

## THE E-HEALTH IN THE ERA OF DIGITAL TRANSFORMATION

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### Abstract

For many reasons that cannot be counted, the presence of health websites on the Internet has been replaced by misleading websites with false or incorrect information. Their presence has become a threat to good medical websites and threatens correct information on the Internet, and thus threatens the health and lives of users who obtain information from such misleading websites. Therefore, users must realize the relationship between the quality and source of information published on the Internet and distinguish between reliable and unreliable sources. This article attempts to highlight the role of the World Health Organization and the American Medical Association, in addition to the role of libraries, in setting standards to control the quality of digital health information, and the standards set by each organization to ensure the quality of digital health information.

**Keywords:** The World Health Organization (WHO), The American Medical Association (AMA), libraries, E-health.

### Introduction

The world is facing a problem related to the accumulation and steady increase of information in general and health information in particular available on the Internet day after day regardless of its quality or importance, or the target audience, there may also be a lack of evidence of the credibility of the information, such as the availability of the name of the editor, reviewer, or the name of the institution that provided the information.

Add to this the possibility of the lack of bibliographic data, through which it can be ensured that the information is up-to-date and that the user can trust it, and the problem increases regarding health information available on the Internet because of the danger that it can cause due to the presence of incorrect information. (1)

### E-Health Constitution

No one can deny the role that professional organizations and associations play in setting standards to ensure the quality of information in general and health information in particular that is published on Internet sites. At the forefront of these organizations is the World Health Organization (WHO), which is the primary responsible for health in the world.

The World Health Organization has set out several principles called the eHealth Code of Ethics. The aim of this code is to clarify what the Internet can do in managing the health of individuals and their caregivers around the world. These principles can be summarized in the following points: (2)

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### 1. Sincerity

- Who owns the site?
- The purpose of the site.
- Any relationship (financial, professional, or personal) that a person believes is likely to affect his ability to understand the information, products, or services provided by the site.

### 2. Honesty

- In what is presented, such as promoting health products or services.
- Clearly distinguish between the content and what is being promoted in terms of sale or service, etc.

### 3. The quality

- Display accurate, easy-to-understand and up-to-date health information.
- To evaluate the information strictly.
- Health advice issued by a qualified medical practitioner.
- The information is based on scientific studies and indicates whether it is based on the consensus of experts or the opinion of a person.
- Clarifying the issues that are the subject of disagreement and controversy.
- The presentation language is clear, easy to read, and appropriate for beneficiaries.
- The date the information provided by the site was published.
- The date of the most recent revision of the information if material changes were made.

### 4. Informed consent (based on familiarity with facts and potential risks)

- Internet sites may not use or share personal information without the person's clear consent.
- Explaining to the site user if the site shares personal information with

other parties, who these parties are, what is the purpose of that, and what personal information will be shared.

### 5. Privacy

- Prevent access to or use of personal information without authorization.
- Users can review their personal data and update or correct it.
- How websites save personal data and the duration of this preservation.

### 6. Professionalism in the field of providing immediate electronic health care.

Doctors, nurses, pharmacists, therapists, etc., health care professionals who provide electronic health advice must consider several matters, including:

- Commitment to the ethical codes that govern their profession.
- Not causing harm.
- Putting patients' interests first.
- Maintaining patients' secrets.
- Obey relevant laws and regulations.
- To introduce themselves and explain their credentials in the profession
- To clarify the limits and conditions of electronic dealing with them.
- To make sincere efforts to understand the patient's circumstances.

### 7. Sharing is based on taking responsibility

- The user must ensure that the organizations and their affiliated sites are trustworthy.
- Sites must clearly indicate to the user whether the existing link between them and other sites is aimed at obtaining information only or whether it is a form of certification of its content.

### 8. Accountability

- E-health websites must commit to clearly showing users how to contact the website owner or the responsible team.

- To provide the user with the means that enable him to provide feedback about the site and the quality of its information, products and services.
- To study complaints received from users immediately and respond to them as quickly and appropriately as possible.
- Provide users with a clear description of the policies it adopts for self-monitoring purposes.

### Principles of the American Medical Association (3)

The information obtained from the American Medical Association (AMA) has been available on the Internet since 1995, and the dissemination of health and medical information through the American Medical Association has developed since this date, as the Association has experience in advertising on the Internet and e-commerce.

The AMA Website Guidelines were developed to guide the development and maintenance of its websites. Development of these guidelines began in 1999, when a task force of American Medical Association members was organized to review existing individual guidelines and draft a single document that could provide principles that would govern the presentation and function of the AMA's four main websites. Which requires the presence of quality standards, and the initial drafting was reviewed by members of the committee, and this document was reviewed by experts in the field of publishing, government regulations, law, and medical information, and after that review, an executive committee of the AMA reviewed and approved it on April 28, 2000, and these guidelines are not fixed, It is constantly evolving.

These guidelines are applied to AMA sites, which are sites to which the AMA name is associated in any way. These guidelines are also intended to provide guidance to owners of Internet sites that provide health and medical information to both professionals and customers.

### The AMA principles are summarized in the following points

#### 1. Principles regarding content

- Definition of content.
- Ownership of the site and referring to it directly on the home page or accessing it directly from links on the home page.
- View the site.
- How the customer enters the site, the payment system and privacy.
- Clearly indicating the funding and sponsoring party.
- Quality of editorial content (content development – deposit dates and sources)
- The quality of the content is reviewed before depositing on the site by experts who did not participate in developing the content, and the site specifies their names.
- Date of update and clearly indicated and reviewed periodically to ensure that the dates of update and review are appropriate.
- Sources of editorial content (such as the name of the author, names of individuals, institutions, organizations, and the advertising product), as well as the financial sources of authors and content producers. Links: They must be reviewed before depositing and preserved.
- Roaming between sites: Sites should not prevent customers from returning to the previous site, should not redirect the customer to a site he did not want to visit, and should not interfere with other sites without permission.
- Download files and give instructions on how to download files and how to obtain the required software (such as PDF files).
- Navigate within the content and provide features that facilitate the use of sites and include a map of the site, providing feedback and customer service information, as well as the availability of a search engine or suitable tool for navigating within the site.

#### 2. Principles of advertising

- Publicity
- Digital ads must be distinguishable from editorial content, and the word "ad" must be added.
- Advertisements must appear as fixed areas or as animated advertisements.
- Do not place advertisements next to editorial content on the same topic.

- There is no interference between the advertisement and the content.
- Advertisements must include the name of the product and manufacturer.
- Advertisements must be reviewed and approved by the advertising team.

#### Sponsoring entity

Financial support must be mentioned, and this must appear on the home page, on the product cover, or on any other material used in the advertisement.

#### 3. Principles of site confidentiality and privacy

- The site's privacy policy must be linked to a link on the home page that the user can access easily, and the site must adhere to the principles deposited on its pages.
- The site must not collect names, electronic addresses, or any other personal information about the site visitor if the site visitor is not informed of the possibility of using this information.
- The names or addresses of site visitors must not be provided or published to a third party without the consent of site visitors.
- E-mail information or personal information about the access of a particular visitor and the type of information he obtained may be used by the site owner to improve the site, provided that other organizations do not share it for commercial purposes without the consent of the site visitor.
- The AMA may use e-mail addresses voluntarily provided by site visitors to update them. Site visitors who do not wish to do so should not be sent such information.
- E-mail messages sent to the site may not be secure, and site visitors should not be encouraged to send confidential information by e-mail, and site visitors should bear the risks resulting from that, as a third party could interfere, and intercept sent messages.
- The email must be without a subscription.

All credit card transactions are conducted confidentially, and credit card information is not stored or reused in any way. Only authorized persons can access credit card information.

Patients have the right to privacy, which is the right that should not be violated without explicit consent and specifying the patient's information that should not be published in print, on the Internet, photographs, or drawings without the patient's consent to publish it, as well as specifying the details that should be deleted if they are not necessary.

#### 4. Principles of e-commerce

The goal of these principles is to ensure that users and publishers of information, products, and services on the Internet can deliver efficient and secure transactions to customers, and these transactions must adhere to the AMA Principles of Confidentiality and Privacy, so:

- Reference to the site's privacy policies should be clearly visible.
- The security program must be described on the site for financial transactions.
- Users must be able to choose whether the site retains the customer's name and password or not, and users must also have a choice in the functions that would track personal information at any time.
- Reference to customer contact service information (e-mail, telephone, fax) must be clearly visible.
- Users should be able to review transaction information before execution.
- Response periods for feedback must be clearly defined.
- Neither the AMA nor AMA publications will endorse services advertised, and promotion of any product must adhere to the Advertising and Sponsor Principles.

#### Libraries and their role in setting quality standards

In addition to the important role played by professional associations in the field of health, professional associations in the field of libraries have an equally important role that no one can deny in setting several standards to help draw up a framework for the quality of information on the Internet.

Examples of these associations include the American Association of Law

Libraries, which developed a set of standards for evaluating legal information sites (4) (5), and the American Association of School Librarians, affiliated with the American Library Association (ALA), which developed a list that includes several questions for evaluating Internet sites. (6)

Libraries have an important and fundamental role in terms of information quality and helping beneficiaries access quality-assured information. Their role goes beyond these limits to teaching beneficiaries how to evaluate and select information in its various specializations.

Scheeder has identified some basic plans that, if used, will add greater value to libraries and give them a competitive advantage over other information providers. These plans are:7)

1. Setting standards for the quality of information provided by libraries.
2. Publishing this information on library websites as a means of clarification.
3. Working to preserve the digital material that has been created.

In addition to the plans that Scheeder has identified, it necessary for libraries to direct the user to (user-directed) sites, which are a type of site that works to help Internet users in choosing websites and ensuring that these sites comply with the quality standards that it specifies for the user, and information should be:

1. Reliable: official, primary source not secondary, documented.
2. Up to date.
3. Accurate.
4. Objective.
5. Provided according to the client's needs.

In Satherland 's study to evaluate online nutrition sites, she identified the criteria for content quality and usability to be the basis for the evaluation process: (8)

1. Content quality: (accuracy of content - freshness of content)
2. Usability: (navigation within the site - quality of links - aesthetics and impact)

Lotfia has been identified list of standards for the quality of health information on the Internet, which included 25 standards, focused on five main standards: intellectual responsibility, content, modernity, links, and usability. (9)

#### Cost of information quality tools

Regarding the factor of cost and benefit accruing from information quality tools, Kiley classified them into three types:(10)

1. Tools that give health websites an approval badge that expresses that the website meets the required quality standards.

2. Tools that are provided to the website user to evaluate their quality.
3. Tools that rely on Internet technology to purify and filter information.

Wilson points out that tools that give approval badges to sites that meet specified quality standards are relatively cheap for site providers and code providers. A code provider needs a small team to implement and randomly test some sites that display the badge and respond to reports of site abuse. Customers may benefit because they have already paid attention to the principles behind the badge.

As for user guidance tools, the costs for the content provider are zero and the burden of using the tools falls on the user himself. As for using Internet technology to purify health information, the costs of operating the purification tools are relatively high, due to the need for experts to review and classify the information. (11)

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