aural browsing may become increasingly common in the future through in-car web browsing telephone browsing or the "web walkman". By designing web sites which work with speech reading devices you are also ensuring that your site has the flexibility needed to adapt to these new and innovative technologies.

Many disabilities can be accommodated by standard browser software as long as the web pages are flexible and can transform to meet the viewer's needs. This can be easily achieved by the use of style sheets. For example, colour-blind users can apply their own text and background colour to a page to increase legibility, or low-vision users can scale type to a size they can read comfortably. Some low-vision users read better with white text on a black background. Accessible design means designing pages that can accommodate these changes, pages that remain legible and navigable under different viewing conditions.

Those with hearing impairments will not be able to benefit from video or sound clips so if you use sound on your web site make sure that you provide full text transcripts that include the spoken dialogue as well as any relevant sounds such as music, laughter, applause etc. For video you should also provide a text description that provides narration of the key visual elements.

It is true that Internet Explorer is the most popular browser on the web, but there are also a significant number of non-Explorer users. By displaying messages such as "best viewed with..." you are alienating millions of users who don't have the browser or software your site demands. Where possible, all pages should be tested with a whole range of browsers including the speech browsers referred to earlier.

The issue of accessibility on the web has been taken up by the World Wide Web Consortium (W3C - www.w3.org) who are committed to removing accessibility barriers for all people with disabilities. W3C launched the Web Accessibility Initiative (WAI - www.w3.org/WAI), a standard

for designing accessible sites with three levels of conformity. If you are about to embark on a website for your company, take a look at the WAI standards and talk to your design agency about how you can meet as many of the guidelines as possible.

It is true that making a website site accessible does require more thought and effort but the end product doesn't necessarily have to be much more expensive or unattractive than any other website. For those companies or organisations who already have websites, it is not too late to do something about accessibility. So, check your site against WAI's criteria for accessibility (www.w3.org/TR/WCAG10/full-checklist.html) and put together an accessibility improvement plan, prioritising action points for high, medium and low impact points and ensure that all new developments take accessibility issues into account.

Designing accessible pages is mostly a matter of telling the same story in different ways i.e. providing an equivalent version whenever you include content in a way that may not be accessible to all users. By making your web site as accessible as possible you not only get the satisfaction of doing the right thing but it could also help your business.