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Editorial – Guidelines and resources for designing Web sites

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A very important aspect of using the Web is the quality of the experience, which is mainly down to the site design - the 'look and feel'. Guidelines which establish basic principles for a Web site and cover practical design and usability issues are reviewed.

A recent *BMJ* issue covered the quality of health Web sites (*see* Current Literature). Most of the authors' concerns, for obvious reasons, concentrated on the quality of the content - its correctness, completeness and authority. But another aspect of using the Web is the quality of the experience, which is mainly down to the site design - the 'look and feel'.

Many Web design guidelines are available. A well-quoted source[1], by the Web usability expert Jakob Nielsen, lists 10 top Web design mistakes. These include: gratuitous use of bleeding-edge technology; constantly running animations; orphan pages; long scrolling pages; lack of navigation support; outdated information; overly long download times.

However, other writers[2] have argued that the uncritical use of such guidelines by inexpert Web designers 'can result in an unimaginative site that looks bland and homogenous'. Design principles that place the Web user at the centre are required, *e.g.* by using the standard *Human centred design processes for interactive systems* (ISO 13407:1999).

Good design comes down to a proper consideration of the purpose of the site and the characteristics of the audience. The purpose of Web sites can be broadly categorised into information, entertainment and

commerce. Many health Web sites have the purpose of informing and educating. To be effective, 'information' sites need to get their message across quickly, simply, and straightforwardly. Barriers to achieving this should be minimised, which is where avoiding the design mistakes mentioned above becomes important. The key issues are 'accessibility' and 'usability'. As Nielsen says, users 'want to get in, get out, and move on'. Information sites tend to be low on the use of multi-media techniques. However, in the health field, you can think of certain audiences where this would not be true. Sites aiming health information at people with low literacy or health education at adolescents and young children might want heavy use of graphics, audio, film clips, games and music. However, even with such sites, the user still needs to be able to navigate simply through them.

The Web Accessibility Initiative from the World Wide Web Consortium (W3C) <http://www.w3.org/WAI/> is a key resource. Nielsen's useit.com <http://www.useit.com/> provides information about Web usability. Usability.gov <http://www.usability.gov/index.html>, produced by the US National Cancer Institute, provides help for 'designing usable, useful and accessible Web sites and user interfaces'. Under the 'Lessons Learned' section, it provides a case study of the design of CancerNet. The Usable Web <http://www.usableweb.com> provides a large set of links.

Guidelines for UK Government Web sites are available at <http://www.e-envoy.gov.uk/webguidelines.htm> with supporting documentation. The Top 10 guidelines are intended as a foundation for any government Web site:

1 Engaging, accessible, usable (user focused)
2 Working together (joined-up government)
3 Services for the citizen (providing services online)
4 Effective content (quality, accuracy and uniformity)
5 Building trust (legal and secure)
6 Listening - two way communication
7 More than just the Web - multiple access channels
8 Is it working? (evaluation and improvement)
9 Can your site be found? (metadata and memorable URLs)
10 A well managed service (adequate resources, clear strategy)

These guidelines establish basic principles for a Web site. Other guidelines cover practical design and usability issues.

The NHS provides its own guidelines for Web sites posted under its logo <http://www.doh.gov.uk/nhsidentity/websites.htm>. These guidelines aim to produce a corporate style and to support the values of the NHS. They include such topics as accessibility, navigation, fonts, colours, and graphics. The NHSIA provides Creating an NHS Website FAQ <http://www.nhsia.nhs.uk/def/pages/faq_web.asp>.

An important issue for Web sites is making them accessible by people with disabilities. This is particularly important for Internet health information provision if users have physical or cognitive difficulties with Web technology because of the effects of their illness, a disability or old age. Many of the resources given above address this issue. Other specific resources include: The Plain English Campaign <http://www.plainenglish.co.uk/webdesign.html>; the Royal National Institute for the Blind <http://www.rnib.org.uk/digital/hints.htm>; Bobby <http://www.cast.org/bobby/>, an automated program for checking the accessibility of Web pages.

But one of the simplest ways to learn about design is to look at good and bad Web sites. We all have our own pet examples. Web Pages That Suck.com <http://www.webpagesthatsuck.com/index.html> gives numerous examples of bad design.

References [accessed 19/04/2002]

1 Nielsen J. Top ten mistakes in Web design. Alertbox for May 1996 <http://www.useit.com/alertbox/9605.html>
2 Travis D. Guideline dogma. system-concepts.com, 2 February 2001 <http://www.system-concepts.com/articles/smartypants.html>

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News item

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This tutorial has been produced by BIOME/NMAP and is part of the RDN Virtual Training Suite.