

Quality evaluation criteria of health information resources on the internet

Pilar Roqué i Castellà. Bibliotecària del Departament de Salut de la Generalitat de Catalunya
Carme Montcusí i Puig. Bibliotecària de l'Escola d'Infermeria Universitat Rovira i Virgili.

INTRODUCTION

The Internet has become a nearly essential tool to find health information for consumers, researchers, professionals as well as health managers. This is all due to the big amount of resources and information, which are available on the net. The Press Release WHO/72 had already counted about 10,000 health websites in 2000. Nevertheless, along with this exponential growth of internet resources and information, there has also been a lack of control, which makes things difficult for users to choose the most appropriate and accurate information according to their needs.

Finding and choosing accurate high-quality information for the user has been a general concern. This has made different initiatives to come up, both from private and state institutions, with the aim of establishing some guidelines to be used as indicators for the assessment and creation of high-quality health information on the internet.

Our research study is a review of all these initiatives, which have created indicators for the assessment, organisation and identification of high-quality information on the internet.

METHODS

A review of the main proposals for quality assessment of internet health resources has been carried out. After doing/Having done a search in PubMed (medline), Lisa and Dois databases, and in Google, several published studies on the same topic have been found and their different quality evaluation tools have been assessed.

This section is not aimed at creating a comprehensive list of all current initiatives, since there is a really wide range of them. The chosen initiatives are both those which were included as a reference in most of the looked-up bibliography and those which are an external link to websites of similar centres. All these initiatives have been grouped together according to their final aim: codes of conduct, tool-based evaluation, and accreditation systems.

RESULTS

INITIATIVES TO ORGANISE AND IDENTIFY QUALITY INFORMATION ON THE INTERNET

The initiatives which are used in order to organise and identify high-quality information on the Internet can be divided into three groups:

Table I
CODES OF CONDUCT

NAME	INSTITUTION	COUNTRY	YEAR	TYPE OF ORGANISATION			DESCRIPTION	CRITERIA	PUBLIC USERS	
				NON-PROFIT	PUBLIC OR GOVERNMENTAL INSTITUTION	COMMERCIAL			INFORMATION PROVIDERS	CONSUMERS/PROFESSIONALS
eHealth Code of Ethics http://www.healthcode.org	Internet Health Coalition	United States	2000	•			9 criteria to guide development of website content	1. Candor 2. Honesty 3. Quality 4. Mutual Consent 5. Privacy 6. Professionalism 7. Responsible Partnering 8. Accessibility	•	•
Guidelines for Medical and Health Information Sites on Internet: Discipline Governing All Web Sites http://www.ama-assn.org/speical/ethics/ethics.htm	American Medical Association (AMA)	United States	2000	•			4 criteria to guide development of website content	1. Content 2. Advertising and sponsorship 3. Privacy and confidentiality 4. Experience	•	•
HI-Ethics Guidelines http://www.hiethics.org	Health Internet Ethics (HI-Ethics)	United States	2000	•			14 criteria to guide development of website content	1. Privacy policies 2. Privacy for health-related Personal Information 3. Consumer privacy 4. Sponsorship 5. Advertising of health information content 6. Transferring others, relatives, and free items or services 7. Quality of health information Content 8. Authorship and accuracy 9. Disclosure of source and relation for self-assessment tools 10. Professionalism 11. Qualifications 12. Transparency of interactions, content and authorship 13. Disclosure of limitations 14. Consumer feedback	•	•
HIM Code http://www.himcode.org	Health on the Net (HON) Foundation in Geneva	Switzerland	1996	•			8 criteria to guide development of website content	1. Authority 2. Confidentiality 3. Attribution 4. Accountability 5. Transparency of Authorship 6. Transparency of Sponsorship 7. Transparency in Advertising 8. Editorial policy	•	•
Quality Criteria for Health related Websites http://www.ec.europa.eu/health/health_jm_en_en.pdf	European Commission	European Union	2002		•		6 criteria to guide development of website content	1. Transparency and honesty 2. Authority 3. Privacy and data protection 4. Supporting information accuracy 5. Accessibility	•	•

Table II
TOOLS-BASED EVALUATION AND ASSESSMENT

NAME	INSTITUTION	COUNTRY	YEAR	TYPE OF ORGANISATION			DESCRIPTION	CRITERIA	PUBLIC USERS	
				NON-PROFIT	PUBLIC OR GOVERNMENTAL INSTITUTION	COMMERCIAL			INFORMATION PROVIDERS	CONSUMERS/PROFESSIONALS
DISCERN http://www.discern.org.uk	British Library and the University of Oxford	United Kingdom	1997		•		Questionnaire with 13 questions organized in three sections, to guide evaluation of website content	1. Is the publication reliable? 2. How good is the quality of information on treatment choices? 3. Overall Rating of the Publication	•	•
Net Scoring - critères de qualité de l'information de santé sur l'internet http://www.institut-sciences-santé.fr	Centre Santé	France	1997 (last update Sept 2000)		•		8 criteria to guide evaluation of website content	1. Credibility 2. Content 3. Links 4. Design 5. Usability 6. Quantitative aspects 7. Knowledge aspects 8. Accessibility	•	•
DMF (Organising Medical Internet Information) http://www.dmfi.org	UK Joint Information Services Committee and University of Nottingham	United Kingdom	1996		•		8 criteria to guide evaluation of website content divided in three areas	1. Content factors • scope and intended audience • authority and reputation • how the resource compares to others 2. Content of the source • coverage • accuracy • currency 3. Format of the source • accessibility • design and layout • ease of use	•	•
Working draft white paper: criteria for assessing the quality of health information on the internet http://www.imhuk.org/whitepaper/whitepaper.pdf	Authors: Andrew J. Cook, R. Swinley, J. Penney, J. Roper, H.	United States	1997		•		7 criteria to guide evaluation of website content	1. Credibility 2. Content 3. Disclosure 4. Links 5. Design 6. Usability 7. Content	•	•

Table III
ACCREDITATION SYSTEMS

NAME	INSTITUTION	COUNTRY	YEAR	TYPE OF ORGANISATION			DESCRIPTION	CRITERIA	PUBLIC USERS	
				NON-PROFIT	PUBLIC OR GOVERNMENTAL INSTITUTION	COMMERCIAL			INFORMATION PROVIDERS	CONSUMERS/PROFESSIONALS
HI Quality Guidelines on health information quality http://www.hi.org	Center for Health Information Quality (CHQ)	United Kingdom	2002		•		3 criteria to guide development and evaluation of website content	1. Accuracy • Content • Continuity • Current • Relevance 2. Clear • Appearance of text • Presentation • Content 3. Relevant • Accessible • Appropriate • Patient involvement	•	•
UFAAC Health Web Site Accreditation http://healthcare.org/healthcare	American Accreditation Healthcare's Coalition	United States	2001		•		8 criteria to guide development of website content	1. Disclosure Health content and service delivery 2. Listing	•	•
UFAAC Accreditation http://www.ufaac.org							Based on their Ethics principles	1. Privacy 2. Security 3. Accountability 4. Fairness and justice 5. Quality Oversight 6. Confidentiality	•	•
Web Medical Accredited http://www.webmed.accred.org	Collegi Oficial de Metges de Barcelona	Spain	1999			•	7 criteria to guide development of website content	1. Certification 2. Identification 3. Content 4. Privacy 5. Confidentiality 6. Control and validation 7. Advertising and other sources of financing 8. Non-conscience and responsibility	•	•

CONCLUSIONS

All these existing initiatives are not systematically implemented to health websites, not even when they are created or in their subsequent assessment. So, we should:

- establish a consensus at a health level in order to develop some general guidelines, rules and good-practice habits, which would lead to a coherent, homogeneous website development, with a single tool to define health website quality, and
- make health websites follow some minimal, essential quality criteria, as a result of an international consensus for resource assessment.

If health websites have high-quality contents, their users, professionals and health managers as well as patients will be faithful to these information sources. Users have the final say on the resource. Information managers, who build up website contents and shapes, must be aware of this reality and they should focus on ensuring excellent information, service and design.

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