

# A new quality indicator for sources of health knowledge

April 3 2015, by David Bradley

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A little health knowledge can be a very dangerous thing, especially if the information comes from the Internet. Now, research published in the *International Journal of Intelligent Information and Database Systems*, describes a new quality indicator to remedy that situation.

Rey-Long Liu of the Department of Medical Informatics, at Tzu Chi University, in Hualien, Taiwan, explains how the internet has in many cases replaced one's physician as the primary source of health information, particularly when someone is faced with new symptoms. Unfortunately, there is a lot of misinformation and disinformation readily available on the internet via myriad websites and networking groups that might, at first sight, offer a cure, but may lead to a putative patient following a hazardous route to health.

Liu has developed a simple metric that can be used to analyse a document or website and ascertain just how reliable the [medical information](#) in it might be. The metric counts the number of different health or medical terms in the longest passage of a given document. In experiments on thousands of real web pages evaluated manually and with this "health information concentration" metric, Liu has been able to validate with precision those pages that have genuine medical information and revealed the quackery and ill-advised health pages. The approach is much more accurate than conventional web-ranking by search engines and precludes the need for natural-language comprehension by the system.

"High-quality health information should be focused on specific health topics and hence composed of those text areas that are large enough and dedicated to health topics," explains Liu. "The empirical evaluation reported in the paper justifies the hypothesis. The result also shows that a web page that happens to have many health terms does not necessarily contain quality health information, especially when the health terms are scattered in separate areas with a lot of non-health-related information appearing among them," he adds. "Quality [health information](#) should be written by healthcare professionals who tend to provide both detailed and focused passages to present the information."

The metric could readily be incorporated into search engine ranking algorithms to help healthcare consumers find high-quality information working alongside more conventional, general quality ranking parameters devised by the search engine companies for detecting relevance, importance, source and author of each webpage.

**More information:** Liu, R-L. (2014) 'Automatic quality measurement for health information on the internet', *Int. J. Intelligent Information and Database Systems*, Vol. 8, No. 4, pp.340–358.

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