

# Selected Professional Books for <sup>[adele]</sup> School Library Media Specialists

Adele Bildersee

**Adele Bildersee** is a school library media specialist at North High School, Great Neck, New York (reprinted courtesy of Libraries Unlimited from *School Library Media Annual*, c. 1995)

The books listed in this chapter were all published in 1994 and represent a cross-section of titles of professional interest and significance to school library media specialists. Although several titles could easily fit into more than one category, the annotations were grouped in six sections: 1) cataloging and technical services; 2) management; 3) resources; 4) teaching role; 5) issues and perspectives; and 6) technology. Personal examination of the materials is the source for the annotations. Selection criteria included: pertinence and timeliness of the subject matter; qualification of the authors; application to the general interest; scope and approach of the material. Multiple titles on the same topic were not included unless they offered different information or a special aspect.

The single title in the cataloging and technical services section is a "must" for library media specialists who are planning to automate their library catalogs. The first two titles in the management category speak to the developing trend toward sharing resources.

Many of the titles in the teaching role category appear to be increasingly centered around "information literacy," no doubt a reflection of the growth of technology in school libraries. Titles in the issues and perspective area tend to emphasize the assessment and evaluation of programs, which reflect this widespread trend in education. The large number of titles in the technology area, especially about the Internet represents the great interest in and focus on that area within the past year. Since library media specialists play a significant role in the management of information, there is no reason to believe that this plethora of new titles in technology will tend to decrease in the future. Titles were chosen with an effort to cover a variety of divergent subjects and avoid redundancy.

## CATALOGING AND TECHNICAL SERVICES

Piepenburg, Scott. **EASY MARC: A Simplified Guide to Creating Catalog Records for Library Automation Systems: Pre-Format Integration.** Hi Willow Research and Publishing, 1994. 152p.

This guide is a straightforward helpmate for the novice who is planning to develop an automated catalog. Machine readable cataloging (MARC), developed by the Library of Congress, is defined by "TAG" fields that correspond to each item in a citation. Presented here as chapters, the TAGs are in chronological order in this 8.5 x 11 inch format that can serve as a workbook for entry of MARC records. A short description of each TAG is supplemented by any needed explanatory notes. The introduction provides an overview of

MARC and a disclaimer for the limitations of the book. There is also an index.

## MANAGEMENT

Berger, Pam and Susan Kinnell. **CD-ROM FOR SCHOOLS: A Directory and Practical Handbook for Media Specialists.**  
Eight Bit Books, 1994. 272p.

Berger and Kimball have written a sensible how-to-do-it guide for introducing and using CD-ROM in the school library. A clear explanation of the technology, the cost, the problems, and the best titles available are covered in this book. Chapter One is an overview of the use of the technology in school libraries. Chapters Two through Five contain information about CD-ROM technology and the use of CD-ROM in schools: CD-ROM Hardware, Software and Networking; Planning and Managing CD-ROM technology in the School Library Media Center; Evaluation and Selection of CD-ROMs for Schools; and CD-ROM Instruction and Curriculum Integration. The next two chapters review and list CD-ROM titles. Chapter Eight is a list of the CD-ROM titles reviewed in the book arranged by curriculum area and grade level (primary, elementary, middle, and high school). Included also is a list of publishers and distributors in Chapter Nine, followed by a glossary of terms and an index.

Gillespie, John T. and Ralph J. Folcarelli. **Guides to Library Collection Development.**  
Libraries Unlimited, 1994. 441p.

In this age of expanded and shared resources, Gillespie and Folcarelli have assembled a very useful work for school, public, and academic librarians who are building collections. The book is divided into three major parts: Periodicals and Serials; Children and Young Adult Sources; and Adult Sources. Both print and non-print media are covered in every area. Three audiences are targeted: children (C), young adult (Y), and general (A). Because each annotated entry is cited only once, it is placed in the section most appropriate for its use and includes all appropriate age-level designations. At the time of publication, all items listed were in print, with the exception of several important sources that are widely available in libraries. Two indexes are included to help the user locate sources: by title and author (or editor) and by subject.

Gilmer, Lois C. **Interlibrary Loan: Theory and Management.** Libraries Unlimited, 1994. 264p.

The key to the development of modern interlibrary loan was the development of MARC (machine-readable cataloging) which served to standardize bibliographic databases and the rise of computer networks that have allowed that information to be readily shared. The author has compiled information from a survey of academic, special, public, and school libraries throughout the United States and provided information to assist librarians in this expanding practice. Chapters include: Historical Overview, Standardization, Networking, Copyright, Organization and Administration, Policies and Procedures, Document Delivery, and Issues

and Trends. Sample forms, charts, and flowcharts are included, as well as extensive notes and sources. There are four appendices with useful and practical information: Interlibrary Loan Codes; Sample Interlibrary Loan Agreements; Interlibrary Loan Job Descriptions; and an Interlibrary Loan Professional Library Annotated Bibliography. A bibliography and an index are also included.

Hagloch, Susan B. **Library Building Projects: Tips for Survival.** Libraries Unlimited, Inc., 1994. 151p.

This down-to-earth planning guide, punctuated with humor about a very serious subject, contains useful information about raising funds, preparing for construction, the actual construction, and the reopening of a new or rebuilt library. An annotated bibliography of practical resources is included, as well as many floor plans, elevations, and drawings of newly constructed libraries from Georgia to California.

Simpson, Carol Mann. **Copyright for School Libraries: A Practical Guide.** Linworth Publishing, 1994. 104p.

This easy-to-use guide covers many issues regarding copyright for both print and non-print materials. Included is a description of copyright guidelines for various media, such as the use of scanners and closed captioning. A brief history of copyright law is followed by an overview of the consequences of copyright violation. There are specific examples, as well as forms, such as a duplication log, sample copyright policy, and copyright compliance agreements. Also included are a question and answer section, a list of do's and don'ts, and a directory of sources.

## RESOURCES

Blazek, Ron and Elizabeth Aversa. **The Humanities: A Selective Guide to Information Sources, Fourth Edition.** Libraries Unlimited, 1994. 504p.

This comprehensive and expanded guide is a completely revised version of the third edition issued in 1988. Now included are recent electronic references and significant multicultural and female contributions. The five major categories of the humanities include: Philosophy, Religion, Visual Arts, Performing Arts, and Language and Literature. The odd-numbered chapters deal with accessing information and include a "working definition" of the field, "use and users" in the area, major divisions in the field, and a section on "computers." There is an added section in this edition: "Helpful Resources for Students, Librarians, and General Readers" which is designed to assist a user with limited background in the subject. The chapters with even numbers contain a total of 1,250 major entries of annotated print and electronic reference tools. A list of abbreviations and symbols at the beginning of the volume will assist the user. There is an author and title index and a subject index.

Blazek, Ron and Anna Perrault. **United States History: A Selective Guide to Information Sources.** Libraries Unlimited, 1994. 411p.

Designed to assist librarians, students, educators, and scholars, Blazek and Perrault have included multiple resources about the popular culture in this comprehensive guide. Popular culture is represented to be "all those elements of life which are not narrowly intellectual or creatively elitist" (p. xi). The volume is arranged alphabetically by subject or genre. Some of the main areas covered are: Mass Media, Performing Arts, Politics, Popular History, Popular Literature, Popular Music, Religion/Psychic Phenomena, Social Phenomena, and Sports and Recreation. The detailed table of contents, as well as the Author/Title and Subject Indexes, provide assistance in locating entries in this multi-faceted volume.

Hoffman, Frank W. **American Popular Culture: A Guide to Reference Literature.** Libraries Unlimited, 1995. 286p.

This book is a useful guide to the popular culture of our society, which is defined as "all the experiences in life shared by people in common, generally, though not necessarily, disseminated by the mass media" (p. xi). The text is arranged alphabetically by the main categories which include: Mass Media, Performing Arts, Popular History, Popular Literature, Popular Music, Religion/Psychic Phenomena, Social Phenomena, and Sports and Recreation. A detailed table of contents, as well as an Author/Title and Subject Index, provide essential assistance in locating entries in this multifaceted work.

Palmer, Jean B., ed. **Kliatt Audiobook Guide.** Libraries Unlimited, 1994. 237p.

Palmer introduces a guide for the secondary schools to "books on tape" with the first two sections devoted to the educational advantages of listening to books and practical guidelines for the management of the product and equipment. The third section contains an alphabetical listing of recommended titles collected primarily from evaluations that appeared in *KLIATT* from January 1990 through November 1993. The detailed reviews generally cover the quality, relevance, and scope of the content, competence of the narrator, integrity of the sound, value of supporting materials, and appropriate grade level. An asterisk is used to denote cassettes of exceptional quality. The appendix cites audiobook sources and the three indexes are designated Author/Title, Narrator, and Subject.

Podell, Diane K. **Thematic Atlases for Public, Academic, and High School Libraries.** The Scarecrow Press, Inc., 1994, 176p.

This is an alphabetical overview of 100 thematic atlases with the author's stated purpose two-fold: to provide a guide for selection for reference and acquisitions librarians and to raise awareness among librarians of wide array of this genre as a resource. The author has also thoughtfully included practical guidelines for shelving and managing these often unwieldy

volumes in the library. The in-depth evaluations are one to two pages long, cover two computerized atlases, and include materials appropriate for public, college, or high school libraries. The definition of a thematic atlas is: "a book of maps and/or charts, tables, or illustrations on a specific theme or subject, usually connected to geography in some manner" ( p.ix). Citations include price, ISBN numbers, and size, as well as a list of review sources and the Dewey and Library of Congress classification numbers. Included also is a Glossary, Bibliography, Index to Publishers, Name/Title Index, and Subject Index.

Totten, Herman L. and Risa W. Brown. **Culturally Diverse Library Collections for Children.** Neal-Shuman, 1994. 299p.

This annotated list of titles is well-organized and easy to use. The four main multicultural groups represented in this volume are: Native Americans, Asian Americans, Hispanic Americans, and African-Americans. Each section included biographies, folklore, picture books, fiction for middle readers, reference and scholarly works, and non-fiction. Annotations are in alphabetical order by title and include a grade level designation. Many of the titles carry very recent copyright dates (1990-1993). Included are two indexes: Author/Illustrator/Title Index and Subject Index.

## TEACHING ROLE

Bleakley, Ann and Jackie L. Carrigan. **Resource-Based Learning Activities: Information Literacy for High School Students.** American Library Association, 1994. 227p.

The goal of this work is to go "beyond basic library-skills instruction to incorporate different research activities into regular classroom lessons as an integral part of learning... Twenty years of combined experience and effort by the authors, a library media specialist and an English department chair, has culminated in a comprehensive practical research lesson guide designed for a restructured problem-centered high school curriculum that will encourage lifelong learning. Most of the book centers on the "major" subject areas, English, science and social studies, offering a great many activities and suggested resources. Some additional material is included for Art/Music, Math, and Vocational Education. Each entry includes a plan for the instructor and an activity plan (worksheet) for the student. Activity plans are also available on computer disk and can be easily altered to meet individual needs. Included are appendices providing a cross reference guide to selected resources, addresses for research tools, topics for research projects, and advice for electronic-resource beginners. There is a "Works Cited" bibliography, but no index.

Breivik, Patricia Senn and J. A. Senn. **Information Literacy: Educating Children for the 21st Century.** Scholastic, 1994. 198p.

According to the American Library Association, "information literate people are those who have learned how to learn . . . because they can always find information they need for any task or decision at hand." This study suggests a number of methods for introducing and developing the skills that students will need to function effectively in an information-rich society. From the need for effective staff development to the suggestion for elimination of fixed library schedules, the authors explore a wide range of methods for increasing the accessibility of information literacy in our youngsters. Suggestions for practical applications include tools for the assessment of students, teachers, library media specialists, and programs. A "Selected Reading List" and several appendices round out the volume, including a very useful K-12 Information Skills Curriculum Scope developed by the State of Washington. There is an index.

California Media and Library Educators Association. **From Library Skills to Information Literacy: A Handbook for the 21st Century.** Hi Willow Research and Publishing, 1994. 167 p.

This California-based handbook is a pragmatic guide for the library media specialist or teacher in adapting a traditional library skills approach to the age of information literacy in any state. It is geared to the Clinton Administration's Goals 2000 (National Education Goals of 1990) and begins by defining "information literacy" and describing a model. The following chapters cover the stages of the research process, instructional planning, and strategies for developing information literacy. A broader perspective is addressed in a chapter entitled, "Integrating Information Literacy into Local or State Frameworks," citing the importance of library media specialists becoming active beyond their schools in order to "affect the larger vision of how the library media program fits into education" (p. 87). A number of charts and diagrams, including a clear format for teaching Boolean searching, will prove useful. The two detailed appendices include descriptions of the role of information literacy in the National Education Goals, as well as a planning guide for covering the major competencies. There is a bibliography and index.

Carroll, Frances Laverne. **Destination: Discovery! Activities and Resources for Studying Columbus and Other Explorers.** American Library Association, 1994. 212p.

This chronologically arranged discussion of the life and exploration of Christopher Columbus includes activities and resources, as well as a great deal of information about the man. Many references are cited, complete with annotations. In addition to books, suggestions for maps, charts, portraits, and music are noted. Appropriate age levels are indicated for all citations, from pre-school to adult. There is a bibliography, a title, author/title, and subject indexes to help the library media specialist sort through the vast amount of information.

Colborn, Candy. **What Do Children Read Next? A Reader's Guide to Fiction for Children.** Gale Research, 1994. 1135p.

With this extensive list of nearly 2,000 titles for youngsters in the elementary grades, there should be no problem finding something to "read next" for readers of every level and description. Each entry includes grade level and subject, a short summary, review source information, other titles by the same author, and suggestions for further reading. The book's alphabetical arrangement by author is bolstered by a comprehensive thumb-guided subject index, followed by both author and title indexes. This is the third in a series of guides, including a similar volume for young adults, *What Do Young Adults Read Next?*

Considine, David M., Gail E. Haley, and Lyn Ellen Lacy. **Imagine That: Developing Critical thinking and Critical Viewing through Children's Literature.** Teacher Ideas Press, 1994. 207p.

The illustrations in children's books, according to the authors, have historically taken a secondary position to the written word. Focus has been centered on theme and meaning without due regard for "visual literacy." This analysis and pedagogical study will help the library media specialist understand how children "see" picture books. Guidelines are provided for incorporating the visual component as a teaching tool leading to a greater appreciation of both art and literature for children and adults. Although selected examples of illustrations are presented only in black and white, the accompanying explanations are insightful and practical. Each chapter boasts an excellent and extensive reference bibliography, as well as a wealth of suggestions for the professional. There is an author/title index.

Heller, Norma. **Projects for New Technologies in Education.** Libraries Unlimited, 1994. 154p.

This book of projects and worksheets makes use of the technological tools that were introduced in *New Technologies for Education: A Beginner's Guide*, 1993, by Ann E. Barron and Gary W. Orwig. A series of curriculum subject areas comprise the chapters in which at least two projects are outlined. The suggested technology is designed to support the research process and not to be used as an end in itself. Teaching strategies and lesson plans are included for the teacher or librarian. Some recommended research skills for the students include establishing an electronic database of recommended titles, note taking using film clips from videodisk, doing Boolean research from on-line databases and CD-ROM resources. The appendix cites product sources. An index is also included.

Livo, Norma J. **Who's Afraid...? Facing Children's Fears with Folktales.** Teacher Ideas Press, 1994. 176p.

Livo has written a timely book in a age of increasing wariness about the impact on children of frightening stories both in the media and in print. Not since Bruno Bettelheim's *The Uses of Enchantment* has this subject been so successfully explored. An extensive introduction outlines the uses of literature in dealing with children's fears and includes an annotated bibliography. Each of the ten chapters deals with a specific fear, including fear of losing a

parent, going blind, and school fears. In each case, a selection from literature is followed by a Discussion, Activities and an annotated Bibliography for further reading that teachers and librarians will find useful. This volume also includes an index of authors, titles, and subjects.

McElmeel, Sharron L. **The Latest and Greatest Read-Alouds.** Libraries Unlimited, 1994. 210 p.

Teachers and grandparents will both find this is thoughtfully constructed and attractive book useful for identifying appropriate read-alouds for children. The author goes beyond the usual selection of picture books to include titles for older children. Each of these selections, and there are over one hundred, includes appropriate age levels both for listening and for independent reading. There is a brief analysis of each story and suggestions for further reading follow each entry. In addition to the Author, Illustrator, Title Index, there is a Subject Index that will provide useful pointers for finding appropriate reading materials for both classroom and home use.

Painter, William M. **Storytelling with Music, Puppets, and Arts for Libraries and Classrooms.** Library Professional Publications, 1994. 164p.

The author extols the value of reading to children when they are very young. He claims that adding enhancements to the traditional storytelling process, such as fine art, puppets, and music increases the child's attention span and allows for greater exposure to literature. Based upon Painter's own practical experience, examples of activities, works of art, and pieces of music are intertwined with his wide range of suggested titles for storytelling. In this well-organized volume, each chapter has a unifying theme and is supplemented by a story hour activity outline and reference bibliography. The "Quick Reference Section" at the end of the book provides a chapter-by-chapter summary of the stories and music plus art that are paired together.

Sever, Irene. **Beginning Readers, Mass Media, and Libraries.** Scarecrow Press, 1994. 222p.

The author, an Israeli research librarian using her own country as a laboratory, explores the influence of library practices upon the development of reading in young children. She poses the argument that mass media is a part of our culture and that libraries must play a critical role in the evaluation of their worth rather than dismissing them. Within that context, librarians also have a responsibility for introducing books and text that encourage the non-reader and the beginning reader. The study includes chapters on introducing the library to children, organizing the collection, promoting and encouraging reading skill, and handling and presenting mass media. Notes and references and an index are included.



## ISSUES AND PERSPECTIVES

Kuhlthau, Carol Collier, ed. **Assessment and the School Library Media Center.** Libraries Unlimited, 1994. 152p.

Kuhlthau has collected a dozen articles that address the pertinent and timely topic of student assessment in the learning of information skills. Since the library media center is a "critical component" of the information age school, an overview of student learning and performance is pertinent to the analysis of library programs. In addition to discussions of standardized testing, such terms as alternative assessment, performance, and authentic assessment are explained and explored. Most articles include reference bibliographies and/or notes that will serve the user in further research. An index is also included.

Haycock, Ken. **What Works: Research About Teaching and Learning though the School's Library Resource Center.** Rockland Press, 1994. 232p.

Using the research of 600 doctoral dissertations relevant to the effectiveness of school library media specialists and media centers, the author has presented 28 research findings. Three sections include Part I: a compilation and commentary on the studies; Part II: an annotated bibliography; and Part III: author, geographic, and topic indexes. The work is not critical, but rather practical, with the purpose using research to serve as a guide for professionals.

Valencia, Sheila and Elfrieda H. Hiebert, Peter P. Afflerbach, eds. **Authentic Reading Assessment: Practices and Possibilities.** International Reading Association, 1994. 317p.

The reform movement in education has raised the issue of effective assessment. This collection of articles and essays explores the new assessment efforts in reading. A description of authentic assessment and evaluation of its accomplishments is elaborated. Each chapter presents an actual project, its goals, structure, and results as well as a reference bibliography. In addition, each chapter is followed by commentaries with an effort toward providing critical analysis and clarification. The authors state that, "Literacy professionals have an important contribution to make to the design and implementation of these new approaches." There is an author index and a subject index.

Vandergrift, Kay E. **Power Teaching: A Primary Role of the School Library Media Specialist.** American Library Association, 1994. 171p.

A thorough, scholarly study of the library media specialist as a teacher during a time of change and reform, Vandergrift explores research strategies, evaluation strategies, organization of information and ideas, staff development, and evaluation of the school library media specialist. The author states, "The library media specialist as teacher possesses both an understanding of teaching and learning strategies and a real knowledge of the contents of the library media center collection." Extensive notes are included for each chapter. The Appendix contains forms for evaluating the school library media specialist and the library media program. There is also an index.

## TECHNOLOGY

Abbott, Tony, ed. **On INTERNET94**. Mecklermedia, 1994. 453p.

This comprehensive volume offers the user a guide to thousands of resources on the Internet "from artificial intelligence to women's studies, from space exploration to rock music, from environmental studies to AIDS research." The nine basic sections are arranged by types of information the user can access: 1) Discussion Lists and Special Interest Mailing Lists; 2) Electronic Journals and Newsletters; 3) Electronic Texts, Text Archives, Selected FTP sites, and Internet Resource Guides; 4) Freenets and other Community-Based Information Services; 5) Campus-Wide Information Systems; 6) Commercial Services on the Internet; 7) Usenet Newsgroups and Other Mailing Lists; 8) WAIS-Accessible Databases; 9) An appendix offering critical reviews of discussion lists (List Review Service) with instructions for subscribing and a Subject Index. Use of this book assumes that the reader has a basic knowledge of the Internet. Some help is offered through brief explanations of the basic functions. A bibliography is also included.

Barron, Ann E. and Gary W. Orwig. **Multimedia Technologies for Training: An Introduction**. Libraries Unlimited, 1995. 207p.

In offering an overview of multimedia applications for business and education, this versatile work is useful for professional trainers, as well as teachers and library media specialists. The introduction provides an overview of multimedia training, a discussion of its advantages, and finally, a list of recommended guidelines. Each chapter begins with a practical scenario followed by a discussion of appropriate multimedia applications and ends with a list of resources, guides, and a bibliography of recommended reading. The major areas covered are: CD-ROM, Video, Digital audio, Local Area Networks (LAN), Telecommunications, Teleconferencing and Distance Education, Software, and Simulations and Virtual Reality. By including a number of black and white illustrations and charts, the authors have clarified some of the more difficult concepts. Included also is an extensive glossary and an index.

Dern, Daniel P. **The Internet Guide for New Users**. McGraw Hill, 1994. 570p.

Designed especially for beginners on the Internet, this guide offers clear, easy Unix-based instructions for accessing and using the worldwide network. Divided into four major

sections, Part 1 offers a history and explanation of the Internet and the necessary steps for getting and using an account. Part 2 covers the "four basic internet food groups:" e-mail, usenet, telnet, and FTP. Simple, detailed, explicit, and sequential directions for each function are outlined. Part 3 presents the major Internet tools, such as gopher, Archie, and WAIS, including detailed instructions for using FTP (file transfer protocol). Part 4 addresses the issues of Internet citizenship, including security and "netiquette." In the final section, Part 5, useful miscellaneous sources for special-interest information are discussed, such as AskERIC, on-line libraries, freenets, commercial databases, and others. The five appendices cover TCP/IP software, editors on Unix systems, InterNIC access information, a free Unix shellsript, and a list on Internet-related organizations. Also included are a bibliography and a glossary.

Miller, Elizabeth B. **The Internet Resource Directory for K-12 Teachers and Librarians, 94/95 Edition.** Libraries Unlimited, 1994. 199p.

This slim volume is designed to save users of the Internet in the K-12 environment many hours of frustration by providing sources of information such as lesson plans, discussion groups, and gopher sites. Each chapter is designated to a specific curricular area, including science, social studies, foreign language, mathematics, art and music, etc. Clearly outlined instructions are presented for each entry: How to Access, Internet Address, and Instructions or Path. The final two chapters are: "Reference", which provides instructions for accessing dictionaries, film databases, and United States Historical Documents and "School Library Media Applications" which points the way to a variety of pertinent newsgroups and listservs. The Appendix furnishes a history of the Internet and the new role of the K-12 community on the information highway. There is an index that will help the user navigate through the book and the "net."

Mostafa, Javed, Thomas Newell, and Richard Trenthem. **The Easy Internet Handbook.** Hi Willow Research and Publishing, 1994. 140p.

In workbook-like format, the authors have presented a simple, step-by-step guide to the Internet. An explanation of networks, augmented by line-drawing diagrams and a history of the Internet is followed by explanations of Internet functions and resources. Step-by-step instructions, as well as many "Hints" and "Helpful Command" are included.. Topics include Archie, FTP, gopher, LISTSERV, electronic mail, telnet, VERONICA, WAIS, and World-Wide-Web. For easy reference, each page is designed with a keyword in a box at the top. Sample Internet computer screens are included throughout, as well as representative lists of resources and directions for accessing them. A glossary, bibliography, and index are also included.

Newby, Gregory B. **Directory of Directories on the Internet: A Guide to Information Sources.** Meckler Publishing, 1994. 153p.

This comprehensive overview of the internet expands upon the notion of "directory" and diligently guides the user through the myriad sources of information. Included are lists of resources especially useful for educators, including ERIC Digests, Project Gutenberg, and Weather Underground. The author has also included instructions for using Internet tools, such as FTP, Listservs, and Newsgroups to access information. An entire chapter is devoted to *Online Public Access Catalogs* (OPACs). Succeeding chapters cover Internet books, Getting Connected and Public Access Sites, Future Directions, and Special Interest and Regional Resources. The three Appendices list Country Codes, FTP Mail Service, and Countries with Searchable X.500 Gateways. Four indexes include: Type of Resource; Internet Address; Author, Maintainer, or Supplier; and Subject.