INTERNET LEGAL RESEARCH SERIES: BASIC POWER SEARCHING

Penny A. Hazelton
Ana Hemmens
Mary Ann Hyatt
Nancy McMurrer

Special thanks to Peggy Roebuck Jarrett, Linda Kawaguchi McLane and Cheryl Rae Nyberg for their contributions creating the original materials for this CLE course.

Gallagher Law Library
University of Washington School of Law
1100 NE Campus Parkway
Seattle, WA 98105
206-543-6794
12/2001
INTERNET LEGAL RESEARCH: BASIC POWER SEARCHING

Table of Contents

Faculty Biographies .................................................. 1
The Research Process .................................................. 2
Web Browser Fundamentals ........................................... 29
Primary Law Sources on the Web .................................... 35
Fee-Based Sources of Primary Law on the Web .................... 45
Directories, Search Engines, the Deep Web, and Portals ........ 55
Constructing a Search .................................................. 57
Evaluating Sources Found on the Web ............................... 77
Effective Searching on Your Own .................................... 82
Appendix .................................................................... 96
INTERNET LEGAL RESEARCH: BASIC POWER SEARCHING

Outline of Workshop Session

1. Introduction
   • Goals and Objectives
2. The Process of Legal Research
   • Systematic Plan
   • Romhauer Method
   • Choose the Best Tool for the Job
   • Planning is Very Important
3. Basics of the Internet
   • Use Federal Statutes, Cases, and Administrative Law to Demonstrate Browser Functions
   • Use Legal Directory
   • Discuss Constructing a Search
   • Discuss Evaluation of Site and Materials Located
   • Locate a Specific Document
   • Locate a Document by Subject
   • Updating Methods
   • Downloading and Printing Options
4. Fee-Based Sources of Primary Law
5. More Browser Basics
   • Security - Cookies
   • Caches
   • Portable Document Format (PDF)
6. From Directories to Search Engines
   • Definitions
   • Practical Advice
7. Constructing a Search for Relevant Results
   • What is a Word?
   • Natural Language or Plain English Searches
8. Legal and Non-legal Search Engines
   • Comparisons
9. Evaluation of Websites
   • Reliability
   • Accuracy
   • Authority
   • Currency
   • Coverage
10. Practice with Optional Questions
11. Conclusion
    • Strengths and Weaknesses of Legal Research on the Web
    • Strategies for Successful Legal Research on the Web
INTERNET LEGAL RESEARCH:
BASIC POWER SEARCHING

Faculty

**Professor Penny A. Hazleton** is the director of the Gallagher Law Library at the University of Washington School of Law. She has been teaching legal research for over 20 years to law students, faculty, and others. She co-authored the *Washington Legal Researcher's Deskbook*, 2d and is the principal author of *Computer Assisted Legal Research: The Basics*. Professor Hazleton earned her BA from Linfield College, her JD from Lewis and Clark's Northwestern School of Law, and her MLS from the University of Washington. She has worked in both the print and electronic legal research worlds and finds that the power of integrating these two systems can result in a much better quality research product.

**Ann Hewins** earned her undergraduate degree from the University of Illinois, and her law degree and Master of Science in Library Science degree from the University of North Carolina. She has worked as a reference assistant at the University of North Carolina Law Library, the Law Library of Congress and as a health policy analyst for a state government agency. She enjoys the challenges of teaching the online and traditional legal research skills to members of the legal community and the general public.

**Mary Ann Hyatt** received her BA from Rhodes College, her librarianship degree from Emory University, and her law degree from the University of Washington. She has been teaching research skills in academic libraries since 1980. Ms. Hyatt coordinated reference and research services at a large Seattle law firm before coming to Gallagher Law Library as Assistant Librarian for Access Services in 1996. She also serves on the King County Law Library Board of Trustees.

**Nancy McMurray** has a BA degree from Furman University, a JD degree from the University of Virginia, and a MLS (Law Librarianship) from the University of Washington. She has practiced law with a government agency, worked as a reference librarian in a Seattle law firm and, since 1994, has been a reference librarian at the University of Washington Gallagher Law Library. Ms. McMurray teaches legal research in the first-year basic legal skills course as well as in upper level law school courses; she has also conducted Internet training classes for students, faculty, and staff. She is one of the authors of the *Washington Legal Researcher's Deskbook*, 2d (1995). Experience has taught her that integrating the Internet with the more traditional legal research tools leads to more efficient and effective results.
The Research Process

by Penny A. Hazelton
I. Introduction

Do you have a strategy or framework for research projects? Or do you jump into sources without thinking about or analyzing the rationale for using a particular tool? Technology has created and enhanced many more tools for legal research than we could have imagined even ten years ago. Selecting the best research tool for your problem is no longer a matter of using the only resource published.

Designing a research process or framework is one of the most important skills a legal researcher can develop. Given the importance of being efficient, high quality research, a researcher must learn to fit legal research problems into a strategic framework. Only then will the researcher have the structure necessary to work efficiently and effectively through the mass of legal information available today.

Consider these staggering numbers: Over five million cases have been published in the United States and over 100,000 judicial opinions are issued each year. Nearly 20,000 laws are passed every year amending and adding to the hundreds of thousands of legislative acts that are already in force. No one has even tried to estimate the number of administrative regulations proposed and finalized every year nor the quasi-judicial work handled by administrative agencies on an annual basis. Add the secondary literature—thousands of pages published in monographs and other books, as well as the publication of over 1,000 legal journals and periodicals. These numbers alone suggest the need for every legal researcher to have a plan.

The volume of legal material continues to grow ever larger but so has the number of ways you can access this information. For example, in Washington state there are more than a dozen sources that contain the current statutes of Washington: the officially published Revised Code of Washington (in print, CD-ROM, CD Law, LexisNexis, Westlaw, and on Internet websites such as the official Washington legislative site, Loislaw, Findlaw and LexisONE), West's Revised Code of Washington Annotated (in print, CD-ROM, and on Westlaw), and the Annotated Revised Code of Washington (Lexis Publishing) (in print, CD-ROM, and on LexisNexis). How many of these products do you know about?

No research project can be competently answered using just one format of information today. The legal researcher of the 21st century must be able to select the right tool in the right format for each project. An understanding of the characteristics—strengths and weaknesses—of each source will help researchers find the best tool for the job.

II. Formats of Legal Material

A. Electronic Legal Information Systems

Legal materials are available in two quite different formats—print and electronic. There are two primary types of electronic legal information tools: online systems (like those found on Internet websites, Westlaw, or LexisNexis) and CD-ROM. LexisNexis and Westlaw, developed in the 1970s, provided the first powerful access to legal material in electronic form. Primarily through databases that supported the complex needs of practicing attorneys and an aggressive and virtually free marketing program to law students, Westlaw and LexisNexis dominated the electronic access to legal information for more than two decades. Powerful and sophisticated search engines; access 24 hours a day, seven days a week; strong customer support; comprehensive, historical, and up-to-the-minute databases; and a very broad range of law and law-related materials made these systems the Cadillac of the electronic legal information marketplace.

CD-ROM (Compact Disk, Read Only Memory) products were introduced at the beginning of the 1990s. The CD-ROM technology stores data on disks that can be read on the user's own computer. These products flourished particularly before the Internet explosion of the mid-1990s as a less expensive alternative to Westlaw and LexisNexis. Because the CD-ROMs have legal information copied onto them, they are never current (similar to print sources). However, they share the powerful search capability of electronic
tools. The continued viability of CD-ROM legal products is in question as even less expensive and more sophisticated electronic products crowd the Internet marketplace.

The Internet became an important resource in the legal researcher's arsenal in the late 1990s when the federal government and most state governments put new laws, court opinions, rules and regulations, and administrative decisions on official government websites. The parallel development of free Internet sites containing much legal information challenged the legal researcher by adding another level of information resources to access in solving legal problems. Even Westlaw and LexisNexis added Internet interfaces to their already well-developed software versions. Recent development of hypertext links (the ability to click on a citation or other part of a document or directory and be taken to that document) truly bring electronic resources to the user's fingertips.

Despite the differences between online systems and CD-ROM legal materials, these electronic tools have several characteristics in common. First, with a strong and powerful search engine, the user can access virtually every word in the documents that are in the database. Second, the documents are usually available in full text. That is, once specific documents (opinions, rules, statutes) are identified through user-created computer searches, the user can skim, read, or print out relevant documents. There is no longer a need to go to a library to find various volumes of codes or reporters in order to read a statute or case! Third, appropriate hardware and access to a telecommunications line (for online systems only) is essential. Fourth, the user can access these systems anywhere there is a personal computer and an Internet connection. Fifth, material in electronic form can be easily cut and pasted from one document to another.

Despite all the wonders of the legal information systems that are in electronic format, there remain reasons not to completely abandon print tools.

<table>
<thead>
<tr>
<th>Strengths of Print Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>easy to read</td>
</tr>
<tr>
<td>irrelevant material easily eliminated</td>
</tr>
<tr>
<td>hierarchically arranged tools easier to use because of relationship to surrounding material</td>
</tr>
<tr>
<td>legal concepts are well covered</td>
</tr>
<tr>
<td>procedural questions</td>
</tr>
<tr>
<td>analogies are easier to locate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strengths of Electronic Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>may be very current</td>
</tr>
<tr>
<td>access every word with powerful search engines</td>
</tr>
<tr>
<td>entire document at your desktop</td>
</tr>
<tr>
<td>convenient access</td>
</tr>
<tr>
<td>user is the indexer; retrieval more flexible than print</td>
</tr>
<tr>
<td>access with partial information is great</td>
</tr>
</tbody>
</table>

B. Print Tools

Primary legal information is still published in print form as it has been for over a century. Court opinions, legislative enactments, agency rules and decisions, constitutions, and chapter are found in print tools that have been refined over the years - reporters, daily agency registers, annotated codes, administrative codes, and looseleaf services.

The publication of secondary sources in print does not seem to have slowed down. The number of academic law reviews published in print is now over 525; major scholarly treatises are revised and updated regularly; and finding tools such as American Law Reports (ALR), the digests, and legal encyclopedias are still being published.

Of course, most primary legal information is also found in electronic databases. Commercial and Internet sources have rich current and historical material. Recently, many secondary sources such as legal encyclopedias, looseleaf services, state practice materials, and the West digests are making their way into electronic form, usually as fee-based, not free, services.

Why should we even think about using print legal research tools? Print tools are out of date as
soon as they are published. You have to locate and go to them; they are not at your desktop. Print tools can be cumbersome to use and if you have limited information, you may not find what you seek.

On the other hand, print tools have been refined for years and provide users with several features that make their use quite appropriate in certain circumstances. First, they are easy to read. Second, a lot of irrelevant material has been automatically eliminated through the use of an index or table of contents. Third, legal materials organized in a hierarchical manner (statutes, administrative codes, law review articles, treaties, looseleaf service, and the Restatements) are easier to use in print since reference to previous and later sections is almost always necessary. Fourth, human creation of indexes means that most legal concepts are very well covered and accessible.

III. Integrating the Use of Print and Electronic Tools in Legal Research Projects

Selecting the right research tool in the right format can be a challenge. However, if you know the characteristics of the tools available as well as their individual strengths and weaknesses, your research project will be more efficient and the advice you give your client of higher quality. Before selecting a research tool, see if you can answer these questions about it:

• What is the coverage of the tool?

Do the cases go back to the first volume of reports or does the database just contain cases from 1945? Does the Washington Administrative Code contain the most recent changes published in the Washington State Register?

• What are the strengths and weaknesses of the tool?

What is the best use to make of it? Will legal concepts be easy to locate? Can I find a case with facts just like mine?

• What result do I need?

How quickly do I need the answer? Do I need comprehensive, careful research or just a quick look at the statute?

• What is your experience with the tool?

Do you know how to effectively use the database? Is that looseleaf service a mystery?

• What is your general understanding of the area of law to be researched?

A practitioner with expertise in patent law will at least start with different tools than the neophyte patent researcher.

• What will be the cost of using this tool?

Can the client afford your time using the expensive legal information systems or can you use a free or less expensive resource in less time?

The strengths and weaknesses of tools will vary with your sophistication in using them and your access to them. Some general rules to follow when deciding what format to use appear in the box on the opposite page.

IV. Strategies for Effective Legal Research

There is no one right way to approach a research project. Every project will be different and even two people working on the same project will use different methods. However, every legal researcher will
perform more efficient and high quality research with a plan or strategy. See Appendix I, Research Process: Comparison of Major Legal Research Texts, for ideas generated by several legal research scholars.

Legal research courses taught at the University of Washington School of Law have modified and adopted the Rombauer framework to encourage students to learn a structured approach to the research process. While the Rombauer method is not the only possible framework, it provides a very workable model to illustrate the process by which legal research problems are solved.

A. Rombauer Framework

To explain how a good framework can help produce a better legal research product, the Rombauer method will be used to illustrate a way of thinking about a research plan. Undoubtedly you already perform many of these steps, but may not do so consciously. Conscious thinking about research choices and avenues to explore will improve the efficiency and overall quality of your work product.

Try the Rombauer method for your next research problem and see if a planned approach can give you confidence and a better result.

Professor Rombauer's method is more fully explained in her book, Legal Problem Solving, 5th ed. (West, 1991). In this classic text, Professor Rombauer weaves the primary tasks of analysis, research, and writing into an integrated whole. Legal analysis, legal research, and legal writing are all skills identified and analyzed by the MacCrone Report (cited in the Introduction to this book). Isolation of the research component permits concentration on this one skill. But do not forget that research is part of a larger, coherent set of problem-solving skills.

The five steps in the Rombauer approach are described below.

1. Preliminary Analysis

Preliminary analysis is undoubtedly the most important step in solving any legal research problem. You do not need a law library at your fingertips to conduct this portion of your work. Writing down all of this information can help you focus and plan your work. Your preliminary assessment of a problem should include at least the following steps:

- Identify relevant and material facts
- Select appropriate words and phrases to use as search terms
- Identify preliminary issues and formulate search query
- Identify the jurisdiction(s) involved
- Identify what you know about the area of law.

What are the relevant facts of your research problem? If you are unfamiliar with the law in this area, will you be able to identify material facts? Do you know all of the important facts or do you need additional information? Arm yourself with the facts, as many as you can, before attempting your research. Good factual development can go a long way toward a high quality research project, completed with maximum efficiency.

Knowing the material facts of the problem will help you develop the words and phrases needed to conduct research. Whether you use traditional print research materials or electronic legal research systems, your development of a broad list of words and phrases is crucial. Some researchers use the TARP rule — things, actions, persons, places. Some like the TARP rule — things, actions, relationships, places. Use whatever method you like, but create a list of words and phrases that might be used in documents discussing the legal issues in question. This list should contain specific and general terms.
as well as synonyms. Also list legal concepts that you think might apply.

Next, in analyzing tools, material facts, words, and phrases, try to state the issue(s) you must resolve. Expressing the issue in written form can be helpful, even at this early stage. Often the issue changes as research progresses and must be reformulated. But having the issue expressed in writing can help keep your research on track and remind you of the questions at hand.

After identifying the issue(s), query formulation is the next step. The legal researcher needs to identify the words or phrase that, when combined, are likely to yield the most helpful information. In other words, formulate a search query. This process will usually involve selecting search words most likely to yield results.

Whether the researcher is using electronic or print tools, the ability to combine the right words and phrases into an appropriate search query is extremely important. Does the researcher use the most general or most specific words that can be identified? For example, is the best term tort or false imprisonment; contract or specific performance? How do you decide whether to use fact words (like banana peel, swimming pool, or widget) or legal concepts (like tort, attractive nuisance, or offer and acceptance)?

The choices made by the legal researcher at this juncture are crucial. If the search query terms selected are too general, the risk of being overwhelmed by too much irrelevant information is very great. If the search terms selected are too specific, the researcher may find nothing relevant at all and miss useful material. The skill needed to formulate the search query for any research problem should not be underestimated. Careful thought should go into this process, particularly if full-text electronic tools will be consulted.

Computer-assisted legal research sources offer several options. First, will you use a Boolean or natural language query? Boolean searches are created by combining words with connectors. The most common connectors are and, or, within a number of words (in or within) within the same sentence(s), and within the same paragraph(s). A good Boolean search using the correct words puts the legal researcher in the driver's seat. The user controls the search and the search results.

Natural language searching puts the computer in charge of the search and results. The user simply types in a natural language sentence or a series of words. This type of search takes less time to construct, but the results can be very excellent or extremely useless.

When constructing a Boolean search, the legal researcher must make some other important choices. Selection of the right connectors is important and often depends on the size of the database and the organizational structure of the documents in the database. What synonyms should be added? Do any of the words change in so many variations that the truncation symbols should be added to particular words for broader retrieval? Does the electronic system recognize plurals and can phrase searching be done? For a somewhat dated but useful guide to the construction of Boolean searches (primarily for Westlaw and LexisNexis, but applicable to many fee and free legal databases on the Internet), see Penny A. Hazleton, Computer-Assisted Legal Research: The Basics 18-38 (West, 1993).

Also during preliminary analysis, the researcher must identify the jurisdiction(s) involved. Is the issue resolved under federal or state law? Which state? Limiting the jurisdiction of your research will help focus your effort on research tools that have specific application to your problem. If choice of law is the real issue to be resolved, obviously your selection of jurisdiction will be tentative. Or if the area of law is
unfamiliar to you, you may need to perform some research to determine this question with certainty.

Throughout this preliminary process, you should be assessing your actual knowledge of the area of law you must research. Any steps you have taken will reflect your personal knowledge and experience, or lack thereof. What do you know about this area of law? Are you a specialist in this area of law? Or is this particular issue completely unknown to you?

Chances that you need to develop more expertise in this area before launching your research ship (moving to step 2 of the Rombauer method) will include the inability to develop a comprehensive list of words and phrases; total ignorance about whether the problem invokes federal, state, or local law; or an inability to state the issue. Don’t ignore these warning signs!

At this point, if your knowledge of the law is virtually nonexistent, research in secondary materials may help you obtain the background and terminology needed to perform effective research. See Appendix II. “Here There Be Dragons’ How To Do Research in an Area You Know Nothing About”. For details on specific sources to consult, see Chapter 3, Fundamentals of Legal Research in Washington, Section II, and Chapter 4, Washington Practice Materials.

Now you can actually start your research! Use of texts, treatises, hornbooks, nutshells, legal encyclopedias, ALRs, or legal periodicals can help put your problem in context. The legal jargon needed for effective research can also be identified through secondary materials. Often, a search for general information and background can help the researcher formulate a good statement of the question, clarify jurisdictional issues, and inform the researcher of the possible scope of the project.

An extremely useful research tool has become more accessible with the Internet. The legal research guide or pathfinder (more experienced researchers may remember the bibliography) can lead a researcher quickly to relevante research tools and give tips on the use of these tools in the context of the specific research problem. Many of these have been published in print sources, for example, Penny A. Hazleton, ed., Specialized Legal Research (Aspen, 1997) (comprehensive guides to the print and electronic literature in tax, labor, copyright, admiralty, military law, banking, securities, etc.).

Many law librarians create pathfinders and research guides for classes and other library users and then post these guides on library websites. Often these guides integrate print and electronic tools (with hypertext links to Internet-based information resources), citing major statutes, cases, and regulations as well as important secondary sources. At this time the Gallagher Law Library website includes 63 research guides. Check out the subject index to these guides at http://lib.law.washington.edu/ref/guides.htm. Many law library and other websites include research guides on broad and narrow topics. See http://lib.law.washington.edu/ref/guides.html for links to some of the largest directories and sites on the Web.

Consulting secondary sources is not done at this stage so much to locate the exact answer to the legal problem, as to reveal background and related information that should help when research in primary authorities begins. Of course, finding references to cases, statutes, or regulations in your jurisdiction should not be ignored at this stage. Use these citations when you move to the next research stage.

If you answer the “What do you know?” question with the response, “A lot,” you are probably familiar with the legal terminology and the likely sources of the law that answer the question as well as the exact issue(s). Then using secondary literature to get background and context may not be necessary. Remember, however, that sometimes we think we know more than we really do.

Secondary literature can be consulted at any stage in your research. Research in secondary materials can, among other things, provide the analysis of a specifically relevant case, explain the history of a legislative enactment, synthesize a body of case
law, or criticize a current interpretation of the law.
A good legal researcher will use the research product of others as often as possible!

To reiterate, preliminary analysis should be done thoughtfully and with an eye to formulating a research plan or strategy. Identification of relevant facts, creation of a list of relevant words and phrases, clear statement of the issue(s), formulation of a search query, identification of relevant jurisdiction(s), and an assessment of your knowledge of the area of law all must be accomplished in order to set the stage for continuing the research process.

2. Search for Statutes

After you have answered the questions posed in your analysis of the problem and done some background research, you are ready to begin a search in primary materials. Because of the emphasis in law school on judicial opinions as an important source of law and because of the difficulty some perceive in the use of statutory sources, many researchers automatically look for case authority first. This tendency would be fine except that many attorneys forget to also look for statutory authority cited in the cases or that might change a long line of caselaw.

A search for statutes should really be done first because the relationship between the legislative process and the judicial branch provides the answer. It will not matter much what the common law rule is if a statute has been enacted that changes the rule! Thus, legislation will take precedence over judicial rules and should be searched before looking for case law. In addition, more and more of our daily activities are governed by legislation. Thus, checking the statutes to be sure new law has not been enacted is an important step in the process.

Three possibilities can occur when statutes have been searched. First, the researcher may find a relevant statute that squarely and clearly answers the problem. Second, a relevant statute may be located, but the statute is ambiguous when applied to the problem being researched. Third, the researcher may find no statute that helps resolve the legal problem under scrutiny.

Even if a relevant, clear, and unambiguous statute is found, a good researcher may wish to go to step three in the process to be certain that case law is consistent with her interpretation of the statute. However, finding an ambiguous statute or no statute at all definitely requires a search for mandatory case precedent (step 3 of the Rombauer method).

Before looking for case law, however, the legal researcher must verify that the statute found is current. Print statutes can be updated by pocket parts, supplemental pamphlets, and legislative or session law services. These current pamphlets will contain laws recently enacted by the legislature but not yet incorporated into the statutes themselves. Even if no statute was found, checking the session law service is also necessary in case a very recent law on the subject has been enacted.

If you have selected an electronic tool for your statutory research, be sure you know how current the database is. Just because the code is online does not necessarily mean that it is as current or more current than the print resources. For details on updating statutes, see Chapter 3, Fundamentals of Legal Research in Washington.

Is the area of law you are researching changing through statutory enactment? Or have the rules changed primarily because of new court decisions? Has this area of law remained unchanged? Are there changes in social or economic structures or in technology that will lead to changes in the law? A careful researcher is likely to have determined the answers to these questions during her preliminary analysis. And, depending on the answers, she will decide how carefully the statutes should be searched.

During this stage of your research, the constitutionality of your statute should be checked. If researching Washington law, use the Revised Code of Washington, Annotated or the Annotated Revised Code of Washington to check for cases that declared your statute unconstitutional. Shepardize
your statute on LexisNexis or KeyCite it on Westlaw to locate any cases that may have ruled on the statute's constitutionality.

You should also look for relevant administrative regulations that may affect your issue during this statutory phase of your work. Either your knowledge of the area of law or your preliminary research in secondary sources should alert you to relevant state administrative agency rules and regulations. In Washington, consult the Washington Administrative Code and the Washington State Register. See Chapter 3, Fundamentals of Legal Research in Washington, for a discussion of these sources.

You may wish to review your preliminary analysis at this point. Have you stated the proper question? Are some facts more important than you originally thought? Have you added other more precise words and phrases to your original list? Constantly re-evaluate your analysis to keep your research focused and efficient.

By the time you finish this step of your research process, you should have identified relevant statutes or administrative regulations. You will be confident that your statute is current since you have updated it through the most recent legislative public laws available. And you will know whether your statute has been held unconstitutional. You are ready to move on.

If you find no statute, there are at least two possibilities: there is no statute to find on this subject or there is a relevant statute but you have not found it. Legal researchers are often concerned about missing relevant authority. Part of this fear is psychological; that is, we are worried about not finding something that exists and needs to be found in order to answer the question. But the other part is very real. Sometimes the source we use does not include anything helpful or relevant on the subject we research because there is nothing to find. Only experience and good preliminary analysis will help distinguish one from the other. Be prepared for this possibility.

3. Search for Mandatory Case Precedent

This step can be skipped completely only if you have located a relevant statute and it clearly and unambiguously answers your question. Even then, some researchers will skim cases that interpret the statute in an annotated code just to be sure their reading of the statute is correct when applied to their problem.

However, the search for mandatory case authority must follow next if you have found an ambiguous statute or no statute at all. Searching for cases that must be followed (in the court in which your action will be heard) is the kind of legal research most lawyers know best. Mandatory cases that apply to your problem will have similar or analogous facts, will have occurred in your jurisdiction, and will interpret either your statute or state common law rules.

Many resources are available for this search, but one of the best, if you have found a statute, is an annotated code. In Washington, consult West's Revised Code of Washington Annotated or the Annotated Revised Code of Washington. The annotations contain short digests of cases related to the statute they follow. Usually gathered by topic or subject, these annotations are an excellent way to locate cases to answer the question you are researching. In addition, of course, you may find history notes, cross references, and citations to legal encyclopedias, legal periodical articles, West key numbers, practice texts, and other useful secondary materials.

It is very important to be sure that all relevant cases are found. The annotated code volumes usually have pocket parts or supplementary pamphlets that include more recent cases. However, these supplements will still be three to six months out of date. The thorough researcher will also check the paper advance sheets of the Pacific Reporter, 2d or Washington Reports, 2d and Washington Appellate Reports, or use a current electronic case database (Westlaw, LexisNexis, or the Internet) to find the most recent cases. A subject search using the digest in the West reporter or the Cumulated Index to the official reports should yield any cases interpreting
the appropriate statute. Cases interpreting your statute may also be found easily by Shepardizing or KeyCiting the statutory section you have identified.

If you were unable to locate a relevant statute in step 2 of your research, neither the annotated code nor case verification systems like Shepard's and KeyCite will help you much. Instead, West's Washington Digest, 2d (or the Key Number Service on Westlaw) may be a good source to locate relevant case law. Other sources include secondary materials such as periodicals, texts, deskbooks, ALR, and legal encyclopedias. In this circumstance (you did not find a statute), use a wide variety of resources to verify that no statute is relevant.

All cases to be relied upon should be verified to determine if they are still good law. The most current and reliable of these citation services are KeyCite on Westlaw and Shepard's on LexisNexis. These databases are several months more current than any unit of the print Shepard's citation. These services provide the complete history and negative treatment of the case you are checking. Its addition, secondary authority of all kinds can be located by Shepardizing or KeyCiting your cases.

A researcher can also Shepardize key cases in print tools, but must realize that the print tools are not as current as the electronic ones. At this time, many expert researchers believe that print citations do not satisfy the standard for providing clients with competent, effective legal research.

If you identify mandatory precedent, you may be able to skip step 4, looking for persuasive authority. Obviously, looking only for mandatory precedent is a much more limited search than looking for any relevant case in any jurisdiction. That is why the search for mandatory case law should always be done before looking through over five million cases for any one-case case.

A question often arises in Washington about the weight of authority of Washington Court of Appeals decisions since there are three divisions of this court. Specifically, when are Court of Appeals decisions binding (or mandatory authority) on other divisions of the same court? There is no clear rule or decision on this matter. Though great deference is usually given by one division to another, the court opinions of Division I are not mandatory authority in Division II or III. For a helpful analysis of this issue, see Kelly Kuchau, "State Decision: Everything You Realized You Need To Know", Wash. St. Bar News Oct. 1998, as 31, http://www.wspa.org/barnews/archives/98/stnm.html.

Another question that comes up regularly in Washington is the precedential authority of unpublished decisions of the Washington Court of Appeals. Over 70% of the cases decided by the Court of Appeals are not published and by statute cannot be used for precedential purposes. RCW § 2.06.040 (2009). For an interesting article on this subject, see Fen Wells, "Unpublished Decisions: Routine Cases or Shadow Precedents?", Wash. St. Bar News, Dec. 2000, at 28, http://www.wspa.org/barnews/200012/Segz.htm.

If you are unable to locate court decisions that must be followed in your jurisdiction, you will need to proceed to the fourth step in the Rombauts research process. Searching for persuasive precedent can be a very time-consuming process, and you should plan accordingly.

4. Search for Persuasive Case Precedent

If you are successful in locating one or more authorities during step 2 or 3 of this research process, you may not need to look for persuasive authority. However, if no cases can be found in your jurisdiction, persuasive case authority may be the only way to support a particular position. Even if you find what you consider to be good mandatory authority, some researchers will look at contrary authority within and even outside their jurisdiction.

When looking for persuasive precedent, try to limit your search to particular jurisdictions likely to have more cases in the subject area you are researching. For example, if you have a corporation issue that has not been resolved in your jurisdiction, you might first look at Delaware case law since
so many companies are incorporated there. Or an oil and gas question might be easier to research in states with large oil and gas fields and where more litigation in oil and gas law has occurred.

Another way to help limit your persuasive case law research to particular jurisdictions is if the relevant statute you find in step 2 is modeled after a uniform law. If there are no mandatory cases interpreting your statute, Uniform Laws Annotated, Master Edition (West Group, 1973) will cite to other states that have enacted similar or identical language and cite cases from those jurisdictions. Sometimes the annotated code itself will cite to other state statutes on which the legislative language was modeled.

If you are unable to limit your research to another jurisdiction or two, secondary materials can again be time-savers. Finding a law review article, ALR annotation, or book on the topic of your inquiry will permit you to gain an overview of the subject as well as give you a survey of the law in a variety of jurisdictions. This tactic may lead you to a line of cases the court may find persuasive.

Work of this sort is hard to keep focused. In this stage of the research process, make use of your preliminary analysis, reformulate the issue if necessary, and review your list of words and phrases for the most useful terms. How did you get to this stage and exactly what are you seeking? The search for persuasive precedent can be even more frustrating than your previous work because of the huge body of law available.

If you find persuasive authority, be sure you check the authority of any cases on which you wish to rely. Nothing is more embarrassing than discovering in court that the best authority you could find to support your view was reversed on appeal! At a minimum, use the online Shepard's or KeyCite services. Also be certain that you have reviewed the most recent cases available. This step requires that you use LexisNexis, Westlaw, or various Internet websites to confirm your findings.

If no persuasive authority of any kind can be found, re-evaluate the research problem and your process. Have you focused too narrowly? Have you failed to find proper analogies? Did you state the issue to be researched and then fail to actually focus on that question? Did you forget to check the pocket parts or most current cases? Caught in this situation, a complete review of your preliminary analysis is necessary. Try to determine whether the difficulty is one of process and use of legal materials or whether you simply have done a poor job in stating the question.

You may decide to begin your research anew. If so, try different resources this time. No one source is absolutely comprehensive and complete. Some research tools work better for some problems than for others. A decision about whether to continue researching at this point must be informed by an understanding of the cost to the client and the chance of finding relevant authority.

Regardless of what you find, the last step in the research process is very important. No project should be deemed finished until this step has been accomplished.

5. Refine, Double-Check, and Update

You may come to this last step by skipping steps 3 and 4 or only after having worked through all four stages of your research. You may actually incorporate this step into each of the others, so you are constantly refining your analysis of the question and the authority you have located. Regardless of the point in the process at which you focus on the steps noted here, be sure you actually do them!

At this last stage the researcher wants to be sure that no relevant authority has been missed. Check your research process to be sure you did not overlook an important source or forget to check the most recent supplementation. This latter problem can be overcome by having a good research plan and a thorough understanding of how the research tools can be used to provide comprehensive coverage.
One of the best ways to feel confident in the research you do and the authority you have found is to verify your result through a second, independent search of the literature. Obviously, this will take more time and likely result in additional cost to your client. However, this need not be a painstakingly comprehensive search. Consider the following options:
- Check the law digest volume of the Maryland-Harbell Law Directory for the jurisdiction in question;
- Read one current law review article; search the index to a different published (or electronic) code; or
- Phone a colleague who regularly practices in the area. Confidence in your research ability will come with experience and a careful plan.

Did you actually find an answer to the question? Or did the real question change as you investigated and researched the law? Do you have the information you need to locate and correctly cite all relevant authority?

If your work has been done over a period of more than a week, then all up-dating done in earlier stages needs to be brought completely up-to-date. Similarly, if you take a long time to write the memorandum or brief, updating your work right before it is filed or submitted is essential. Remember: courts, legislatures, and administrative agencies are constantly changing the rules and applying the law.

Don’t get caught flat-footed!

Take the time to reflect on the research project you have been given. Many legal researchers do a lot more work than they have to do because they worry about not finding everything. Better to spend some of this energy thinking about an efficient plan, one that covers the necessary resources but will not take endless amounts of time. Use of various legal tools should not be random. Think about exactly what you are looking for at each turn and select the best tool for the job.

For example, one of the most egregious mistakes made by many legal researchers is the compulsive Shepardizing or KeyCiting of every case and statute in sight. Case verification systems are valuable research tools. You can find something as simple as the parallel citation to a case or something as complex as all the cases from another jurisdiction that cite your case for the proposition stated in headnote 3. Depending on the system you use, you can use case verification systems as a way to locate law review articles, ALR annotations, or texts on a particular case or subject. Rarely, however, does anyone want to do all of these things when Shepardizing. Most of the time the researcher simply wants to know whether the case on which they want to rely is still good law or good authority.

B. Conclusion

Legal research may be viewed as the process of elimination; elimination of bodies of law that are not applicable and elimination of authority that does not apply to the particular situation at hand. The good legal researcher, then, finds relevant authority by eliminating the extraneous and inapplicable, not just by looking for the relevant. The legal researcher classifies groups of materials or sources and authorities that are not likely to help solve the problem and eliminates them from consideration.

Good legal research is the product of a thoughtful process that understands the nature and power of research tools, the weight of authority, and the specific question being researched.

Working with a research plan can save time, promote efficiency, and result in a higher quality research product. No single research framework will work for everyone, especially given the many changes in the availability and formats of legal information. But some type of research design should be developed by every legal researcher. Your strategic framework must be flexible so it applies to all types of research questions. A research strategy that dictates the exact set of books to look at at first in every situation will fail. Every problem is different and what you know about that problem will be different. It follows that the tools you choose for each problem should vary. The researcher who automatically uses, for example, LexisNexis or West’s Wash-
V. Managing Your Legal Research

A. General Suggestions

In today's complicated research environment, keeping your research under control is no easy matter. A research strategy or plan will help. But you will need more than just a plan. Your research should be done consciously. That is, you need to think about what you are doing at each step and then identify an appropriate research tool to accomplish your objective. Your process must be flexible and enable you to take advantage of available shortcuts and relevant avenues of inquiry that you may not have considered.

Never assume the absence of relevant legislation. While it is true that much of our conduct is not yet regulated by written or statutory law, legislative bodies have codified and changed whole bodies of law that were once part of the common law tradition. The emphasis on statutory research early in the Bombauer process is for a good reason.

If your research problem has several issues, a most common situation, you should plan to research each question separately. Trying to research several issues at once in the name of efficiency is likely to prolong the time it takes to complete the project. Experience shows this phenomenon to be true because keeping track of exactly what has been researched is confusing and because many researchers lose their focus and get sidetracked when they are looking for more than one thing at a time.

As you use a research tool for the first time, be sure you check the most recent supplementation. A lot of fruitless research can be avoided if there is a change in your statute or the status or authority of an important case. You may need to update that work again, but at least you are working with the most current information available at the time.

Don't be afraid to stop using a research tool if it is not yielding results. Spending several hours with any one research tool suggests a problem. Perhaps your question has not been well-framed. Perhaps you have little about the legal jargon in this area of law to successfully use the research tool. It may be that the research tool you are using contains nothing about the subject of your search. Re-think your analysis; do some additional preliminary research. Don't give up too quickly, however. The problem may be in your process and use of the tool and not a difficulty in your statement of the issue or preliminary analysis.

B. Note-Taking

Taking good notes while doing legal research is one of the most important favors you can do for yourself. How often have you had to repeat research or tried to understand notes scribbled on the back of a grocery list? Taking good notes will increase your efficiency and enable you to see where you got off track.

Keep a research journal or record of your work. Include a statement of the issue; the results of preliminary research in secondary sources; research tools you consulted; information about key numbers, cases, periodicals, texts, and the like; searches run in electronic databases; and descriptions of updating tasks.

Of particular importance is the need to check the dates of coverage of the various sets of books or electronic legal materials used. Later updating can only be handled efficiently if your notes are clear about what you have already checked. Confidence in the quality of your research product will be the
result of this heightened awareness and careful record-keeping.

Opinion and statutory analysis and evaluation of the sources consulted are important parts of the research process. Decisions not to use a particular case or statute should be noted so that authority surfaces again later, precious time is not wasted reading and analyzing the material a second time.

Exact quotation should be carefully recorded with all the information needed to provide full and complete citations.

Keeping track of research is a more complicated job than it used to be. Throughout the course of any research project the researcher is likely to have personal copies of cases and statutes, lists of law review articles or books to look at, printouts from electronic databases, and notes taken from the research process itself. Managing all of this paper can be quite a challenge! But remember that a little time taken to organize this flood of information may increase the speed with which you can accomplish your goal. With such easy access to personal copies of legal information, sometimes we may forget the need to read and analyze what we find! Copying a case does not automatically make it relevant. Don't forget that: reading and synthesizing the information is an essential part of the research process.

More detailed advice about how to take good notes can be found in Appendix Ill, "Develop the Habit: Note-Taking in Legal Research." Pay particular attention to the section entitled, "Top 10 Tips for Better Note-Taking in Legal Research."

C. Help! A Dead End!

Perhaps reaching a dead end in a project before you located a good answer has never happened to you. But for those of us who have suffered this humiliation, what do we do? First, try to analyze whether the problem lies with your inability to use the research tool. Do you need to buck up and read the guide or introduction to the set? Do you need more information about how to conduct a particular search in an electronic database? Have you used the wrong terminology in indexes and databases? Have you checked the pocket parts and other supplemental material?

If you conclude that you are using the research tool properly, then you undoubtedly need to focus on issues such as your analysis of the problem, the possibility that you were misled by irrelevant facts, or the selection of a better research tool. Is your dead end really a trail you should stop following anyway?

Re-evaluate the process you used to get to this point. Be flexible about choosing another research tool if you determine that more research is necessary. Consider your client's pocketbook and the likely result of spending more time on this problem. Don't assume that the problem is your poor research skills (unless it is!), but look carefully at your analysis. Sometimes going back to the preliminary stage of your research is very helpful.

D. When to Stop the Search

The best time to stop researching is when you have found the answer! However, many researchers lack the confidence to know exactly when the time has arrived. And, certainly, finding a relevant statute that seems to answer the question - and then forgetting to check the most recent public laws, thus failing to locate the crucial amendment - would tend to make a researcher feel uncomfortable in future research projects. The trick is to have a strategy in place that does not slow this oversight to occur.

When working on a research project, others say that you should stop when the research cost exceeds its expected benefits. This point of view is supported in the MacCrate Report which suggests that:

An assessment of the feasibility of conducting research of the desired degree of thoroughness should take into account:

- The extent of the client's resources that can be allocated to the process of legal research; ... MacCrate Report at 161.
Some researchers will tell you to stop researching when you begin to see the same authorities cited over and over again. They claim that if you are seeing the same cases and statutes cited again and again, then you are probably safe in concluding your research. This is a good strategy, but, by the time you see authorities cited again and again, you may have spent more time than necessary to answer the question. A good research plan with a double-check component should help guide the researcher to a more identifiable stopping point before spending more time than necessary.

Other researchers stop only when they have run out of time and into a deadline. Sometimes this is appropriate. However, most of the time the researcher who must stop researching under these circumstances has not worked with a research plan or design. The researcher who finds herself in this situation may be someone who assumes that there is always an answer to be found as long as she looks hard enough. These people research more by feel than by thinking about what they are trying to accomplish and which research tools will be most likely to yield good results.

Some subscribe to the view that you should do some research then start to write and see what is missing. At that point, you go back and fill in the blanks. This may work, but, again, if you have a game plan for your research, nothing should be left out.

Whatever method you use to determine when to stop, keep two things in mind: Never forget to update all the statutes, cases, and other authority on which you need to rely. And use common sense. Don't let the flurry and pressure of meeting deadlines cause you to spin your wheels. Keep some perspective on the process. Just like with writing, leave research alone for a short time. The perspective you gain may have a very positive effect on your work.
## Appendix I: Comparison of Major Legal Research Texts

<table>
<thead>
<tr>
<th>Rombauer</th>
<th>Teply</th>
<th>Wren &amp; Wren</th>
<th>Berring &amp; Edinger</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Search for statutes</td>
<td>2. Plan research, choose logical starting point</td>
<td>2. Finding the law</td>
<td>2. Overview of subject</td>
</tr>
<tr>
<td>5. Refine analysis; update the law</td>
<td></td>
<td></td>
<td>5. Update the law</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kunz</th>
<th>Jacobstein, Mersky &amp; Dunn</th>
<th>Price, Bitner &amp; Bysiewicz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Factual analysis &amp; generate terms</td>
<td>1. Identify &amp; analyze relevant facts</td>
<td>1. Analysis of problem</td>
</tr>
<tr>
<td>4. Research in statutory law</td>
<td>4. Refine research &amp; final updating</td>
<td>4. Search for cases</td>
</tr>
<tr>
<td>5. Research in administrative materials</td>
<td>5. Search of secondary literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Miscellaneous research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Complex search (update)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Appraise authorities</td>
<td></td>
</tr>
</tbody>
</table>

---

1 Marjorie D. Rombauer, Legal Problem Solving 134-36, 5th ed. (West, 1991)
2 Larry L. Teply, Legal Research and Citations 79-84, 5th ed. (West Group, 1999)
7 Miles Price, Harry Bitner & Shirley Bysiewicz, Effective Legal Research 447-48, 4th ed. (Little Brown, 1979)
Appendix II

"Here There Be Dragons": How to Do Research in an Area You Know Nothing About

BY PEGGY ROEBUCK JARRETT AND MAX WHITENER

Peggy Roebuck letters to Documents and Reference Librarians and Mary Whitener is Head of Reference at the Gallagher Law Library, University of Washington Law School, in Seattle, Washington.

terra incognita". An unknown land; an unexplored region ... 2. A new or unexplored field of knowledge."

Introduction

Early students were justifiably frightened of terra incognita. Maps covered known areas; unknown areas were marked "Here there be dragons." Perhaps some legal researchers feel similarly. One of us remembers with pain the securities assignment she had as a summer associate—the might as well have been sailing without chart or compass for all she knew about securities terminology and sources. But, happily, researchers seldom need to venture into territory that is totally unexplored. Often have explored most areas of legal research and have left behind maps and maps to guide those who follow. This article provides advice for getting started in an area you know nothing about.

Ask Questions

The person who gives you the assignment could know a great deal about the area and appropriate sources. You might feel embarrassed about revealing that you do not know the area, but you also might be surprised at how often the person assigning the project is eager to share his or her experience.

For example, a summer associate faced with a first-securities project might say to the assigning attorney, "I haven't taken Securities Regulation, and I are not familiar with what you are asking me to research. Could you give me some quick background? What sources do you think will be useful?" In a few minutes, the attorney could give the summer associate a precise start. Even if the attorney does not have the time or inclination to do the coaching, he or she might refer the summer associate to someone else: "Chris Smith, a second-year associate, has been working with me on this project. Go see Chris to get up to speed."

Use Secondary Sources

Before you plunge into primary sources, use secondary tools to get an overview of the area. You will gain valuable information, including vocabulary, leading cases, citations to cases, and checklists. For example, someone asked to research sexual harassment law for the first time could consult a book, such as Barbara Lindemann and David D. Kodes's Sexual Harassment in Employment Law (1992) or William Pennotti and Barbara Knez Repp's Sexual Harassment on the Job (2d natural ed. 1994), and in a short time find the following:

- Sense of "quiet pro quo harassment versus hostile or abusive work environment"
- Citations to applicable statutes (Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e-2(d) (1994), and the Fair-Employment Practice regulations)
- Citations to federal regulations (29 C.F.R. § 1604.11 (1986))
- Discussion of leading cases (e.g., Meritor Savings Bank, FSB v. Vinson, 477 U.S. 57 (1986))
- Analysis of alternative causes of action (e.g., fair-employment statutes versus common law tort claims)

A researcher who did not begin with secondary sources and instead went directly to statutes or cases might waste a lot of time. For instance, Title VII is clearly important in sexual harassment law, but the phrase "sexual harassment" does not appear in the statute and a careless researcher might not find this key piece of legislation. Some researchers might assume that the area is entirely federal and, without the guidance provided by secondary sources, neglect the true law source (or vice versa). And researchers who begin simply by searching for cases might be overwhelmed by the sheer number: they find:

5. Secondary sources covered in law school legal research and writing classes are great places to start, but look beyond textbooks, encyclopedias, ALRs, and law review articles. Primary materials, which include "deskbooks," manuals, and current legal education materials, can be gold mines of information. In Washington state, for example, researchers can choose among a variety of sources including the encyclopedia Washington Practice, the multivolume looseleaf Washington Lawyer's Practice, and the Farmers Heritage Dictionary of the English Language 1855 (3d ed. 1978).
Avoid Fishing Online

It is usually best to avoid using online services to find primary sources until you are familiar with the area of law. Online research is most effectively done with a specific issue in mind and knowledge of the specific vocabulary, leading cases, and applicable statutes. The computer is literal— it cannot tell you what it is receiving. One can easily waste previous time (and a significant amount of money) browsing electronic sources without clear direction. Beware the seductive call of "free" online time or "free" Internet access. Nothing is ever really free, and at the very least, your time, even when you are a research. is always valuable.

One exception to this restriction is the use of online resources to find secondary sources. LEXIS-NEXIS and WESTLAW both offer the Legal Research Index, ABA, legal encyclopedias, and a tomes of resources. WESTLAW also has Practicing Law Institute handbooks. If your library does not have a good collection of secondary sources, it is reasonable to assume that it might be appropriate to go online for background information.

Use a Research Guide

Many areas of law have such specialized bodies of literature that people have produced research guides, published, or bibliographies to help researchers through the sources. If you are going to spend your summer working on tax, first look at a research guide in the field, such as Gill Lewis Richardson's, Federal Tax Research: Guide to Materials and Techniques (5th ed. 1997). If you are writing a law review article about United States human rights enforcement, get a running start on your research with a guide such as Jack Teton and Jennifer Green's Guide to Human Rights Research (1994) or Marc Hoffman's chapter on human rights in the ABA Guide to International Resources for International Law, <http://www.ala.org/resourcetrends1.htm>. And if you are preparing briefing papers on passive smoking for a public health group, it will save you a lot of effort if you start with Maria Okamoto's Legal Agents of Passive Smoking: An Annotated Bibliography. Bldg. Law Libr. J. 445 (1996).

How can you find research guides? First, try your library's catalog. Search for your topic and either "research" or "bibliography." (Catalogers often use the term "Bibliography" in the subject heading. "Legal research" is another common subheading.) A search of the catalog will turn up bibliographies that are separately published books. Similarly, checking periodical indexes, such as Legal Research Index, will help you find bibliographies and finders that are published as aids in law reviews and bar journals.

You should also check Law Chats, ed. Specialized Legal Research (1997- date), which has chapters on 13 topics ranging from admiralty to securities regulation, and government contracts to tax. If your topic is covered, you will find a wealth of information.

If you are researching an issue in a particular state, check to see whether there is a legal research guide for that state. You might find a reason disavowing practice tools or a bibliography that might include just the right secondary source.

For foreign and international research, a good place to start is the Orsini's Law Research (1991-date). Like Specialized Legal Research, Orsini's is a collection of research guides. Procedural issues, such as service of process abroad and recognition and enforcement of judgments and arbitral awards, are covered along with 34 subjects (antitrust, commercial law, immigration, intellectual property, etc.) and 75 countries.

Look For a Looseleaf Service

Many areas of law are covered by comprehensive looseleaf services that provide access to statutes, case law, regulations, and administrative decisions, as well as some analysis and explanation. Looseleaf service can be hard to figure out, and again, it is often best to start digging in these with a little bit of background knowledge and some vocabulary in order to use the
"Once you identify a source that is new to you, take a few moments to figure it out."

**Use Current-Awareness Tools**

If you are going to be working in an area for some time, find out how practitioners stay current. When you skim newsletters, attend CLEs, and otherwise keep up with new developments, you will be better prepared for each new assignment because you will know what issues are coming up in the field. For instance, if you recently read in a newsletter that the Treasury Department issued new regulations affecting a certain type of transaction, you will be ready to go when the senior partner asks you to find the new regulations and prepare a memo analyzing their effect on your client's business.

Check Legal Newsletters in Print—you will be amazed at the number and range of newsletters, on topics from asbestos abatement to workers' compensation. In addition, broadsheet services frequently include a newsletter section (often labeled "New Developments") that highlights new regulations and cases. Many firms and agencies route newsletters to attorneys in relevant practice groups. If you are moving into a new area of practice, see if you can get on the routing list.

A legal source is the work that your own office produces. Does your firm prepare a newsletter for clients? Does your agency circulate summaries of new regulations? Does the firm have files of briefs and memoranda that attorneys have written? Being aware of what your organization does will make research easier for you, since you will know the issues that are coming up. A brief or memo bank can also give you a good start on your own briefs and memos.

Attorneys also keep up with their practice areas by attending CLE programs—sponsored by bar associations, law schools, or professional groups or provided in-house. If you are starting out in, say, environmental law (or you are moving into the environmental practice group after years in the business litigation group), attend some CLEs—e.g., "New Developments in Hazardous Waste Litigation."—to build your knowledge base. (The CLE course materials will also be handy as secondary sources.)

Read the Directions

Once you identify a source that is new to you, take a few moments to figure it out. Does it have a table of contents? A table of names cited? How about an appendix of primary documents? How is it updated? You will find that many sets include sections such as "How to Use This Service." You might be the sort of person who learns best by trial and error—but, then again, after 20 minutes of trial and error you might find it helpful to give the instructions a try.

If you are using electronic tools, take advantage of the resources you have. Read the help screens, read the documentation, call the 800 numbers. On WESTLAW, read the Scope screens, and in LEXIS-NEXIS, check Guide, to find out how current the material is and whether there are any special tricks for searching.

Talk to an Expert

Maybe there is an expert in your organization—an experienced attorney or a law professor—who can give you a quick run-through of a subject area and its sources. Many knowledgeable people like to share information, especially when asked.

Or maybe you need to find people outside your organization who follow your issue. If you have found a useful book or law review article, you might try talking to the author. Someone you met at a CLE might be a good contact. On use the Encyclopedia of Associations (in print or on WESTLAW) and other directories to find trade associations or advocacy groups that would track your area. A call to the American Bankers Association, the American Hospital Organization or the Sierra Club might be an effective way to gain background information on a specialized topic.

Use Librarians

Librarians spend a great deal of time guiding researchers toward sources. "On the other hand," if you are having trouble finding a secondary source or research guide, or you just want to talk about strategies for using your librarian, Librarians are always happy to share their knowledge.

Conclusion

Researching in a new area of law need not be as terrifying as sailing uncharted seas. The tips we have given will help you find your way. Soon you will be able to guide others into your new area.

Perspectives: Teaching Legal Research and Writing

Vol. 6

Winter 1998
Appendix III

DEVELOP THE HABIT: NOTE-TAKING IN LEGAL RESEARCH

BY PENNY A. HAZELTON, PEGGY ROEBUCK JARRETT, NANCY McMULLIN, AND MARY WHITSEN

The authors are all members of professional staff at the Galagher Law Library, University of Washington, in Seattle, Washington. Penny A. Hazelton is Law Librarian and Professor of Law; she is also a member of the Perspectives Editorial Board. Peggy Roebuck Jarrett is Reference/Doucement Librarian. Nancy McMullin is Reference Librarian. Mary Whitson is the Head of Reference.

Introduction

At some point—perhaps it was for that seventh-grade report on the Pony Express—we were probably all taught to take notes on 3×5 index cards. Each card was supposed to record the source (with full citation) followed by the fact or the quotation we were noting. The teacher was sure to spot-check the cards, so most of us earnest junior high students were careful to make “proper” notes. But we are still as careful, now that we research and teach research as adults!

We librarians take notes ourselves when we do research, whether it be our own research, or projects for faculty, attorneys, or judges. We also have had the opportunity to observe many other researchers—students, professors, partners, and pro se patrons—many of whom come to the reference desk when they are stuck. We do not see many 3×5 cards. Instead, we see a wide assortment of legal pads, three-ring binders, scrap paper, Post-it notes, laptops, and (too often) nothing at all.

This lack of organized 3×5 cards interests us, and concerns us; we believe good note-taking is a habit every attorney should have. In this article we will identify types of note-takers and some personal factors researchers should consider, and then we will present our top 10 tips for effective note-taking. Our “top 10” are addressed to the researchers themselves, so we encourage teachers of legal research to make photocopies and pass them out in class (with attribution, please!)

Why Take Notes?

To begin, why take notes? Why be concerned about the peculiarity of index cards? After all, it makes sense that we use them now; there have been a lot of technological changes since junior high! Rather than taking any sort of notes on cases, articles, or book chapters, many researchers today make a copy—either by photocopying from a book or printing a document from an electronic source.

Making a copy of the information has several advantages over taking notes: speed, reliability, and completeness. However, it also has disadvantages. When one photocopies an entire case or law review article, she may not read it, but instead just rucks it in a briefcase or backpack to read at some later time—which might never arrive. If the researcher does read it, he does not take notes, the material might not be understood as well, or how the pieces fit together might not be perceived. Note-taking allows one’s mind to process the information in a different way. If the researcher goes back to the case or article several weeks later, it might be difficult to remember what was important about it, and perhaps the whole thing will have to be skimmed again to figure out why it was copied in the first place.

Finally, the bulk alone of photocopies and printouts may impede the research project. A 6-inch stack of paper with no order will quickly overwhelm all but the most determined researcher.

Many researchers nowadays combine a tendency to print out or photocopy with a freewheeling use of highlighters. Using colored markers to identify important or relevant text can be an effective note-taking tool. However, some seem unable to avoid the propensity to highlight every line on a page. Because, on first reading, everything seems like it might be important. Often one must read the entire case or article before the truly relevant portions can be successfully highlighted.

It does take time and self-discipline to be a systematic note-taker, and sometimes researchers decide that note-taking, that is good note-taking, is just not that important. Why do we disagree? We see several good reasons for taking careful and thorough notes:

- Notes record the researcher’s sources in order to use them, find them again, and cite them.
- Notes record the research path so the researcher knows what has been checked.
- Notes helps the researcher to think about what is being done and keeps the focus on the correct issue.

• Notes aid the researcher in communicating (with colleagues, supervisors, and the host of others) the research he or she has been doing.

• Notes allow the researcher to document their thoroughness, especially when a project is less than complete or the questions posed.

• Notes help the researcher to understand, replicate, and update results.

• Notes serve as a reinforcement to a memory; the researcher learns during a particular research project and provides a "tips and tricks" manual for future projects.

Note-Taking Types

Recently, we have begun using law students and lawyers taking notes on laptop computers. That surely will change some people's habits. Perhaps their note-taking will be faster and more accurate (if they are fast typists). Perhaps they will be able to use outline features to organize their notes better, and cut-and-paste features to capture quotations and key passages. Of course, if note-takers forget to record a citation, that approach will not do it for them—technology cannot solve all our problems.

Whatever technology is used, we suspect the basic styles of note-taking have not changed. Most researchers will undoubtedly identify with one of the types below.

• Legacy Mason: Does not do research, does not take notes. If he takes notes, he remembers them for the rest of his career. He always wins. Downdraft: This technician works only in fiction.

• Rain Miser: Writes everything in his notebook, very accurately. Materializes it anyway. (Does not understand it.) Downdraft: This method is very time-consuming.

• Absent-Minded Professor: Takes concise notes on whatever paper is at hand but does not record sources since he is sure that he will remember them. Tends to check the citations he cannot remember in the notes and organize notes when he has a bit more. Downdraft: There is never a "bit more time" and miscellaneous pieces of paper tend to gather dust or to migrate.

• Peppermint Patty: Gets notebook stuck in hair. Downdraft: Information retrieval is limited.

• Dudley Do Right (out here): Sets up a system for non-taking so that when he is ready to prepare the final product he has everything he needs. Downdraft: Gets more "plum assignments" than others (who may get "ennui enough to tie him to the train tracks.

Personal Styles and the Note-Taker's Art

1 If taking notes is so important, why do texts on legal analysis, research, and writing not provide a template for perfect note-taking? That would be nice; would it not? We kick around the idea of a checklist that could be handed out to associates, partners, law students, etc., listing sources to check and what information needs to be recorded. But reflection convinces us that legal research projects are too varied and what needs to be written down depends on too many factors for one checklist to be appropriate for all projects.

Perhaps even more importantly, non-taking needs to be adjusted to suit individual work environments and styles. Consider the following questions.

How good is the researcher's memory? Some people can turn their backs on a set and not remember whether they were using the Pacific Digest or Am. Jur. 2d, let alone whether they looked under "vicarious liability" as well as "respondeat superior." Other people can keep a tremendous amount of complete information in their heads while they are working through a problem. If one is the first sort of researcher, each source used had better be recorded as well as every touch screen used. To paraphrase Santeria, those who do not remember research are doomed to repeat it.

1 How much time is available? If it is 9:10 and the partner wants the associate to find cases mentioning a particular statutory provision by 9:30, there is only one course of action to follow: do a quick search (in an annotated code or online), pull the cases, and give them to the partner. There is no time to write down every case checked in the code's index (although the associate might want to call attention to the fact that the pocket part was checked). After handling over the results, of course, the associate should consider.

taking a few minutes to write down what was done and what was found. Several weeks later the partner may ask a follow-up question.

"How long will the project take?" The longer the researcher thinks the project will be around, the more important it is to take good notes. If the task is to work on a law review article or a seminar paper or an appellate brief, it is likely the researcher will be looking at the same issue for a long time—so we will be coming back to them after thinking about something else for a few weeks. The better the norm was—listing what was checked, what headings were used, the dates of the supplementation and so on—the more efficient the researcher will be.

How many people are working on the project? If more than one person is working on a project, the researcher cannot rely on memory as much as if everything was in the researcher's own hands. Somebody else might need to know whether the researcher shared the case citations on a list, the researcher, on the other hand, might need to know whether a colleague checked CIS for comments or relied on a scan.

Will you need the notes? If only the researcher will be using the notes, then whatever shorthand works can be used. "L&F = 0" might be an adequate reminder that Legal Resource Index was checked but nothing useful was found. But if the researcher is reporting the results to someone who does not do any much of the same kind of research as the researcher does, it might help to explain what the database is and something about the searches that were tried (e.g., "I searched Legal Resource Index, an index of legal periodical articles, 1943 to present, using the phrase 'wildlife refuge'; the only articles I found provided the cases you asked about."). This would help the requestor understand what the researcher meant when reporting that nothing relevant was found—as well as give the requestor an opportunity to adjust the scope of the request.

How many projects is the researcher juggling? The busier the researcher is, the more tempting it is to skip steps. But it is a dangerous temptation. Pay the researcher who is left muttering, "I know I looked around in the UN Gothaer, but was it for that dress penalty question or the law of the sea question? Did I look for an ALR association on the Priorists liability question? Or was it the wrongful termination case?"

How new is the subject? If the researcher is trying to find information in an unfamiliar area, much better notes need to be taken. Both the terminology and the sources may be unfamiliar and details will be much harder to remember. Terms of art, variant spellings, and other specialized resources should all be particularly well documented. Even in a familiar area, if the researcher is using an unfamiliar source (or a source that may be unfamiliar to the researcher), its scope and coverage should be noted.

What sorts of similar research will the researcher be doing in the future? Any time future research in the same area is envisioned, taking careful and thorough notes in the present is a wise course. There is no better gift researchers can give themselves than having all the foundation solved when they need to revisit the same area of research occurs. Notes will show the researcher the best sources to try first, perhaps provide leads that took days to develop in the former project, and suggest effective terms for searching. If the researcher cannot imagine ever doing research on a particular topic again, good note-taking is still a boon. One never really knows when an odd, messy problem might crop up again (and the researcher will be looking at the "expert"). As Louis Pasteur said, "Chance favors only the mind that is prepared."

Conclusion

Research, no matter how interesting and rewarding, is hard work. Taking notes, good notes, may not come naturally to you and you may at first seem like a bore of a boiled. But good note-taking helps you remember, organize, process, synthesize, and communicate information—which, in the long run, is the point of research. And a good time you find yourself up against a deadline wrestling up your results, and you realize that everything you need to complete the project is in your notes, you will appreciate having saved all that effort to form good note-taking habits.

5 Taking technology, work environments, and personal style into consideration, we have compiled a list of "top 10 tips" for better note-taking. These are designed for distribution to B&A's auditories and anyone else who might like to sharpen their note-taking skills. (All we ask is proper recognition.) We cannot guarantee the tips will lead to perfect note-taking (and they do not promise internship, lucrative partnerships, or academic tenure). But we hope all researchers will find a few ideas for improving their research habits.

© 1995 Jerry A. Hudem, Peggy Rastbeek Jarem, Nancy McInerney, and Mary Whaler

Winter 1996 24
Top 10 tips for Better Note-Taking in Legal Research

BY PENNY A. HAZELTON, PEGGY ROEBUCK JARRETT, NANCY MCMURRER, AND MARY WHISNER

1. DO A REFERENCE INTERVIEW
If you are doing research for another person, be sure you summarize what you think the person has asked you to do, determine when the project is due, ask if there is a financial limit on the project, and find out what kind of product you must produce (e.g., a client letter, a memo, a bibliography, a list). In many cases it may be appropriate to solicit strategies, sources, or search terms. The more information you can gather the better. Reference interviews, which are the process of finding out this information, are not just for librarians!

2. PREPARE TO CITE
Keep track of what you will need in order to cite whatever you find. It is not necessary to have all the semicolons and commas in place, but you do need to know enough about citation format to know, for example, whether you need the author's first name, or a book's copyright date or edition. You will be wise to take a minute to check a citation manual if you are citing a source you do not use often. Get in this habit and ALWAYS write down citation information—regardless of whether you are excited about what you have found or you think it will not be used. You do NOT want to be stalling at a deadline and then realize you have a number of gaps to fill in!

3. NOTE SEARCH TERMS
Before you turn on your computer or start pulling books off the shelves, note the key terms and phrases that characterize your research problem. Think about which ones to try in the various paper sources and which might be useful in various computer databases. This is a particularly important step for anyone who is doing research for another person. As you go through your research, write down new terms you find. Of course, it can be tedious to write down every single term you try in every index. You might have a list of terms, and quickly check them off. Or write down the terms that work. Or the ones that fail. Highlight the ones that seem to work the best, but do not limit your research to them since what works in one source may not work in another.

4. NOTE YOUR CONTACTS
To whom have you talked? Record names, titles, organizations, and phone numbers. Were they helpful? Will they be sending you something? When? Will you want to use that contact again (should you add them to your Rolodex)?

5. TAKE GOOD CALL NOTES, TOO
If the databases you use frequently have a built-in way to keep track of what searches you have done, always remember to exercise that option. Use all the technology at your disposal! Every printout should contain a notation of the search you performed, the database you worked in and the date of your search. If the system cannot automatically add this information, be sure you write it on the printout itself.

Thirded in 4 Perspectives 51-52 (Winter 1996). Legal research teachers are encouraged to photocopy and distribute in their classes.
6. ANNOTATE YOUR PHOTOCOPIES

The moment you read or even scan a photocopy, make a note on the copy, or highlight a piece of text, so you can glance at it quickly to tell where it fits into your research project. And, of course, get in the habit of checking to see that all the elements of a complete citation appear on the copy. If not, take a minute to write down all the pertinent information. Copying only a portion of a case, an article, or a book can really cause identification problems later. It does you little good to know the citation to the case you copied is 654 N.E.2d 35 if you do not also know the date of decision, court, and parties, particularly if you cannot get back to the library or into the online database to look it up again to verify the correct information.

7. REMEMBER TIME IS OF THE ESSENCE

Be sensitive to how current each source you use is. If you will be working on the project for a while (or someone else will be looking at your research results next month or next year), you need to note coverage information, for example:
1. shop thru 12/95 pamph.
2. RCWA 1996 pock. pt. (covers '95 reg. legis. sess.)
3. WESTLAW searches 12/29/95

8. KEEP THE REQUESTER INFORMED

Should the project take more time than anticipated, do not hesitate to get back to the requester and find out if you should stop or spend more time. Be ready to explain (from your excellent notes) what you have done and what you have left to do. Make a note of the conversation and date it.

9. ORGANIZE YOUR NOTES

Once the project is complete, resist the tendency to throw the recycle bin, or, more likely, toss the notes in a pile on your office floor. Take a few moments to sort them up. If there was a cover memo, attach it on top of the notes. If there was not, write a quick note to the file, so you can tell at a glance what the project was about. File your research notes by requester or by topic or by whatever system will enable you to find them again.

10. CONSIDER DESIGNING YOUR OWN TEMPLATE

If you tend to have a number of projects going on at the same time, you may want to design your own research cover sheet. A cover sheet can be the place for your general, summary notes; using colored paper prevents a request from becoming intermingled with the research on another project. Decide what sorts of information you need for most of your assignments and make yourself a form. Possibilities for the form include:
1. dates (when the research was assigned and when it is due)
2. requester's name, telephone number, and e-mail address
3. description of the request
4. how to charge costs (to a client, to a particular account)
5. what form the results should take (e.g., citations list, memo, telephone call)
6. method of delivery and destination (e.g., put on desk, chair, mailbox)

The rest of the page is left blank so you can note contacts you have made, terms for searching, databases or sources already tried, etc. If you now need to contact the requester, all the basic information about the project is at your fingertips without your having to shuffle through papers.

© 1995 Nitza A. Hamilton, Peggy Rosebank Jernst, Nancy McMunigal, and Mary Wharton

Printed in Perspective 51-52 (winter 1990). Legal research teachers are encouraged to photocopy and distribute in their classes.

26
Electronic Information Competencies

by Bobbie Studwell

Professional Perspectives — Tools and Techniques of the Trade. The Professional Development Committee encourages members to continue to explore topics after presentations at the local, regional, and national levels. We welcome your comments and article suggestions. Please contact Mary A. Hitehls at 206/535-4475 or hatchmel@u.washington.edu.

I've always thought of myself as a competent researcher. I'm able to use paper-based legal research tools efficiently, quickly, effectively, and flexibly. Ten years of reference work tend to give anyone a feeling of confidence and competence. Paper-based legal research tools aren't necessarily our end-savers' tools of choice anymore, however. Students ask about electronic legal resources as soon as they enter the law school door, knowing that their legal career is likely to depend on what they know and how well they can use these electronic resources. They are likely to have used the Web, used e-mail, and scanned CD-ROM indexes long before they entered law school. But, do they know much more than this when they leave law school? What can our profession do to help our students, mentors, judges, and paralegals, not to mention ourselves, gain that same feeling of competence in using electronic resources?

A group of five of your colleagues posed that same question not long ago and drafted a working document to help supply an answer: Jill Porter (PIL), Leigh Semples (LEXIS-NEXIS), Paye Jones (Hastings Law School), and I drafted the discussion document you see below. It reformulates skills and values found in the McCreath Report for electronic research, and takes technology-based competencies from the book titled Beyond Workplace 2000 and creates from them skill sets students and attorneys should master to be considered competent electronic information users.

You may also be interested in reviewing the “Compilation of Core Information Literacy Competencies/Outcomes for Undergraduates” document found in the May 1998 issue of C & L. It includes some Web sites to pursue as you consider the working documents set out in this article. Whether you agree with the list of skills, their arrangement, or their placement within the structure or not, hopefully you agree that it's time for our profession to step up and define basic legal research competencies. The CR & L News article shows that we are not alone in forging forward to define basic levels of competency. Isn't it time to set out lists of electronic research competencies, among other research skills, and ask other organizations that police our profession to take note?

I'll be interested in your thoughts on this important issue as discussion groups and listservs are used to explore the topic.

Bobbie Studwell (studwell@unc.lib.mich.edu) is Assistant Dean of Library & Information Services, Thomas M. Cooley Law School Library, Lansing, Michigan.

AALL magazine major support from BNA, Inc. for the Professional Development Program.
A Desktop Learning Opportunity

Information & Research Competency Skill Sets to Be Acquired before Entering the Profession

Information Awareness and Foundational Skills
- Familiarity with the nature of legal rules and institutions
- Familiarity with the fundamental tools of legal research
- Awareness of the diversity of information sources and technologies available
- Awareness of techniques that will reduce costs, including an understanding of how information is gathered, organized, packaged, published in cycles, and stored
- Ability to transfer skills between platforms and systems
- Awareness of the time-consuming nature of information retrieval
- Understanding of the concepts of intellectual property and other doctrines associated with information creation and provision

Assessment and Selection Skills
- Ability to formulate issues for research after determining the range of issues presented, type of answer sought, degree of confidence in answers required for the purpose, and degree of documentation of answers needed for the purpose
- Ability to determine the levels of legal research required
- Ability to use specialized techniques for reading and using research materials efficiently, including techniques related to alternative formats
- Ability to select from a range of search strategies to create a search design

Searching and Locating Skills
- Ability to choose effective search terms, phrases, and images
- Awareness of database structures and content
- Ability to perform truncated, Boolean, and delimited searching
- Ability to use controlled vocabulary when appropriate
- Understanding of the differences between full-text and index searches
- Understanding of how to interpret and use citation formats to locate items

Evaluation and Interpretation Skills
- Ability to evaluate a range of search strategies and choose the proper technology to produce the desired results
- Ability to monitor and, when necessary, modify the results of an implemented design or search strategy
- Ability to determine the degree of risk involved in not conducting thorough research
- Awareness of the degree of thoroughness of legal research required based on the end-user’s need for the information and the client’s resources
- Ability to create a design that evaluates the degree of thoroughness and time acquired and the feasibility of completing research in light of other time pressures and client expectations
- Ability to distinguish relevant from irrelevant information
- Ability to identify and/or troubleshoot problems with the technology chosen

Manipulation and Organizational Skills
- Ability to devise and implement coherent and effective research design
- Knowledge of how to create a research design
- Ability to provide appropriate documentation of results
- Understanding of how to integrate new information into an existing body of knowledge
- Ability to organize information for practical and counseling applications, including creating documents such as World Wide Web pages
- Understanding of how and when to use document delivery to retrieve documents
- Understanding of the process for saving, downloading, emailing, or printing search results

Citation Skills
- Knowing the requirements for legal citation formats, including electronic formats
- Ensuring that sources are up-to-date
- Ability to double-check the accuracy of research

Communication Skills
- Understanding how to articulate information needs
- Understanding how to communicate the results of research to clients and others
- Ability to present and interpret information visually using graphs, charts, etc.
- Ability to communicate using visual presentation software such as PowerPoint, Whiteboard, and others
Constructing a Search

by Penny A. Hazelton
Mary Ann Hyatt
and Nancy McMurrer

Gallagher Law Library
University of Washington School of Law
1100 NE Campus Parkway
Seattle, WA 98105
206-543-6794

60
CONSTRUCTING A SEARCH

♦ What is a word?
   Generally, any group of letters with a space on either side.

♦ How is punctuation handled?
   Search engines often strip out punctuation. Will F.T.C. become FTC or; will Megan’s Law become Megan’s Law or Megan’s Law or will the punctuation be retained?

♦ How are spelling variations searched?
   Different endings for word roots?
   Can one search legislator and find legislation, legislator, and legislate?

   Internal spelling variations?
   Can one use a single term to find both marijuana and marihuana?

♦ Are search terms case sensitive?
   Some search engines do not care if you search using all lower caps or all capital letters (for example, the search engine will treat supreme court, SUPREME COURT, and Supreme Court as the same search). However, many Internet search engines will find any instance of bill if you use all lower case, but will only find an exact match if you use Bill.

♦ Can a phrase be searched? If so, how?
   Search engines “read” a space as a command to establish a connection between the words before and after the space. Some search engines “read” a space as or; some “read” a space as and; some search engines “read” a space as adjacent and in this order (that is, as a phrase).

♦ What connectors are permitted?
   • Boolean: “and,” “or,” “not” (the latter may also be “and not”)
   • Proximity: Connectors that establish how close together the search terms are found, such as in the same sentence, in the same paragraph, within “n” words of each other, or near each other.

♦ What is the order of processing?
   What does the search engine do first? We read from left to right, but search engines are programmed to establish some relationship first. One can often change the order of processing by enclosing the relationship one wants to establish first in parentheses.

♦ Is natural language, plain English, or concept searching supported?

EXERCISE:

Suppose you are working on a case where a question about discovery of some documents in the possession of your client’s in-house counsel has arisen. You are generally familiar with the area, but you decide to use a legal search engine to see what sort of information you might find on the
Internet. Go to LawRunner at http://www.lawrunner.com and type discovery in the search window [the search engine defaults to searching "All U.S. sites with legal information"].

- There are NO legal references on the first page of retrieved documents, even though you are using a "legal research tool."

- For a more precise search, try adding work product to the search. Go back to the LawRunner home page, note that Boolean connectors are allowed; how does one establish a phrase? Click on the Help link. Look in the contents list on the left to find the Search Cheat Sheet and click on that link. Skim until you find how to indicate a phrase.

- Construct the new search discovery and "work product"

- Look at the results. Are the documents retrieved on the first page pertinent?

Web sites with descriptions and evaluations of search engines:

- Berkeley's Internet Resources: Recommended Search Engines and Subject Directories – http://www.lib.berkeley.edu/Teaching1/lib/Guides/Internet/ToolsTables.html

  InfoPeople Search Tools Chart – http://infopop.ee.org/search/chart.html


- Search Engine Showdown – http://www.notess.com/search/

- Search Engine Watch – http://www.searchenginewatch.com/


- Virtual Search Engines – http://www.virtualfreesites.com/search.htm

Websites with strategies for searching the Internet:

- Berkeley's Internet Resources – http://www.lib.berkeley.edu/Teaching1/lib/Guides/Internet/Strategies.html


Recent books about search engines:


Search Engines Comparison 2001

By Diana Botluk

Diana Botluk is a lawyering skills instructor at the Catholic University of America School of Law in Washington, D.C., and is the author of the The Legal List: Research on the Internet. She teaches legal research at CAPCON, Catholic University Law School, and the University of Maryland.

Published August 1, 2001


At first glance, using a general search engine to locate information on the web seems easy. But getting a search engine to work with precision is another story. General search engines come packed with features that are often underutilized, but can be helpful in increasing search precision. The features differ from engine to engine, and skilled researchers will adjust their search strategy to take advantage of these differences depending on the type of results sought. This article will explain the differences in some of the available features, then examine a few major search engines in light of these features.

Searching Features

Alternative/Inclusive Default

When you type two words into a search engine box without any connectors, how does the engine put them together? Will it find only those pages where both words appear, or will it find pages where either word appears? Search engines with an inclusive default treat two separate typed words as if there were an AND between the words, while search engines with an alternative default treat the same two words as if there were an OR between the words. Thus, the results for the same search typed into two different search engines can be enormously different because one is inclusive, and the other alternative.

<table>
<thead>
<tr>
<th>Inclusive Default Search Engines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
</tr>
<tr>
<td>HotBot</td>
</tr>
<tr>
<td>Lycos</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative Default Search Engines</th>
</tr>
</thead>
<tbody>
<tr>
<td>AltaVista</td>
</tr>
<tr>
<td>Excite</td>
</tr>
</tbody>
</table>

Many search engines allow a researcher to designate alternative or inclusive through the use of the connectors OR and AND. Inclusion can also be designated using a plus sign as a word modifier:

apple OR blueberry

apple AND blueberry

+apple +blueberry

Keyword/Concept Default

Some search engines use automatic concept searching as a default. Many advanced online researchers are accustomed to keyword searching, where the exact string of characters typed in is searched. Thus, an advanced researcher who unwittingly uses a search engine with a concept searching default can become frustrated. Concept searching occurs when the engine not only searches for the exact character string, but also for word forms, and even synonyms and other words that statistically appear with the typed word.

63
Exclusion

Most search engines allow exclusion of search results that contain certain terms. Many engines recognize this feature by placing a minus sign or the word NOT in front of the term to be excluded. This feature should be used sparingly to avoid eliminating relevant results that might have a casual mention of the excluded term. Note that a minus sign modifies a single word, while NOT is a connector between words:

pie-apple
pie NOT apple

Truncation

When using keyword, or exact match, searching, it can be helpful to command the search engine to locate pages where there are various forms of the word being sought. Typing the root of a word and adding a truncation symbol on the end can accomplish this. Most search engines recognize an asterisk as a truncation symbol. For example, if I wanted to find pages with various forms of the word independence, I would type independent* and the results would include pages that contain independence, independent, and independently.

Search Restrictors

Search restrictors in web search engines are similar to search fields in Westlaw. They allow a search for terms or values contained only in certain portions of a page, rather than anywhere in the entire page. A simple example is a search restricted to a type of domain, like .com or .edu. If a domain restriction is used, the search engine seeks results only where the .t matches the designated domain type. Search restrictions are accomplished in different ways on different search engines, usually showing up in an engine’s advanced searching option. Serious researchers have long applauded HotBot’s search form, which makes restricted searching easy.

Title restrictions are often available. Use these with caution, perhaps as a first step to see what pops up. A title restriction reflects the title of the web page, designated by the web author. It may not necessarily correspond to the title of the document appearing on the page. For example, I might be looking for a copy of the Declaration of Independence. That document may appear on a web page entitled Historic Documents by the web author. If I restrict my search for “declaration of independence” to the title portion of pages, I will miss this page because it is actually called Historic Documents.

Date Searching

Searches can often be restricted by date. Additionally, dates often appear on the list of search results. However, like page titles, page dates can be somewhat misleading. The dates that are searched or reflected in results lists are the dates of the web page, not necessarily the date of the document on the page. A search with a date restriction of July 4, 1776, will yield no results since no web pages were created or changed on that date. Thus, if I am searching for the Declaration of Independence, it won’t help me to try and place a date restriction in my search query. However, date restrictions can be useful to locate newly created or recently updated web pages, weeding out older results.
Phrase Searching

Most search engines recognize quotation marks around two or more terms as the designation of a phrase. Additionally, this can sometimes be accomplished by placing the Boolean connector ADJ between the terms. Thus, "apple pie" or apple ADJ pie will search for the phrase apple pie, and not search the two terms separately.

Nesting

Many search engines support the use of parentheses to nest various parts of a search query. For example, a search for apple or blueberry pie can be accomplished by nesting:

(apple or blueberry) ADJ pie

It can also be accomplished by searching two alternative phrases:

"apple pie" OR "blueberry pie"

Search Levels

It is often useful to perform a multi-level search, first casting a wide net, then narrowing by searching only within that set of results. This feature is offered by AltaVista, Google, HotBot and Lycos.

Results Features

When comparing search engines, search language is only half the story. Search results are also important. Search engines use various mathematical formulas to match terms from the search query to web pages containing those terms. These formulas take various factors into consideration to present lists of results often ranked by relevancy, at least, relevancy according to the formulas used. Some of the factors that go into the determination of relevancy are how closely together the terms appear, how many times they appear on the page, how close to the top of the page they are, and how unique they are.

Beyond pure relevancy rankings, however, many options are available to achieve a variety of results. Search engines present results quite differently, often without clearly explaining how the results are calculated or displayed. A serious researcher will seek to understand these differences and use them to her advantage.

Directory Results

Several years ago before sophisticated portal sites were developed, there were two major ways to search for information on the web: directories and search engines. A directory is a collection of links to web sites which is classified into subject categories and subcategories.

As directories and search engines developed into overall portals, directories incorporated search engines and search engines incorporated directories. Portals have attempted to make these two entities appear seamless; however, they are two distinct finding tools. Understanding this concept allows the researcher to take more control over her searching.

Consider, for example, the classic directory, Yahoo! In a search for the Declaration of Independence, I can click through subject categories to locate it, or I can type 'declaration of independence' in the search box. When searched, Yahoo! first searches its classified directory for subcategories entitled Declaration of Independence. If none are present, it then searches the directory for listed web sites entitled Declaration of Independence. If there are none, Yahoo! then uses search engine Google to search for web sites which contain the phrase Declaration of Independence. Yahoo! presents the first set of results it can, even if that happens to be the third step, web page results from Google. I do not have to prompt
Yahoo! to move through to the next step if the first step found nothing; it happens automatically. This is why different searches on Yahoo! may produce results pages that look quite distinct.

Besides Yahoo!, there are two other major subject directories that have linked themselves with major search engines. The Open Directory Project provides directory results to Google, HotBot and Lycos, while LookSmart provides directory results to AltaVista and Excite.

**Most Popular Results**

As researchers began to realize that mathematical relevancy ranking didn't always equal researchers' intuitive relevancy ranking, tools were developed to put a more human factor back into relevancy determinations. Search engines can now measure what the most popular sites are, given certain search terms, and list the popular sites as results options. This is the driving force behind Direct Hit, which is used at HotBot and Lycos. Google and AltaVista include popularity as a factor in their formulas to determine relevancy rankings.

**Customized Results**

Most search engines allow the look of the results page to be changed, especially with regard to the number of hits per page. Additionally, they may offer the option of listing only titles or scoring by date or site rather than relevancy.

**Clustered/Compressed Results**

Some searches produce many individual page hits from the same overall web site, making it seem like the results all come from the same place. When a search engine uses results compression, or clustering, it shows only one page per web site, while offering an option to view the other results from that site. This feature can be found at AltaVista, Excite, Google and HotBot.

**Suggested Searches**

Suggestions for further searching based on the initial search are provided by many search engines. These suggestions can be simple, such as synonyms or alternative search terms. They can be more sophisticated, such as suggestions for searching in different, specialized databases. Ask Jeeves is built entirely around suggested searches. If I type a question into Ask Jeeves' search box, it returns a list of suggested specialized databases that might contain the answer to that question.

For example, I asked Jeeves "Where can I find the Declaration of Independence?". Jeeves returned several suggested sources for the text of the Declaration of Independence, as well as historical background on it.

Suggested searches can also be found at AltaVista, Excite, HotBot and Lycos.

**Similar Searches**

If I locate a web page that is highly relevant to my research issue, I might be interested in finding more pages that are very similar. Some search engines will perform a search for other similar pages at the click of a button. I simply choose a page from my results list and ask the engine to perform a second search to find similar pages. This feature can be found at Google (Similar Pages) and AltaVista (Relaxed Pages).

**Translated Results**

A few years ago, AltaVista began offering a tool to translate a given results page from one language to another. The translations aren't the greatest, but they're better than nothing when confronted with results in an unfamiliar language. Google and Lycos also offer translation.
| **AltaVista**  
<table>
<thead>
<tr>
<th><strong><a href="http://altavista.com">http://altavista.com</a></strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Default Searching:</strong></td>
</tr>
<tr>
<td><strong>Default Searching:</strong></td>
</tr>
<tr>
<td><strong>Search Language</strong></td>
</tr>
<tr>
<td><strong>Inclusion:</strong></td>
</tr>
<tr>
<td><strong>Alternative:</strong></td>
</tr>
<tr>
<td><strong>Exclusion:</strong></td>
</tr>
<tr>
<td><strong>Phrases:</strong></td>
</tr>
<tr>
<td><strong>Proximity:</strong></td>
</tr>
<tr>
<td><strong>Case Sensitivity:</strong></td>
</tr>
<tr>
<td><strong>Truncation/Wildcard:</strong></td>
</tr>
<tr>
<td><strong>Nesting:</strong></td>
</tr>
<tr>
<td><strong>Restrictors:</strong></td>
</tr>
<tr>
<td><strong>Searching by Levels:</strong></td>
</tr>
<tr>
<td><strong>Other Search Features:</strong></td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td><strong>Automatic Directory Results:</strong></td>
</tr>
<tr>
<td><strong>Popular:</strong></td>
</tr>
<tr>
<td><strong>Clustered:</strong></td>
</tr>
<tr>
<td><strong>Suggestions:</strong></td>
</tr>
<tr>
<td><strong>Similar:</strong></td>
</tr>
<tr>
<td><strong>Translated:</strong></td>
</tr>
<tr>
<td><strong>Other Features:</strong></td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
<tr>
<td><strong>Search Language</strong></td>
</tr>
<tr>
<td>Inclusion:</td>
</tr>
<tr>
<td>Alternative:</td>
</tr>
<tr>
<td>Exclusion:</td>
</tr>
<tr>
<td>Phrases:</td>
</tr>
<tr>
<td>Proximity:</td>
</tr>
<tr>
<td>Case Sensitivity:</td>
</tr>
<tr>
<td>Truncation/Wildcard:</td>
</tr>
<tr>
<td>Nesting:</td>
</tr>
<tr>
<td>Restrictors:</td>
</tr>
<tr>
<td>Searching by Levels:</td>
</tr>
<tr>
<td>Other Search Features:</td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td>Automatic Directory Results:</td>
</tr>
<tr>
<td>Popular:</td>
</tr>
<tr>
<td>Clustered:</td>
</tr>
<tr>
<td>Suggestions:</td>
</tr>
<tr>
<td>Similar:</td>
</tr>
<tr>
<td>Translated:</td>
</tr>
<tr>
<td>Other Features:</td>
</tr>
<tr>
<td>Feature</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
<tr>
<td>Search Language:</td>
</tr>
<tr>
<td>Inclusion:</td>
</tr>
<tr>
<td>Alternative:</td>
</tr>
<tr>
<td>Exclusion:</td>
</tr>
<tr>
<td>Phrases:</td>
</tr>
<tr>
<td>Proximity:</td>
</tr>
<tr>
<td>Case Sensitivity:</td>
</tr>
<tr>
<td>Truncation/Wildcard:</td>
</tr>
<tr>
<td>Nesting:</td>
</tr>
<tr>
<td>Restrictors:</td>
</tr>
<tr>
<td>Searching by Levels:</td>
</tr>
<tr>
<td>Other Search Features:</td>
</tr>
<tr>
<td>Results:</td>
</tr>
<tr>
<td>Automatic Directory Results:</td>
</tr>
<tr>
<td>Popular:</td>
</tr>
<tr>
<td>Clustered:</td>
</tr>
<tr>
<td>Suggestions:</td>
</tr>
<tr>
<td>Similar:</td>
</tr>
<tr>
<td>Translated:</td>
</tr>
<tr>
<td>Other Features:</td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Default Searching:</td>
</tr>
</tbody>
</table>

### Search Language

<table>
<thead>
<tr>
<th>Inclusion:</th>
<th>automatic; use + (plus sign) to include stopwords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative:</td>
<td>OR</td>
</tr>
<tr>
<td>Exclusion:</td>
<td>- (minus sign)</td>
</tr>
<tr>
<td>Phrases:</td>
<td>&quot;&quot; (quotation marks)</td>
</tr>
<tr>
<td>Proximity:</td>
<td>no</td>
</tr>
<tr>
<td>Case Sensitivity:</td>
<td>no</td>
</tr>
<tr>
<td>Truncation/Wildcard:</td>
<td>no</td>
</tr>
<tr>
<td>Nesting:</td>
<td>no</td>
</tr>
</tbody>
</table>

### Searching by Levels:

| Results: | yes |

### Other Search Features:

| Results: | several specialty search engines, including one for government pages |

### Automatic Directory Results:

| Results: | from Open Directory, relevant subject categories and subcategories appear at the top of results |

### Popular:

| Results: | not a separate list, but built into Google's formula |

### Clustered:

| Results: | yes |

### Suggestions:

| Results: | for individual terms from the search query; click on a term from the box on the results page to see definitions and search suggestions for that term. |

### Similar:

| Results: | yes; can be chosen from the results list or accomplished directly from the Advanced search form without performing an initial search |

### Translated:

| Results: | yes; pages published in Italian, French, Spanish, German and Portuguese can be translated into English |

### Other Features:

<p>| Results: | offers the option of looking at the index's cached page (what was actually searched) rather than the live page on the Internet; results list shows highlighted search terms in context |</p>
<table>
<thead>
<tr>
<th>Search Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion:</td>
</tr>
<tr>
<td>automatic; AND with Boolean phrase option; all the words from the pull down menu; * (plus sign)</td>
</tr>
<tr>
<td>Alternative:</td>
</tr>
<tr>
<td>OR with Boolean phrase option; any of the words from the pull down menu</td>
</tr>
<tr>
<td>Exclusion:</td>
</tr>
<tr>
<td>NOT with Boolean phrase option; must not contain from the pull down menu; - (minus sign)</td>
</tr>
<tr>
<td>Phrases:</td>
</tr>
<tr>
<td>** (quotation marks); exact phrase from the pull down menu</td>
</tr>
<tr>
<td>Proximity:</td>
</tr>
<tr>
<td>no</td>
</tr>
<tr>
<td>Case Sensitivity:</td>
</tr>
<tr>
<td>lower case not sensitive; Capitalization forces sensitivity</td>
</tr>
<tr>
<td>Truncation/Wildcard:</td>
</tr>
<tr>
<td>*(asterisk) matches 0 or more characters; ? (question mark) matches one character only; they can be placed anywhere in the term</td>
</tr>
<tr>
<td>Nesting:</td>
</tr>
<tr>
<td>yes, with Boolean phrase option</td>
</tr>
<tr>
<td>Restrictors:</td>
</tr>
<tr>
<td>date, language, domain, depth, feature; search form also allows searches for different types of files</td>
</tr>
<tr>
<td>Searching by Levels:</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>Other Search Features:</td>
</tr>
<tr>
<td>search form makes advanced searching easy to use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Directory Results:</td>
</tr>
<tr>
<td>yes, from Open Directory</td>
</tr>
<tr>
<td>Popular:</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>Clustered:</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>Suggestions:</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>Similar:</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td>Translated:</td>
</tr>
<tr>
<td>no</td>
</tr>
<tr>
<td>Other Features:</td>
</tr>
<tr>
<td>will automatically run the same search in Lycos at the click of a button</td>
</tr>
<tr>
<td><strong>Lycos</strong>&lt;br&gt;<a href="http://www.lycos.com">http://www.lycos.com</a></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Default Searching:</strong></td>
</tr>
<tr>
<td><strong>Default Searching:</strong></td>
</tr>
<tr>
<td><strong>Search Language</strong></td>
</tr>
<tr>
<td>Inclusion:</td>
</tr>
<tr>
<td>Alternative:</td>
</tr>
<tr>
<td>Exclusion:</td>
</tr>
<tr>
<td>Phrases:</td>
</tr>
<tr>
<td>Proximity:</td>
</tr>
<tr>
<td>Case Sensitivity:</td>
</tr>
<tr>
<td>Truncation/Wildcats:</td>
</tr>
<tr>
<td>Nesting:</td>
</tr>
<tr>
<td>Restrictors:</td>
</tr>
<tr>
<td>Searching by Levels:</td>
</tr>
<tr>
<td>Other Search Features:</td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td>Automatic Directory Results:</td>
</tr>
<tr>
<td>Popular:</td>
</tr>
<tr>
<td>Clustered:</td>
</tr>
<tr>
<td>Suggestions:</td>
</tr>
<tr>
<td>Similar:</td>
</tr>
<tr>
<td>Translated:</td>
</tr>
<tr>
<td>Other Features:</td>
</tr>
</tbody>
</table>

72
BETTER SEARCH ENGINES FOR LAW

Purpose of Research

- Compare efficacy of search engines in retrieving legal information on the web. Specifically, determine which search engines are best at 1) retrieving law-related known items on the web, and 2) delivering relevant results for legal topic queries.
- See how well legal search engines such as FindLaw’s LawCrawler and AltaVista’s LawRunner stack up against general search engines in finding legal information on the web.
- Survey search engine issues such as the low percentage of the web indexed, the invisible web, pay for placement, spamdexing, new ranking mechanisms etc., and examine how these issues impact legal researchers.

Part 1: Study Comparing Search Engines in Retrieving Law-Related Known Items

Design of Known Item Study

- Selected 15 search engines. 13 general search engines and 2 legal search engines, LawCrawler and LawRunner. Criteria for general search engine inclusion: mentioned on Search Engine Watch or Search Engine Showdown, used in the Lawrence and Giles studies, or ranked a top web property by Media Metrix or Nielsen NetRatings.
- Searched for 50 known items such as organization pages, agency reports, cases, codes, courts, political or academic persons, publishers, government entities, etc.
- Used the same search on each engine in default mode. Used no advanced features or customized search syntax. Often used quotations for phrase searching as well as “and”.
- Examined first twenty results. Scored on a point system using six categories. Highest possible score was 300. (6 points times 50 searches)
  8 pts. Known item is in 1st through 10th results.
  7 pts. Known item is one link from 1st through 10th results.
  6 pts. Known item is in 11th through 20th results.
  5 pts. Known item is one link from 11th through 20th results.
  4 pts. Internal page of known item is in 1st through 10th results.
  3 pts. Known item is one link from 1st through 10th results.
  2 pts. Known item is in 11th through 20th results.
  1 pt. Known item is one link from 11th through 20th results.
  0 pts. Did not retrieve known item in any of the above categories.

Deanna Barmakian, Better Search Engines for Law

Reprinted with permission of the author. (c) Deanna Barmakian
Results of Known Item Study

<table>
<thead>
<tr>
<th>Rank</th>
<th>Search Engine</th>
<th>Known Item Retrieval Score</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Yahoo</td>
<td>229</td>
<td>yahoo.com</td>
</tr>
<tr>
<td>2.</td>
<td>HotBot</td>
<td>206</td>
<td>hotbot.com</td>
</tr>
<tr>
<td>3.</td>
<td>GoTo.com</td>
<td>200</td>
<td>goto.com</td>
</tr>
<tr>
<td>4.</td>
<td>Google</td>
<td>194</td>
<td>google.com</td>
</tr>
<tr>
<td>5.</td>
<td>Snap</td>
<td>192</td>
<td>snap.com</td>
</tr>
<tr>
<td>6.</td>
<td>LookSmart</td>
<td>192</td>
<td>looksmart.com</td>
</tr>
<tr>
<td>7.</td>
<td>Fast</td>
<td>189</td>
<td>alltheweb.com</td>
</tr>
<tr>
<td>8.</td>
<td>AltaVista</td>
<td>173</td>
<td>altavista.com</td>
</tr>
<tr>
<td>9.</td>
<td>Northern Light</td>
<td>164</td>
<td>northernlight.com</td>
</tr>
<tr>
<td>10.</td>
<td>Excite</td>
<td>152</td>
<td>excite.com</td>
</tr>
<tr>
<td>11.</td>
<td>Go's Infoseek</td>
<td>145</td>
<td>infoseek.go.com</td>
</tr>
<tr>
<td>12.</td>
<td>Lycos</td>
<td>141</td>
<td>lycos.com</td>
</tr>
<tr>
<td>13.</td>
<td>WebCrawler</td>
<td>109</td>
<td>webcrawler.com</td>
</tr>
<tr>
<td>14.</td>
<td>LawCrawler</td>
<td>106</td>
<td>lawcrawler.com</td>
</tr>
<tr>
<td>15.</td>
<td>LawRunner</td>
<td>93</td>
<td>lawrunner.com</td>
</tr>
</tbody>
</table>

Observations

- Despite the low percentage of the web indexed, search engines are effective in locating law-related known items. (For more than half of the fifty searches, about seven of the search engines retrieved the item in their first 10 results.)
- Yahoo, HotBot, GoTo.com, Google, Snap, LookSmart, and Fast are the better search engines to use for law-related known item searching.
- Despite being specialized for law, legal search engines should not be used for law-related known item retrieval.

Part 2: Study Comparing Relevance of Results from Search Engines for Legal Topic Queries

Design of Relevance Study

- Selected ten engines for inclusion in study, eight general search engines and two legal search engines, LawCrawler and LawRunner.
- Ran ten law-related topical queries on each engine using the same search.
- Topics included: a legal philosopher, a defunct federal commission, expression rights in Guatemala, lawyer referral services in Chicago, licensing of midwives, etc.
- Analyzed first ten results. Assigned 0, 1, 2, or 3 points per result based on degree of relevance to topic and amount of information provided.
- Closed track kept of returned pages. The same page always received the same score.
- Highest possible score was 300. (3 points times ten results times ten searches.)
Results of Relevance Study

<table>
<thead>
<tr>
<th>Order of Performance</th>
<th>Search Engine</th>
<th>Relevancy Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Google</td>
<td>149</td>
</tr>
<tr>
<td>2.</td>
<td>LawCrawler</td>
<td>120</td>
</tr>
<tr>
<td>3.</td>
<td>LawRunner</td>
<td>112</td>
</tr>
<tr>
<td>4.</td>
<td>Fast</td>
<td>111</td>
</tr>
<tr>
<td>5.</td>
<td>LookSmart</td>
<td>101</td>
</tr>
<tr>
<td>6.</td>
<td>AltaVista</td>
<td>98</td>
</tr>
<tr>
<td>7.</td>
<td>Snap</td>
<td>95</td>
</tr>
<tr>
<td>8.</td>
<td>HotBot</td>
<td>92</td>
</tr>
<tr>
<td>9.</td>
<td>Yahoo</td>
<td>90</td>
</tr>
<tr>
<td>10.</td>
<td>GoTo.com</td>
<td>87</td>
</tr>
</tbody>
</table>

Observations

- Legal search engines such as LawRunner and LawCrawler deliver more relevant results than general search engines for legal topic queries.
- There is significant overlap of results between the two legal search engines. Time-pressed legal researchers should use just one or the other.
- There is overlap in results from engines which use Inktomi. So legal researchers should use just one from this group (Snap, HotBot, and GoTo.com). At time of study, group included Yahoo, which recently switched its internal search engine from Inktomi to Google.
- Google and Fast deliver “unique” results with little overlap of results from other search engines. Researchers should use these for comprehensive web “data mining”.
- Relevance of search engine results, even from legal search engines, is low, indicating that search engines are not viable tools for topical legal research.

Part 3: Search Engine Issues and their Impact on Legal Researchers

Issue: Low Percentage of the Web indexed
Impact on Legal Researchers: Low

Although only 16% of the public, indexable web is indexed by search engines, the known item study indicates (anecdotally) that legal information is far better indexed than typical web content.

Issue: Invisible Web—Dynamic Content
Impact on Legal Researchers: High

A good deal of law-related information on the web is invisible to search engines. Primary component of this “invisible web” or un-indexable web is dynamic content—information in databases generated dynamically into web pages. Increasing numbers of government agencies and law schools are mounting important information in databases on the web rather than static pages.
Issue: Pay for Placement (in result lists)
Impact on Legal Researchers: Low

Sites used by legal researchers do not bother to buy placement on result lists by bidding on search terms. GoTo.com, 28th most visited site on the web, sells search terms—the highest bidder gets the highest spot on result lists. (Highest bidder on "lawyers" in July 2000 agreed to pay $3.23 per click through on result list.) Known item study indicates, however, that most search terms which legal researchers use are not sold. Besides GoTo.com, about 30 low-profile search engines use pay for placement.

Issue: Buying Internet Keywords from RealNames
Impact on Legal Researchers: Medium

Practice of registering an "Internet Keyword" with RealNames corporation is becoming more common. Allows users to type in a word rather than a URL in IE and some search engines to go to the official page of the registering entity. Hasn’t caught on with legal entities except for some high-profile law firms. Does make finding official corporate and educational sites easier.

Issue: Spamdexing
Impact on Legal Researchers: Low

Insofar as spamdexing causes all search engines to constantly revise their ranking mechanisms, spamdexing affects legal researchers using the web. However, spammers aren’t usually after the legal research crowd. We are not using the most searched terms, and legal research sites aren’t trying to dupe us into going to their sites.

Issue: New ranking mechanism, link topology of the web
Impact on Legal Researchers: High

Major search engines are putting more stress on link analysis in their algorithms in an effort to achieve Google-like relevance for search results. Great for legal researchers because the sites containing legal information are usually properly named, heavily linked to, and linked to by "authoritative" sites on the web.

Issue: New ranking mechanism, user behavior
Impact on Legal Researchers: Medium

Direct Hit now licensing its technology to many other search services. Ranking based on popularity of a site with previous search engine users becomes a self-fulfilling prophecy. However, does tend to deliver relevant hits for short and simple law-related searches.
EXERCISE: Comparison of Legal and General Search Engines

SCENARIO: A potential client comes to you complaining that a builder agreed to sell her a house in an exclusive Seattle neighborhood, but after learning that she is Latino, failed to keep the agreement. What are the buyer’s options?

Work in pairs, one using a legal search engine (LawCrawler or LawRunner) and the other, a non-legal search engine. Each partner should try searching for fair housing:

Here are the addresses of some legal and non-legal search engines:

- LawCrawler: www.lawcrawler.com
- LawRunner: www.lawrunner.com
- Google: www.google.com
- AltaVista: www.altavista.com
- AllTheWeb: www.allthebase.com
- Excite: www.excite.com

For each search:
1. How many hits did you retrieve in each search?
2. Look at the first 10 hits. Does at least one link to HUD complaint procedures?
3. In your opinion, which search produced better information?

Compare with your partner:
4. Who found more useful sites? Was the legal or the general search engine better for this topic?
5. Does the buyer have a complaint? If so, how soon must it be filed? What must it contain?
6. If time allows, go back to your search engine and find search tips. How do you search for a phrase?

Be ready to discuss in class.

Answers:

Yes, the buyer can complain. The Fair Housing Act prohibits discrimination in housing because of race, color, or national origin among other factors. The complaint must be filed within one year and must include the buyer’s name and address, the name and address of the person the complaint is against (the respondent), the address or other identification of the housing involved, a short description of the alleged violation, and the date(s) of the alleged violation.

See the HUD complaint procedures including the required timeline:

http://www.hud.gov/lhe/fheactl.html
http://www.hud.gov/lheo.cfm

There’s also good information at:

To retrieve a specific item such as an organization page, an agency report, the name of a person, a code, a case, a term, or a procedure, general search engines are very effective.

To search for broad legal concepts, legal search engines deliver more relevant results. To counteract the problem of low web indexing and poor relevance when searching legal concepts, try the subject coverage provided by web directories.
EXERCISE: Comparison of Non-Legal and Legal Search Engine Results

Searching for a known item

You have been following the national interest in lawsuits against gun manufacturers, particularly the suits filed by cities across the country. You recently heard that an appellate court has dismissed the case between the city and various gun manufacturers. You can’t remember which city it was. You need to find this case. And you want to read about the status of other city lawsuits against gun manufacturers.

You should work in pairs with one of you using a non-legal search engine while the other one will use a legal search engine. For this first session, do not try to figure out the search rules for the search engine you are using, just enter the search as noted below.

When you get your results, compare them with your partner. Just looking at the first 10 hits, whose search pulled up more documents discussing the legal issues? You may need to look at some of the sites to see if you can locate the case. Were there any duplicates between the two search engines? Which search produced the more useful documents? We will discuss what you found.

Group 1

Group 2
3. LawRunner - [http://www.lawrunner.com/](http://www.lawrunner.com/) - run the search gun manufacturer and lawsuit and city; when the search screen changes to give you a Boolean search box, type the same search in that box.

Group 3

Group 4
COMPARISON OF RESULTS
Searches run on November 30, 2001

<table>
<thead>
<tr>
<th>gun manufacturer and lawsuit</th>
<th>gun manufacturer and lawsuit and city</th>
</tr>
</thead>
<tbody>
<tr>
<td>LawCrawler</td>
<td>4330</td>
</tr>
<tr>
<td>LawRunner</td>
<td>434</td>
</tr>
<tr>
<td>Google</td>
<td>6320</td>
</tr>
<tr>
<td>HotBot</td>
<td>8100</td>
</tr>
<tr>
<td></td>
<td>3480</td>
</tr>
<tr>
<td></td>
<td>266</td>
</tr>
<tr>
<td></td>
<td>4030</td>
</tr>
<tr>
<td></td>
<td>6400</td>
</tr>
</tbody>
</table>

Of the first 10 sites located with each search, there were no duplicates! From these first 10 retrieved websites, several searches identified a case involving the City of Cincinnati which is probably what we are looking for.

Note that some of the search engines give dates with their retrieved results (important where there are a lot of retrieved results) and with some you have no idea what the date of the article or information might be without looking at the website itself.

Given that you are looking for a recent appellate court case, reading articles about the case when it was in trial would be less help to you.

Take the time to read a bit about the searching techniques on the search engines you used. Can you construct a more precise search that will locate the Cincinnati case more quickly? What would that search be and which search engine would you use first?

Can you find a website that collects the information on this topic in a comprehensive and easy to use way? Can you find someone or a group who is gathering the information about these lawsuits and following court and legislative activity throughout the country? How reliable do you think this site will be? One such site is http://www.fee-market.net/spotlight/gunlawsuits/.
Evaluating Sources Found on the Web

by Penny A. Hazelton
Mary Ann Hyatt
and Nancy McMurrer

Gallagher Law Library
University of Washington School of Law
1100 NE Campus Parkway
Seattle, WA 98105
206-543-6794
EVALUATING SOURCES FOUND ON THE WEB

It is important to do the same sort of evaluation that you do with print sources. In fact, one must be even more careful with Internet resources since there are no intermediaries between the writer and his or her final product published on the Internet.

Evaluating for Reliability:

* Accuracy
  What sort of information can you find about the author? Is this person qualified to write the document? Can you contact him or her? Does the document contain authority (footnotes with citations, or a bibliography) for the points it makes? Are the citations clear enough that you can use them to locate the documents cited?

* Authority
  Who is publishing this document, or who is the publisher of this website? Does the publisher indicate its/its/her qualifications? Is the publisher of the website "authorized" to collect and publish the documents included there?

* Objectivity
  What is the purpose of the website and the documents contained there? Can you find out what point of view is being presented there? Is any attempt made to include differing points of view?

* Currency
  When was the document and/or the website created? When was it last updated? Are the links that are provided, if any, up to date?

* Coverage
  Does the website and the documents there really cover the subject? What kind of information is there, summaries or full text? Do the internal links actually lead to the type of documents they promise?

Evaluating for Ease of Use:

* Layout of the website
  Is it clean, or cluttered; do blinking graphics distract from the content? If background colors are used with text, is there sufficient contrast? Is a text-only view provided?

* Locating information at the website
  Is there a table of contents at the site? Is there a site map? Are documents buried too many layers down? Is the information needed to evaluate the site's reliability prominently displayed and easy to find? If it is a large website, is there a search engine to help you locate information? Are its capabilities clearly explained? Are multiple access points for locating information included? Are there internal navigation buttons provided?

* Retrieving Information from the website
  Is the format of documents clearly set forth? Can a user choose among alternative formats? If other software is needed to read or retrieve a document, is there a link for downloading it? Is the size of the documents provided?
EXERCISES:

♦ OPTION 1: Look at one of the documents retrieved from a search about “spam” email – http://www.spamfree.org/spamprimer.html. Consider the reliability of the document.
  Accuracy
  Authority
  Objectivity
  Currency
  Coverage

♦ OPTION 2: Look at Washington superior court rules and the local rules for Clark and Jefferson counties. You can either go to the library’s Internet Legal Resources page and follow the link for Washington court rules, or type in http://www.courts.wa.gov/rules/home.cfm. Consider the reliability of the documents:
  Accuracy
  Authority
  Objectivity
  Currency
  Coverage

♦ Go to the Internet Legal Resources page. Click on the Legal Indexer link at the top of the page. Assume that you need to locate the Thurston County Code. Look at FindLaw or Hieros Gamos [commercial sites] and either Cornell’s Legal Information Institute, Indiana’s World Wide Web Virtual Library, or Washburn’s WashLaw Web [sites maintained by law schools]. Consider which site or sites you find easy to use. You may wish to use both the directory at the site, following links to the code, and then try a search. Use these criteria:
  Layout
  Locating information at the site
  Retrieving information at the site
Evaluating Electronic Resources

by Bobie Shumard

In just a few years, many trade and professional computer magazine articles have advocated the creation of an electronic information service. What they fail to realize is that the electronic information service is already in place. What we need do is to utilize it as efficiently as possible. The key to satisfactory information retrieval lies in the ability to identify, locate, and evaluate the information sought.

What the Point?

A well planned research strategy saves time, effort, and money in the long run. What exactly are you looking for? Do you want critical research facts, options, statistics, company background information or something else? Each type of information sought has a reliable source of that information. Well-known legal publishers continue to put out reliable information products, and spend lots of money doing so. What about little-known or casual publishers? If you are looking at a report put out by someone unfamiliar to you, how do you then evaluate the unknown publisher's product?

The Proof is in the Pudding

If the research is to be successful, the researcher must know how to identify, locate, and evaluate the information sought. The best way to determine purpose of the research is to walk in the shoes of the consumer. To identify the information needed, you need to ask yourself the following questions:

1. What is the objective of the research?
2. What is the scope of the research?
3. What are the limitations of the research?
4. What is the time frame for the research?

This type of research can be done by searching the electronic information service for relevant articles and reports. The researcher should then evaluate the information by answering the following questions:

1. Is the information relevant to the research objective?
2. Is the information accurate and reliable?
3. Is the information complete and up-to-date?
4. Is the information cost-effective?

Start with What You Know

The researcher should begin by identifying the information already available. The researcher should then determine the information required and the information available. The researcher should then evaluate the information available and the information required.

While many researchers may be able to identify, locate, and evaluate the information sought, few are able to do so efficiently. The key to satisfactory information retrieval lies in the ability to identify, locate, and evaluate the information sought. The researcher should then evaluate the information by answering the following questions:

1. Is the information relevant to the research objective?
2. Is the information accurate and reliable?
3. Is the information complete and up-to-date?
4. Is the information cost-effective?
A Desktop Learning Opportunity

Accuracy
This step takes some and user judgment than the preceding steps. A way to test for quality control measures: place the author's or publisher of the electronic resource is to check for tell-tale signs of accuracy. Is the resource free of grammatical and spelling errors? Is the data organized in tables, charts or other ways that make it easy to read? Is the information timely, concise, free of, detailed, and comprehensive enough for the purpose stated? Is the information renewal supported by cited sources? Is the source of facts or evidence identified? The end user should also be sure that the information isn't vague and doesn't make outrageous generalizations.

Certain types of legal information change rapidly; others don't. Is the area of interest one that needs regular updating? Has this piece passed that test?

Finally, the end user must learn to question one-sided viewpoints and use them for the information they present, while seeking opposing view points to other information resources. Otherwise, "We must be prepared to discard the unwieldy information."

Objectivity
Sometimes this step is easy because the author or publisher of objective is widely known. The following questions will reveal whether unknown or little known authors or publishers have procedures in the information reasonably and fairly presented with a minimum of bias. Does it acknowledge the other side and is it internally consistent? Is it intended to sway the audience?

Advertising on a page related to the context of the information presented should signal a targeted advertising flag. However, check the content of the ad against the context of the article link. If that advertising is clearly offset from the content and the topic is unrelated, a different message is sent.

Currency/Coverage
When currency is important, other questions should be asked and answered.

Are Web pages still under construction?
Are electronic sessions cited or acknowledged in the document, honored checked by the author or publisher for currency?
Are links back to information in previous editions supplied?

Conclusion
We need to convince our end users that just because information is made readily available in an electronic format, that doesn't make it better. We need to be vigilant in evaluating our end users to become good evaluators of the information they locate. I advocate that the checklist provided should become a part of the research process in any academic setting.

Bobbie Sullivan (sullivanb@lclark.edu) is Assistant Dean of Library & Information Services at Thomas M. Cooley Law School in Lansing, Michigan.

Checklist
The following checklist is one way to assure that end users follow at least the minimal steps outlined in the accompanying article. Be an advocate and create a haven for students, attorneys, clerks, and others. Post the steps by each workstation, especially those with Web access. Recommend these steps and others to anyone who will listen.

Purpose
 ✓ Know exactly what information is relevant to your research question: facts, opinions, statistics, background, etc.
 ✓ Test the resources located against your purpose.

Content Check
 ✓ Skim the resource for information about the author and the organization publishing or presenting the information.
 ✓ Locate information about the date the original work was first published, and when it was last updated.

Authority
 ✓ Who wrote this document?
 ✓ Is the publisher reputable?
 ✓ Who can be contacted for more information?
 ✓ Is the author qualified to write this?
 ✓ Is the material copyrighted?

Accuracy
 ✓ Is the information timely?
 ✓ Is the information error free (typo, grammar, spelling)?
 ✓ Is the information sufficiently detailed and comprehensive for the stated purpose of the research?
 ✓ Is the information vague?

 ✓ Is the information one-sided?
 ✓ Is the information supported by citations to other sources?
 ✓ Is the information organized for easy reading (charts, graphs, etc.)?

Objectivity
 ✓ Is the information biased?
 ✓ Do you acknowledge the other side's arguments?
 ✓ Is it intended to sway the audience?
 ✓ Is advertising on the page clearly related to the content presented?

Currency/Coverage
 ✓ When was the material last updated?
 ✓ Is it a work in progress?
 ✓ Are cited sources up to date?
 ✓ Are previous editions acknowledged and possibly made available for comparison?
Effective Searching on Your Own

by Penny A. Hazelton
Mary Ann Hyatt
Peggy Roebuck Jarrett
Nancy McMarrer
Cheryl Rae Nyberg

Gallagher Law Library
University of Washington School of Law
1100 NE Campus Parkway
Seattle, WA 98105
206-543-6794
EFFECTIVE SEARCHING ON YOUR OWN

Points to Remember:

1. Remember, the research process is the same whether you use manual or electronic resources.
   a. Be sure to develop an exhaustive list of search terms.
   b. Start with secondary sources, a good way to develop alternate terms.
   c. Think about whether the issue is likely to be controlled by statute, or case law, or both.
   d. Decide which part of the research should be tackled electronically, which manually.
   e. Plan everything before you go online.

2. Choose the best electronic source for your research.
   a. What electronic choices do you have (commercial services, CD-ROM, Internet)?
   b. Where is the information likely to be found?
   c. Which electronic source can you use most effectively to keep costs to a minimum?

3. Choose a database or file.
   a. With commercial services, choose the most specific database that will meet your research needs.
   b. If you decide to use a free Internet resource, determine what reliable, authoritative sites(s) will have the information you need.
   c. If you do not know which electronic file or Internet site is best, devise a search strategy for locating it online.
      1. Decide whether a directory or search engine is the best tool to locate your information on the Internet.
      2. Try more than one Internet search tool to make sure you are finding the best information.

4. Using the search terms gathered during your preliminary analysis, develop a search strategy.
   a. Think about whether you need to allow for different spellings of your terms or different endings (marijuana or mariguana; legis? to retrieve legislate, legislation, legislators, etc.).
   b. Establish what form must be used so the search engine will recognize the phrase.
   c. Determine what sort of relationships you wish to establish among the terms using Boolean connectors (and, or, not) or proximity connectors (same sentence, same paragraph, within n words of each other, near).
   d. If necessary, put terms in parentheses to control the order in which they are processed.
e. Consider searching in particular fields or segments of the documents (look in the name or title of case law to locate the Smith v. Jones case).

f. Limit by date to eliminate extraneous materials.

g. Use natural language searches, if appropriate.

h. Look in online help for search tips; each online system is a bit different.

5. Consider backup strategies if your first search is unproductive.

a. Are there other electronic sources, databases, or websites you should search?

b. What are other searches you should try?

6. Decide the format and destination of the search results.

a. Do you need the full text, KWIC, or will a list of citations be satisfactory?

b. Should you print, download, or read the results online?

7. Update by using the most current electronic resource to which you have access.

LEGAL SEARCH ENGINES:

- Findlaw's LawCrawler -- http://lawcrawler.lp.findlaw.com/
- LawRunner -- http://www.lawrunner.com/

LEGAL DIRECTORIES:

- Go to the Gallagher Law Library Homepage -- http://lib.law.washington.edu/ -- and click on the Internet Legal Resources link found in the table of contents list on the left side of the screen. Once at that page, choose Legal Indexes from the list at the top of the page.

GENERAL SEARCH ENGINES AND DIRECTORIES:

- Go to the Gallagher Law Library Homepage -- http://lib.law.washington.edu/ -- and click on the Internet Legal Resources link found in the table of contents list on the left side of the screen. Once at that page, choose General Search Engines from the list at the top of the page.
OPTIONAL EXERCISES - FEDERAL

The goal of these exercises is to provide you with practical hands-on experience utilizing Internet resources. When conducting legal research there are often multiple ways to locate information. For example, to retrieve cases, you could use a digest, an annotated code, or a secondary source such as a law review article. The same is true in Internet legal research. Answer the questions below using directories, search engines, and portals, such as those on the Internet Legal Resources webpage, http://lib.law.washington.edu/research/research.html.

1. A couple of years ago, a commission was appointed to consider whether the U.S. Court of Appeals for the 9th Circuit should be split. What is the name of the commission? Where can you find the commission’s final report?

2. Your client, a retailer of fresh juice products sold in Puget Sound area grocery stores, is excited about expanding her business to serve several states in the Pacific Northwest. She wants to see competitor Odwalla’s most recently filed 10-K report. Your paralegal usually retrieves these documents but he has the day off.

3. You consult for a large corporation whose many units produce a wide variety of goods sold in the U.S. and internationally. You have been asked to identify all of the bilateral and international trade agreements to which the U.S. is a party and that deal with the specific manufactured products produced and marketed by the company. Can you identify a single authoritative online source for this information?

4. In March 2001, Congress passed a Joint Resolution of Disapproval of the ergonomics regulations published November 2000. In response, the Labor Secretary was to convene forums and accept comments on workplace safety. May I still submit comments?
HINTS FOR OPTIONAL EXERCISES - FEDERAL, IF NEEDED

1. Consider beginning your search with a general search engine to locate news items discussing the commission. Although the work of the commission is frequently mentioned as focusing on the 9th Circuit Court of Appeals, its official name is quite different.

With the name of the commission in hand, try to locate its website through one of the federal agency directories listed on the Internet Legal Resources page, http://lib.law.washington.edu/research/research.html, under "United States Legal Materials and Sites." For instance, you might look for the homepage of the 9th Circuit Court of Appeals and see if it provides a link to the commission.

Or, search keywords from the commission's name in a general or legal search engine.


EDGAR is an automated system that collects and forwards submissions by companies required to file forms with the SEC. EDGAR stands for Electronic Data Gathering, Analysis, and Retrieval system. Try searching the EDGAR archives for the keyword Odwalla.

If you prefer to start with a general search engine, be careful: many commercial sites give you only excerpts of SEC filings, while charging for the complete text. Be sure to put the hyphen in 10-K, or you will retrieve hits about a 10K race!

3. Do you know which federal agency(ies') deal with international trade? If you do, you might begin by using one of the federal government agency indexes to locate that agency's website.


Note that you can choose which edition of the Manual to search. The current edition, 2001-02, is the default selection. Search either international trade or trade agreements.
After you've identified one or more likely agencies, use one of the federal government agency indexes on the Internet Legal Resources page to locate appropriate websites.

4. FirstGov (http://www.firstgov.gov/) is an easy-to-search, free website designed to provide an information portal to federal, state, and local government information on the Internet. You can locate information by keyword searches or by browsing the links.

Another government sponsored website containing legislative (as well as executive, judicial, regulatory and administrative) materials is GPO Access, http://www.access.gpo.gov/su_docs/, from the Government Printing Office. This website contains links to the Federal Register (from 1994 to current) and the Code of Federal Regulations (the online service is updated concurrent with the release of the paper editions of the CFR). Both of these resources can be searched by keyword.

For commentary from industry organizations, law firms and other interested parties (including government agencies), you might want to conduct a search using a general search engine (e.g., Google) or legal search engine (e.g., LawCrawler).
1. The name of the commission is the Commission on Structural Alternatives for the Federal Courts of Appeals and the final report can be found at http://www.commission.uscourts.gov/. Note, however, that this website will be "maintained in its current status through the current session of Congress," with no indication that the information will be transferred to another site. The removal of documents from websites is a chronic and serious impediment to relying on the Internet for comprehensive research.

This question represents a real life situation. Frequently we remember only bits and pieces about a subject, organization, or case. In the media and other sources searched by general search engines, the focus was on the 9th Circuit. Fortunately, most of these sources mention the official name of the commission, which includes several searchable words (structural, alternatives, federal, appeals). Once you've identified the name of the commission, it is relatively easy to locate the commission's website.

Why wasn't the commission linked from the federal agency directories? That's a good question. Cabinet-level agencies and their sub-units are well-indexed by these sources. But this commission was established for a specific purpose and was temporary. It is not unusual for directories and indexes to miss this type of source.


4. No, it is too late to comment. Comments were to be postmarked by August 3, 2001. Using a federal government information portal such as FirstGov, http://www.firstgov.gov, you can obtain information on the topic ergonomics from various agencies. Look under the Topics heading Consumer Services and Safety. From there the link for Work-Related Incidents takes you to the homepage for OSHA, whose index entry for ergonomics takes you to http://www.osha-dc.gov/ergonomics-standard/index.html. This webpage contains links to Federal Register notices and news releases, as well as forum schedules and transcripts.
1. A researcher has heard about state-sponsored treatment programs for perpetrators of domestic violence. She thinks that these programs accept perpetrators of domestic violence into treatment to satisfy court orders. She wants to know if such a program has been adopted in Washington and if so, what the program standards are and if there is a certification process? Are such programs required to notify victims of domestic violence that a perpetrator has been accepted or rejected from treatment? Can a former convicted batterer assist with such a treatment program by volunteering?

2. A colleague has had a heart attack and you have taken over one of her cases. The client, Henry Southern, was involved in an automobile accident almost three years ago and your colleague had prepared a summons and complaint alleging that the negligence of the other party, John Drake, caused the accident and Southern's injuries. You find that the process server has not been able to serve Drake, despite repeated attempts to contact him at the address he gave Southern after the accident. Drake has never been at home, telephone calls are unanswered, and voicemail messages have not been returned. Sometimes his mailbox is overflowing with mail and sometimes it is empty. One of the neighbors has told the server that she believes Drake may be visiting relatives in Kansas.
   a. Locate the RCW section that allows you to file the complaint to toll the statute of limitations.
   b. If you file the complaint, how much time will be available to serve Drake?
   c. Suppose the process server is still unable to locate Drake and suggests the Drake may be avoiding the service of process. Is there an alternative to personal service of process available?
   d. Suppose the process server is still unable to locate Drake and determines that Drake may be out of state. Is there an alternate service of process available for cases involving automobile accidents?
   e. Locate a case decided this year that discusses the above RCW section.

3. You are the attorney for the parents of a teenage son who has left home repeatedly over the past two years; he usually returns after a couple of days. Lately, when he is at home, his parents tell you that he terrorizes his younger siblings. They want to know about their options. You know that there is a law that helps parents and children deal with their conflicts and reconcile their differences. It was amended twice in 2006 and you wish to look at the legislative history to see why changes were made.
   a. Locate the relevant chapter of the RCW.
   b. What two chapters of the 2000 Laws of Washington amended the RCW chapter?
   c. What are the bills that became those laws?
   d. What legislative history document(s) would provide you a quick overview of the changes made?
   e. What document(s) will quickly tell you the effective date of an act?
   f. You will find two committee reports from the same house for each bill. Which one is more probative? Why?
4. You have had a commercial and residential real estate practice for years. Recently, you have had several clients who have wanted to purchase property with hazardous waste contaminates on site. You have realized that you must learn a lot more about how these hazardous wastes are identified and who has the responsibility to clean them up. You never took environmental law in law school and are not even sure where to start. But you are smart and creative. Is there a Washington State agency that regulates hazardous waste cleanup? How can you be kept informed about changes in regulations that might affect the advice you give your clients?
HINTS FOR THE OPTIONAL EXERCISES - WASHINGTON, IF NEEDED

1. Washington state regulations can be found easily by using Gallagher's Internet Legal Resources link. There are three versions of the Washington Administrative Code available online, but it may be easiest to start with the searchable version made available through the Washington Legislatures multiple database webpage. How current is this WAC site? What keywords should you use? Domestic violence, perpetrator, victim, volunteer? A version of the WAC, arranged by title is sponsored by the Office of the Code Reviser. With this version, you can scan through the list of chapters in Title 388 - Department of Social and Health Services, to find the one dealing with domestic violence. Remember the Edit → Find function on the web browser when searching through long documents. How current is the searchable version of the WAC sponsored by the Municipal Research and Services Center?

2. a. Locating this section should be straightforward. If you do not find it, remember to think about truncation.
   b. The RCW section will tell you how much time the plaintiff has to serve the defendant.
   c. If you have trouble finding the section by searching the RCW, remember that you may have better luck using the RCW table of contents. Choose the option from the Internet Legal Resources page that takes you to the RCW arranged by title, the first option from the Code Reviser's Office. If you decide to search, here are terms to consider, perhaps with truncation: avoid, service, process, complaint, summons [not all work].
   d. Key to locating this provision is that the situation here involves an automobile accident. What other terms might the code use instead of automobile? Terms to consider include accident, motor vehicle, summons, service, complaint [but remember which terms did not work is the search for the other section]. This may be hard to recognize even when you have in fact retrieved it. You may wish to search for the case and then just read the opinion to find the statute. Opinions tend to use more synonyms and more varied language than statutes do.
   e. When was this case decided? All we know is that it was decided in 2000. If it is older than 90 days, it will not be on the Washington Court's website. Findlaw permits searching only by title or docket number. Try LEXISNEXIS
   <http://www.lexisnexis.com> and remember to specify the time frame. Also note that when you get to the search window, there are links for help screens that tell you what sort of connectors are permitted. LEXISNEXIS actually uses LEXIS search rules, so it is a very sophisticated search engine.

3. a. The trickiest part of this question may be in locating the correct RCW chapter. Did your searches retrieve sections from too many RCW chapters? Here are some terms to try: runaway, child, parent, juvenile, conflict, reconcile. Remember to think about truncating to find different endings. Perhaps you would have better luck (or faster results) browsing the RCW table of contents.
b. To locate the laws that amended the RCW chapter, try the RCW list of sections affected, or, you could just quickly skim the RCW sections in the chapter you located, above, and look at the history segments to find which were amended in 2000.

c. There is a “RCW to Bill Table” provided at one of the state legislative websites. It does not tell you what the “+” symbol means; but, since you know that there were only two changes to the RCW chapter in 2000, you will be able to guess the correct interpretation. Using that table bypasses having to find the Washington Laws chapter number. You can also search Bill Information, using the chapter number to locate the bill number. Try using an exact phrase for the most precision.

d. Once you locate the bill number, use that bill number as the search term to retrieve all the legislative history documents available online. Two documents have summaries. What are their differences?

e. Often the effective date is included in the act. But there may be one or two other documents that will quickly tell you the effective date without having to read the act.

f. Remember that there may be different versions of a bill.

4. Use the Gallagher Law Library Internet Resources page and follow the Access Washington link. Searches using either of the search engines (Search Washington Access or Find-It Washington) will prove to be helpful. You can also search the list of state agencies by subject. Try it! Washington regulations are found on many different websites. But try the agency website first - you may be able to limit your current awareness needs by just that agencies’ regulations.
ANSWERS TO OPTIONAL EXERCISES - WASHINGTON

1. Chapter 388-60 of the Washington Administrative Code is titled, "Domestic Violence Perpetrator Program Standards".

a. Accessing the regulations through the Washington Legislature's multiple database page is the easiest (the second WAC option in the list under "Washington State Rules, Regulations and other Administrative Decisions"). Select the WAC (as of July 19, 2000) database and type domestic violence perpetrator in the Search box and item #19 contains the answer - WAC 388-60 CHAPTER.htm "Domestic Violence Perpetrator Program Standards". If you click on this, you can scan the titles of the sections in the chapter to locate WAC 388-60-150 "Program Certification Process". To find out about the notification requirement, type domestic violence notification in the search box and item #1 should contain the answer - WAC 388-60-140.htm (see, (1)(b)(i)). To find out about the former batterer volunteering, type domestic violence convicted volunteer and item #2 contains the answer - WAC 388-60-150.htm (see, (1)(d)(i)).

b. The Office of the Code Revisor site provides access to the WAC arranged by title (the third WAC option in the list under "Washington State Rules, Regulations and other Administrative Decisions"). You can browse the titles, until you located "Title 388 - Social and Health Services, Department of (Public Assistance)". Click on the title, then use the Edit -> Find function on the browser to search for "domestic violence". This takes you to the correct chapter (388-60). Once you click on that link you will see the section titles.

2. a. Go to the searchable website provided by the Code Revisor's office. Select the RCW as the source to search. Use the search tool and "state of limitations" to find RCW 4.16.170.

b. That section states that the defendant must be served either before the complaint is filed with the court, or 90 days after it is filed.

c. Some procedural statutes use very common words and are tough to find by searching the RCW; too many documents are retrieved. Try using the RCW table of contents. Go to the Code Revisor's website arranged by RCW title and skim the titles until you get to Title 4, Civil Procedure. Click on that title. I did not go directly to 4.28, Commencement of Actions, but got there eventually. Once in that chapter, you will need to skim until you get to RCW 4.28.100(2), which is the correct section. The section would be easier to find by searching if you came up with "departure" as a search term [and thought to truncate it]; it was not a term that leaped to my mind.

d. Remember that you can find the statute cited in the case, below. When I tried to locate this section by using the RCW table of contents, I spent a lot of time trying to find it in Title 4, Civil Procedure. I then used the hint of "automobile" and translated it into "motor vehicle." However, once I got to Title 46, I had a very hard time discovering that 46.64, Enforcement, was the correct chapter. Moreover, when I looked at the sections in this chapter, I had to read carefully to see that 46.64.040 covered residents as well as nonresidents. For this one, I found searching was easier.
Go to the searchable website from the Code Reviser’s office and select the RCW. Do the search “motor vehicle” and accident and summons to pull up the section.

e. Get to the LEXISONE search screen. You need to specify the year: from 1/1/2000 to today’s date. For the search, consult the help screens for proximity connectors. Procedural terms are often mentioned even in cases with no real procedural issues, so you would be wise to use proximity connectors. I used the search out of state w/para service of process w/para summons or complaint to find those terms in the same paragraph. The decision is Huff v. Budbill, decided in June, 2000.

3. a. Using CD Law is really helpful for this question, since, when you do a search there in the RCW, it retrieves the titles of the sections and chapters. However, let’s assume that you want to use a free website. I used the Washington Legislature’s website (the searchable one from the Code Reviser’s Office). The most direct search was juvenile and runaway. Other combinations will retrieve sections from The Family Reconciliation Act, RCW 13.34, but not without your having to skim through a lot of sections to figure out which are the ones you want. I also used the RCW arranged by title, which includes the table of contents (the other choice from the Code Reviser’s Office). I did not try to figure out which chapter would be a logical place for this law. Instead, I just skimmed them, and when I got to Title 13, with “juvenile” in the name, I stopped and clicked to see its table of contents. There I found chapter 13.34, The Family Reconciliation Act.

b. Still at that site, I used the RCW Sections Affected Table to find that c.123 and c.162 amended sections in RCW 13.34.

c. I then searched the bill information, using “chapter 123” and then “chapter 162” as my searches to find 6218-s and 2372-s, respectively. Look for the “sl” version [the session law] to see the law as passed and signed by the governor. I also looked at the RCW to Bill table. It includes all bills that would have affected RCW sections, but indicates the ones that actually became law by the + symbol. [I saw no explanation, but concluded that must be the function of the +.]

d. Both the final bill report [ibr] and the digest [dig] provide a summary. Check them out yourself to see which you might find useful. The digest for 6218-s is very short, much shorter than the final bill report and might not add anything for your research. However, both digest and final bill report for 2372 contain more information.

e. The final bill report may include the effective date. I also found the effective date at the top of the session-law version of 2372.

f. For 2372, there are two house [committee] bill reports [hbr]. One is a report on 2372-s, the version that was enacted. The other is a report on 2372, the version that did not pass. The other bill similarly had two senate bill reports [sbr], but only one was for 6218-s, the version that was enacted.

4. Searches for hazardous waste on either Access Washington website search engine will pull up state webpages, many of which list the Department of Ecology. Going to this website shows a wealth of information about the work of the department including information about some amendments to the toxic site clean up regulations promulgated by DOE (WAC 173-340). The rules were published for comment on August 16, 2000 with public hearings scheduled on September 6 and 7, 2000. If you had wanted to be
automatically notified about the potential change in these rules, you could subscribe to WAC Track. This email service will notify you of any proposed or final changes to DOE regulations.

5. A map that shows Indian lands boundaries overlaid county boundaries is on the DSIS site. The Treaty of 1855 with the Yakama Indians is included on the Governor's Office of Indian Affairs webpage. The Washington Department of Fish and Wildlife has a good section on tribal hunting - see the FAQ page. An important recent Washington Supreme Court case dealing with Indian and non-Indian hunting rights was decided in June 1999 - State v. Buxton. The case is not included full text on the WDFW site and is not on the Washington state court website. Find through LexisOne. A lot about this hunting issue is on the web. But, reading some overview literature on tribal hunting rights might help put this question into perspective. Even the FAQ on the WDFW site assumes a lot of pre-existing knowledge. Though you can get some idea of the Yakama tribal lands boundaries in Klickitat County, it would be important to have more exact information from your client about where he was hunting.