

Sharing literature search blocks: status and ideas for a cooperative solution

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Abstract

Sharing and reusing search blocks was the theme of the workshop session at EAHIL-ICAHIS-ICLC in Edinburgh, June 2015. Most of the participants used to save and reuse literature search blocks. Several web pages for sharing search blocks were presented. The discussion on quality issues resulted in a list of requirements for sharing search blocks; these data would contribute to a better understanding of the search and the context of it, and therefore a higher confidence when reusing it. The best format for sharing search blocks was not easy to agree upon. Future work will include setting up a network of initiators for search block sites aiming on finding good and flexible solutions for sharing search blocks.

Key words: information dissemination; information storage and retrieval; review literature as topic; information seeking behavior; professional competence.

Introduction

One of the first steps of systematic searching is finding search terms. Checking subject headings and finding relevant free text words can be challenging, because of the uncertainty of missing some relevant terms. In addition it is a time-consuming work. Many librarians and information specialists have experienced that some elements or concepts of search strategies can be reused in a search for another researchers work. A solution for sharing and reusing so-called "search blocks" could ease our work, make it more efficient, and make literature searchers more confident.

The purpose of the workshop session at EAHIL-ICAHIS-ICLC in Edinburgh, June 2015, was to gather and share knowledge about sharing literature search blocks and to find out how we can take more advantage of sharing and reusing search blocks.

Definitions

We distinguished between search filters and common literature search blocks. Both consist of search terms to retrieve a selection of records within a given concept. Filters are a type of search block developed for specific purposes e.g. finding studies within a clinical concept, like diagnosis, prognosis or therapy. Examples for such filters are those by

Nancy L. Wilczynski, R. Brian Haynes and co-authors at McMaster University (1) for PubMed and some Ovid databases. These filters mainly consist of search terms which describe the study design, making use of the fact that different clinical questions require different study design. Search filters for publication type, study type, age groups, publication period or other general topics, are often available in a database and can be used only within that specific database. Other search filters about clinical concepts are published and validated after critical assessment and can be found by searching systematically within literature databases (2).

Common literature search blocks are search strategies for a subject, not (yet) validated and published. Here, the subject consists of one main concept. These search blocks are thoroughly worked out search strategies for one subject in one or several specific database(s) developed by one or more information specialist(s). Reuse of these search blocks means either to run the same search block or run a slightly modified search strategy based on the saved search block.

Methods

A questionnaire was sent to all participants by e-mail before the workshop, asking about their experience

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with saving and reusing literature search blocks. The answers were summarized and presented at the workshop session. Based on the input from the questionnaire two questions were discussed at the workshop: One about quality issues and another about best practice.

Results of the survey

There were 22 participants in the workshop. 86% (19 of 22) of the participants responded to the questionnaire. 14 participants (63%) reused their own literature search blocks. They mainly saved search strategies in own accounts at the database providers web site, or used reference manager software, text files, their library’s website, intranet, or a local blog.

Relevant databases for sharing and reuse are shown in *Table 1*. The respondents reused search strategies for the most common medical databases, with PubMed on top of the list. Nearly the same resources were mentioned when asking which database they would like to share search blocks in; CINAHL was listed by 10 respondents.

Subjects which the participants would like to share search blocks about covered all medical and health disciplines (e.g. medicine, physiotherapy, nursing) and all hospital specialties. Participants were interested in diseases and substances, diagnostics, therapy, medical education and service improvement. Several respondents mentioned patient issues in one way or another: Patient attitudes, patient education, patient involvement, nurse-patient communication, quality of life, patient preferences, patient reported outcome measures (PROMS), length of stay.

Examples of already existing websites with search blocks for reuse

The following web sites where literature search blocks are saved or referred to, were shown as examples. The InterTASC Information Specialists’ Sub-Group Search Filter Resource (ISSG) (2) contains filters and evaluations of these filters for methods, age, animal studies, geographic areas, but also cover a few issues which could be seen as literature search blocks e.g. on quality of life, and on quality improvement. The filters are developed for one or several databases, often Medline, PubMed and Embase. The filters are validated.

Easily to find on the internet is Cindy Schmidt’s Blog of searches on concepts in PubMed (3). It is a straightforward format to find search strategies on frequently used issues in health sciences made by a group of six experienced literature searchers and about 80 followers for reusing and commenting. You are expected to reuse these search strategies with care and fair. You are also invited to give comments or join the group.

The Health Science Library Systems (HSLs) of the University of Pittsburgh has a sharing site for search strategies called Medterm Search Assist (4). It is freely accessible. Medterm Search Assist seems to focus on internal use within the HSLs. Its format is simple, easy to add terms or comments. It is small and gives no clear information about the creators of searches or term suggestions.

The Dutch working group on electronic sources and searching (WEB&Z) has been sharing search blocks for several years (5). The site is freely accessible via the website of the Biomedical Information Group, but not possible to find directly via the internet. The

Have reused search blocks in:	Would like to share search blocks in:
Pubmed 11	Cinahl (Ebsco) 10
Medline (Ovid, NHS) 6	PubMed 6
Embase (Ovid, embase.com) 5	Embase (Ovid, embase.com) 6
Cinahl (Ebsco) 5	Cochrane (Wiley) 5
Cochrane (Wiley) 4	Medline (Ovid) 3
PsycInfo 3 (Ovid, Ebsco)	PsycInfo (Ovid, Ebsco)3
Scopus 2	Web of Science 3
Web of Science 1	Sociological abstracts 1
HDAS (Healthcare databases advanced search) via NHS 1	Tripdatabase 1
Pedro 1,	Compendex 1
Compendex 1	Ovid-databases, Ebsco-databases 1

Table 1. Databases which participants have reused or would like to share search blocks in, sorted by the number of respondents.

preliminary format is a Word document with an index for searching on alphabetical terms. Each concept is given in a search strategy for one or more databases (e.g. PubMed, Medline (Ovid), PsycInfo (Ovid), Embase (.com, Ovid). Reusing is permitted under Creative Commons 4.0 International License. In the first place the site was intended for national use. The original author(s) of each search strategy is mentioned, as well as comments from colleagues in the period when the format used to be a wiki. The site will be transformed into a format which allows easier feedback and adding search blocks. Now the site relies too much on one active webmaster and the threshold to add is too high.

At the web site of The Norwegian Electronic Health Library search strategies are reported for clinical procedures (6) and for a newly established search service for clinicians (7). The overall purpose for sharing search strategies on these sites is documentation and transparency, and in case of updating procedures or other options, the possibility for reusing them. The resources searched in are limited to clinical resources as guidelines, summaries and syntheses.

Whenever the language is not English, such sites are difficult to find and use by others.

According to the common knowledge of participants of the workshop, there is no single site which summarizes or links to the mentioned sites, nor an overall web site or database combining all these search block strategies. In our daily search work, this means that we do have to check each of them separately.

Quality issues

To validate a literature search block will be a time consuming effort. Normally, we cannot expect validated literature search blocks. However, together with the search blocks there should be given information about specific issues, for a better understanding of the search and the context it was used in. In the discussion about quality aspects the following requirements of data were mentioned to store together with the search blocks:

- name of the author/builder(s) of the search block;
- date when the search has been run;
- name of database and/or provider (e.g. PubMed, Ovid, Ebsco);
- research question;
- purpose of the search (systematic review, narrative review, clinical procedure or critically appraisal topic, CAT);

- comments from the author(s) on choices which have been made (e.g. on subject headings);
- is the search strategy peer reviewed / critically appraised? By whom? When?
- has the search block been validated? If yes, how? Give the reference.

In addition, there should be a possibility to give feedback to the author(s). The search should also be indexed by comprehensive metadata on its content for easy retrieval at the site, e.g. by standardized subject headings as Medical Subject Headings (MeSH).

Regarding peer-review one recommendation was to become a member of the PRESS forum group and obtain peer-review of own search strategies (8).

Best practice

Another discussion at the workshop was about formats for sharing search blocks. The format should be easy to find, open accessible and easy for everyone to contribute and share own strategies, like a blog or a Wiki. On the other hand, for writing, a word document would be a familiar format, even if it is not easy to navigate in a long word document. Google docs and Google group was mentioned as another option.

Apart from these requirements, there should be a control mechanism that the data include the necessary information and metadata. This can be solved by a kind of structured document, a form to fill in, or a database.

The language of the site must be English.

About the reuse of search blocks by other people it was pointed out that a search block should be reused in a proper way. Author rights and citation rules should be clarified to guarantee good use and avoid misuse of search blocks.

Discussion

Almost everyone is trusting his or her own search blocks for reuse, but is uncertain about reusing the search blocks of colleagues. When sharing between colleagues has been made possible, as in the Dutch initiative (5), the colleagues are reusing the search blocks to save time and to get better quality in their searches.

All participants of the workshop want to share more and better, and are looking forward to better solutions than the locally saved search blocks or hardly to find open access search blocks sites.

At this moment the sites for sharing are very

different concerning validating or validated searches, e.g. ISSG (2), critical appraising among colleagues of literature searching specialists, e.g. PRESS (9), or within an organization with the possibility of analyzing all clinical search strategies, e.g. Florida University (10).

A better way of sharing searches or parts of searches (concepts) on international level is desirable and needed to come closer to more evidence based librarianship. However, to validate each common search block will not be practically realistic. Some level of appraisal should satisfy, e.g. checking own search strategy according to the PRESS guidelines (9).

It lies in the nature of a workshop session that there is a limited number of participants; their possibly limited common knowledge on the subject may be a limitation of this paper. However, several participants were experienced searchers. Therefore, we feel that we have got a quite comprehensive common understanding of this issue and are able to discuss and suggest further enhancements for sharing literature search blocks.

Conclusion and further work

We should not stop to share search blocks on our local and national sites. Many subjects within medicine and health sciences are not yet covered, and pointed out from several workshop participants, search blocks on patient issues were highly demanded.

At the same time, we continue working for better solutions. On several sites some solutions for better sharing are made, especially on local (institutional) or national level. To realize a solution, we should start to combine the existing initiatives by setting up a network of initiators and sites and discuss how better ways of sharing can be made possible without creating new thresholds for input and giving feedback.

We do not know the best way yet, but want to start the work to create easier and more flexible solutions together with our colleagues. Colleagues who are interested in collaboration, and do have relevant expertise, or necessary skills in ICT, or both, please get in touch.

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