Contents

	Preface	·*	ix
PART I:	HISTORY AND BACKGROUND		
1.	Introduction: A Perspective		3
2.	Early Technical Support Systems Unit-Record Systems 10 Offline Computer Applications in the 1960s 22 Library of Congress and MARC Format 35		9
3.	Online Technical Support Systems In-house Circulation Developments 43 Acquisitions, Cataloging, and Serials Control Development 48 Bibliographic Utilities 55 Commercial Online Systems 63		41
4.	The Public Catalog The Card Catalog Crisis 72 Book Catalogs 74 Computer Output Microform (COM) Catalogs 82 Online Public-Access Catalogs 91 Into the 1980s 99		72
5.	Information Retrieval Services Background 104		103

Origins and Emergence 105 Growth and Use 115 Into the 1980s 120

6. Automation and Interlibrary Lending

Background: Locational Aids 123 Alternative Communications Technologies, 1950–1967 127 State-Based Interlibrary Networks 132 Automation and Locational Tools—1970s 139 Interlibrary Loan Requests 145 Document Delivery Revisited 149

PART II: PLANNING AND PREPARATION

7.	Foundations: Recurring Themes and Present Trends Libraries and Technological Development 158 Background for Planning 162 Current Trends 172 Microcomputers in the Library 186 Optical Disk Storage of Text 196 Telecommunications 202	157
0	Regis Americanshare Ontions and Descurres	007
ö.	Basic Approaches: Options and Resources	207
	Deciding to Automate 207	
	Hardware and Software: Major Options 213	
	Planning and Implementation Participants 225	
9	Selecting, Procuring, and Introducing an Automated	
	System	235
	Analyzing Operations and Requirements 235	
	Request for Proposal 243	
	Evaluation and Selection 247	
	Contracting 252	
	Staff Preparation and Training 270	

10. Bibliographic Records to Machine-Readable Form

Purposes of Retrospective Conversion 282 Data Elements and Format 283 Major Options 290 Comparing the Options 298 122

280

Shelflist Conversion and Alternate Strategies 310 Database Maintenance 322

PART III: APPLICATIONS

11.	The Role of Bibliographic UtilitiesGeneral System Capabilities330Major Issues Facing the Utilities343	327
12.	Characteristics of Technical Support Systems General Characteristics 363 Cataloging 371 Acquisitions 380 Serials Control 393 Circulation 408	361
13.	Online Catalogs: The User Interface Sources of Development 428 Focus on the User 430 Access to Bibliographic Records 432 The User Interface 439	427
14.	The Online Catalog: Dialogue, Searching, Bibliographic Display Begin-Session Protocols 468 Access Points, Indexed Fields, and Search Types 469 Constructing the Search Statement 472 Combining Search Types 477 Subject Access 478 Character-by-Character versus Keyword Searching 484 Truncation 485 Alternative Terminology 488 Displaying Bibliographic Data 490	468
15.	Online Search Services: The Context Why an Online Search Service? 506 Information Retrieval and Online Databases 507 Challenges of the 1980s 514 Free versus Fee-based Service 525 Document Delivery and Digital Telefacsimile 532	505

vi LIBRARY AUTOMATION

16. Organizing and Administering the Search Service

Defining the Scope 546 Anticipating Needs and Impact 550 Organizational Structure 557 Costs and Cost Recovery 565 Promotion 580 Policy and Procedure 586

Index

546

601