# **BOOK REVIEW / CRITIQUE DE LIVRE**

Systematic Approaches to a Successful Literature Review. By Andrew Booth, Diana Papaioannou, and Anthea Sutton. London: Sage, 2012. 279 pages (soft cover). ISBN-10: 0857021354 | ISBN-13: 978085702 1359 US \$43.

The three authors of *Systematic Approaches to a Successful Literature Review* are respected researchers from University of Sheffield's School of Health and Related Research (ScHARR), a teaching and research centre known for work in health services, particularly health economics and public health. More information about the authors, their research interests, and publication histories may be found on their profile pages linked to from the ScHARR website at: http://www.shef.ac.uk/scharr/staff-pgrs/staffa-z#P.

## The specialty of searching

In the 1970s, search basics were taught so efficiently they could at least partly compensate for primitive technology. In 2013, there is still a need for searchers to be accountable for time spent searching. There is a need to plan and execute information searches systematically and to provide clear and reproducible methods to support systematic reviews and health technology assessments.

Library managers who use a practical search exercise to help short list during recruitment efforts are often disappointed when it becomes evident that otherwise qualified candidates lack an understanding that searches must be fit for purpose. LIS instructors preparing course content are challenged to differentiate between "search tactics" and "search strategies" or an "environmental scan" and a "literature search" by drawing on a patchwork of sources. Few published papers are more authoritative and relevant than Marcia Bates' articles on searching, which are now over 30 years old.

I believe that lack of attention to the development of a common, modern language about searching has hampered the abilities of the information professional to communicate about searching and to develop standard methods for the information search process.

Although only Chapter 5 focuses specifically on searching, this book could be used as a modern authoritative source to guide search practice and to develop a common language. The book defines both the role of the literature review within research and the role of the information search within the literature review. A convincing argument that the information search and review must be fit for purpose is supported with discussion that differentiates the information needs of various systematic review consumers.

It outlines a planned, systematic approach to searching using clear and reproducible methods that typically begin with a scoping search. I was particularly happy to see that while initial consideration of inclusion criteria was mentioned during the search phase, application of inclusion–exclusion criteria was firmly placed during the appraisal stage. This will be helpful in justifying why, when most search results do not appear to be relevant (my threshold is 70%), rather than "cherry pick" results expert searchers revise and (or) refine their search logic and redo the search so that methods match results.

The first four chapters provide excellent content very relevant to all information search professionals, not just those supporting critical appraisals and health technology assessments. Advice in Chapter 3 ("Planning and writing a literature review") about managing the systematic review as a project with a timeline and skills requirements will be of great value to novice systematic searchers who are uncertain of how long work might take. Chapter 4 ("Defining the scope") introduces "who", "what" and "how" as elements used to focus the literature review. Searchers can also experience scope creep; this chapter helps explain the importance of framing clear search questions as well as the role and place of inclusion– exclusion criteria.

Chapter 5 ("Searching the literature") discusses how to search the literature systematically and covers use of thesauri versus free text, logic, limits, and other search techniques. The role of the scoping search and the contributions of hand searching, citation searching, and author searching are addressed. Best approaches for different kinds of reviews are presented with examples of actual search strategies.

Bold-face type indicates terms that have been defined in the 18-page glossary. For example, the function of "pearl growing" (p. 73–74) is explained as part of the scoping search and differentiated from the use of an "index paper" (p. 133) during the synthesis process. For over 35 years I have heard these two functions labeled in various and overlapping ways without the clear explanation that this book provides. LIS instructors covering literature search and systematic review content will find many interesting facts that can be used to enhance lectures and engage students. Very helpful discussions of different kinds of literature reviews in Chapter 2 help explain the need for clear and objective searches and review methods in the age of Google.

## Shortcomings

It was difficult to find shortcomings worthy of being addressed in this review. Mention of reference management software (p. 38, p. 94) and accurate referencing (p. 214) might have been consolidated to emphasize the need for reference management planning at the earliest stages.

A book this size cannot completely address every area pertinent to literature reviews. The short section on grey literature does not reflect the growing importance of this area, particularly as a way to publish practice-based research without getting bogged down in the peer-review process. Although perhaps outside the scope of this book, there is a need for a recognized best practice for article management for systematic reviews and for research in general. Such a section might refer to sources on copyright compliance for researchers, on naming conventions to help manage digital content where reference management systems are not available, or suggest elements to look for when choosing among free reference management sources.

In addressing how to assess evidence (Chapter 6), the authors suggest that more complex skills are required. The chapter could be more explicit with respect to how these should be developed.

## Conclusion

This book meets my needs as an LIS instructor who needs to update and confirm her understanding of the systematic review process generally. It will also be helpful to information search specialists and experts who wish to communicate about their specialty. It will be of interest to LIS students who wish to develop expert search skills and understand the context of searching in support of systematic reviews. I believe it should be required reading for every new PhD student who does not have the benefit of expert search coaching. Every health librarian who searches should buy this book and read it.

#### References about searching that I "like"

- Aguilar FJ. Scanning the business environment. New York, NY: Macmillan Co.; 1967.
- Auston I, et al. Literature Search Methods for the Development of Clinical Practice Guidelines. Agency for Health Care Policy and Research, Office of the Forum for Quality and Effectiveness in Health Care, Forum Methodology Conference December 13–16, 1992. Available from: http://www.nlm.nih.gov/ nichsr/litsrch.html Retrieved 2013-01-03.
- Bates MJ. "How to Use Controlled Vocabularies More Effectively in Online Searching." Online 12 (November 1988): 45–56.
- Bates MJ. "How to Use Information Search Tactics Online." Online 11 (May 1987): 47–54.
- Bates MJ. "Information Search Tactics." J Am Soc Inf Sci. 1979;30:205–14.
- Bates MJ. "Rigorous Systematic Bibliography." RQ 16 (Fall 1976): 7–26.
- Bates MJ. "The Design of Browsing and Berrypicking Techniques for the Online Search Interface." Online Review 13 (October 1989): 407–424.

- Choo CW, Auster, E. Environmental scanning: acquisition and use of information by managers. In: Williams ME, editor. Annual Review of Information Science and Technology. Medford, NJ: Learned Information, Inc. For the American Society for Information Science, 1993.
- Guyatt G, et al. Chapter 4. Finding the evidence. p. 33–76. In: Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice. 2nd ed., 2008.
- Information Service Centre for Reviews and Dissemination, University of York. Finding studies for systematic reviews: a checklist for researchers. 2008. Available from: http://www. york.ac.uk/inst/crd/pdf/Systematic\_Reviews.pdf.
- Lefebvre C, et al. Chapter 6: Searching for Studies. In: Cochrane Handbook for Systematic Reviews of Interventions. 2008. Available from: http://hiv.cochrane.org/sites/hiv.cochrane.org/ files/uploads/Ch06\_Searching.pdf.
- McGowan J, et al. An Evidence Based Checklist for the Peer Review of Electronic Search Strategies (PRESS EBC).*EBLIP* North America, 5, March 2010.
- Medical Library Association MLA. Role of Expert Searching in Health Sciences Libraries. MLA Policy Statement. 2003. Available from: http://www.mlanet.org/resources/expert\_search/ policy\_expert\_search.html Retrieved 2013-01-03.
- Sampson M, et al. PRESS: Peer Review of Electronic Search Strategies. Ottawa: Canadian Agency for Drugs and Technologies in Health; 2008.
- Sockolow PS, et al. Health services research evaluation principles broadening a general framework for evaluating health information technology. *Methods of Information in Medicine*. 2012;51(2):122–130.
- Van de Voorde C, Léonard, C. Search for Evidence and Critical Appraisal Health Services Research (HSR). Brussels: Belgian Health Care Knowledge Centre, KCE Process notes (D2007/ 10.273/39), 2007.

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