The Internet as a research tool - convenient and dangerous

1 Background

Access to the Internet is commonplace and provides access to large amounts of information, data and opinions, on any imaginable topic. For these reasons, the Internet has become an important tool for research. The very nature of the Internet allows anyone to publish material of any kind without any peer review. There are many sources, which offer material that is valuable for researchers. However, some authors provide information that may be intentionally or unintentionally misleading, inaccurate or fictional. In many cases, single authors, or even entire organizations, may distort information in order to support a political, religious or commercial agenda. For example, on the dangers of smoking tobacco, we are told that

[one of the world’s leading health organizations has secretly published a study that shows not only that there might be no links between passive smoking and lung cancer, but that it could even have a protective effect. . . The study is one of the largest ever to look at the link between passive smoking - or environmental tobacco smoke (ETS) - and lung cancer, and had been eagerly awaited by medical experts and anti-tobacco groups.]

Although this study had been “eagerly awaited by medical experts and anti-tobacco groups”, the authors from Friends of Tobacco failed to update their pages with important information about where and when this study was actually published. As a result, the statements about the study cannot be verified, and therefore the information is of little value. In contrast, the World Health Organization (WHO) report, on the latest victims of smoking, provides a reference for every claim that is made. Sometimes, dubious academic titles and achievements, memberships to organizations, and relations to well known individuals, are employed to give credibility to claims. The use of the ‘Dr’ in Dr Chen Herbal Tea Formulas is probably intended to give credence to the fact that

[stop Smoking Tea is made of 5 different herbs with an excellent refreshing flavor. Grown on the pollution-free high plateau of northwest China, Tian Mu Mountain of Hang Zhou, contain glycyrrhizic acid, triterpenoid saponins, flavonoid, amino acids, etc. 100% natural. . . Extensively used in traditional Chinese medicine for its antitussive, expectorant and other qualities to clear respiratory ducts, stop coughing, and to correct addictive behavior[my italics].]

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1Note that late submissions will attract a penalty of 1/2 mark per day.
2http://www.fujipub.com/fot/summer98.html#5
3ibid
5http://www.herbalshop.com/products/m580036.htm
Merely knowing that this has been taken from an advertisement for a product, should remind us that it must be taken with a grain of salt. Without some supporting documentation, we cannot accept that the tea in question will actually “correct addictive behavior”. Claims of this kind will have to be substantiated by a series of independent clinical trials and their appropriate statistical analysis. However, if supporting evidence is not provided, then ‘facts’ will have to be regarded as conjectures, claims, or assumptions.

The Internet offers lots of facts and information on many topics, but, unless the information is carefully evaluated, much of the information may turn out to be flawed, biased, or plainly wrong. The contents of a reputable publication, like an article in a refereed journal, is relatively easily evaluated in terms of its credibility. However, much of the material that has been sourced from the Internet may have to be researched further. There are many questions we should ask. Are the ‘facts’ substantiated? How did the author find the ‘facts’? Who is the author? Does the author have any credentials? When was it written? Why was it written? The aim of this assignment is to develop skills in evaluating and selecting material from the Internet for research and in general.

2 Your Task

Find two or three examples of material from the Internet that relates to a controversial topic in professional issues and ethics in Computer Science. Examples that contain misinformation about some particular point should be compared with material offering good information. Discuss the selected material in terms of its credibility as evidence for the argument it is meant to support. Questions, whether some computer games cause violent behaviour in children, or, whether the content of Internet web sites should be controlled by governments, would be suitable topics among many others. Alternatively, you may want to consider material that deals with the benefits of some piece of software.

Your discussion should be not longer than two pages and should concentrate on the issues regarding the credibility of the selected material. Ensure that any included material is properly referenced. You should also provide printed copies of the relevant sections of the referenced material, as part of your submission.

3 Resources

The following links offer additional material that may be helpful for the assignment.

- http://www.district10.nbed.nb.ca/TechResources/InternetResearch.htm
- http://www.lib.vt.edu/research/evaluate/evalbiblio.html
- http://www.virtualsalt.com/evalu8it.htm

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6This includes any portions of text or graphics that have been taken verbatim and material that is reworded (i.e. paraphrased). If your submission contains any unreferenced material, you may commit an act of plagiarism. In this case, the assignment will automatically attract a zero mark.