# The Multimedia Library Second Edition

Materials Selection and Use

James Cabeceiras

## The Multimedia Library

Second Edition

### Materials Selection and Use

James Cabeceiras
Division of Library So

Division of Library Science Department of Instructional Technology San Jose State University San Jose, California

1982



ACADEMIC PRESS

A Subsidiary of Harcourt Brace Jovanovich, Publishers

New York London

Paris San Diego San Francisco São Paulo Sydney Tokyo Toronto

COPYRIGHT © 1982, BY ACADEMIC PRESS, INC.
ALL RIGHTS RESERVED.
NO PART OF THIS PUBLICATION MAY BE REPRODUCED OR
TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC
OR MECHANICAL, INCLUDING PHOTOCOPY, RECORDING, OR ANY
INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT
PERMISSION IN WRITING FROM THE PUBLISHER.

ACADEMIC PRESS, INC. 111 Fifth Avenue, New York, New York 10003

United Kingdom Edition published by ACADEMIC PRESS, INC. (LONDON) LTD. 24/28 Oval Road, London NW1 7DX

Library of Congress Cataloging in Publication Data

Cabeceiras, James.
The multimedia library.

(Library and information science)

Includes bibliographies and index.

1. Selection of nonbook materials. 2. Book selection. 3. Audio-visual library service. 1. Title. 11. Series.

Z689.C12 1982 025.2'1 82-6734

ISBN 0-12-153952-0

AACR2

13BN 0-12-133332-0

ANCINA

PRINTED IN THE UNITED STATES OF AMERICA

82 83 84 85 9 8 7 6 5 4 3 2 1

The American Library Association's Position on Intellectual	
Freedom was vilingalistic and more intelligently use more freedom	272
Responding to a Request To Censor	278
Selected Bibliography	280
is the public as well as the leadership role the intrarian must-	

Index 283

### Preface

Libraries are becoming increasingly involved with various information media forms. Much more has been written about the traditional print media forms, such as books and periodicals, than about the various types of nontraditional media forms that are an essential part of the services that libraries are currently expected to provide their patrons.

particular task are provided in Chapter 5. Chapters 6-13 explore

In the second edition of *The Multimedia Library*, greater emphasis has been placed on the nonprint media forms, those that have been used for some time in libraries, as well as the new media forms that are growing in popularity as valid library information materials. This investigation of the selection and use of the various types of nonprint media analyzes unique capabilities and advantages of each media form, as well as how each form may be used most effectively and efficiently, and, when applicable, the selection of ancillary equipment (hardware) to accompany a particular medium (software).

This volume has been organized to provide the reader with a foundation in the philosophy, trends, tools, and procedures involved in selection of materials for the multimedia library. It then offers information on particular media forms. Content in both of these areas has been modified to include developments and trends that were not prevalent when the first edition went to press. Organization of material within chapters follows, whenever possible, a prescribed format: the chapters begin with an overview followed by a description of characteristics and a discussion of selection and utilization procedures; the chapters conclude with a selected bibliography and a suggested list of appropriate selection aids.

Given the broad information media selection base provided in the initial chapters of the book, the reader should have the prerequisite knowledge to learn how to select and more intelligently use the various multimedia information forms discussed in subsequent chapters. Also explored are the regulating constraints involved in making information available to the public as well as the leadership role the librarian must assume in order to function successfully in the multimedia library.

Chapter 1 analyzes present and future trends in the field of library science in order to orient the reader toward a multimedia philosophy to which he or she can conscientiously subscribe. An overview of materials selection as it relates to the formulation of policy, standards for the selection of materials and equipment, categories of media, and procedures for the utilization of library materials is presented in Chapter 2. Chapter 3 reviews the function of selection aids and suggests and discusses evaluation criteria. The systems approach to materials selection. so essential to the organized growth of the library, is examined in Chapter 4. Guidelines for applying a knowledge of the properties of the various information media to the selection of the proper medium for a particular task are provided in Chapter 5. Chapters 6-13 explore in some depth the various media found in libraries, with an emphasis on identification and application as well as on the development of criteria for evaluation and selection. Because some libraries often become involved in making their own special materials to better serve patrons' needs, local production of materials is covered in Chapter 14.

Two new subjects are covered in the second edition of *The Multimedia Library*. Chapter 15 examines recently instituted copyright regulations, as well as their implications for both the owner and the user of copyright information. This information is especially important for the multimedia librarian who presently has the technology available to produce and reproduce information in a wide range of media forms. Chapter 16 is devoted to a discussion of intellectual freedom, with the intention of giving the reader a perspective on how selecting, justifying, and advocating the use of information materials in the library is indeed a serious

task and must be performed with professional expertise.

intion in the philosophy, hends, tools, and procedures involved in stance of operations of an interest of their orders into partial or an examination of these areashas but a condition to making the modified to include developments and agraems when the airst edition went to produce Organization of material within chapters follows, whenever possible a presented format, the mapter begin with an overview followed or a description of characteristics of a discussion of selection and make the mappendicted with a selection of billiography and a suggested list of appropriate selection aids.

election 33 34 34 35 35	Weeding Integrated Approach to Materials S Evaluation Procedures Selected Bibliography Selection Aids
	$\xi$
	Selection Aids
Contents	
	Purpose of a Selection Aid
38	Ceneral Functions of Selection Aid
n Evaluating a Selection	Components To Be Examined Whe
	biA.
Preface by a month	Selection Aids  Westeron Cods for Examinary Sel
35	Selected Bibliography
1	
Trends: Present and Future	
Materials weivrevO	Systems Approach to Selecting A
Implications of Trends	2
Types of Materials Circulated	waiview
Trends in Library Service	Fleed for a System of Media Selecti
Impact of Electronic Technology	Advantages of a Systems Approach
Adaptable Philosophy for the Prese	nt and Future
Considerations Selected Bibliography	11 12 Sic Howcharting
Science Dibliography	Selection of Multiple Media For as
	A Frg. n Considerations to Flow that
2	
2 Materials Selection	
Overview	4thering the Proper Medium
Formulation of Policy Selection Standards	14
Materials and Equipment Selection	21
Major Categories of Media	in margora oris yonor a green 21
Materials Utilization	29 yu amerus a Which Media Voi
Materials Control	20

vii

viii	Content
om .	
Weeding	31
Integrated Approach to Materials Selection	32
<b>Evaluation Procedures</b>	34
Selected Bibliography	35
Selection Aids	36
Delection 1 and	
3	
Selection Aids	
Overview	Simplification 3
	3
Purpose of a Selection Aid	
General Functions of Selection Aids	3
Components To Be Examined When Evaluating	
Aid	4
Major Criteria Used in Comparing and Comple	menting
Selection Aids	4
Evaluation Grids for Examining Selection Aids	4
Selected Bibliography	4
Selection Aids	4
ociceion i indo	20
the state of the s	
4	
Systems Approach to Selecting Materials	
egoromo Esperanor so concorno Estanor ano	
Overview	implications of Trends
Need for a Creation of Madia Calastian	or Materials Circ
Need for a System of Media Selection	5 ands in Library Servi
Advantages of a Systems Approach	5 pact of Electronic Te
The Systems Approach Applied to Library Ope	rations of the slowing 50
Library Systems	Zonsiderations
Basic Flowcharting	vidaraphidid bere 57
Selection of Multiple Media Forms	59
A Priori Considerations to Flowcharting	61
Selected Bibliography	. 63
3-1-1	
5	
Selecting the Proper Medium	
Detecting the 1 roper intention	formulation of Policy
Overview	Alection Standards
Overview	
Designing a Policy and Program of Equipment	Selection 65
Selecting the Medium That Best Fills the Need	6 or Categories of Me
Environments in Which Media Are Used	gaterials Utilization

#### Contents

Basic Criteria for Selecting Equipment		73
Conclusion	adio Recordings	78
Selected Bibliography		78
Selection Aids	* 1491 (191	79
- Delection 1 and		
	Personal Disc Record	
	· tacytocia	2.8
c/ stentio	letences in Audiotape F	
6 annhance Francis T. In Alaire		
14		
Overview	ech Compression	80
Motion Picture Film in the Library		01
Advantages of Modell Licture Links	die Metorome Selection	07
Making a Motion Picture rum		00
Cost/Effectiveness of Motion Picture Film		00
Feature, Educational, and Art Films	ection Aids	21
16-mm Motion Picture Selection Aids		92
Selecting 16-mm Motion Picture Film		93
16-mm Film Evaluation Forms		97
Physical Features of Motion Picture Film	entsion	102
Physical Features of Optical and Magnetic	Sound Tracks	102
8-mm Film Containers		104
Selecting Motion Picture Projection Equipm	pact of the Television in	105
Using Motion Picture Film		107
Delected Dibliography	tal implications of Makin	110
Selection Aids		110
21	ecting Video Equipment	
	pact of Cable Television	
7		
Filmstrips and Slides	ng Television	
Timotrips with others	ected Bibliography	
Overview		
Filmstrips and Slides: Physical Characterist		113
Advantages of Filmstrips and Slides	ues	117
Local Production of Filmstrips and Slides		119
Selecting Filmstrip and Slide Projection Eq	winniant lett berming	122
Selecting Filmstrips and Slides	aphient	126
Using Filmstrips and Slides		
	grammed Instruction: A	128
Selection Aids		131
perection vina nountainer pauritterant		131

8	Basic Criteria for Selecting Equipment
Audio Recordings	
	Selected Bibliography
Overview	Elelection Aids
Advantages of Audio Discs	13
Differences in Disc Recording I	Formats 13
Audiotapes	13
Differences in Audiotape Form	ats 13
Electromechanical Characteristi	
Selecting and Evaluating a Tap	e Recorder . 14
Making a Tape Recording	14 Uverview
Speech Compression	1/1
Selecting Professionally Prepar	ed Audio Recordings 14
Audio Recording Selection Aid	.5
Using Audio Recordings	Towns of Marine and Marine Distance Dis
Selected bibliography	Landill in the land of the control of the control of
Selection Aids	15. mm Motion Dicture Selection Aids
	Selecting 16-mm Mödion Picture Film
06	16-mm Film Evaluation Forms
9	Physical Features of Motion Picture fil
	Physical Features of Optical and Magn
N/AP	Smm Film Containers
Overview	15. Petting Motion Picture Projection Far
Impact of the Television Mediu	im 15.
Trends in Library Television U	hlization 150
Legal Implications of Making V	tilization 150 Video Recordings 150 150 150 150 150
Video Recording Formats	150
selecting video Equipment	104
Impact of Cable Television on	
Selecting and Evaluating Comp	
Recordings	170
Using Television	71 laustrips and Stides
Selected Bibliography	173
Selection Aids	weitrev 174
eristics 113	
10	
Frogrammed Instruction	Selecting Filmstrip and Side Projection
126	Selecting Filmstrips and Slides
Overview	17. Ing Filmstrips and Stides
Programmed Instruction: A De	
Psychological Principle of Prog	rammed Instruction abid noise 176

Contents

Linear and Branching Programs Major Developments	771 nds in Microform Selection 871 cump Microform Viewers
Textbooks versus Linear and Branchi	ng Programmed Wildland Malasa
Instruction Books	emmotorned garage
The Emerging Role of the Computer	181 circle Bibliography
Selecting Software and Compatible H	lardware sb.A nodo 182
Using Programmed Instruction	184
Selected Bibliography	189
Selection Aids	189
ATTENTION OF	Local Preparation of Informatio
11	
Maps	
240	
Overview	190 duction Space
Properties and Characteristics of Map	oete and Inexpensive Macenals so
Selecting Maps	801 duction Criteria
Using Maps	sinelar Caleda
Selected Bibliography	abrabase noishin 200.
Selection Aids	200 ng Locally Produced Materials
	Selected Bibliography
12	
Models, Realia, and Games and Si	mulations
Overview	the of Courtest
Models	203
Realia	· · · · · · · · · · · · · · · · · · ·
Games and Simulations	10 1200 212
Selected Bibliography	210
Selection Aids	alactataly, abreautol 219
13	
Microforms	
Overview	220
Definition of Microform	220 221
Physical Features of Microforms	222
Image Magnification and Storage Capa	acity 223
Positive versus Negative Microforms	ouderoano Deusey noito 223
Selecting Microforms	- qideroena) os asnoc <mark>224</mark>

rii		Contents

Selection Aids Select	234 struction Books 236 Emerging Role of the Compile 252 ching Software and Compatible 353 sing Programmed Instituction
14	
	laterion Aids
Local Preparation of Information M	lateriais
Overview	238
Rationale	239
Basic Production Equipment	240
Production Space	242
Free and Inexpensive Materials	243
Production Criteria	245
Design Criteria	24
Evaluation Standards	24 cm 90 mil
Using Locally Produced Materials	250
Selected Bibliography	250
Selection Aids	251
d Sinulations	
15	
Fair Use of Copyright	
Overview	252
Purpose of Copyright	anothlumid but an 252
Fair Use	
Performance Materials	250
Photocopying	259
Special Rights	
	262
Selected Bibliography	263
16	
Intellectual Freedom	
Overview	265 se Magnification and Storage
Selection versus Censorship	26
Response to Censorship	265 are versus Negative Microfo
The state of Certoorsinp	emiolopiM said 267

1

## Trends, Present and Future

#### Overview

It is essential that the librarian be critically aware of how and where the library fits into the societal matrix and of the kinds of services it provides to justify its existence. Equally important, the librarian must be cognizant of how his or her knowledge, skill, and attitude contribute to the achievement of the library's goals. Libraries have a highly respected history as primary sources for acquiring and dispensing the information needed by the society they serve. To nurture and maintain this reputation, the library must be adaptable to change. As information continues to be generated in ever-increasing amounts, so too must the library grow to accommodate the demands of the omnipresent information explosion.

The library not only acquires information in printed formats, but increasingly builds collections of nonprint information as well. Society is just now embarking on the electronic era, which means that the library, as a dynamic institution, will continue to expand its use of this technology to serve the needs of its patrons. The librarian must develop a perspective as to the role he or she will play in this evolutionary process. Although not intending to overemphasize the dichotomy of the individual roles librarians must play, there is presently a strong tendency among librarians to perceive their orientation as being predominantly either print or nonprint. Regardless of how one perceives his or her orientation, be it print or nonprint, there is a need for both types of knowledgeable professionals, and both can make a valued contribution.

Whatever one's particular inclination, it is critical to know that a multitude of information forms exist, each with its own unique characteristics and objectives for satisfying a particular need. With a basic knowledge of the many information formats circulated by the library, what each format does, and how it is used, the individual librarian can better ascertain his or her role in the overall schema of services and perform that role as capably as possible. Print is here to stay, but it will not be solely in a paper format; it will also be available in a host of electronic forms as well. Likewise, nonprint information media will not become passé, but will also be adapted to incorporate the advantages inherent in the newer electronic technologies.

### Implication of Trends

### "Change Is the Only Constant"

It is essential that the professional librarian be able to identify with the institution—the library—to which he or she dedicates a career. He or she must know that the profession of a librarian is not now, never was, nor ever will be static; it is an extremely important entity within an ever-changing society and must be responsive to the needs of society. The librarian must realize that the library itself is in a constant state of metamorphosis. Often, change and innovation in the library occur almost imperceptibly, and as a result, trends too often are assimilated but not appreciated. Frequently the librarian is aware only of the present time frame, the here and now. Such a myopic perspective tends to obscure the fact that the library of even the recent past is not the library of today; and that the library of the future will be quite different from today's. It is clearly valuable for the librarian to take the time and effort to analyze the phenomenon of change in the library and the demands it places on the library profession.

Perhaps one of the best ways to analyze current and future library trends is to view them on a continuum that includes not only the present and the future, but the past as well. If we took the time to identify library changes since World War II, it would become apparent that changes have occurred in both degree and kind. Unfortunately, many library patrons, and a few librarians as well, have an extremely limited perspective as to the purpose the library serves and are apt to criticize libraries as being antiquated book museums that have changed very little. Such criticisms are unwarranted, and worse, the people making them are neither aware of nor ready for future changes. As librar-

ians, we need to examine carefully our own philosophy and decide whether we want to be in the vanguard, making changes, or to adopt the less active role of adapting to change. Either way, the process is irreversible; change is inevitable.

Ancient Carthage had a library of scrolls; the medieval monks had libraries of hand-written manuscripts. In the fifteenth century, Johann Gutenberg invented movable type, and thus ushered in the era of mechanical printing. A relatively short time later in 1658, John Amos Comenius published his Orbus Pictus, considered to be the first illustrated textbook. As time progressed, more efficient methods of printing, the advent of photography, and the use of color resulted in more, better, and less expensive books.

Since World War II, libraries have been providing information in many different media. Libraries now circulate books (both hardcover and paperback), microform, art prints, periodicals, disc records, audiotapes, games and simulations, motion picture films, slides, filmstrips, models, realia (real things), animals, and minerals. With the exception of four or five of the items listed, none were even available in libraries prior to 1945. Currently, we are beginning to witness the introduction of videotapes and computer terminals into the repertory of services provided. It should be clear from this extremely brief chronology that librarians need not feel they have to defend their institutions against charges that they are static and archaic. Rather, the emphasis must now be placed on how to accommodate for change.

What is needed is an examination of the basic social and technological factors that are affecting our lives and in turn affecting the services provided by libraries. There has been a constant shift in American demographic patterns from rural to urban to suburban living. Currently, however, some futurists are predicting a reverse change from suburban back to large metropolitan or megalopolitan living. The importance of education, which vitally affects a society's need for and attitude toward libraries, is continually expanding. Earlier retirements are generating a group of individuals who are no longer in the labor pool, but are still mentally and physically active and desire more education. A new awareness of the symbiotic relationship between man and his environment is changing attitudes toward the exploitation of nature for personal profit. The future may find man concerned not with the puritan work ethic, but with a communal effort toward group preservation. Financial status may cease to be the determinant of social rank, leading to a reduction of gaps between the current socioeconomic levels of American society. The family unit is undergoing change as well; the nuclear family is replacing the extended family, and at the same time, people are living longer, entering the labor market later, and leaving it earlier. The country is presently experiencing an erosion of the control traditionally ascribed to family and religion. Social, moral, and religious mores are undergoing accelerated and sometimes traumatic changes. These are only some of the more visible societal changes taking place, but they are not the only arbiter of change.

Along with social change is technological change. American society is rapidly evolving from the industrial, machine age to the electronic era. There is a continuing logarithmic increase in the use of automation in just about every human activity. It is astounding to ponder that in less than three quarters of the twentieth century, man was able to proceed from the first heavier-than-air flight to walking on the moon. Not as dramatic, but perhaps more important, is the progress in medicine and health care. Many of the killer epidemics that plagued man in the past are today virtually nonexistent, an achievement not without price. The world, for the first time, is faced with the critical problem of global overpopulation, which generates a whole new set of survival problems. We are now witnessing the emergence of genetic control and manipulation and of biochemical regulation of the brain and intellect.

We are immersed in the epoch of electronic communication, which is changing the concept of the library's role in society. Television as a form of mass communication has resulted in a decline in person-to-person communication, which will be further reduced by electronic information display devices used for one-to-one, man-machine communication. This access to electronic communication implies a myriad of both advantages and problems. Accumulated information available to man is presently doubling every 12 years, and it is projected that by 2000, it will be doubling in 1 year's time.

This vast storehouse of information can be handled electronically, but someone will have to be responsible for its management. The lorarian is the obvious choice for this task, and the responsibility and power inherent in that responsibility are awesome. In a management capacity, the librarian will have considerable influence on what kind of information is selected, stored, retrieved, and discarded. Information control requirements will necessitate that the librarian be a highly trained information technologist. As the person controlling this vast amount of information, the librarian will be required to perform a much greater service than is currently being offered by libraries. The librarian must assist society by maintaining and supplying whatever information is needed. But who is to decide what is needed? Such decisions require a librarian who is a skilled, responsive humanist, able to assess individual needs and respond with information that serves mankind. The prob-

lem of verbal illiteracy will be replaced by a demand for a higher and more efficient communication literacy. The librarian technologist will insure that information is available for all of society; the librarian humanist will prescribe it to the benefit of the individual.

### Types of Materials Circulated that he to not set acquisition can be a more prevalent in libraries, but here the

Since it has been established that libraries are in a state of continual change within a changing society, it is appropriate to examine more closely the changes taking place in the materials circulated. It is in the area of material selection and utilization that the library justifies its existence, for if the materials selected are not the best that can be provided and are not in demand or needed by patrons, the library becomes a warehouse of unneeded, unwanted information. Added to this is the concern that acquisitions prove to be economically valid.

Libraries are no longer considered simply as conservators of information; the emphasis now is on the dissemination of information. If the library were only a conservator, then all information would best be acquired on some type of microform and stored in a safe place. But what is the use of information if it cannot be disseminated in its most appropriate media form? Such information needs to be used effectively and efficiently. For this reason, the librarian needs to be aware of the various forms, how they are disseminated, and how they best serve a particular information need. An examination of the types of materials currently being circulated by libraries provides vivid evidence that change is taking place. Furthermore, some of the newer media forms being acquired are a positive indication that what is happening is not for the sole purpose of keeping the library modern; for if this indeed were the case, then libraries would only build collections of these newer media forms. The truth of the matter is that some of the newer forms provide a valuable service, and holdings in many of these areas are growing as fast as, if not faster than, holdings in the book area. It says yell

Currently, it is the school library that is in the vanguard of using the vast array of the more modern media forms, but other libraries, from public to academic, are also shifting to some of the newer media forms as demand for them becomes apparent. An examination of some of the newer media will give an idea of the unique characteristics that make them important sources of information.

Paperbacks, although not necessarily a new media form, are increasing in the quantity in which they are being acquired. Somewhat less expensive than hardbound books, they are perceived as a good means

of acquiring books of transient value. Not only will the books be in demand for a relatively short time span, but multiple copies can be inexpensively purchased if the demand is great. Also, with the proliferation of books being published, more titles can be purchased in paperback form. The lower price of paperbacks, however, does not give the librarian license to buy haphazardly. If the material is not being used, its acquisition cannot be justified regardless of cost.

Microforms are becoming more prevalent in libraries, but here the librarian must consider a machine system that makes the information available in a readable form. Microforms were first acquired by libraries with the rationale that they resulted in tremendous savings in space. Now it is being realized that there are other benefits. The savings in binding costs of periodicals is considerable; and perhaps even more important, the microform is an inexpensive medium in which to acquire copies of printed matter in their original form. Also available in microform are books and periodicals that are out of print and would otherwise be quite expensive (if indeed they were even available for purchase); microform helps to make out-of-print materials available and affordable.

New techniques in industrial photo-offset printing now make it economically feasible to circulate art prints. The high reproduction quality

of art prints are enjoyed and appreciated by the patron.

Improvements in the fidelity of audio recordings, on both disc record and magnetic tape, have resulted in an increased demand for this format. An American home, especially one with teenage children, that has neither a record player nor a tape recorder is rare. The librarian needs to be aware of the demand for information in an audio format and of exactly what kind of audio information needs to be made available.

Packaged games and simulations have opened a whole new vista in information processing. They are becoming extremely popular as group learning and group experiencing activities. Games and simulations require active participation; for not only are the users acquiring informa-

tion, but they are relating to it emotionally as well.

The enormous growth of (and reliance on) visual literacy is resulting in a population that has a preference for the picture over the printed word. The librarian must be skilled in evaluating visual media and ascertaining their communication effectiveness. Knowledge of how and under what circumstances the material will be used will determine whether it should be in print, slide, filmstrip, or motion picture form.

Models, maps in many forms, and realia are also being acquired as a means of providing information in the best possible form. Again, the librarian must bear in mind that the main criterion for selecting the best format is to determine which format will be most used by the patron.