

SEARCHING THE CONSUMER RESEARCH LITERATURE: STRATEGIES FOR GREATER GAIN WITH LESSER PAIN

WORKING PAPER

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ABSTRACT

Many consumer researchers are familiar with library catalogs and journal databases but are less aware of strategies that can improve both efficiency and effectiveness in literature searching. This paper proposes organized strategies for making the most of each resource in an integrated search effort. Both traditional sources and innovative ways to take advantage of new technology are discussed. Strategies for narrowing a search with overwhelming results, broaden a search to yield more results, and “leveraging” initial search results to identify additional relevant sources are emphasized.

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Advances in computer and database technology over the last three decades have significantly aided researchers in the field of consumer behavior. Online databases have not only eliminated much of the time that was traditionally spent searching in traditional print directories, but can also help the researcher identify a multitude of articles that might not have been identified with older technology. The economics of online searching make it possible to update searches much more quickly, and the lag time between publication and listing has been significantly reduced. Nevertheless, many users of library technology are not aware of all the features that are available to guard against missing important publications or reduce the frustration of a large number of irrelevant “hits.” This paper discusses strategies and techniques that may be used to both to expedite library research and enrich output.

Using PsychInfo to Find Articles and Book Chapters

Many consumer researchers have experience using PsychInfo, a descendant of the bound *Psychological Abstracts*, to search for published articles. Contrary to the database name, PsychInfo actually covers a broad spectrum of the behavioral sciences, including the major journals, some proceedings, certain book chapters, and dissertations in marketing and the social sciences.

Specifying Search Criteria. By default, PsychInfo allows the user to search in much the same way that one would do within an Internet search engine. An entry of one or more keywords will retrieve matching articles. Unlike such search engines, however, PsychInfo matches relevant citations based on a structured record painstakingly created by a librarian for

each article. Included in the listing of each article is information readily available in the original text, such as the title, name of authors, periodical name, and the contents of the abstract. Often more useful, however, is the librarian's identification of the standard index terms that describe an article's content. Here, the librarian has manually indexed the article against standard terms of the *Thesaurus of Psychological Index Terms* (American Psychological Association 2001). This helps identify a relevant article even if its relevance is not clear from its title and abstract.

It is useful to first run a basic keyword search based on based on terms that seem relevant. If a sufficient and manageable number of hits is returned, this is a good point to examine the articles identified. Additional articles may be identified later based on techniques described below. It is useful to start with a relatively broad search (e.g., "consumer attitudes" or "consumer affect") but not one that is overly broad (e.g., "consumer behavior").

Refining the Search. An initial keyword search may result in either a paucity of listings or too many hits to allow meaningful examination. We will consider the second problem first. Suppose that we are interested in identifying literature on the impact of a product's color on how it is perceived by the subject. Entering the terms "color perception" results in 4,516 listings. This is clearly too many abstracts to consider (and a cursory review makes it clear that many of these articles deal with such topics as neurological impairment in rats and are clearly irrelevant).

Based on our specific area of interest, we might decide to limit the articles to those dealing with affect, evaluation, and categorization. PsychInfo allows one to use Boolean logic to allow for this. On the PsychInfo screen, our 4,516 listings will appear as search #1. We now enter into the search field:

color perception AND (affect OR evaluation OR categorization)

or, alternatively, we identify the search listed on “color perception” listed as search #1 and use the shorthand

1 AND (affect OR evaluation OR categorization)

For readers who need a refresher on Boolean logic, a brief discussion may be found in Appendix 1.

In the above illustration, an article must deal with both the topics “color” and “perception” specified in the first search and address one or more of the topics specified with the parentheses. Narrowing our search in this manner reduces our yield to a more manageable list of 229 articles.

We can also narrow our results by specifying topics that an article should *not* address. Suppose, for example, that we find that a lot of the color articles identified deal with the “gray-scale method.” If we further wish to limit our listings and conclude that articles dealing with this topic are likely to be irrelevant, we can now enter

color perception NOT (gray-scale method)

Leveraging the Search to Identify More Articles. Examining the standardized “key concept” descriptors within all or some of the article listings offers an opportunity to expand the search to include key-words that we had not previously identified. This process is known as “snow balling.” For a chosen article, click on the “Complete Reference” link below the article citation and inspect the “key concept” terms toward the bottom of the listing.

A search based on originally selected keyword terms may have resulted in a disappointing yield of articles. We may thus want to expand our search. Alternatively, we may suspect that there are additional relevant articles that should be found. Since, in our present case,

we constrained our search to articles that explicitly relate to at least one of three concepts *in addition* to color perception, a number of relevant articles may have been missed (“false negatives.”) Whether to augment a meager yield or “recover” articles “lost” in narrowing a search, “snow-balling” can be used to leverage current hits into a more complete list.

In searching for the color terms, for example, many of the articles initially identified list the descriptor of the “Munsell” system. To identify all articles that address a newly discovered descriptor, the hyperlink found on the term can be clicked to get all articles covering this topic, regardless of context. Alternatively, the descriptor can be used in combination with others—e.g., “color AND hue AND Munsell.”

Occasionally, subject descriptors will change or be expanded. This may happen when theoretical advances cause certain terms to be adopted in the literature (e.g., “online communities”) or when a traditional term is no longer thought to be appropriate (e.g., the term “disabled” has replaced the older term of “handicapped.”)

Some PsychInfo records contain a complete list of the article’s references. Scanning the references of a promising article will not only identify other articles that may be relevant but not captured by identified search terms, but may also reveal references to working papers or articles in press.

Tracing Article Authors. Each article record contains hyperlinks to other articles written by each co-author. Pursuing these links may reveal additional articles from the respective author’s research stream that may be relevant.

Identifying Other Articles Citing a Relevant Article. Some implementations of PsychInfo—depending on whether the institution has chosen to pay for this service—integrate the *Social Sciences Citation Index (SSCI)*. This database identifies each article within the

included set of journals that cite a previously published article. Such references to citations may reveal criticisms or extensions of the works or may point to a new directions in the literature stream. This feature, of course, will also come in very handy for promotion and tenure candidates who need to identify where their work has been cited!

The complete search process is diagrammed in Figure 1.

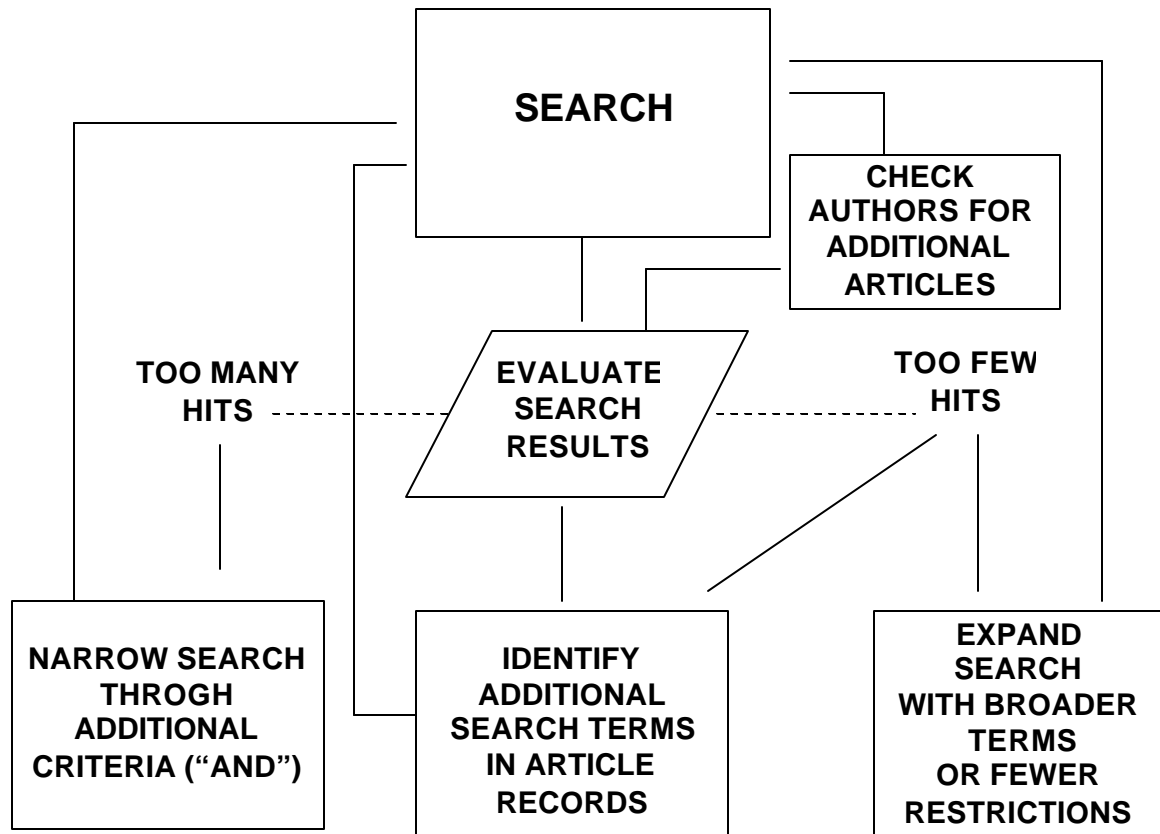


Figure 1
The Article Search Process

Reed and Baxter (2003) provide more detailed examples of searches for specific terms.

Accessing Articles. Unfortunately, PsychInfo normally does not carry the full text of articles. Many libraries today subscribe to electronic versions of many academic journals, and in some implementations, it may be possible to link to such electronic journals directly from PsychInfo.

Accessing Dissertations. Interesting dissertations frequently come up in PsychInfo. Often, these have extensive literature reviews. Many dissertations, however, are either never published or are still going through the review process. Libraries rarely carry other institutions' dissertations and some do not offer access through interlibrary loan. However, dissertations can be purchased from University Microfilms at the University of Michigan at <http://wwwlib.umi.com/dissertations>, with many available for quick download. For dissertations completed since the late 1990s, it is often possible to get free and immediate online access to the first twenty-four pages, allowing one to examine relevance more closely.

Popular press articles

Library Databases. Popular press articles may be useful in finding examples of consumer issues or case histories. Databases available to search journals, newspapers, magazines, and the wire-services normally use an interface similar to that of PsychInfo. University libraries vary a bit in the database subscriptions they hold. Today, most universities have access to Lexis-Nexis Academic, a scaled down (but still quite comprehensive) version of the commercially available form. ProQuest is also popular. ABI/Inform and Factiva (formerly Dow Jones Interactive) emphasize business publications, with ABI/Inform carrying a number of scholarly journals as well. Although not as many university libraries subscribe to this, the Business & Industry database carries articles from a number of trade journals not available in many of the other databases. These may report on industry sponsored research. Although trade journals and articles vary significantly in quality and may carry the bias of a sponsoring organization, but often carry elaborate articles on research findings. An additional benefit of Business & Industry is its powerful search features. Extensive indexing done by librarians allows one to search for articles that have explicitly been identified as addressing "market research," an "advertising

campaign,” or a number of other marketing concepts. It is also possible to narrow down articles by industry.

Free Search Engines. Several search engines now offer free search of and access to many newspaper articles published within the last several weeks. One potential problem is that such systems may result in a very large number of notifications of irrelevant articles. Therefore, it may be useful to specify a very narrow search criterion. To try this, go to <http://news.google.com> and click on “Advanced news search.” Some ways to limit the number of hits are:

1. Specify in the “Find results with all these words” several terms that must all be present—e.g., “color consumer psychology.”
2. Specify an entire phrase in “Find results with the exact phrase”—e.g., “price sensitivity”—so that words must then appear consecutively.
3. Exclude articles that are likely to be irrelevant by specifying disqualifying words in the “Find results without the words” field—e.g., “stock securities investment” when searching on consumer response to price.

A nice feature offered by Google News is the ability to sign up to receive e-mail notification when articles matching specified criteria appear. A researcher doing work on advertising recall, for example, could specify articles that contain the phrase “advertising recall” *and* the term “marketing.” To avoid a large number of alerts, it is important to specify searches narrowly in order to constrain articles to those more likely to be relevant. To sign up for these alerts, first do the search for the terms and then click the “New! Get the latest news on [topic] with Google News Alerts” link.

Proceedings

Most proceedings are not indexed in PsychInfo. Papers from *Advances in Consumer Research*—all the way back to volume 1— are, however, available at Association for Consumer Research (ACR)'s web site at <http://www.acrweb.org/> . Click on “Proceedings Online” to search author, title, or other fields, or from the entire text of the article. ProceedingsFirst, a database available at some libraries, allows the user to search for proceedings from numerous conferences. The listing formats vary somewhat, with only the name and location of the conference being listed for some. For others, a list of at least some articles and authors may be available. In some implementations, a “Find Full Text” feature is available, allowing the user to check if the proceedings are available in print at the institution’s library or through an electronic database. The ProceedingsFirst database may be useful in identifying conferences at which relevant work has been presented. It may then be possible to use the methods discussed below for finding working papers. PapersFirst is an alternative database holding papers presented at conferences but not necessarily carried in proceedings. The Educational Resources Information Center (ERIC) database, parts of which can be accessed for free by anyone at <http://www.eric.ed.gov/>, also contains some proceedings and conference papers, but these relate mostly to education and educational psychology.

Working Papers.

Since working papers are by definition not published, finding these can be very difficult. A small number of papers in very developed form are available from the Marketing Science Institute (MSI), but these papers represent only a small minority of papers in existence. In truth, it seems that it is often most practical to post an inquiry about working papers on the American Marketing Association (AMA)'s listserv Elmar (see www.ama.org/elmar) or on the Association for Consumer Research (ACR)'s listserv ACR-L (see <http://www.public.asu.edu/~tbristo/ACR-L.htm>).

Using some ingenuity, however, it may be possible to find certain working papers that have been posted on the Internet using the Google search engine. At <http://www.Google.com>, click on “Advanced search.” You will now be given some very successful ways to pinpoint online documents that are more likely to be useful “hits:”

1. The field “Find results with the exact phrase” will allow one to search for papers using a string of words likely to be found in the paper. Such “target phrases” might be:
 - a. An important concept term used predominantly in the relevant literature (but by no sane person academia). You can either use the “Advanced Search” feature to specify a contiguous phrase or enter the phrase in quotes. Note: Spelling of certain words differ between British and American English. In such cases, it may be necessary to run a search with each spelling.
 - b. A part of the title of a paper that would be likely to be cited. If there is a frequently cited paper within a particular research stream, searching for its title—specified as an advanced search phrase or put in quotes—will weed out many if not most irrelevant documents. For example, a researcher working on pioneer

brands might search for citations to Carpenter and Nakomoto's (1989) landmark article by searching for the title phrase "Consumer preference formation and pioneering advantage."

2. If relevant papers are highly likely to have been written by American academics, you may want to enter ".edu" in the "Domain" field. This, of course, will exclude papers from non-U.S. universities, so you may want to impose this limitation only if an overwhelming number of hits is found.

Books

Computerized catalogs of library holdings differ somewhat between institutions. Academic U.S. libraries generally use the Library of Congress (LC) system of book subject classification, assigning a letter and number classification (e.g., "HF5415.32 .M66 2004") to the book based on the primary topic area. Most catalogs allow the user to search by fields such as author, title, and keyword, and subject heading. A search under a "subject" term will return a more focused list of books specifically indexed by a librarian under standard LC search terms. The "keyword" search may be used to identify books that use a word or phrase of interest anywhere in the record, whether this occurs under subject terms, in the title, chapter contents, or abstract. Keyword searches may, however, identify a large number of irrelevant works that happen to use a the search term, possibly in a different context.

Because many books address more than one narrow subject area, several books that appear to deal with the same topic may have widely different LC classifications. To find relevant books that may have been missed in an online search, a low-tech perusal of shelf areas in the vicinity of a relevant book's call number may be tried (Mann 1994).

Recently, Amazon.com has added a feature that allows users to search for key words in the full text of books from participating publishers. This feature may uncover some books that have not been captured by the library index terms. A search in Amazon may, of course, also reveal some books that are not in the library's holdings or may alert one to a newer edition of a book held in the library. Amazon listings may also contain useful information such as a table of contents and/or a sample chapter.

Government Documents

The U.S. government compiles a tremendous amount of information on various topics. This ranges from economic and health data to evaluations of foreign markets. Although the research behind government publications is usually intended to serve practical needs rather than assessing theoretical questions, a great deal of information can be obtained about demographics, consumers, and market characteristics. For marketers, many topics explored—such as income levels, consumption habits, activities, and income levels—can serve as quite relevant background. A good place to start for overall statistical information is the *Statistical Abstracts of the United States*, a compilation of tables detailing a wide range of facts and figures. Population, health, labor force, and income statistics may be of greatest interest. Tables carry source references, which may be a good way to find a relevant government report. Sometimes, the context in which the information was collected must be scrutinized to ensure that an appropriate population was surveyed. A researcher studying the challenges faced by tall shoppers, for example, will find that the table of height distributions of Americans is based on military personnel who may differ systematically from the civilian population.

The U.S. government publishes on a number of reports on various topics—e.g., the assimilation patterns of various immigrant groups in the U.S. These reports are often not indexed in the regular library book catalog and must be found in the Government Documents section of the library. Because of the complexity, vast scope, and large holdings, it is often advisable to consult a government documents librarian who specializes in this field. Government documents are cataloged using the SuDocs system, a call number format similar to the LC numbers for general books. Your institutional library may have a catalog listing government documents available either on site or in electronic form. An index to government publications released since 1994 is available at <http://www.gpoaccess.gov/cgp/index.html> . Individuals doing cross-cultural or international research may also find country reports and analyses of different country markets at <http://www.stat-usa.gov/> . For example, those interested in the diffusion of innovation, identity formation, or self-expression may find the extensive report on the Chinese cosmetics market of interest.

A list of some additional government document resources has been compiled by the University of Texas at Austin at <http://www.lib.utexas.edu/government/index.html> .

Topic Specific Research Strategies

Keeping Up With Specific Journals. One obvious way to be keep informed of the contents of relevant journals is to subscribe. The contents of some journals are also published in advance on listservs such as Elmar and the ACR list. Some publishers, such as Sage Publications, now allow interested individuals to sign up for e-mail notification of the contents of upcoming issues. Those broadly interested in the behavioral sciences may be interested in *Psychscan: Applied Psychology*, a quarterly publication available from the American

Psychological Association that carries abstracts of recently published journals such as the *Journal of Applied Psychology*.

Scales and Scale Validity Issues. Two series of marketing scales handbooks—one published by the American Marketing Association (AMA) and another by Sage Publications—carry information about scales used in published articles on marketing research. The AMA's *Marketing Scales Handbook* is now out in three volumes (Bruner and Hensel 1994, 1996; Bruner, James, and Hensel 2001). These volumes not only identify scale items (where available), but also discuss reliability, validity measures, and subject demographics in the original publication and in subsequently published adaptations. Netemeyer, Bearden, and Sharma (2003) and DeVellis (2003) discuss issues in scale development.

Demographics. Numerous sources of information on demographics are available. These are mostly designed for commercial or popular use, but useful information may be available for understanding characteristics and statistics of consumer use of product categories of interest or consumption settings. The *Statistical Abstracts of the United States* and other government information are discussed in a separate section. Some times, an inexpensive and very practical information source is a simple almanac. Certain commercial guides may be of interest:

- *Best Customers: Demographics of Consumer Demand*, 2nd ed. (2001), Ithaca: New Strategist Publications lists consumption rates of consumers grouped by various demographics and media habits.
- *Household Spending: Who Spends How Much on What?* (2003), Ithica, New Strategist Publications, catalogs spending both by demographics and within several product categories.
- *The Lifestyle Market Analyst* (annual editions), Wilmette, IL: Standard Rate & Data Service, details consumption nationally, by region, and by segment.

New Strategist Publications offers a large number of demographic directories breaking consumption, spending, attitudes, and behaviors by age, gender, and ethnic group. Publications

spend topics such as health care, travel, food, and other product spending. For more information, see <http://www.newstrategist.com/booklist.cfm>.

The University of Florida has compiled an extensive list of demographic volumes at <http://web.uflib.ufl.edu/cm/business/books/demobks.htm>. It can be dangerous to rely on Internet sites run by individuals or organizations whose quality control and agenda are not clear. However, the Peabody Library at Vanderbilt University has put together a nice list of government demographics sites at <http://web.uflib.ufl.edu/cm/business/books/demobks.htm>.

Handbooks. The *Handbook of Consumer Behavior* (Kassarjian and Robertson, eds., 1991) is, unfortunately, out of print and out of date by now. However, Earn and Kemp (2002) edit a more popularized compendium of consumer research and economic psychology.

Several other handbooks may be of interest. Hogg and Cooper (2003) edit the *SAGE Handbook of Social Psychology*, a volume containing entries on numerous subtopics by researchers within the field. Spielberger (2004) edits a three volume *Encyclopedia of Applied Psychology*. Wyer (2004) reviews the literature on social cognition. Petty (2004) compiles an exhaustive 900 page collection of readings on attitudes and attitude change. Tellis (2003) reviews advertising research. De Mooji (2003) reviews cross-cultural issues.

Literature Search. Reed and Baxter (2003) discuss in detail methods of library research for psychology. Search methods are illustrated with extensive examples.

Conclusion

Literature search in consumer behavior is a never ending process that requires frequent updating. This article has described a number of methods that, in combination, can provide the foundation for an effective and efficient literature search strategy. All methods, of course, depend on individual creativity and innovation for maximum effectiveness. Future technological advances may bring about additional opportunities for improved searching.

APPENDIX 1 BOOLEAN LOGIC

Boolean logic is used to describe inclusions or exclusions within sets—in our case, sets of concepts. The basic connectors are

- AND, which requires that both of two sets of conditions be met.
- OR, which requires that at least one of several sets conditions be met.
- XOR, which requires that one or the other sets of conditions, but not both, be met, and
- NOT, which requires that a set of conditions not apply.

Different Boolean terms can be used in combination—e.g.,

color AND hue NOT Munsell

requires that a record address both “color” and “hue” but does not address the concept of “Munsell.”

Complex combinations allow the logic to be divided into segments with an explicit definition of precedence much the same way that, in the absence of parentheses, sums are

multiplied before terms are added in arithmetic. In Boolean logic, parentheses, too, are used.

For example, the term

(affect OR perception) AND advertising NOT (recall AND attitude)

first evaluates the contents within the parentheses and then parses with the rest of the terms.

That is, the article must deal with either affect and/or perception—just one of those concepts is enough—while at the same time it relates to advertising and does *not* address both recall and attitude (but it is acceptable if only one of the last two terms are covered).

In PsychInfo, a count of articles of each recently run search is listed and identified by a number. Rather than spelling out the search again, it is possible to refer to the number of the search. If we have already have run a search for color and affect and attitude and this is identified as search #1, we can specify

1 AND advertising

to narrow down the search to only those articles within the original search that also address advertising.

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