

Happy to meet you! My name is Health Technology Assessment Engine

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Background

The literature search in the field of HTA often requires a different methodology than that used to respond to clinical questions. In fact, to obtain information on the available scientific literature particularly related to the evidence based, the publishers offer many organized resources. These are primarily biomedical databases containing collections of citations and / or articles referring to the primary literature (i.e. PubMed and CINAHL) or secondary (i.e. The Cochrane Library) or third level (i.e. Essential Evidence Plus and Clin - eguide). The utilization of tools, organized in virtual aggregators, which assess health technologies, however, is less frequent.

Objectives

To obtain, in a short time through a Google based technology, with a simple and easy approach, the best information produced by reliable sources in the field of Health Technology Assessment.

Methods

The Health Technology Assessment Unit of the Azienda Ospedaliero-Universitaria di Udine has built a search engine that allows one to obtain in a short time the available information found in reports of international agencies and qualified organizations, thus avoiding searching each individual site. The engine, called Health Technology Assessment Engine (HTAE), was built utilizing Google technology and therefore it searches in the same way. HTAE is an aggregator of about 100 URLs international and national agencies whose objective is disseminating reports / evaluations and documents related to HTA. The HTAE included mainly the sites mentioned in the manuals [IHE Report: HTA on the Net: A Guide to Internet Sources of Information](#) – Twelfth Edition (by Dagmara Chojecki and Liz Dennett) and [HTA 101: Introduction to Health Technology Assessment](#) (by Clifford Goodman) and the most accredited Italian sites. HTAE can be queried in English and/or Italian, depending on the language of the document. It is reviewed and updated frequently.

Results

The search engine is distributed to participants in HTA training courses. It is currently used by 80 people, from different professional backgrounds who have given positive feedback. On the 8th of June 2012 it was posted in the SIHTA (Italian Health Technology Assessment Society) homepage. HTAE is a useful support that produces quality results by providing an overview of the available documents on the web.

Conclusions

The main benefit of using the search engine is to offer in a few seconds, a valid overview, from reliable sources, of the documents available online, both on technologies in use and on those emerging. HTAE can be queried in the SIHTA homepage www.sihta.it or can be placed on a registered users iGoogle page.

Introduction

Web databases are important tools utilized to search the scientific literature, generally produced and managed by for-profit commercial publishing companies which furnish the material needed to maintain the databases. There are a lot of national and international journals which are indexed in databases for searching in different topics. The only problem is in deciding which databases to choose to conduct one's search: there are free databases or those that require paid subscription, those based on primary or secondary literature, those who return only citations and those who give you an abstract, maybe even a full text etc.

The publishing market offers a lot of opportunity based on type of users, interests, costs and information. However, it is a complex world in which it is necessary to know the products and how to use them to obtain the best available information on the web. The databases e.g. PubMed, EMBASE, CINAHL, The Cochrane Library etc. provide useful information for HTA but generally they do not meet the requirements of finding specific reports or evaluation in this field.

The evidence shows that the utilization of tools, organized in virtual aggregators to assess health technologies, is not common.

Objectives

The present article wants to contribute to the creation and utilization of tools that quickly identify HTA documents. In fact the aim of this article is to show how it is possible to obtain in a short time through a Google¹ based technology the best information, mostly gray literature^{2 3}, such as reports, mini reports, evaluations, manuals, guidelines, communications etc. produced by reliable sources in the field of health technology assessment. It also points out how the consumer can find with this HTA Engine the specific documents without having to search and evaluate a long list of web addresses. This way of searching also saves precious time.

Methods

The Azienda Ospedaliero-Universitaria Santa Maria della Misericordia di Udine (AOUUD) established, in 2008, the Health Technology Assessment Unit as a multidisciplinary unit directed by a physician.

A clinical librarian/information specialist collaborates with this unit.

The task of the Unit is to introduce, develop and assure that the methodology for health technology assessment becomes part of the business organization. To this end the AOUUD has also organized training courses that enable employees to acquire the basic tools to produce a short report of health technology assessments. A significant aspect in the production of a HTA report is the search and evaluation of existing literature⁴ on the specific topic to be investigated, in regard to medical equipment, medical devices, drugs, diagnostics, medical and surgical procedures, care pathways, structural and organizational arrangements where health care is delivered.

In order to meet the need for finding, in a short time, reports of international agencies and documents and to avoid questioning each site and to evaluate what are the valid sources of information, the AOUUD has created a thematic search engine that lets you get the best information available on the web⁵.

In order to create the search engine the technical aspects/management that are reported below were examined. This was possible because the hospital has a biomedical service able to select and evaluate web sites, organize, implement and update the data search engine.

The major aspects that we considered are:

1. A web technology simple to use, implementable, reliable, free in the web and that can find all the addresses and/or documents after uploading them;
2. One or more tools/manuals that can give the information to add the sites into the web technology

The first support came from Google^{6 7 8} technology which allows the gmail owners to create free thematic engines.

The second tool was found in some manuals such as: [IHE Report: HTA on the Net: A Guide to Internet Sources of Information](#) – Twelfth Edition 2011 (by Dagmara Chojecki and Liz Dennett) and [HTA 101: Introduction to Health Technology Assessment](#) ed. 2004 (by Clifford Goodman).

When the manuals for extrapolating the major information and the web technology were identified, we created the find engine, called Health Technology Assessment Engine, following these steps:

- Selection of free sites which are mentioned in the manuals preferring English and Italian language
- Insertion of Italian sites of HTA and guidelines;
- Insertion of relevant sites based on personal experience;
- Exclusion of databases. This is because databases have a specific search methodology and it is better to search them singly.

The traceability of every inserted site^{9 10 11} has been verified questioning HTAE on a specific document. HTAE was started in 2008. Annual updating are regularly done.

Results

As of June 2012, the engine has 100 sites mainly in English and Italian.

It is used by about eighty people from different professional backgrounds who have attended training courses on "Best Practices in HTA" or that know the search engine from meetings and lectures conducted to popularize the method of literature search in the field of health technology assessment.

The results are presented by relevance (by default) or by data.

The 8th June 2012 Health Technology Assessment Engine was uploaded in the homepage of SIHTA - Italian Society of Health Technology Assessment with subsequent spread on the web.

Conclusions

The search engine offers in a few seconds sites and documents related to the keywords included in the search string utilizing a Google type technology^a.

Those interested can go to the homepage of SIHTA www.sihta.it or enter the engine in their iGoogle page. In the second case one needs a gmail box.

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Bibliografia

^a To search in Health Technology Assessment Engine - HTAE use Google's tips:

- The quotation marks ("...") to get the exact word or a set of words in a specific order;
- The logical operator AND (or +) to get all the words;
- The logical operator OR to obtain this or that word;
- The asterisk (*) as a placeholder for any unknown terms or endings of the word
- The minus (-) to exclude a word.

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