

# ***Introduction to the* Encyclopedia of Library and Information Sciences, Third Edition**

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## **How to Use This Encyclopedia**

Entries are arranged alphabetically in this encyclopedia (see end papers for alphabetical list). There is also a Topical Table of Contents at the beginning of volume 1. By scanning this list, the reader gets a sense at a glance of how the subjects are grouped and what related entry titles are to be found clustered together in the categories.

When seeking a topic that is more specific or detailed than appears in the titles of entries, or when looking for a proper noun, such as the name of a person, company, organization, standard, etc., look up the name or phrase in the index at the back of each volume. When searching the online form of the encyclopedia, search by title, author, or subject term(s).

In sum, relevant articles can be found by

1. Entry title (alphabetical arrangement of articles in the encyclopedia or listing in the end papers),
2. Subject category (Topical Table of Contents at the beginning of volume 1), or
3. Specific name or topic (index at the end of each volume).

If the first name or topic searched is not found, try several more variations—either different words or a different order of words. Most topics are described in several ways in the literature of a discipline, and the first term or phrase that comes to mind may not be the one used here.

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## **Scope of the Encyclopedia**

The title of the third edition of the *Encyclopedia of Library and Information Sciences* ends with the letter “s” because the encyclopedia is not limited to librarianship or information science. In fact, this work is designed to cover a spectrum of related information disciplines, including:

Archival Science  
Bibliography  
Document and Genre Theory  
Informatics  
Information Systems  
Knowledge Management  
Library and Information Science  
Museum Studies  
Records Management  
Social Studies of Information

What unifies all of these disciplines is their interest in recorded information and culturally meaningful artifacts and specimens. If the universe of study in physics is the physical world, and in biology the study of living things, then the universe of study of all the information sciences and the disciplines of the cultural record is, in fact, that entire body of materials representing what cultures know and value. The information disciplines collect, organize, store, preserve, retrieve, transfer, display, and make available the cultural record in all its manifestations. These activities are essential for maintenance of and access to all kinds of cultural records, whether they are produced as a result of business, government, education, creative endeavors, or daily life.

To properly address the demand for effective management of cultural resources, information professionals must master the relevant resources and information technologies, and understand how human beings relate to and use the information. They need a broader perspective as well, understanding the political, social, and cultural ramifications of the choices made in collecting and managing information. The effective management of information, while often invisible to the broader society, in fact determines much of what can be known and is available to societies—both in terms of their cultural heritage and their contemporary needs for access to knowledge.

Identifying the subject matter of the information disciplines is a complex matter because most of them have both a professional and a theoretical component. Topics in research and theory are important, as are all the manifestations of professional practice—institutions, professional associations, and areas of professional practice. Three institutions of professional practice—libraries, archives, and museums, are central in the coverage of *ELIS-3*.

But theory and practice do not cover the entirety of these disciplines either. All of them exist in a social, cultural, political, and geographical environment. They have arisen out of an historical context that still influences their character today. To the extent possible, it is desirable to reflect these various influences in the coverage of the encyclopedia as well. Thus, there are articles on the cultural institutions of various nations of the world, articles on the history of the information disciplines, and articles on the political, social, and legal context of disciplinary interests.

One of our original objectives was to provide a series of country profiles that would include a discussion of libraries, archives, and museums and would also describe the education of professionals working in these three types of institutions. We had initially hoped to include all member countries of UNESCO, but this goal proved to be far too ambitious to carry out within a reasonable time frame. The lack of any budget for translation was also an inhibiting factor; as a result we were limited to those countries where we could identify authors who were able to produce a comprehensive and sophisticated overview article in English. In many cases we could not find appropriate authors and in other cases we did have a contract with an author or a team of authors who had to withdraw from the project at a time when it was much too late to find a replacement (e.g. Argentina, Egypt, Italy, Lebanon, Portugal, New Zealand, Iran, Iraq, South Africa and Russia). Despite these disappointments, we have been able to produce cultural profiles of over 30 countries. Although Latin America and the Near East are underrepresented, we are pleased to have good coverage of Europe and a strong representation from all regions in Asia. We also have profiles from both Anglophone and Francophone Africa, and from a number of countries that were in the former Soviet bloc. In some cases, especially with countries in Africa, Eastern Europe and the former Soviet Republics, these essays may be the only place where a unified discussion of the country's cultural infrastructure may be found.

The many academic and professional dimensions addressed by the entries in the encyclopedia are evident in the list below of the main and sub-topic headings in the Topical Table of Contents. (See Topical Table of Contents for full list of articles arranged by subject.)

**Information Disciplines and Professions**

- General Disciplines
- Disciplinary Specialties
- Cognate Disciplines
- Career Options and Education

**Concepts, Theories, Ideas**

- Key Concepts
- Theories, Models, and Ideas

**Research Areas**

- Cross-Disciplinary Specialties
- Research Specialties

**Institutions**

- Generic Institutions
- Institution Types
- Named Institutions
- Ancillary Cultural Institutions
- Collections

**Systems and Networks**

- Information Systems
- Network and Technology Elements

**Literatures, Genres, and Documents**

- Literatures
- Generic Resources
- Named Resources
  - Information organization tools
  - Specific standards
  - Projects
  - Laws

**Professional Services and Activities**

- Appraisal and Acquisition of Resources
- Institutional Management and Finance
- Organization and Description of Resources
- Resource Management
- User Services

**People Using Cultural Resources**

- General
- Population Groups
- Subject Areas

**Organizations****National Cultural Institutions and Resources****History**

A final bonus to be found in the encyclopedia are 38 articles that are being called “**ELIS Classics.**” These are articles of historical or theoretical importance, usually by major individuals in library and information science, which appeared in earlier editions of the encyclopedia. Each “ELIS Classic” is so marked, and an Editor’s Note explains why the article was selected for inclusion.

The articles in this edition are almost entirely new. As of the writing of this introduction, we do not have final figures, but we expect about 550 articles, of which

38 are **ELIS Classics**, another 30 or so have been carried forward as is from an earlier edition, and about 80 are articles from earlier editions that have been updated to the present by their authors. All the remaining articles, about 400, or about 73 percent, are totally new.

### Encyclopedia Authors

Many of the authors writing for the encyclopedia are major researchers or practitioners in the disciplines in which they are writing. They are highly esteemed in their fields, and many have been recipients of the highest honors. Noted scholars are well represented, and theories and models are often described by their originators. In addition, many *ELIS-3* authors are former presidents of associations, including the International Federation of Library Associations and Institutions (IFLA), the International Council on Archives (ICA), the American Society for Information Science and Technology (ASIS&T) and the American Association of Library and Information Science Education (ALISE); among our contributors there are also a number of former presidents of the American Library Association and its divisions. In addition, there are many contributors who are current or former directors of major institutions. Even though we were not able to secure articles from all those whom we asked, many thoughtful and insightful experts in the several disciplines willingly agreed to contribute. We are very proud of the array of authors within the encyclopedia.

### What is Not Included in the Encyclopedia

In general, the scope of the encyclopedia's entries is rather broad—whole research areas, sub-disciplines, and classes of resources or institutions are described. Thus, many smaller topics are addressed only within the context of articles on larger topics. Biographies of individuals have also been excluded, though key persons are mentioned throughout articles on other topics. The index at the back of the book can be very helpful in locating these specific references within articles on broader topics.

Because this broad, general approach was taken, specific institutions are profiled only where they are highly influential or constitute major examples. Many important institutions, such as national libraries and national archives and major museums, are given brief profiles in the country articles. Genres are very important to the information disciplines, and are covered in several general articles, as with "Internet Genres." A few highly important specific genres are addressed, such as "Archival Finding Aids," but most individual genres are not profiled.

Finally, the last topic that is not covered in *ELIS-3* is the subject matter of an article that an author was unable to complete for the encyclopedia. Authors have grappled with the personal joys of newborn children, and the personal sadness of deaths of family members. Two authors themselves died during the time of preparation of this edition, and others were unable to complete their manuscript because of illness. Whenever possible, we have replaced articles when authors defaulted, but often there was not enough time remaining to allow that. So readers will no doubt be surprised at a random scattering of topics that do not appear in the encyclopedia, and should, such as Digital Libraries, Economics of Information, Scientific and Scholarly Communication, Information Security, Website Design and Management, Library Public Services, Digital Reference, the Internet, History of Archival Institutions, Data Archives, Social Computing, Geoinformatics, Legal informatics, Knowledge Organization Systems, Science Museums, History Museums, and Curating the Arts. This problem of missing topics was also acknowledged by our predecessor Allen Kent, editor of the First Edition of *ELIS*. Kent stated in 1973: "I have prepared this presentation to make sure the lessons of Diderot-d'Alembert are recalled in terms of encyclopedia-making as an exercise in the art of the possible."<sup>[1]</sup>

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## Background and Development of the Encyclopedia

The first edition of *ELIS*, under the Editorship principally of Allen Kent and Harold Lancour, was published between 1968-1982. The 33 volumes of Edition 1 were published in alphabetical sequence during those years. After the “Z” volume appeared in 1982, a number of supplements were published at roughly the rate of two per year, up to and including volume 73, which appeared in 2003.<sup>[2]</sup> Miriam Drake was appointed Editor for the second edition, which appeared in 2003, both online and in paper. The second edition came out at one time in four large-format volumes, with a supplement in 2005.<sup>[3]</sup> Kent and Lancour covered a wide range of librarianship, information science, and some computer science topics. Drake, an academic library director, emphasized academic libraries, and the *ELIS-2* volumes contained many profiles of major academic libraries and professional library associations.

Our objective with the Third Edition of *ELIS* is to reflect the growing convergence among the several disciplines that concern themselves with information and the cultural record. Historically, library and information science, archival science, museum studies, and the several other information disciplines listed earlier have tended to develop fairly independently, and to have relatively little interaction. In recent years, as all kinds of recorded information has migrated into digital form, the problems and challenges facing the several professions have converged. At the theoretical level, the growing societal attention to information and cultural heritage in recent years has led to a growing recognition that the several disciplines can both learn from and contribute to each other in theory development and research as well. A more detailed discussion of this convergence is available in Bates.<sup>[4]</sup>

We saw the audience for the encyclopedia as principally (though not entirely) consisting of, 1) the educated lay person interested in one or more of its topics, 2) students learning about a topic, and 3) professionals and researchers in the several fields who want to learn about something new, or to be refreshed on a familiar topic.

It was quite a challenge to develop an encyclopedia addressing some ten disciplines; even one discipline raises many questions of what should and should not be in an encyclopedia about that discipline. We first assembled a large group of superb individuals to constitute our Editorial Advisory Board. (See listing in the front matter.) We sought out leaders and experts from all the areas we are addressing in the encyclopedia, and their suggestions for topics were immensely valuable.

Editor Bates also reviewed all of the articles in the many prior volumes from the First and Second Editions. Prior topics addressed were listed and grouped, to get a sense of what issues might arise in selecting topics. This review also revealed a number of “gems,” articles we later carried forward as is, either as *ELIS Classics* or otherwise.

Early on, an important question arose: Would we identify each discipline and select a set of analogous topics for each? Both the Editors and the Editorial Advisory Board agreed that we did not want parallel “silo” groupings of articles on the several disciplines. The purpose of this edition is to address these related disciplines in a way that both demonstrates the unities across the fields, as well as recognizes their uniquely distinguishing characteristics. Thus, the choice of topics reflects this persistent duality; some authors address a topic across the disciplines, other authors specialize in what they know best. In many cases, but not all, what has been learned in one field can be applied in others. Fund-raising techniques used in one non-profit area can usually be utilized in another non-profit area. On the other hand, only librarians are likely to need information about serials vendors, and only museums professionals have to address trafficking in art objects. Throughout the topic selection process, countless judgments were made in an effort to produce a useful encyclopedia for all these information disciplines, as well as an encyclopedia that, through the convergence of topics, educates readers about neighboring fields. Prospective authors also helped in defining topic coverage in their areas of expertise.

Topic identification, selection, and grouping was a gradual and iterative process that, for the Editor, felt like a snake shedding skins. Dozens of spreadsheets of topic lists were created, each one moving a bit closer to a final set of articles and a final grouping of articles for maximum clarity and usefulness. The reader will, of course, be the final judge of usefulness and ease of use of the encyclopedia.

### A Word on Categorizing and Classifying the Topics

We are well aware that in library and information science, unlike other disciplines, the organizing and formatting of information is of great importance; it is at the heart of much that we do in the field. So this introduction cannot be complete unless we address these questions with respect to *ELIS-3*.

A rigorous classification of topics would require the most consistent language possible, and an array of entries both mutually exclusive and jointly exhaustive. However, the realities of philosophical and practical issues in the several disciplines meant that we could not always achieve such purity. The coverage of articles, and their corresponding titles, represents the sum total of a negotiation process between editors and authors, and between editors and the current debates in the fields around a given topic.

In particular, the most contentious area we encountered was archives and records management. U.S. traditions separate these two fields, and their practitioners often have different backgrounds and philosophies of work. U.S. records managers tend to see a disciplinary merger as infeasible and undesirable. However, leaders of a dynamic movement in Australia have argued for the combination of these two fields into one. Under the banner of the “Records Continuum Model,” these authors view the separation of the fields as artificial and out of date.

How, then, to reconcile these conflicting views? In the end, authors were chosen from around the world to expound on various aspects of these two disciplines, so that the several positions would be present in the encyclopedia. The authors were encouraged both to recognize the other positions and to present their own models of the professions. Readers, therefore, will sometimes experience a somewhat internally conflicting body of exposition on the several topics.

These differences are expressed even in the titles of the articles. Karen Anderson, the author asked to write on archival education, chose to title her article “Careers and Education in Archives and Records Management.” The philosophy she subscribes to would combine these two areas into one. On the other hand, the author of the article on records management education, Carol Choksy, chose to title her article “Careers and Education in Records and Information Management.” The American field separates archives from “records and information management,” and uses the latter name for the disciplinary area. Forcing the content of these two titles to be more “mutually exclusive”—that is, for the words “records management” to appear in only one of the two titles—in the time-honored tradition of classification system design, would, in fact, warp the actual coverage of the articles, as intended by the authors, and as reflecting the realities of the field today.

For those familiar with the organizational principles developed by the great library classificationist, S.R. Ranganathan, the final subject topic listing above can be seen to reflect his fundamental set of facets: Personality, Matter, Energy, Space, and Time. The Disciplines, Concepts, and Research Areas represent the Personalities of the disciplines; the Institutions, Systems, Networks, and Literatures represent the Matter of the disciplines; and the Professional Services and Activities, the People Using Cultural Resources, and the Organizations represent the Energy of the disciplines. The National profiles represent geography, or Space, and, finally, History represents Time. Overall, the Topical Contents List presents the broad topic areas being listed from first to last, in the order of Ranganathan’s P-M-E-S-T.

Of course, in some regards, every article addresses most or all of Ranganathan's facets. He expected people to combine several facets to describe any individual book. However, the Topical Table of Contents groups the articles by the aspects that they each emphasize. So an article on Information Retrieval Systems, though it expresses some of the general multi-faceted approach to the subject matter taken by information retrieval experts in their research, nonetheless emphasizes the *systems* themselves, as is reflected in the article title. This article is therefore grouped with other articles on various types of information systems. Seeing all these systems articles together in the Topical Contents List, enables the reader to see at a glance the wide variety of kinds of information system that have been created. An information system is a kind of matter in the world of the information disciplines, and is therefore grouped with the other "matter"-based topical areas, such as institutions, networks, and literatures.

### Quality Controls

Authors were selected and invited to write who knew the topic well. (In fact, researching authors and inviting them to write—and replacing those who declined—took many months of full-time work for the Editors, especially for Bates.) Authors were urged to double check the accuracy of their articles to meet the societal expectation of accuracy for an encyclopedia. Though they were welcome to expound on the theories and approaches that they preferred, authors were also required to represent common points of view on their topic in their articles, not only the perspective that the author favored.

All new articles were reviewed by an outside expert reviewer, as were updated articles that were extensively revised. Referees were specifically asked to note any errors or mistakes that they were aware of in the articles they reviewed. Articles were checked for plagiarism with searches on sentences in Google. Spot checks for accuracy were done on facts within articles and references at the ends of articles by our research assistants, who were partially funded by small grants from the UCLA Council on Research. Most articles were read several times—by the editors, fact checkers, and the reviewers. Nonetheless, checking the accuracy of every fact was infeasible.

### The Future

It can be said that the information disciplines are in an analogous position to that of the social sciences, but displaced a century later. The social sciences, after being seen as marginal and insubstantial in the 19<sup>th</sup> century, finally came into their own in the 20<sup>th</sup> century as mature, influential disciplines, holding their rightful place in the full spectrum of academic and professional expertise. We believe that the information disciplines, which, during the 20<sup>th</sup> century, were often at the margins of the university and of society, are coming into their own at last in the 21<sup>st</sup> century. In societies feeling overwhelmed with information, and at sea among dozens of information technologies, the information disciplines should at last take their rightful place as serious, substantial and important fields among the many forms of endeavor in society. The Editors hope that this encyclopedia may contribute to that revolution.

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### Acknowledgements

The breadth and depth of the final complete encyclopedia would not have been possible without Associate Editor Mary Niles Maack's contributions. Her international interests, knowledge of the library field, experience as a historian, her skilled editing, and her many suggestions complementary to mine have made this a much richer and better encyclopedia than would have been otherwise possible. I also wish to thank the Editorial Advisory Board for their advice, suggestions of topics and authors, and their support.

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I also wish to thank the Taylor & Francis Editors, Claire Miller and Susan Lee, who supported and humored the Editors and authors throughout years of work on the encyclopedia. I also wish to express my deep appreciation to Stephen C. Maack, whose skilled efforts were immeasurably valuable during a crucial period of work on the encyclopedia. Also vital were the efforts of our assistants Barbara Birenbaum and Faye Baker as plagiarism and fact-checkers, and Carol Perruso-Brown as text editor. Finally, I thank the hundreds of authors who wrote articles, and the hundreds more reviewers who refereed the articles. Without them, there would be no encyclopedia.

Marcia J. Bates, Editor-in-Chief

The breadth, scope, and intellectual framework of the encyclopedia is due to the vision, dedication and perseverance of Marcia Bates, who has devoted over three years of her life to this enormous project. In addition to establishing the table of contents, she has spent countless hours identifying authors, corresponding with them, and editing their work. My editorial responsibilities have been mostly confined to the historical articles, the articles on libraries and librarianship, the articles on associations, and the country profiles. The latter set of articles were in many ways the most demanding and rewarding. I am especially grateful to two of our board members, T. D. Wilson and Elena Maceviciute, who were very helpful in identifying authors from Central and Eastern Europe. My sincere thanks also go to Peter Lor, the former Secretary General of the International Federation of Library Associations and Institutions (IFLA), who generously helped to locate potential authors and reviewers.

I am also very grateful for the excellent work of my UCLA graduate assistants Stasa Milocevic and Kim Anderson. Stasa not only checked facts but also provided very insightful review comments on many manuscripts, and Kim aided in the preliminary editing of several articles. Finally my heartfelt appreciation goes to my husband Stephen Maack. At a time when my teaching overload at UCLA would have made it impossible for me to continue as Associate Editor, he put aside his work for his firm, Reap Change Consultants, and devoted many hours to securing association articles, following up with overdue manuscripts, updating spreadsheets, and doing extensive editing on a number of key articles. I simply could not have continued in this endeavor without his love, support, and hard work.

Mary Niles Maack, Associate Editor

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