

Healthcare Websites

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Health is of concern to all of us. There is increasing use of the worldwide web to seek information about health related issues. Indeed we are currently in a situation with massive amounts of healthcare information on the web. Healthcare professionals now have practical access to information that often was inaccessible to them in the past. Many of the serious issues with healthcare websites come when we think beyond their use by professionals. Members of the general public are much less able than professionals to evaluate the sites that they find, but even professionals may not always evaluate sufficiently.

This article focuses on the use of healthcare websites by the general public. A recent survey in the US by Harris Interactive found that 47% of all adults use the Internet and of these 75% or 100 million go online to seek healthcare information. They do this on average three times a month.

A Boston Consumer Group survey found that this online information has a real impact on the way people manage their overall care and comply with prescribed treatments. Indeed the Ipos-NPD Online Health Report states a high level of satisfaction with the quality of healthcare websites particularly on specific conditions and diseases. According to the report the greatest trust is placed in thebreastcancersite.com, americanheart.org, WebMD.com and DrKoop.com. Interestingly, those sites with the lowest trust were dieting, health insurance/HMO/managed care and brand name prescription sites.

Is this level of consumer satisfaction and trust misguided? The study, published in a recent edition of the Journal of the American Medical Association, found that numerous healthcare sites aimed at residents in the US left out key information, offered out-of-date information, or offered contradictory information. Some sites blurred the distinction between advertising and medical advice. As part of the survey a team of physicians examined the content of 25 healthcare sites. They found around 50% of the information on English-language sites and 20% on Spanish-language sites included advertising that was not clearly labelled as such.

It is clear that members of the public are less able to appreciate the subtleties of information presented. Much is written in specialist language, but even without specialist language, the reading level would be beyond most of the public. This could mean that

patients might discover unbalanced information or misunderstand the subtleties of good information resulting in unnecessary worries and extra demands on family doctors. Alternatively it could mean that patients worried about their condition might get inappropriate reassurance from web-based information and therefore do not seek professional advice when they need to.

One way to better ensure patients get the correct message is to use one-to-one advice using a web or email interface. However, this opens up fresh challenges in terms of security of data transmission and storage. Some of these are serious technical challenges whilst others are organisational. Even if the security challenges are met, patients may only be prepared to reveal relevant facts if they have confidence that they can control to whom the information is subsequently released and they may wish to instigate selective release of such information. Clearly there is a need to verify and evaluate the status of those giving the advice. While some may see web-based advice as a chance to obtain anonymous advice, the providers of such advice will probably want to guard against timewasters and there are few ways of doing this without users divulging their personal identity. This presents problems because it is easier to impersonate someone electronically than in a face-to-face consultation with, for example, a family doctor.

Issues of confidentiality and security are not confined to cases where the patient explicitly gives information to a site since, for example, standard logs of web access can identify which pages were used and the host name of the computer that accessed them. In many cases this is not a problem, but some organisations routinely give workstations the name of the person who uses them, and it is therefore often possible to surmise something of, for example, the health status of the person searching healthcare sites. Thus if Joe Soap uses his office computer, soap.dept.company.co.uk to access a lot of information about testicular cancer, and the prognosis for patient with such a diagnosis, life insurers to whom Joe is applying for extension of cover might be very interested in such information. They would be unaware of the fact that Joe accessed the information for a colleague. Similarly, such information may be used by those wishing to advertise or sell treatments and therapies. Access to such information and the resulting actions might be both inappropriate to the patient and illegal.

There is statistical evidence to suggest that advertising may also cause websites to be distorted. Distortion may range from sites that are designed to promote a particular product to those which aim for impartiality, but (perhaps unconsciously) play down or omit criticism of products advertised. Worse, sites may seek to obscure their relationship with those that pay for them thus resulting in manipulation of those seeking information. Such sites may either be commercial or seeking to promote a position on, for example, abortion, assisted suicide or voluntary euthanasia.

Validating seals may help patients know which sites to trust, but to be meaningful they need to only be awarded after detailed examination of the site. Schemes such as TNO Health Trust are being launched but it is unclear whether the cost can be sustained and

how many of the thousands of sites can be vetted in practice. Moreover, medical knowledge changes and this presents currency and integrity problems both for providers of information and for those validating such information

There is one final note of caution. Technological limits inherent in the architecture of the web, and caused by viruses and attacks mean that as things are now we cannot rely on web services in life-critical situations such as those related to health. Whilst it may be possible to provide access to guidance from remote specialists the problem is that an increasing use of such facilities may mean that we come to rely on them and trust them unquestioningly which at best is unwise and at worse could be catastrophic.

The wide variety of problems associated with web-based health information means that the cost savings that some see as being possible from the use of the web in healthcare may well be illusory. Such applications of new forms of technology require new approaches particularly in the initial stages of development and implementation in order to ascertain the true costs and benefits.

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