



## **Chapter 14**

# **The Quality of Medical Information on the Internet: Some Current Evaluation Frameworks**

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This chapter provides an overview of some of the criteria that are currently being used to assess medical information found on the World Wide Web (WWW). Drawing from the evaluation frameworks discussed, a simple set of easy to apply criteria is proposed for evaluating on-line medical information. The criterion covers the categories of information accuracy, objectivity, privacy, currency and authority. A checklist for web page assessment and scoring is also proposed, providing an easy to use tool for medical professionals, health consumers and medical web editors.

## **INTRODUCTION**

The Internet can be a valuable resource for people seeking health information. The quality of this information is critical as it could potentially affect health outcomes for many users. Because information on the Internet is subject to constant change, up-grade and alteration, it is difficult to assess for quality and accuracy.

The wide spread installation base of the Web allows patients and their families to easily engage in looking for health information. Such searches can be quite extensive with individuals exploring many sites and 'drilling down' through numerous pages in search of what they believe to be appropriate and relevant informa-

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tion. Some studies suggest that “Internet-Positive Patients” (defined as adults who access on-line health information) are on a par with the number of people who seek out information on sporting and entertainment subjects (Internet Medicine, 1999).

Traditionally, medical information publications have been required to meet a stringent review process before being printed. Such a process involves a peer group examination of submitted papers before they are published. This has assisted the health care profession by providing a form of publishing self-regulation and an important quality control mechanism. However, in the electronic age and with the proliferation of the World Wide Web (WWW), this review process can be circumvented allowing individuals to easily publish on-line. It has been suggested that some fifty percent of medical web information does not provide a list of citations or sources (Internet Health Care Coalition—FAQ, 2000). As the number of health sites on the WWW increase it is likely that the amount of medical misinformation will also increase.

The proliferation of on-line health information poses some potential problems for medical personnel, health-information consumers and web page editors:

- For the consumer, who may include patients, parents of a sick child or individuals who are endeavouring self-diagnosis, there is a risk of accessing health information that is either misleading, incorrect, dated or commercially biased toward the use of certain products.
- For the doctor there is the real possibility that patients will present in surgery armed with web literature that needs to be interpreted with respect to quality and legitimacy.
- Proliferation of on-line health information has made the job of web page editors much more difficult. In organisations (teaching hospitals, clinics, university departments) that are involved with the dissemination of information, there is a need to have a well-documented guide to what is acceptable for on-line presentation. Web-editors, who are the information gatekeepers, need to be active in reviewing their site as well as understanding some of the ‘medico-legal’ issues of poorly ‘labelled’ information.

The following section investigates and discusses some of the information evaluation measures that can be applied to web information in general, and then examines some specific evaluation criteria with respect to medical information.

## **CURRENT EVALUATION FRAMEWORK AND ASSESSMENT CRITERIA**

Not all web information is created equally and some web information is more valuable than others. Web information quality can be gauged by factors such as

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