Contents

Biography		v
Foreword		vii
Acknowledgm	ents	xxii
		AAII
CHAPTER 1	Introduction to Digital Libraries	1
	Introduction	
	Definitions and Frameworks of Digital Libraries	
	Early Definitions	Δ
	Multifaceted Definitions and Perspectives	5
	Digital Library Frameworks	9
	Evolution of Digital Libraries	
	Prelude: Early Visionaries and the Pre-1990s Era	10
	The Formative Years: 1991–2001	12
	Building the Content and Opening Access: 2000s	21
	Large-Scale Digital Libraries: 2010–	21
	References	
		50
CHAPTER 2	Digital Library Collection Development	37
	Collection Development Introduction	37
	History	37
	Definitions	
	Digital Collection Development Policy	30
	Collection Development Policy	20
	Collection Development Criteria	39
	Collection Assessment	40
	Legal Issues in Collection Development	
	Copyright Protection	
	Exemptions for Libraries and Archives	43
	The Digital Millennium Copyright Act (DMCA)	43
	Fair Use	
25	Copyright Infringement and Fair Use Cases	
and the second	Collection Sharing and Large-Scale Digital Libraries	
	Collection Development in Consortia and Large-Scale Digital Libraries	50
1 10 00	Large-Scale Digitization Projects and Collection Development Policy	50
	Challenges of Collection Development	52
	Legal Challenges	
	Other Important Challenges	33
	References	54
	References	33

vii

Digitization of Text and Still Images	9
Introduction to Digitization	á
Rationale and Strategies for Undertaking Digitization 60	1
Why Digitize: Access and Preservation	1
Digitization Strategies and Sustainability	1
Digitization Process	5
Digitization Steps	5
General Digitization Guidelines	2
Digitization of Textual and Static Visual Resources	1
Technical Factors)
Digitization Equipment	5
Recommendations for Digital Capture of Text and Photographic Images 81	
Rapid Digitization	
References 89)
Digitization of Audio and Moving Image Collections95	
Introduction to Digitization of Audiovisual Resources	
State of Audio and Moving Image Collections	
Preservation Crisis: Obsolescence and Deterioration 99	
Audio Digitization	
Technical Factors 104	
Audio Digitization Process	
Equipment. 109	
Recommendations for Audio Digitization	
Moving Image Digitization	
Moving Image Types	
Digitization Process and Equipment	
Technical Factors and Recommended Specifications 119	
Encoding and File Formats	
Summary of Recommendations for Video Digitization 121	
References	
Metadata	
Metadata Overview 129	
Metadata Overview	
Definitions, Standards, and History 129 Functions and Types of Metadate 129	
Functions and Types of Metadata	
Metadata Schemas 131 Dublin Core 133	
Dublin Core	
Metadata Encoding and Transmission Standard (METS)	
Text Encoding Initiative (TEI)	
138	
Encoded Archival Description (EAD)	

	Categories for the Description of Works of Art (CDWA)	140
	interoperatifity: Metadata Mapping and Harvesting	1 1 1
	Designing and Implementing Metadata	1.40
	Selecting a Schema	
	Wictadata Application Profiles	
	Controlled vocabularies	151
	Building Metadata Records	1.50
	Osci ragging	1.55
	Linked Data	1.55
	Linked Data Model and Technologies	15/
	Linked Data and Digital Libraries.	159
	References	163
		165
CHAPTER 6	Digital Library Management Systems	
	Introduction	171
	Design and Architecture of Digital Library Santa	171
	Design and Architecture of Digital Library Systems	172
	Architectural Models	173
	Functionality and Other System Requirements	176
	Interoperability	179
	Current Landscape of DLMS	191
	Open Source versus Proprietary Software	192
	Open Source Systems	19/
	Tophetary Systems	197
	Open Source Repository Systems	102
	Selection of DLMS	198
	References	200
CHAPTER 7		
CHAPTER /	Interface Design and Evaluation	205
	Foundations for Interface Design and Design Principles	205
	Foundations for Interface Design	205
	Design Principles	205
	nerative Design	206
	Design and Customization of User Interface	207
	Conceptual Design: Identification of Users' Unique Needs	207
	Prototype Design	208
	Interface Design: Configurations	211
	Customized Design and Visual Tools	212
	Usability Testing	215
	Usability Testing: Criteria and Approaches	217
	Usability Testing: Specific Digital Libraries and Specific Users	210
	User Perspective and Organizational Usability	218
	Help Design	219
	Interface Design for People With Disabilities	220
	References	223
		225

ix

User Needs and Search Behaviors	231
Types of Users and Their use of Digital Libraries	
Children and Digital Libraries	
College Students and Digital Libraries	
Elderly People, People with Disabilities, and Digital Libraries	
Characteristics of Information Search Behaviors	
Information Search Tactics	
Information Search Strategies	
Usage Patterns	
User Involvement and System Support	241
Previous Research	
An in-Depth Look at User Involvement and System Support	
in Digital Libraries	242
Factors Affecting Digital Library Use	
User Personal Infrastructure	
Types of Information-Search Tasks	245
System Design	
References	
Digital Preservation	255
Introduction	
Defining Digital Preservation	255
Terminology: Digital Curation, Digital Stewardship,	237
and Digital Preservation	257
Definitions of Digital Preservation in the Practice Community	259
Understanding Digital Preservation in the Context of Digital Libraries	250
Preserving Digital Content	239
Digital Preservation Challenges	201
Digital Preservation Goals	262
Digital Preservation Strategies	205
Digital Preservation in Digital Library Practice	200
Practical Guidelines	207
Digital Preservation Technology: Standards and Repositories	268
Standards	269
Digital Repositories	270
Preservation Repository Software	272
Partnerships and Hosted Services	2/3
References	274
	276
Evaluation of Digital Librarias	
Evaluation of Digital Libraries.	281
The Need for Digital Library Evaluation	281
Evaluation Frameworks	282
Evaluation Methods	285
Digital Library Evaluation Methods	285

	Evaluation Objectives and Phases	28
	Evaluation Objectives	28
	Evaluation Phases	28
	Evaluation Dimensions and Their Importance	29
	Evaluation Dimensions	
	Importance of Digital Library Evaluation Dimensions in the MEDaL Study	29
	Evaluation Criteria and Their Importance	29
	Evaluation Criteria	
	Importance of Digital Library Evaluation Criteria in the MEDaL Study	29
	Evaluation Measurements	30
	Digital Library Evaluation Measurements	30
	Appropriateness of Measurements in the MEDaL Study	30
	Factors Hindering Digital Library Evaluation	
	Evaluation Challenges	
	References	
CHAPTER 11	New Developments and Challenges	31
OHAI IER II	Social Media Applications and the Impact on Digital Libraries	
	Definitions of Social Media Tools	
	Social Media Applications in Digital Libraries	
	Functions of Social Media in Digital Libraries	
	Large-Scale Digital Libraries	
	Characteristics of Large-Scale Digital Libraries	
	Challenges and Problems	
	Multilingual Digital Libraries	
	The Need for Multilingual Digital Libraries	
	Multilingual Digital Libraries: User Studies	
	Multilingual Digital Library Language Search Functions	30
	Digital/Data Curation	33
	Digital/Data Curation Definitions	33
	Digital/Data Curation Definitions	33
	Challenges and Problems	33
	Challenges and Problems of Digital Libraries	33
	References	33
	References	
APPENDIX A	Digitization Cuides Standards and Bost Broatises	3/
APPENDIX A	Digitization Guides, Standards, and Best Practices	54
	Association for Library Collections & Technical Services (ALCTS). (2013):	lots/
	Minimum Digitization Capture Recommendations (http://www.ala.org/a	2/
	resources/preserv/minimum-digitization-capture-recommendations)	92
	Federal Agencies Digitization Guidelines Initiative (FADGI). (2010):	
	The Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files (http://www.digitizationguidelines	CON
	creation of Raster Image Master Files (http://www.digitizationguidelines guidelines/FADGI Still Image-Tech Guidelines 2010-08-24.pdf)	
	guidelines/FADOL Suit Image-Tech Guidelines 2010-08-24.pdf)	54

	A Framework of Guidance for Building Good Digital Collections.	
	3rd Edition (2007): NISO Framework Advisory Group	
	(http://www.niso.org/publications/rp/framework3.pdf)	341
	The NINCH Guide to Good Practice in the Digital Representation and	
	Management of Cultural Heritage Materials. (2002): The National	
	Initiative for a Networked Cultural Heritage (NINCH)	
	(http://www.nyu.edu/its/humanities/ninchguide/)	342
	Institutional guidelines	
	BCR: Bibliographical Center for Research (2008). BCR's CDP	
	Digital Imaging Best Practices. (2008): Updated Version of Western	
	States Digital Imaging Best Practices (http://mwdl.org/docs/	
	digital-imaging-bp_2.0.pdf)	342
	California Digital Library (CDL). (2011): CDL Guidelines for	
	Digital Images. Version 2.0 (http://www.cdlib.org/services/access_	
	publishing/dsc/contribute/docs/cdl_gdi_v2.pdf)	342
	CARLI: Consortium of Academic and Research Libraries in Illinois.	
	(2009; 2013): CARLI Guidelines for the Creation of Digital	
	Collections: Digitization Best Practices for Images	
	(http://www.carli.illinois.edu/sites/files/digital_collections/	
	documentation/guidelines_for_images.pdf)	343
	CARLI: Consortium of Academic and Research Libraries in Illinois	
	(2009; 2013): CARLI Guidelines for the Creation of Digital	
	Collections: Digitization Best Practices for Text	
	(http://www.carli.illinois.edu/sites/files/digital_collections/	
	documentation/guidelines_for_text.pdf)	343
	CARLI: Consortium of Academic and Research Libraries in Illinois.	
	(2009; revised 2013): CARLI Guidelines for the Creation of	
	Digital Collections: Digitization Best Practices for Audio	
	(http://www.carli.illinois.edu/sites/files/digital_collections/	
	documentation/guidelines_for_audio.pdf)	343
	CARLI: Consortium of Academic and Research Libraries in Illinois.	
	(2010; revised 2013):CARLI Guidelines for the Creation of	
	Digital Collections: Digitization Best Practices for Moving	
50	Images (http://www.carli.illinois.edu/sites/files/digital_collections/	
25		344
	Yale University. (2010): Digitization Shared Practices—Still Images Version	
	1.0 (http://www.yale.edu/digitalcoffee/downloads/DigitalCoffee_	111
*	SharedPractices_%5Bv1.0%5D.pdf)	3//
* 4 4	Shared factices_%3Bv1.0%3D.pdf)	
APPENDIX B	Examples of Metadata Schemas Peviewed in Chanter 5	3/15
VI I FIANIV D	Examples of Metadata Schemas Reviewed in Chapter 5	543
Subject Inde	ex	355
ounlest mue	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	333