the Research Process

books & beyond

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Books and Beyond

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◆ Preface

The evolution of civilization is really the story of learning. Beginning with the infancy of the universe, the first inhabitants gathered and used information just as they gathered food and other essentials of life. With the knowledge they gained, they were able to create new knowledge and make advancements that changed the way they lived. As the knowledge base has grown, so has the complexity of the *research process*—the process by which information is stored, retrieved, and used in the creation of new knowledge. Information can enlighten us as to the physical environment, the political and social order, the scientific and technical accomplishments, and, indeed, all aspects of life. Viewed in that light, it is clear that learning research skills is an essential part of the education process.

We live in an age in which we are constantly being bombarded by various information media ranging from books and journals to the Internet. It has become increasingly important that individuals recognize how information is created, organized, and disseminated and that they develop the ability to conduct research in a variety of media. Research today can be both amazingly simple and amazingly complex. Technology has played an important part in simplifying the way we locate information. At the same time it is quite easy for the researcher to be overwhelmed not only by the sheer volume of information but also by all the tools of research—especially those in less traditional formats such as the Internet.

It is our aim to provide a book that will serve a threefold purpose:

◆ make you aware of the different kinds of information that are available in libraries and beyond;
◆ provide you with a guide to the means of accessing information;
◆ help you evaluate and use information productively.

The authors recognize that along with basic retrieval skills you must acquire what is the most important ingredient for effective research—the ability to analyze and use information critically. Critical thinking in the context of research involves a certain attitude and disposition on the part of the information user, a willingness to challenge the propositions and assertions encountered as one taps the information sources. Most importantly, critical thinking calls for the testing of values and beliefs in the light of knowledge and evidence discovered in the course of an information search.

The book introduces you to the academic library and discusses the ways information is organized. It covers the principal tools for accessing information—library catalogs, the Internet, reference books, indexes, government publications, statistical sources, biographical sources, book reviews, literary criticism, and literature in collections. We have included many Internet sites and titles of reference books, indexes, and electronic databases on a variety of subjects. The more frequently used sources are described in some detail, while others are simply listed.

Earlier versions of this book were published under the titles *Library Research Skills Handbook* and *Books, Libraries, and Research*. This second edition of the present title reflects changes that have taken place over the last few years in information storage and retrieval, particularly on the Internet.

◆ Acknowledgments

◆ How to Use This Book

One of the most important skills you can acquire is the ability to find and use information. This is not only essential to achieving success in the classroom, but also necessary as part of the overall preparation for a lifetime of continuous learning. Recognizing that one of the best ways to acquire research skills is through specific instruction, many institutions provide formal courses that are designed to familiarize students with library resources and research techniques. In other instances, librarians and instructors cooperate to design research strategies that support classroom instruction.

This book is designed so that it may be used as a text in a formal course on developing research skills or as a guide to research by anyone seeking to learn how to locate and use information. While the chapters are arranged in a step-by-step progression that the authors have found useful in teaching research skills, they may be used out of sequence to suit individual needs and learning styles.

The book begins with an introduction to academic libraries and their resources and services, followed by a discussion of the research paper in Chapter 2. It contains explanations of plagiarism, copyright, and documentation forms. The next two chapters deal with two important research skills—evaluating resources and using basic search techniques. This foundation prepares you for the next two chapters—the online catalog and the Internet. The remaining chapters introduce you to various information sources: reference books, periodicals, government publications, statistical sources, biographies, book reviews, literary criticism, and literature in collections.

The exercises at the end of each chapter are designed to provide a review of the material covered in the chapter and to reinforce learning by providing hands-on experience with the information sources essential to successful research. Some chapters contain several exercises. It is expected that instructors will choose those exercises that they think are most appropriate. The authors have chosen to use the topic "women and employment" to illustrate the many facets of information retrieval. Where that topic was not appropriate to the sources under discussion, other subject headings were used.

The concept of using a research project to provide you with an opportunity to collect, organize, evaluate, and use information is the methodology that the authors have found to be effective in teaching research skills. Once you have mastered this technique, you will be able to vary your research activity according to subsequent demands, regardless of the topic involved.

◆ About the Authors

◆ Myrtle S. Bolner

Myrtle S. Bolner is Head of Reference Services at Louisiana State University Libraries. Prior to her current position, she was Head of the Business Administration/Government Documents Department at the LSU Libraries. Her professional experience includes four years as a teacher of high school English and twelve years as an instructor of Library Research Methods and Materials at LSU. She holds a Bachelor of Science in Education and a Master of Library Science from LSU. Bolner is the co-author of *Library Research Skills Handbook* (Kendall/Hunt, 1991) and *Books, Libraries, and Research* (Kendall/Hunt, 1979; 2nd ed. 1984; 3rd ed. 1987). Other publications include the *LLA Intellectual Freedom Manual* (Louisiana Library Association, 1986, 1994) and articles in the *LLA Bulletin* and *Government Publications Review*. She is the co-recipient of the 1990 GODORT/ALA Documents to the People Award for her contributions to the GPO/MARCIVE database, an online catalog of government publications. Bolner is a member of the American Library Association, the Southeastern Library Association, and the Louisiana Library Association.

◆ Gayle A. Poirier

Gayle A. Poirier is Documents/Reference Librarian at Conn Library, Wayne State College, Wayne, Nebraska. She also serves as Bibliographic Instruction Coordinator. At WSC she initiated a one-credit-hour course entitled Basic Research Skills, patterned on the Library Research Methods and Materials course she previously coordinated and taught at Louisiana State University. Before moving to Nebraska, Poirier served as Head of the Library Instruction Unit at the LSU Libraries. Prior positions include Adult Services Librarian, Columbine Public/School Library in Colorado; Head, Learning Media Center, Memphis State University; and Government Documents Librarian, Memphis State University. Poirier holds a Master of Library Science degree from the University of Oklahoma and a Master of Science in Curriculum and Instruction from Mankato State University. She is a member of the American Library Association and the Nebraska Library Association. Poirier has published several articles in *Research Strategies* in addition to co-authoring *The Research Process: Books and Beyond*.

◆ Contents

Academic Libraries: Materials and Services

"I find that a great part of the information I have was acquired by looking up something and finding something else on the way."

FRANKLIN P. ADAMS

INTRODUCTION

Many of the assignments you receive as part of your experience in higher education will require you to use the library for research. To do this you must become familiar with its collections and services. You may be familiar with your high school or public library. You will find, however, that the college or university library is more complex and often larger than the library with which you may be familiar. It probably provides a greater variety of services, and it may use a different scheme for classifying its materials.

Over the last two decades technology has drastically changed the way we think of libraries. For many, the traditional notion of libraries as storehouses for books has been replaced by the image of a virtual library—that is, a library in which all the information is available electronically. In this image, if a building exists at all it is only to house computers and to provide a laboratory in which librarians, acting as information specialists, are engaged in creating information in digital format. Neither the traditional notion of a library as a storehouse for books nor the image of a virtual library is entirely true today. However, there is a certain amount of validity in each of these images. The library you are using probably no longer has a card catalog. In most academic libraries the card catalog has been replaced by an online catalog. Many libraries have canceled paper subscriptions to indexes and abstracts, replacing them with electronic versions. Although libraries have gotten rid of their card catalogs in favor of online catalogs and subscribe to online databases and other resources in electronic format, they continue to retain and purchase materials in traditional formats: paper, microfiche, microfilm, video cassette, and the like. And while it is true that technology has improved the ways we retrieve information, it has also added levels of complexity.

College and university libraries offer a variety of materials and services that are designed to support the teaching and research missions of the institution. As an information seeker, you will find it is helpful to know how materials are organized and arranged in libraries, what materials are available, and how to retrieve those materials. Although library arrangements and services vary from library to library, there are many elements that are common to all of them. This chapter gives an overview of the formats and arrangements of library materials and describes the various services commonly found in college and university libraries. In describing the formats of materials, the parts of a book are analyzed in detail; other information sources are treated with sufficient detail to provide you with an understanding of their physical properties.

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◆ THE ACADEMIC LIBRARY

Whether you use a large university library, a public library, or a high school library you will find that the levels of materials and services available to you differ considerably. Libraries build their collections to meet the particular needs of their users; consequently, the collections found in an academic library will be different from those found in public libraries or in school libraries. For example, academic libraries probably do not purchase popular fiction, while a public library might collect heavily in this area. Academic libraries usually collect highly specialized reference materials in the sciences; the public library, unless it is a large research library, probably collects only popular science materials. High school libraries collect materials geared to the level of their students.

The mission of the college and university library is to provide books, periodicals, and other information-related materials and services to meet the research and instructional needs of the students and faculty. The rising costs of materials and new technologies make this difficult in all but the wealthiest institutions. The library is frequently hampered in this effort by financial constraints and by the destructive acts of those it seeks to serve. Mutilation and theft of library materials by patrons are major problems in college and university libraries. All such acts ultimately result in a decrease in the materials available and a lessening of services. It is incumbent on library users to share the responsibility of preserving library materials by seeing to it that such destructive acts do not occur.

◆ FORMATS OF INFORMATION SOURCES

The term *format* refers to the general physical quality or appearance of an information source. Thus, book format refers to printed pages of paper that are bound together. The book is still the most extensive way that information is stored, and it is the source that many of us still find the most "friendly." Other formats, such as photographs, magnetic recordings, video tapes, laser disks, CD-ROM, DVD (Digital Versatile/Video Disk), online databases and catalogs, and information from the Internet are being used with increasing frequency. You may not feel as comfortable with these sources as you do with books, but understanding the formats of the various information sources will help to dispel some of your fears about unfamiliar formats. Beyond that, developing skills in the intelligent use of information sources will save time and result in a more effective use of the source.

Books

The traditional book printed on paper consists of pages fastened together at one edge and covered with a protective cover. The first printed books consisted only of the cover and the text of the work. There were no title or introductory pages as in modern books. As printing evolved, publishers developed a uniform way to arrange the contents of books that greatly enhanced their usability. The most significant features are discussed in Table 1.1. (Some books may not have all the different parts described, and the order of their appearance may vary.)

E-Books

E-books are published in electronic format and available on the Internet. E-books from NetLibrary, a subscription service, can be checked out to allow exclusive viewing rights.

TABLE 1.1. ◆ Standard Features of Books

- **BOOK COVER:** The cover of the book holds the pages of the book together and protects them. The edge of the cover where the pages are bound together is called the spine. The short-title of the book, the author's name, the publisher, and, in the case of library books, the call number are printed on the spine. The front of the cover is often decorated. It may also give the author's name and the short-title of the book.

- **INTERIOR PAGES**

  Preliminary Material

  ❑ **Title Page**

  The title page is the first significant page in the book. It gives the following information:
  - *Title:* The title page gives the full title of the book, including any subtitles or descriptive titles, e.g., *The Book: The Story of Printing and Bookmaking*. The title from the title page should be used in bibliographic citations.
  - *Author:* The author's name and sometimes a list of credentials such as degrees, academic position, and, occasionally, the names of other works.
  - *Editor, Compiler, Illustrator, or Translator:* The name of anyone other than the author who made a significant contribution to the book.
  - *Edition:* Given if the book is other than a first edition. All copies of a book printed from one set of type make up an edition. Reprints are copies of the same edition printed at a later time. When any changes are made, it becomes a revised edition or a new edition.
  - *Imprint:* The place of publication, the publisher, and the date of publication. These are usually found at the bottom of the title page although the publication date is sometimes omitted. The publication date identifies when a book was published. Only the place of publication, publisher, and date are needed for identification purposes in a bibliography. If there is no publication date, the copyright date is used in a bibliographic citation.

  ❑ **Copyright and Printing Information**

  The back of the title page contains the following information:
  - *Copyright:* The copyright grants legal rights to an author or publisher to sell, distribute, or reproduce a literary or artistic work. A small © before a date identifies it as the copyright date.
  - *Printing history:* A list of different editions and printings of the work.

  ❑ **Table of Contents**

  The table of contents lists in order the chapters or parts of the book and gives the pages on which they begin. Some books include a brief summary of each chapter listed.

  ❑ **Preface or Foreword**

  Preface or foreword gives the author's purpose in writing the book and acknowledges those persons who have helped in its preparation.

  ❑ **Introduction**

  The introduction differs from the preface or foreword in that it describes the subject matter of the book and gives a preliminary statement leading into the main contents of the book.

  ❑ **Illustrations**

  The list of illustrations gives the pages on which illustrative material can be found. Illustrations might include pictures, maps, charts, etc.

  Text and Notes

  The main body of printed matter is the text of the book. It is usually divided into chapters or separate parts and may include explanatory material and identification of reference sources in the form of notes at the bottoms of the pages (footnotes) or at the ends of chapters (endnotes). In some books notes appear at the end of the book.

  End Matter

  ❑ **Glossary**

  A list with definitions of unfamiliar words or terms used in the text, usually at the end of the text.

  ❑ **Appendix**

  Supplementary materials following the text such as tables, maps, questionnaires, or case studies.

  ❑ **Bibliography**

  A list of all books, articles, and other materials the author used in writing the book. It may also include other sources that are relevant to the subject. The bibliography may appear at the end of each chapter or at the end of the book.

  ❑ **Index**

  An alphabetical list of subjects discussed in the book. Some books have a separate name and/or author index.

CD-ROM Books

CD-ROM books are available in CD-ROM format.

Serials

A *serial* is a publication that is issued on a continuing basis at regularly stated intervals. The publication frequency varies: some serials are published each day (daily); others, once a week (weekly), every two weeks (biweekly), once a month (monthly), every two months (bimonthly), every three months (quarterly), twice a year (semiannually), or once a year (annually). Serials include periodicals (magazines and journals); newspapers; annuals and yearbooks; and the proceedings, transactions, memoirs, etc. of societies and associations.

- *Periodicals* are numbered consecutively and given volume designations so that several issues make up a volume. In many libraries, when a complete volume of a periodical has been accumulated, the issues are bound together in hard covers. These bound volumes may be shelved with other books by classification number, or they may be shelved in a separate periodical area. Some libraries acquire the current copies of periodicals in paper and the back issues on microform. *Periodicals* include *magazines* and *journals* that are issued at regular intervals, usually weekly, biweekly, monthly, bimonthly, or quarterly. *Magazines* contain popular reading, while *journals* are more scholarly.

- *E-journals* (electronic journals) are defined very broadly as those journals or magazines that are available over the Internet. The first e-journals appeared in the early 1990s and have proliferated at a phenomenal rate; currently there are thousands of journals and magazines available in electronic format and the trend for electronic publishing is expected to continue. Some of these are available exclusively online; others may have a print counterpart. Many libraries subscribe to e-journals and make them available through their home pages and in their online catalogs. The advantage of e-journals is that users do not have to come to the library in order to read available articles; rather they can access the journals from their home or office as long as they have a valid authorization to get to the database.

- *Newspapers* are usually published daily or weekly. They are printed on a type of paper called *newsprint* that does not last. For this reason, they are usually preserved on microfilm. The paper copies of newspapers are kept only until the microfilm copies arrive. Many newspapers are available on the Internet, some by subscription, others for free. For example, the *New York Times* is available at: http://www.nytimes.com/.

- *Annuals* and *yearbooks* are treated much as other book materials and shelved in the general collection or in the reference collection in a library. The proceedings, transactions, memoirs, etc. of a society or association are considered serials because they are usually published at regular intervals. The serial titles owned by a library are usually listed in the library's catalog but may also appear in a separate serials list that identifies those titles and issues that have been received in the library.

Dissertations and Theses

A *dissertation* is research that is conducted and written in partial fulfillment of the requirements for the doctoral degree at a university. A *thesis* is a research project completed in partial fulfillment of the requirements for the master's degree. At least one copy of the original of all the dissertations and theses written at a university are usually kept in the university library. Many libraries acquire microfilm copies of the theses and dissertations in order to preserve the original. Libraries may acquire dissertations and theses from other universities on microfilm.

Archives

Archives consist of both unpublished and published materials that have historical value, such as the public and private papers of notable persons or the records of an institution. The format of archival materials varies: for example, archives might include original manuscripts, letters, photographs, diaries, legal records, books, etc. (See Figure 1.1.) The materials found in archives may be likened to the items one frequently finds in the attics of old family homes: birth and marriage certificates, letters, and newspaper clippings that tell that family's story. Archives require special care and handling, and it is not unusual to find that access is limited to only serious researchers. Archival materials are also being preserved on microform, magnetic tapes, CD-ROM, DVD, and in digital form stored on computers. Many of the digitally stored materials are available over the Web. A notable example is the Library of Congress' *American Memory: Historical Collections for the National Digital Library*. As of this writing there are seventy archival collections that have been copied and stored in digital format. These collections can be accessed at: http://lcweb2.loc.gov/ammem/amhome.html

Vertical File

The vertical file (or pamphlet file) consists of pamphlets, brochures, newspaper and magazine clippings, pictures, maps, and other materials that are not suitable for cataloging and shelving along with the regular book collection. Vertical file materials are usually placed in manila folders and stored alphabetically by subjects in filing cabinets. The material placed in the vertical file is ephemeral in nature—that is, it has little, if any, lasting value and will soon be out-of-date. Therefore, the vertical file must be weeded, or cleared, from time to time to get rid of dated material. Much of the information kept in the vertical file might never appear in any other published form. Some libraries maintain a separate index of vertical file material.

Audio-Visual (A-V) Materials

Audio-visual materials include audio, video, and microform formats. A-V materials require special equipment for their use and are usually housed in separate areas of the library. The types of A-V materials are:

◆ *Audio* materials—records, audio cassettes, CD-ROM, DVD, and reel-to-reel tapes. The audio materials in most libraries include musical as well as spoken records.

◆ *Video* materials—microforms, video cassettes, slides, and synchronized slide-tapes.

◆ *Microforms*—printed materials that are reduced in size by photographic means and that can only be read with special readers. (See Figures 1.2 and 1.3.) There are several types of these photographically reduced materials:

—*microfilm* is print that is reproduced on a roll of 35 or 16 mm film;

—*microfiche* is a flat sheet of film, usually measuring four by six inches, on which separate pages of text are reproduced:

◆ *microprint* is the reproduction in positive form of a microphotograph. Microprint is printed on opaque paper, unlike microfilm and microfiche, which are printed or reproduced on film;

◆ *microcard* is a form of microprint, but its reduction is greater.

Microprints and microcards are no longer being distributed because of the difficulty in reproducing them on paper.