In this chapter from his forthcoming book, *Find It Fast, 6th Edition: Extracting Expert Information From Social Networks, Big Data, Tweets, and More*, Robert I. Berkman provides a timely and in-depth look at the role of public, academic, and special libraries in the research process today. Berkman demonstrates how and why the modern library—both as an institution and as a “local” brick-and-mortar resource—is often a researcher’s first and best choice among a burgeoning array of Digital Age information sources.

**Libraries—Still Valuable in the Digital Age**

*Robert I. Berkman*

**Why Libraries?**

“Why trudge off to the library when I have the internet at my finger-tips, anytime and anywhere?” you may ask. Well, it’s certainly true that you can go online for fast answers to a whole host of questions, but there remain many compelling reasons to go to your local library rather than your smart phone, iPad, or laptop.

Following are my top ten reasons why researchers should treasure libraries, even in the digital age, and visit their favorite library regularly.

**1. Access to Books**

This may seem obvious, but it can be easy to forget that at the library you can physically browse print books on shelves, find the ones you want, and then sit down and read or take them home with you. The internet does many things incredibly well—but one thing it does not do is provide the complete text of all books, particularly newer ones. Yes, Google Books certainly has scanned tens of millions of books—but you can only read the full text of those that are out of print and out of copyright (unless the publisher has provided permission). For the
Find It Fast

latest titles you are normally going to find only very short excerpts and limited samplings from selected pages. (That’s why you can sometimes use Google Books to find the existence of a book, and then go to your library to read a copy or request a copy through interlibrary loan.) And while more and more people are enjoying ebooks (which, of course, you can also check out at your library), many of us still enjoy or even prefer books in hard copy.

2. Access to Magazines and Newspapers

Although many publishers do put the full text of their magazines or newspapers online, not all do, and those that do may charge a fee (this is particularly true for scholarly and academic journals) or prevent access to back issues. The library is still, then, a great place to go for magazines and newspapers, and for finding back issues of those publications. In addition, most libraries have a place where the most recent issues are displayed, which makes scanning them easier than searching on the web. For many people it is still harder to comfortably browse publications on the internet, or even in a digital flip format on a tablet, than it is to page through a print copy.

Furthermore, I have found scanning the covers of the magazines and journals displayed on library shelves to be an interesting exercise. By doing so you can quickly get a sense of the hot topics, notice interesting magazines that you might not have previously known about, and get a sense of how various media are covering the same topic. This kind of “meta-browsing” is quite difficult to do on the internet.

3. Access to Directories

As discussed later in this chapter, directories are invaluable tools for researchers, as they pull together related data on a subject and can provide leads for locating further information. Like books, complete directories—such as the Encyclopedia of Associations, Research Centers Directory, Major U.S. Companies of Europe, and so on—are not fully represented on the internet. Most are quite expensive—running in the hundreds of dollars or more—and they are not something you are likely going to buy on your own. So your
library remains the best place to find and use them without having to purchase them or pay a search fee.

4. Access to Primary Materials

Although libraries (and other institutions, such as museums) are increasingly digitizing source material created originally in print—letters, maps, government decrees, etc. (see the section on The Digital Library below)—the number of primary source materials scanned into digital form and placed on the web still represents a tiny percentage of what is available at libraries around the world. As a result, you will often still need to physically go to a library to look at items like rare books, maps, manuscripts, letters, photographs, and other primary and special collection documents.

5. Access to the Internet

Getting access to the internet is no longer a big deal, since the vast majority of us have regular and reliable online access. Still, if you are in a location where a provider is unavailable, or you’re traveling and don’t have a smart phone with you, or if your home internet service is out for some reason, it’s good to know that you can always go online by walking into the nearest library.

6. Access to Fee-Based Databases

As you probably already know, searching a database is a lot different than using a search engine like Google. Generally speaking, commercial databases provide access to focused sets of highly filtered information (e.g., newspaper articles, company financial data, articles in sociology journals, government reports) geared toward research purposes and offer sophisticated search capabilities. Unlike what you find on the internet as a whole, fee-based informational databases don’t include advertisements, pornography, fluff pieces for getting clicks or other nonsubstantive data—and these resources are created specifically for those with serious information-gathering missions. Two of the most popular database vendors you’ll come across in libraries are ProQuest and EBSCO.
7. Organized Information with Research Aids

Information held in a library is fully organized via a standard and consistent cataloging method. Many libraries also create and distribute handy research handouts that clearly describe how and where to find the best resources for key disciplines and subject areas. All of which means that locating what you need at a library largely avoids the frustration that accompanies an internet search.

8. Personal Assistance

Not only can the research finding aids mentioned above help you find what you need, but so can the librarians, of course. Librarians are experts trained in the use and retrieval of information (most have a masters degree in library science) and are ready and willing to help you find what you are looking for. Think about it—for no fee at all, you can enlist the service of a trained specialist to help you find what you need and give you suggestions and ideas on other resources and avenues that you had probably not thought about. The antidote for the current malady of information overload is not some pseudo-smart software program, but a knowledgeable person—the librarian as the human filter.

Keep in mind, too, that recommendations and suggestions from a librarian are quite different from recommendations from a site like Amazon or a social media site. The latter work by algorithms and make assumptions about what you might want to look at—these are, no doubt, often very good assumptions, but they do not take into account your own larger, more subtle, and unarticulated research needs and context. The librarian is trained to do a reference interview with patrons and to ask the right questions to elicit the kinds of answers that will help them help you! Furthermore, the larger interest of online sites is not always clear—it may be to sell more books, get more clicks, or some other hidden motivation driven by profit, audience retention, or who knows what.

A librarian has only one mission: to help you discover what you want to best further your larger research project!
9. The Atmosphere

Sure, it’s fast and convenient to look up information on your laptop while lying on your bed, or sitting at your kitchen table, or even when you’re walking down the street with your smart phone—but are these the best environments for research? Maybe someone’s playing music in the next room, or your dog’s barking, or the TV is on upstairs, or someone is knocking at your front door. Contrast these scenarios to the library, designed to foster quiet study, reading, and information-seeking, and to be a place where patrons can sit at comfortable, oversized tables and desks, surrounded by books and art.

Not only is the medium the message, but so is the environment, and the message of a library’s environment is “concentrate, think, reflect.”

10. Community Activities

Although the primary mission of public libraries is to make information freely available, they also fill an important social and community need. If you haven’t been to a library recently, step inside. Browse the bulletin boards. Look at the handouts. You’ll find materials on community activities and programs ranging from free health education classes to career fairs, local transportation alternatives, upcoming lectures, and much more.

Some of these events and activities may be held right at the library, while other postings inform visitors of activities being held elsewhere. You’ll also find information specifically about the history and culture of that town or region as well as material that’s geared toward meeting the needs of the particular population that lives in the neighborhood (i.e., a library located in a largely Italian area should have books on Italian heritage; one located in a high-tech region will focus much of its collection on computing and emerging digital technologies). A library is a valued part of any neighborhood, and its role is to disseminate information that is going to be of value to members of the community.

Finally, here’s another, admittedly subjective reason to visit your library. Personally, after spending several hours hunched over my laptop, entering commands into a search engine, and staring at tiny phosphorescent particles on a display screen, I welcome the chance
to stretch my legs and walk through my lively urban neighborhood to the library. There I can see actual (not virtual) people, talk to a librarian, and run my hands across the spines of the books that are sitting on the shelves. It’s just more enjoyable. A trip to the library balances my time on the computer and adds a richness to my day and research experience that I’ll never find online.

The 20th Century Library

If your image of a library is of a dusty old place, then it’s time to update your image. Many of today’s libraries are sleek and efficient, filled with the latest communication tools and technologies, and beautifully designed. Some of my favorite modern libraries include the NYPL, the San Antonio Public Library, and the Rochester, New York, Public Library. Paris has built what some think is the state-of-the-art library—the Bibliothèque Nationale de France. I’ve been told that the Los Angeles and Cleveland public libraries are stunning, as is the “Book Mountain” library in Spijkenisse, the Netherlands. (You can see photographs of a collection of gorgeous libraries around the world by going to a site called Most Interesting Libraries in the World, compiled by the Swiss company Mirage Bookmarks.)

And speaking of stupendous libraries, it should be noted that in 2002 UNESCO completed a project to revive the ancient Great Library of Alexandria on a ten-acre site on the Eastern Harbor in Chatcy, near Alexandria University. Toward the beginning of the third century BC, the great library and a later “daughter” library together contained approximately 700,000 volumes. Sadly, the libraries were destroyed in a fire during a civil war in the third century AD.

The new library has a collection of about 1.6 million volumes, as well as a variety of high-tech information tools and resources including software for reading Arabic texts and digitizing manuscripts and making them available online.

Finally, if you really love libraries you might consider joining your library’s Friend of the Library program. These programs offer some nice perks for a modest membership fee or donation—and of course it’s a way to ensure your library survives and thrives.
Selecting a Library

There are three basic types of libraries: public, college/university (academic), and special (special libraries include business libraries). Let's look at each briefly.

Public Libraries

The best public libraries for information gatherers are the largest, usually the main branches of big city libraries, because these are most likely to contain the most extensive reference collections. It's here that you'll find the highest number of superb information sources described later in the chapter. If the only public library in your area is a very small one, you may want to look to one of the other types of libraries described in this section.

TIP: Getting the Most Out of Any Library

- If you've located a library that has the information you want, but it is not nearby, you can usually still get a certain amount of information and answers to some questions by calling or emailing. You'll find librarians to be very helpful people!
- When you go to a library, don't hesitate to ask the reference librarian for assistance. That's what librarians are there for, and by enlisting their help you can save yourself a lot of time and frustration.
- If the library doesn't have a resource you need, be sure to ask about interlibrary loan.
- Don't forget your own town library's reference department. After all, sometimes Siri is smart; other times, not so much. Whether it's the flying time from New York to Istanbul or the year the clock was invented, you can call, email, or message your library and a real human will help dig up that quick fact or answer you need.
College and University Libraries

Academic libraries typically have more information sources than the average town’s public library, and the majority of them are open to the public. An academic library’s collection typically reflects the institution’s majors and specialties, and thus is often your best bet if your research is on a topic that would be studied at such an institution, whether it be astronomy, management, law, or some other academic discipline.

TIP: How to Find an Academic Library
Contact the Association of College and Research Libraries, American Library Association, 50 Huron St., Chicago IL 60611-2795; (312) 280-2523.

Special Libraries

There are thousands of libraries around the country that specialize in particular subjects—farming, baseball, the environment, Asia, cooking, mass media, and countless other topics. Most of these libraries are open to the public, and even those that are not may still admit you if you explain to the librarian that you are working on a research project. Doing research at one of these special libraries, where you are surrounded by resources that pertain to the specific subject you’re interested in, is like working in a veritable gold mine.

One valuable type of special library is the corporate library. A corporate library—or “information center,” as they are increasingly called—contains a wealth of information on subjects related to that company’s industry and specialties. Exxon Mobil’s library, for example, has extensive information on energy, while Boeing’s libraries contain wide-ranging information on aerospace.

Unfortunately, many corporate libraries allow access only to company employees. Even worse, in recent years some companies have either downsized their information centers or eliminated their libraries completely. But don’t despair: Many corporate libraries survive thanks to smart management, and for those that do you can often get around an official closed-door policy.
For starters, once you’ve identified a relevant company library, call up the librarian, introduce yourself, and briefly explain what kind of information you are looking for and why. Let the librarian know your project is a serious and important one, and suggest that the library may be the best local source of the information you need. Describe what you’ll want to do at the library and what types of materials you’ll want to examine.

By taking a polite and informed approach, you may persuade the corporate librarian to let you come in and work at the library on a limited basis, or at least refer you to other useful resources. Be aware that when you visit a corporate library you won’t be able to take anything out. And while you’re there, try to work independently rather than impinging on the librarian’s time, which is dedicated to serving the needs of the company.

**TIP: Use Your Network**
If you know someone who works at a company with a library you want to use, you may be able to gain entrance by using that person as a reference.

**Finding a Library on the Internet**
You can, of course, turn to the internet to find a specialized library, and the best way to do this is by consulting one of the many websites that provide a directory of libraries around the country or world. Many of these sites also describe libraries’ holdings and collections, so
you can know going in which specific subject areas and information resources they offer.

National libraries are particularly valuable, as they are created by governments to serve as a nation’s central information source. Like the United States’ national library, the Library of Congress (LOC), national libraries around the world typically collect all major publications issued in their respective countries. Some of the best places on the internet to search for and find links to libraries are:

- Libweb (lists over 8,000 libraries from 146 countries)
- National Libraries of the World
- The European Library (focuses on Europe and links to 48 national libraries of Europe)
- Wikipedia (its entry on national libraries contains links to over 200 national libraries around the globe.)

**All-Purpose Resources: Oldies But Goodies**

There are certain well-known, venerable, hard-copy research sources that you can find in almost any library that have retained their value even in the digital age. This section identifies and describes those that are of the greatest value to the widest audience.

It is true that most of the time a digital version of a work is more efficient and powerful than its print counterpart: with a digital resource, coverage is not limited due to the physical space constraints of print, it can be searched by keyword, it may be continually updated, and it can be made available anytime and anywhere. That said, for certain sources print is as good if not better than digital, and these are the types of resources I will be recommending in this chapter.

The print sources I include all share certain characteristics: they provide quick and efficient access to in-depth and substantive information, they are either not easily available or very expensive to access online, or they are actually more useful in print than digitally (typically because you can search further back in time, or because they offer multiple types of detailed indexes).

While one primary advantages of a print index or directory is the ability to go back many years or even decades, some publishers have created deep digital equivalents in the form of searchable archival databases; in such cases you get the benefits of both complete back-
file coverage and the power and speed of keyword searching. Because some libraries offer only the print version of a given resource and not the database, or vice versa, it’s good practice to be aware of your options.

There is another somewhat subtle but quite important reason to employ the library-oriented directories of newspapers and journals outlined in this chapter, and that is that they serve as a check on the specific sources you are most likely going to turn up when doing an internet search. As discussed in Chapters 3 and 5, search engines like Google generally favor the most popular sources, meaning that those most often linked to will be ranked higher in search results. This is fine as far as it goes (much more on this topic in Chapter 5), but it means that while you are likely to retrieve a lot of results from sources such as Huffington Post, The New York Times, The Guardian, TMZ, or whatever matches the search engine makes to its index, you are much less likely to see articles published in small, niche, and lesser-known journals and news sites. (This is especially true for searches on popular topics.) The reality is that sometimes these smaller outlets are your ideal sources, if you can only find them.

By using an old-fashioned index and directory, you can bypass the ranking method used by the search engine and override this particular bias. You will gain a more rounded set of results than you would have received from a Google search—and that’s a good thing.

Print Directories

The print directories covered here will help you find articles from newspapers, magazines, and academic journals. Note that many of them are also available through searchable databases.

Source: Readers’ Guide to Periodical Literature

The Readers’ Guide indexes articles published in over 300 of the most popular periodicals on popular topics including aeronautics, aging, astronomy, automobiles, biography, business, Canada, children, computers, consumer education, current events, education, environment, fashion, film, fine arts, food, foreign affairs, health, history, hobbies, home, journalism, leisure activities, medicine, music, news, nutrition, photography, politics, religion, science, sports, and television. Depending on the subscription in the particular library you visit, you can find articles in issues all the way back to the 1890s!
These familiar green volumes provide a quick way of finding articles published in back issues on your subject of interest. You may not always get “inside” information from articles published in these general-interest magazines, but they can still be good information sources. And because these periodicals are so popular, you can find back issues of many of them right there in the library.

**Source:** *Business Periodicals Index Retrospective*

This source indexes articles published in over 1,000 periodicals oriented toward business between 1913 and 1982. The scope is broad, ranging from advertising and marketing to real estate, business technology issues, finance, insurance, and much more. Almost all libraries have it.

This is an extremely valuable index if you are doing any kind of historical business-related research. Its name may mislead some people because the guide actually indexes periodicals that contain information on topics beyond the scope of what most people consider business. For example, it indexes articles from publications like *Aeronautical Engineering Review, Nursing Homes, and the Welding Journal*.

Many of these indexed publications are trade periodicals, covering a particular industry or specialized area in business, industry, or trade. Such publications generally provide more specialized and in-depth information than the popular magazines indexed in the *Readers’ Guide*, but at the same time the articles are usually not overly technical or hard to read. This is a nice balance for the information seeker who is not technically oriented or an expert in the field but who still wants more than a superficial examination of a subject.

**Special Periodical Indexes**

**Source:** *H.W. Wilson Subject Indexes*

The Wilson Subject Indexes are multivolume series that identify articles published within many major subject areas. There are different series for different fields and disciplines (e.g., humanities, social science, science, art, business, education, agriculture, and law).

While most of the current coverage of the journals in these areas is available in up-to-date searchable databases, H.W. Wilson has published volumes of earlier coverage in its retrospective series. To use these indexes you consult the volumes devoted to your field of
Find It Fast

interest and look up specific subtopics. You’ll find the Wilson indexes at medium and large libraries.

The trick when using these guides is to figure out which subject index to consult. What you need to do is determine which Wilson subject area your research topic falls under. For example, if you wanted to find out about growing tomatoes, that would be a food science question, and you’d check the *Biological and Agricultural Index*. If your subject were meditation, that would fall under psychology, and so you’d look in the *Social Science Index*.

The table that follows presents some samples of subtopics covered in various Wilson indexes.

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<th><strong>If your area of interest is</strong></th>
<th><strong>The Wilson Index is</strong></th>
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<tr>
<td>fire, mineralogy, oceanology, plastics, transportation, and other applied scientific subjects</td>
<td><em>Applied Science and Technology Index</em></td>
</tr>
<tr>
<td>architecture, art history, film, industrial design, landscape design, painting, photography</td>
<td><em>Art Index</em></td>
</tr>
<tr>
<td>animal breeding, food science, nutrition, pesticides</td>
<td><em>Biological and Agricultural Index</em></td>
</tr>
<tr>
<td>accounting, advertising, banking, economics, finance, investment, labor, management, marketing, public relations, specialized industries</td>
<td><em>Business Periodicals Index</em></td>
</tr>
<tr>
<td>curriculum, school administration and supervision, teaching methods</td>
<td><em>Education Index</em></td>
</tr>
<tr>
<td>astronomy, physics, and broad scientific areas</td>
<td><em>General Science Abstracts</em></td>
</tr>
<tr>
<td>legal information, all areas of jurisprudence</td>
<td><em>Index to Legal Periodicals and Books</em></td>
</tr>
<tr>
<td>anthropology, environmental science, psychology, sociology, archaeology, classical studies, folklore, history</td>
<td><em>Humanities and Social Science Retrospective</em></td>
</tr>
<tr>
<td>language and literature, literary and political criticism, performing arts, philosophy, religion, theology</td>
<td><em>Humanities Index</em></td>
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*Table*  Wilson Indexes by Interest Area
TIP: Finding Searchable Databases of Periodical Indexes

Although in order to do archival research it is sometimes necessary to consult an old-fashioned print directory, in cases where you are concerned only with current literature you may find the equivalent searchable database in a library that provides access to the same high-quality journals indexed in the print directory. The following table lists the key directories discussed in this section and the name of databases where you can search them (and usually other sources on the same topic area). Note that these databases are primarily available from EBSCO, which merged with H.W. Wilson and makes them available on its EBSCOHost database system.

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<th>Key Directories</th>
<th>Searchable in These Databases</th>
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<tr>
<td>Business Periodicals Index Retrospective</td>
<td>Business Abstracts with Full Text; Business Periodicals Index Retrospective</td>
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<tr>
<td>Science and Technology Index</td>
<td>Applied Science and Technology Source/Full Text/Index; Applied Science &amp; Technology Retrospective 1913–1983</td>
</tr>
<tr>
<td>Art Index</td>
<td>Art Abstracts/Art Full Text/Art Index Retrospective 1929–1984</td>
</tr>
<tr>
<td>Biological and Agricultural Index</td>
<td>Biological &amp; Agricultural Index Plus</td>
</tr>
<tr>
<td>Education Index</td>
<td>Education Abstracts/Education Full Text/Education Retrospective 1929–1983</td>
</tr>
<tr>
<td>General Science Index</td>
<td>General Science Abstract/Full Text</td>
</tr>
<tr>
<td>Humanities Index</td>
<td>Humanities Abstracts/Humanities Full Text/Humanities Index Retrospective 1907–1984</td>
</tr>
<tr>
<td>Index to Legal Periodicals</td>
<td>Index to Legal Periodicals &amp; Books/Full Text/Retrospective 1908–1981</td>
</tr>
<tr>
<td>Social Science Index</td>
<td>Social Science Abstracts; Social Science Full Text; Social Science Index Retrospective 1907–1983</td>
</tr>
</tbody>
</table>

Table Key Directories and Databases That Include Them
TIP: Spotting Hot Periodicals
Use periodical indexes to identify publications that are worth examining in depth. Take a look at the opening pages, where the indexed magazines and journals are usually listed. Reading this listing is a good way to identify the most important publications in your field of interest (and again, without the influence of a search engine’s ranking algorithm). If you find one or more that seem to be right on the money in covering your topic, you can then, of course, still, go online to the appropriate databases and search for past issues there, or see what additional informational resources are available.

Magazine and Newsletter Directories
There are magazines, journals, and newsletters covering thousands of different topics. The directories listed in the previous pages identify tens of thousands of such publications. The most comprehensive is Ulrich’s, which provides information on over 300,000 periodicals, with a special focus on international publications and those geared for an academic audience.

There are, of course, many specialized publications being produced in the United States. Even if your topic is extremely narrow, there may be a periodical devoted to that subject. Let me give you a few examples. If you look under “Folklore” in Ulrich’s you’ll find Folklore Center News, and under “Motion Pictures” you’ll see magazines like Amateur Film Maker and Motion Picture Investor, a newsletter that analyzes the private and public values of movies and movie stock. Under the category “Nutrition and Dietetics” you’ll find dozens of publications, including Jewish Vegetarian, published by the International Jewish Vegetarian Society of London.

Back in the day—meaning pre-internet, of course—in order to locate the names of leading publications in a particular discipline, industry, or topic it was necessary to pull out and page through one or more old-fashioned print directories. Today, in the age of the real-
time, social, and visual web, the best way to find leading publications is still, well, the old-fashioned way—through print directories! There are periodicals and newsletters covering tens of thousands of different subjects. The directories we’ve covered so far identify many thousands of magazines, newsletters, journals, and other periodicals, and virtually every library has one more of them on its shelves.

**TIP: Don't Forget Ejournal Directories**

While the print directories already mentioned typically include ejournals, it’s worth noting that there are free sites on the web that are specifically devoted to digital journals. Two that I recommend are the Directory of Open Access Journals and the Electronics Journals Library.

Directories are excellent resources for tracking down specific periodicals covering a particular subject of interest. The way these guides work is simple: you look up your subject, and the guide lists the magazines or newsletters published within the field. Each entry typically includes the title of the publication, a short description, publisher, circulation, and sometimes additional information such as price, ad rates, audience, where it is available online, and more.

**TIP:**

Use the *National Directory of Magazines* for in-depth qualitative reviews on magazines and other publications. Although this guide covers fewer publications than the others (about 5,300), and so does not cover the most obscure publications, it provides a superb analysis and review of the coverage and usefulness for those it does include. The directory is actually designed to assist librarians in deciding which magazines to obtain, so it is also an excellent tool for researchers who want to know which publications are considered the best in the field and how their scope compares with others.
People Information

Source: Marquis Who's Who Series

The Who’s Who volumes are the standard and most popular library directory sources of biographical details on people of various accomplishments. The best-known of these books is Who’s Who in America, which lists facts on prominent Americans, such as their place and date of birth, schools attended, degrees awarded, special accomplishments, and current address. There are scores of more specialized Who’s Who volumes, such as Who’s Who in Medicine and Healthcare, Who’s Who in Asia, and Who’s Who of American Women. Virtually all libraries have Who’s Who in America. Larger and specialized libraries have the other volumes.

One question you might have is, “Why bother consulting a Who’s Who directory when I can look up a prominent person’s name on Wikipedia?” That’s a good question, and the answer isn’t necessarily that the quality of a Who’s Who entry will be any better than the one you’ll find on Wikipedia, because the information that’s furnished in these volumes is often provided by the biographies themselves, so accuracy will depend on their truthfulness. In fact, a good argument can be made that Wikipedia’s many users, editors, and fact-checking capabilities will often provide more accurate information. But this will vary by entry. The main reason to consider using a Who’s Who directory is simply that you may discover valuable information that is not available in Wikipedia.
TIP: Search a Who's Who Database or Purchase Who's Who Bios on Demand

Some libraries subscribe to the entire Marquis collection of over 1.5 million biographies. This database, which is updated daily, allows users to search by name and up to 15 other criteria including location and school attended, to name just a couple.

You can also link directly to the Who's Who site and search for the name of the person you are researching across all the directories. If you find a useful entry, you can simply purchase and download it for a low fee.

Source: Current Biography

Current Biography is a monthly magazine with articles about prominent people in the news, in national and international affairs, the sciences, arts, labor, and industry. Obituaries are also included. At the end of each year the articles are printed in a single volume. An index at the back helps users find biographies during the current year and for a few years back. Medium and large libraries have the set.

This resource strives to be “brief, objective, and accurate, with well-documented articles.” It may be more reliable than other sources since its editors consult many sources of biographical data, rather than relying solely on the biographees’ own accounts.

A searchable database called Current Biography Illustrated, on the ESBSCO Host service, is available at certain libraries.

Source: Current Biography Cumulative Index

Biography Index scans thousands of periodicals, many books, and various biographical sources like obituaries, diaries, and memoirs to identify and index sources of information on prominent people.

Source: Biography and Genealogy Master Index

Biography and Genealogy Master Index is an index to biographical directories, providing information on more than 5 million current and historical figures. Over 1,700 current and retrospective biographical sources are used to index information on “figures from authors to
scientists, from boxers to fashion designers” and “from Adam and Eve to Frank Zappa.”

This source, then, will tell you whether there is a directory or publication that lists biographical information on a historical or well known figure. For example, if you looked up Bob Dylan, you’d find that biographical sketches could be found in *Baker’s Biographical Dictionary of Musicians*, *Biography Index*, *The New Oxford Companion to Music*, *Who’s Who in the World*, and elsewhere. Once you’ve identified a biographical directory that will suit your needs, go to WorldCat (see page 4) to locate a library that holds a copy.

**Source:** *American Men and Women of Science: A Biographical Directory of Today’s Leaders*

Published annually, this directory profiles over 151,000 living scientists. This source is very useful for finding quick biographical information on prominent persons involved in the sciences. Data provided in an individual’s entry includes birth date, birthplace, field of specialty, education, honorary degrees, current position, professional and career information, awards, memberships, research information, and contact information where available. Each year the publisher adds thousands of new profiles to keep this directory up to date. You’ll find it in the larger libraries or in those that have a good scientific and technical collection.

**Business and Industry Information**

Libraries can be particularly valuable to people seeking business information. Specialized periodical indexes, industry directories, and special business guides can provide you with important facts about companies and businesses—without the access fees charged by many online business information sites. (Note that many more business information sources, not found in libraries, are identified in Chapter 1.

Following is a selection of some of the leading and most broadly useful business sources found in libraries.
Source: The Wall Street Journal
You may have noticed that when you search the web and find an article from the Wall Street Journal you are unable to read it unless you become a subscriber. Well, there is another option; read it for free at your library!

Articles published in the Wall Street Journal are generally not too technical, yet they are in-depth and probing enough to provide very valuable information—and often exclusive and insider-type information not available from other news sources.

Most libraries keep back issues of the Journal in print (or, if further back, on a database or—horrors!—on the dreaded microfilm).

Source: Company Directories
A company directory is simply a book that provides a variety of look-up facts about the listed organizations. Leading company directories include:

- Standard & Poor’s Register of Corporations, Directors, and Executives
- Dun & Bradstreet Million Dollar Directory
- Hoover’s Handbook of American Business
- Who Owns Whom
- LexisNexis Corporate Affiliations
- Major Companies of Europe
- Japan Company Handbook

The information in a company directory typically includes data such as the year a firm was founded, the products or services offered, contact information, whether it is public or private, names and titles of top executives, total sales, number of employees, subsidiaries and branches, detailed financials if the company is publicly held, and more.

Before the web, these directories (as well as the corresponding searchable online company directory databases) were pretty much the go-to resources for facts on businesses and large organizations. They remain valuable today in that they are authoritative, free, and easy to use, but they are less useful than they once were, primarily because the data changes so quickly. The print directories are generally updated annually, and not every entry is necessarily going to be updated each year. So, if you use them—or even a professional database that includes entries from them—don’t take the data as
gospel, particularly when it comes to sales figures and employee names and titles. Confirm the information using online sources including the business social network LinkedIn.

TIP: Try Euromonitor
Many European company directories are published or distributed by Euromonitor, a UK–based publisher.

Source: Business Rankings Annual
Business Rankings Annual is a collection of thousands of citations of ranked lists of companies in various categories. This guide helps answer the question “Who’s Number One?” in a certain field.

“Insider Directories”

Source: Directories in Print
Directories in Print describes over 16,000 different types of specialized directories, covering subjects such as banking, agriculture, law, government, science, engineering, education, information science, biography, arts and entertainment, public affairs, health, religion, hobbies, and sports. You can find this guide, published annually, at most large public libraries.

This excellent source includes an amazingly diverse range of specialized directories. (A directory is any kind of reference book that tells readers where they can find sources of information within a specific field.) Examples of the directories included in this “ultimate” directory: Special Libraries of Israel, Bicycle Resource Guide, Major Companies of Europe, American Indian Painters, Index of Stolen Art, and many more!

Source: Research Centers Directory
Research Centers Directory is an annual directory of over 14,800 university, government, and other nonprofit research organizations, think tanks, laboratories, and institutes. Major subject areas include agriculture, business, education, government, law, math, social sciences, and humanities. You’ll find this guide in university and other academically oriented libraries.
The directory provides a wealth of information on who’s conducting research on which subjects around the country. You’ll find an incredible diversity of studies being conducted. Some examples of the research organizations listed in this directory include the Alcohol Research group, the National Bureau of Economic Research, the International Copper Research Association, the Birth Defects Institute, the Center for Russian and East European Studies . . . you get the idea.

I once used this guide when I was researching the topic of “rebuilding rather than replacing automobiles.” By checking the directory, I found a research institute associated with a university in Detroit that was conducting a study on just that topic.

The directory is easy to use. You just look up your subject, and the directory refers you to relevant research centers. It provides each center’s name, a contact person, the address, phone number, email, website, a description of the activities conducted, and the organization’s publications. There is also a companion title called the *International Research Centers Directory*.

**TIP: Use Research Centers Directory for Finding Think Tanks**

*Research Centers Directory* is a good source for identifying and locating think tanks— institutions such as the Center for Democracy and Technology, the Heritage Foundation, the Brookings Institution, and other influential centers (often quoted in the news) that study public policy–related issues and publish their findings in reports or articles.

**Source:** *Foundation Directory*

*The Foundation Directory*, published by the Foundation Center and available in many libraries, is a guide that can help you find foundations offering funding and grants in your field. This guide is only one of many directories and publications published by the Foundation Center, which maintains information on more than 108,000 foundations, corporate donors, and grant-making public charities in the United States and over 3 million of their recent grants. It also supports a national network of library reference collections to make resources available for free public use. The biggest collections
are located in New York City; Washington, D.C.; Cleveland; Atlanta; and San Francisco. These libraries provide important reference tools, such as sample application forms and the annual reports, tax information, and publications of foundations.

The Center itself publishes a variety of helpful information sources, including specialized directories that tell you where to get grants for projects that cover subjects like public health, the elderly, minorities, museums, and so on. You can even link to its site and, at no charge, search its Catalog of Nonprofit Literature, a database of the literature of philanthropy, updated daily, which contains over 30,000 bibliographic citations and abstracts.

Contact the Foundation Center directly for more information on its publications and collections.

Another library directory with similar information is the *World Guide to Foundations*. This print title provides data on over 40,000 foundations in 115 countries. Yet another useful source is the *Annual Register of Grant Support*, a guide to over 3,000 grant-giving organizations.

**Online Catalogs and Archives**

Finally, one way that libraries are integrating their offerings with the internet is by making their catalogs available for free online searching. Following are a few of the best sources.

**Source: Library of Congress Online Catalog**

On the Library of Congress website you can not only search the catalog of the Library of Congress for books, serials, manuscripts, maps, music, recordings, images, and electronic resources, but also link to specialized catalogs and tools provided by the Library of Congress, including its catalog of copyright registrations and ownership documents; an online catalog of prints and photographs; a broadcast and archival recordings catalog; and the National Library Service for the Blind catalog, which includes braille and talking books; and more.

**Source: Gateway to Library Catalogs**

Here’s a site that not only permits you to search the catalog of the Library of Congress but also to search a wide range of library catalogs
Find It Fast

around the country, and even the world—from Aberdeen University in the United Kingdom to the Zhejiang Provincial Library in China.

Source: Libdex
Libdex includes a listing and links to information about libraries around the world, including their websites and links to their catalogs.

Digital Libraries

An increasing number of institutions have gone several steps further and created “digital libraries,” which consist of digitized versions of various primary sources from the library’s collection. These materials could include documents like personal letters, governmental treaties, maps, audio interviews, photographs, movies, and other original source materials that could normally be accessed only by visiting the library. Even the Vatican, which has one of the world’s most prestigious collections of old and rare precious documents, has digitized some of its materials and made them available on the web.

In the United States, the most prominent and best-known digital libraries are the theme libraries created by the U.S. Library of Congress as part of its American Memory series. This collection provides web access to a variety of rare American historical documents that previously could only be viewed in person at the library in the capital. The American Memory series consists of over 9 million items, including manuscripts, films, sound recordings, and publications in the Library of Congress’s collection. Specific theme collections in the American Memory Exhibit include, for example, the following:

- Arendt, Hannah ~ Papers ~ 1898–1977
- Baseball and Jackie Robinson ~ Multiformat ~ 1860–1969
- Bernstein, Leonard ~ Multiformat ~ ca. 1920–1989
- The Chinese in California ~ Multiformat ~ 1850–1925
- Civil War Maps ~ 1861–1865
- Coca-Cola Advertising ~ Films ~ 1951–1999
- Lincoln, Abraham ~ Papers ~ ca. 1850–1865
- Louisiana Purchase ~ Maps ~ 1572–1902
- Presidential Inaugurations ~ Multiformat ~ 1789–2001
- Religious Petitions, Virginia ~ 1764–1802
• Washington, George ~ Papers ~ 1741–1799
• Woman Suffrage ~ Books and Pamphlets ~ 1848–1921
• World War I ~ Military Newspapers ~ 1918–1919
• World War II Maps ~ Military Situation Maps ~ 1944–1945

Dozens of other collections can be found on another part of the LOC site called Digital Collections. There you can find collections ranging from the Aaron Copland Collection and the Abraham Lincoln papers to Wright Brothers negatives and Yiddish American Popular Sheet music.

Many other libraries around the country and the world have been making parts of their physical collections available as digital libraries, as well. For example, the University of California, Berkeley has made its collection covering the life of anarchist Emma Goldman available.

The Boston Public Library’s Digital Public Library of America is creating digital collections providing over 7 million items of historical significance from both recognized sources and ordinary people around the country. The collections can be browsed by date, topic, and other themes, and even searched by keyword. A small sampling of these resources includes the Golden Age of Radio in the United States; Leaving Europe: A New Life in America; and Staking Claims: The Gold Rush in Nineteenth-Century America.

The World Digital Library provides a visual time and geographic display allowing visitors to search for digital documents from a specified time period and a particular region of the world.

Finally, the New York Public Libraries Digital Collections has digitized over 800,000 items from its holdings for web users to browse, including photographs, audio, and other formats covering the arts, maps, birds, theater, immigration, social conditions, and more. Some of its specialized digital works include a collection on Jewish oral history; a Jerome Robbins Dance Division Moving Image Archive; the Thomas Addis Emmet Collection of nearly 10,000 handwritten letters and documents from America’s founding, including a copy of the Declaration of Independence written by Thomas Jefferson; fashion drawings and sketches by Andre Fashion Studios; Music Theater Online—a digital archive of texts, images, video, and audio files related to musical theater; and a Theatrical Lighting database, to name just a handful.
The Future of Libraries

Walk into a typical American public library and you’ll probably identify about three current core services: storing an underused circulating collection of paper books, ensuring community-wide access to Facebook on desktop computers, and sheltering homeless people.

— What Will Become of the Library
_Slate_, April 2014

What is the state of the library in today’s digital age? We can say that the internet has changed everything for libraries. We can also say it’s changed nothing.

It’s changed everything because, as we all well know, so much information has moved to the internet and is now available to us anytime and anywhere, outside of the library. And it’s not just all the
new sites, “born on the internet,” like websites, blogs, and social media. Even older, traditional sources, such as books and journals, are now freely available on the web.

So it’s changed “everything,” then, because libraries have traditionally been warehouses for the traditional information containers of information, now rapidly shrinking in importance—pulp-based books, magazines, reports, etc. Libraries have served as the physical place where the public can go to obtain information, and therefore have been forced to rethink their missions and roles. Therefore, since the late 1990s or so, the library profession has had its work cut out for it, and

Figure 2.2 Albert Einstein’s application to become an American Citizen is one of many thousands of historical images available from the Library of Congress’s Digital Collections
continues to face real challenges—not the least of which is managing to stay relevant and vital while dealing with ongoing budget cuts.

But the internet can be said to have changed nothing, as well, because the essential mission of the public library—its raison d’être—remains the same, and that mission is media-independent. The broadest mission of a public library is to better enable participation in our democratic form of government by making the information that’s necessary for self-governance available to everyone regardless of economic standing and ability. In the words of James Madison:

A popular government without popular information, or the means to acquiring it, is but a prologue to a farce or tragedy, or perhaps both. Knowledge will forever govern ignorance, and a people who mean to be their own governors must arm themselves with the power which knowledge gives.

Mr. Madison’s contemporary, Thomas Jefferson, called information “the currency of democracy.”

That higher purpose of the library, then, does not necessarily depend on the specific form that information takes—print, online, or however it may evolve in the future. The job of the library professional, and the librarian (whose title may also change to reflect shifting roles) is to stay true to the mission while making the necessary adjustments given the state of technology, society, and other critical forces. In all cases, the library will be the organization that collects information based on a specific and predetermined standard and criteria, filters it, categorizes it, organizes it, then makes it readily available through whatever finding aids and mechanisms are deemed most appropriate and effective.

But, wait a minute. It’s not quite that simple.

There’s no discounting the fact that many libraries are underused, neglected, and underfunded, and in some cases may resemble the depressing image presented by the author of the Slate article quoted earlier. And it is certainly true that libraries are at a disadvantage in making the needed radical transformation. After all, they were built from the ground up to handle and manage one particular type of information—print. As such, a library’s mind-set, so to speak, has traditionally been geared toward collecting, archiving, and displaying print-based information. And so a fairly drastic shift must be made—
and indeed is being made—by libraries to make them not just storage facilities for print information resources but also active and vital cultivators, gatherers, harvesters, sorters, and distributors of information and knowledge.

What can and should today’s state-of-the-art library be doing to remain relevant and vital in this age? That question has been and continues to be discussed, analyzed, and debated in and at countless library and information schools, conferences, journals, and symposia around the country and the globe, and it represents the existential challenge to the discipline of library science.

Certainly, providing community internet access isn’t, by itself, going to cut it anymore as a reinvention strategy. And while libraries provide invaluable outreach services by giving users remote digital access to their powerful and expensive searchable in-house databases (some of which we will look at in the following chapter), that service does not motivate the researcher to visit the physical library. If anything, it makes it easier and more appealing to remain at home or wherever he or she is doing online research.

So what can libraries do to bring people into the library? While the form and shape of future library services are clearly beyond the scope of this book, among the innovations and new thinking that some farsighted libraries are implementing today, or are considering, are:

• Making the library a more social space for collaborative working (at the Stuttgart, Germany library the first four floors are geared to social engagement, while the upper four floors are for books and “the stacks.”)

• Implementing Maker Spaces, where patrons can use 3-D printers, create apps, and much more

• Offering the latest, most powerful hardware to provide the most compelling visual displays of information

• Making powerful analytical software available for performing intensive data analysis

• Providing self-publishing and print-on-demand technologies

• Redesigning the interior of libraries to make effective use of light, flow, space design, and the most effective furnishings to create optimal research and learning spaces

Various libraries—public, academic, and corporate, as well as other organizations for research and learning—are integrating one or more of these strategies to make their institutions places that people truly
want to visit in order to research, study, collaborate, and work. In fact, one such library—the James B. Hunt Jr. Library at North Carolina State University (NCSU) in Raleigh, North Carolina—has integrated many of these strategies and come up with new ones. In many ways, then, the Hunt Library represents the state-of-the-art library for the 21st century.

Not only does this 221,000 square-foot facility—opened in April 2013—include lots of good old-fashioned books (about 1.5 million volumes) but it has integrated the latest and most innovative new design and technology features through its design, maker spaces, innovative use of automation, and the creation of Labs and Theaters.

For example, at the library’s maker space patrons can create and then print their own creations via uPrint and Makerbot 3-D printers; the Teaching and Visualization Lab is a theater-like space with wall-size displays and high-quality audio where patrons can collaborate on complex problems. The library is designed to help its users “meet a variety of needs, including high-impact presentations; technology-rich interactive learning in small groups; large-scale, high-definition visualization and simulation; command/control room simulation; immersive interactive computing; game research; ‘big data’ decision theater; and comparative social computing.” The Immersion Theater consists of 21- by 7-foot Christie MicroTiles in curved video display for adding and sharing content (see Figure 2.3). And a Game Lab supports the scholarly study of digital games.

The creators of the Hunt Library have even rethought the way books are found and retrieved. To locate a book patrons still search the online catalog, but rather than seeing only a textual print-out of matching books, the system displays images of the book on the shelf, along with images of other books located next to the targeted one. (This recreates a bit of that serendipitous browsing effect that one usually gives up when searching for books online.) Once the patron decides he wants a particular book, a robotic device called Bookbot is engaged. Traveling swiftly through the closed stacks, Bookbot locates the desired title from one of 18,000 underground bins, retrieves it, and deposits it with a library staff member. The staffer holds it for the patron until he’s ready to pick it up.

Many other libraries, large and small, are innovating to reinvent what it means to be culture’s cultivator of how information is accessed and used. At the NYPL lab, for instance, experiments range from crowd sourcing old menus; to holding “hack” events that result in innovations like the creation of a computer vision technology (https://github.com/
NYPL/ map-vectorizer) that can identify building shapes from atlases; to designing a new discovery system to help users better find digital archives and manuscripts in the library.

All cool stuff, right? Very impressive, indeed. But can advanced technologies and tools, or beautiful reading and study rooms, or strategically designed collaboration centers and work–flow areas really make a library the go-to place for people doing research? Is this reinvention the answer that libraries have been looking for to bring patrons back and get them using the physical facilities again? The answer is unclear.

First of all, the vast majority of libraries have neither the funds nor the expertise of an NYPL or an NCSU. Secondly, even if the average library could take a page from NCSU’s playbook, it’s not possible to know with any certainty that a quiet place to collaborate and use the latest and coolest information technologies will be enough to bring researchers into the building. As Yogi Berra said, “Prediction is
difficult—especially about the future.” Yogi was right. We just don’t know how this will all play out.

Someone who is in a better position than almost anyone I can think of to predict where libraries are headed is David Weinberger. David has served as co-director of the Harvard Library Innovation Lab and was a Fellow at Harvard’s Berkman Center for Internet and Society. He is also the author or coauthor of several prominent books about knowledge and the internet, notably The Cluetrain Manifesto, which when published in 2000 was one of the very first works to explain how the internet was changing business, and virtually everything else. Over the years, I’ve been fortunate to have had several telephone chats with David, and each of those talks, without exception, has been thought provoking and enlightening. I recently had a chance to talk to him at some length on this whole “future of libraries” question.

Although David is a long-time supporter of libraries, he acknowledged right away that he doesn’t often visit his own academic library; for one thing, he doesn’t find its design or atmosphere particularly welcoming. But he notes that there are larger problems regarding using the library as our key source of expertise that go well beyond the attractiveness of the institution.

“The problem,” David explained, “is that ‘humans don’t scale.’ In other words, no single individual can be the best source for everything. The real knowledge,” he said, “remains in ‘the network’ and there the intelligence embedded in a group of people . . . can out-pace what individuals can know.” (He explored this concept in detail in his book Too Big to Know [see Appendix B].)

David holds out hope for libraries, and he told me that what he’d really like to see libraries do to maintain value and relevance is to start engaging in activities such as the following:

• Providing spaces that provide the training and social space to teach patrons how to use the latest and emerging digital tools. This might include instruction on how to create professional-looking YouTube videos; using big data tools and techniques to better understand large data sets; using visualization software to make compelling presentations of research results; or even learning light programming to create custom big data applications.

• Helping users with what he calls “Presearch”—the preliminary exploratory research that’s done ahead of time to inform the actual research process. Presearch can help
researchers locate the proper area or “domain” of one’s subject area, get the lay of the land of the discipline, so to speak, and create an effective research strategy

• Connecting the knowledge of a neighborhood’s librarians and citizens together to meet the information needs of the community. This could be done by incorporating citizen expertise into a searchable knowledge network. This would provide resources and links to expertise in the community, along with data on how often a given resource is used, by what type of user and for what purpose, along with feedback from those who used it.

[Author’s Note: Some early efforts to make this happen have been carried out by the Toronto-based company Bibliocommons, which uses software called Bibliocore to connect the catalogs, books, resources, and expertise of libraries around North America, with an emphasis on enabling social interaction and patron engagement while doing so.]

The bottom line is that libraries still have work to do to ensure their place in the 21st-century information and research world. I, for one, believe there’s too much at stake for them not to succeed.

URLs:

Resources on Libraries

Google Books: books.google.com
Most Interesting Libraries in the World: miragebookmark.ch/most-interesting-libraries.htm
Association of College and Research Libraries: ala.org/acrl;
    Email: acrl@ala.org
Special Libraries Association: sla.org
Libweb: lib-web.org
The European Library: theeuropeanlibrary.org/tel4/
Directory of Open Access Journals: doaj.org
Find It Fast

Electronic Journals Library: rzblx1.uni-regensburg.de/ezeit/index.phtml?bibid=AAAAA&colors=7&lang=en
Marquis Who’s Who: marquiswhoswho.com/
Euromonitor: euromonitor.com
The Foundation Center: foundationcenter.org/newyork/
Library of Congress Online Catalog: catalog.loc.gov
Gateway to Library Catalogs: loc.gov/z3950/gateway.html#lc
Libdex: libdex.com/country.html

Digital Libraries

U.S. Library of Congress: Digital Collections: loc.gov/collections
University of California, Berkeley, Emma Goldman Papers: sunsite.berkeley.edu/Goldman
Boston Public Library Digital Public Library of America: dp.la
World Digital Library: wdl.org/en
New York Public Library Digital Collection: digitalcollections.nypl.org
Lucille Ball Marriage to Gary Morton: dbsmaint.galib.uga.edu/cgi/news?query=id:wsbn40384

The Future of Libraries

What Will Become of the Library?: slate.com/articles/life/design/2014/04/the_future_of_the_library_how_they_ll_evolve_for_the_digital_age.html
Bookbot Demo: youtube.com/watch?v=Vaqd3P3vlSo
New York Public Library Lab: nypl.org/collections/labs
Bibliocommons: bibliocommons.com

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