Contents

Preface xv
Acknowledgments xvii

1: INTRODUCTION TO LIBRARY DATABASES 1
A Brief History of Information Access before Databases 1
Progression from Citation-Only Resources to Full Text 4
Physical Analogs 4
Databases and Their Scope 6
Where to Find Scope Information about a Database 6
Scope: Dates of Coverage 7
Scope: Materials Indexed 7
Scope: Availability of Peer-Reviewed Content 8
Scope: Countries and Languages Covered 10
Scope: Breadth and Depth of Coverage 10
Exercises 12
References 13
Suggested Reading 13

2: HOW DATABASES WORK 15
Standards within Librarianship 15
Field, Records, and Tables 17
Exploring Field Code Consistency 21
Variable-Length Fields 24
Fixed Fields 26
Online-Database Indexing 28

Database Updating 29
When Databases Fail 29
Incomplete Data Loads 29
Incomplete or Corrupt Indexing 30
General Downtime 30
Defaults 31
What Are Keywords Anyway? 35
Control Numbers 37
Suite of Technologies 39
Proxy Services 39
Permalinks 41
Originating URLs and Resultant URLs 42
OpenURLs 43
Exercises 44
References 45

3: CONTROLLED VOCABULARIES 47
Why Control? 48
Kinds of Control 49
Two Types of Subjects: Headings versus Descriptors 51
Subject Headings 52
Subject Descriptors 54
Databases with Thesauri 58
Other Kinds of Authority Control 58
Databases with Back-Generated Indexes 61
EBSCO 61
ProQuest 62
Gale 62
Exercises 63
References 64
Suggested Readings 65
Beyond the Textbook 65

4: THE SEARCHER'S TOOLKIT: PART 1 67
What Searching Is All About 67
Basic Tool No. 1: Boolean Logic 67
AND: The Narrowing Boolean Operator 68
OR: The Broadening Boolean Operator 70
NOT: The Negating Boolean Operator 71
Combining Boolean Operators in Practice 72
Nesting and Parentheses 73
Human Language versus Boolean Operators 77

Basic Tool No. 2: Controlled Vocabularies 78
When Do We Need Controlled Vocabularies? 78
Cautions When Using Controlled Vocabularies 78
Not All Controlled Vocabularies Are Created Equal 79
Basic Tool No. 3: Field Searching 80
Default Fields 81
Field-Searching Strategies 81
Combining Field Searching with Controlled Vocabulary Searching 82
Read the Documentation 82
When Field Searching Goes Away 82
Exercises 85
References 86
Beyond the Textbook 86

5: THE SEARCHER'S TOOLKIT: PART 2 87
Basic Tool No. 4: Proximity Searching 87
Why We Need Proximity Searching 87
Proximity Operators 88
Phrase Searching 90
Basic Tool No. 5: Truncation and Wildcards 91
Truncation 91
Wildcards 92
Review of Tools 4 and 5 93
Basic Tool No. 6: Limits to Constrain Searches 94
Silos and Limits 94
Limits before Submitting Searches 94
Limits after Results Are Presented 96
Basic Tool No. 7: Learning from Results 96
Terms in the Searching Lexicon 97
False Drops 97
Stop Words 98
Recall versus Precision 98
Testing a Database 100
Exercises 101
References 101

6: DATABASE INTERFACES: VENDOR FEATURES AND VARIATIONS 103
Publisher versus Aggregator Databases 103
Databases Available from Multiple Sources 106
Aggregator Interfaces 106
EBSCOhost Interface 109

ProQuest Interface 112
Gale Interface 113
Publisher Interfaces 114
Common (or Sometimes Not-So-Common) Database Features 115
Backlinking 115
Citation Generation and Exporting 115
Citation Tracking 116
Command Search 117
Cross-Searching Databases 118
Email Alerts 121
Full-Text Searching 122
Fuzzy Searches 123
Handwriting Recognition 124
HTML versus PDF Files 124
Limit Articles by Length 124
Limiters/Facets 124
Natural-Language Searching 127
Personal Accounts 128
Phrase Searching 128
RSS Feeds 128
Search History 129
Visualization 130
Browsing for Content 131
Exercises 134
References 135
Beyond the Textbook 135

7: SOCIAL SCIENCE DATABASES 137
Library and Information Science 138
Library Literature Thesaurus 139
Search Example 1: Identifying Terms Using the *Library Literature* Thesaurus 142
Search Example 2: A Lesson in Problem Solving 142
Education 144
ERIC Thesaurus 144
ERIC Results 146
Other Education Databases 147
Psychology 148
Physical Analogs to Database 148
Age Groups 148
Other Special Search Fields 151
Search Examples 152
Combining Search History Sets 155
Sociology 156
A Cross-Discipline Controlled-Vocabulary Exercise 157

ERIC Thesaurus 157
PsycINFO Thesaurus 157
Sociological Abstracts Thesaurus 158
ERIC Search 158
PsycINFO Search 158
Sociological Abstracts Search 159
Another Approach: Google Scholar 160

Business 160
General Business Databases 161
Business Directories 161
Industry Databases 161
Market Research Data 162

Additional Resources for Social Science 162

Exercises 163

References 165

Beyond the Textbook 165

8: GOVERNMENT INFORMATION DATABASES 167

Freely Available U.S. Government Information Portals 168
Govinfo.gov: The GPO's Portal 169
Congress.gov: The Library of Congress's Portal 173
Catalog of Government Publications (CGP): The GPO's Online Catalog 174
Census.gov and *Data.census.gov*: Tools of the Census Bureau 176
Other Full-Text Sources for Government Information 176

Vendor Databases for U.S. Government Information 179
U.S. Congressional Publications 179
U.S. Executive Branch Publications 181
U.S. Judicial Branch Publications 182
A Note about the Federal Depository Library Program 182

International Publications 183
Official Document System (ODS) 183
United Nations Digital Library 183
United Nations iLibrary 183
United Nations Treaty Collection 184

Other International Databases 184

Foreign Government Publications 184
Top-Level Domains (TLDs) 185
Foreign Government Subdomains 186
Substantive Foreign Government Publications 187

Exercises 187

References 188

Suggested Reading 189

Beyond the Textbook 189

9: HUMANITIES DATABASES 191

Literature Databases—*MLA International Bibliography* 192
MLAIB Distinctive Features 192
Searching *MLAIB* 194
Search Example: Looking for Peer-Reviewed Articles Analyzing Death in Chinese Literature 194
Dissertations in *MLAIB* 197
MLA Thesaurus and Names as Subjects Index 198
Browsing Indexes 202
MLA Directory of Periodicals 205

History Databases—*America: History and Life* and *Historical Abstracts* 205
Distinctive Features of *AHL* and *HA* 206
Search Example 1: Finding Book Reviews 209
Search Example 2: Finding Material about a Topic in a Particular Period 210
Search Example 3: Searching Cited References 211

Historical Newspaper Databases 211
Searching Newspaper Content 212
Search Example 1: Japanese Americans during World War II 214
Search Example 2: Sand Creek Massacre 215
Search Example 3: Psychiatric Hospitals in Eighteenth-Century England 216
Vendor Database Coverage Dates 217
Free Newspaper Databases 218

E-books and the Humanities 219
From Microform to E-books 219
Handwritten Text Recognition 220

Archival Primary-Source Databases 221

Nontextual Databases—Images, Sounds, and Video 223
Image Databases 223
Streaming Audio and Video Databases 224

Additional Resources for Humanities 226

Exercises 227

Reference 227

Beyond the Textbook 228

10: SCIENCE, ENGINEERING, AND MEDICAL DATABASES 229

SciFinder[n] 230

Web of Science and Other Citation Indexes 231
The Scope of ISI's Citation Indexes 232
Source Document 233
Cited References: Tracing Research Back in Time 233
Citations to an Author: Tracing Research Forward in Time 235
Book Reviews to Academic Books: A Hidden Benefit 236

Other Citation Databases 236
Scopus 236
Google Scholar 237
Citation Tracking in Other Databases 237
Journal Citation Reports 238
Alternative Metrics 239

Engineering Databases 240
What Engineers Do 240
Analysis of Selected Engineering Databases 242

PubMed and *Medline* 243
MeSH: Medical Subject Headings 244
Searching *PubMed* 246
Search Example 1: Topic Search 247
Search Example 2: Field Code Searching 248
Getting the Full Text 250
MedlinePlus and *PubMed Central* 250

Other Science, Engineering, and Medical Databases 251

Exercises 251

References 252

Beyond the Textbook 253

11: NUMERICAL AND STATISTICAL DATABASES 255

Kinds of Numbers 255

Who Collects Numbers? 256

Searching for Numbers as Opposed to Text 256

Basic Statistical Starting Strategies 257
"Who Cares?" Tool 1: Google Web 257
"Who Cares?" Tool 2: ProQuest *Statistical Insight* 257
"Who Cares?" Tool 3: ProQuest *Statistical Abstract of the United States* 259
"Who Cares?" Tool 4: Identifying the Players—National and International Agencies 260
"Who Cares?" Tool 5: Do a Literature Search 261

Putting the Tools to Work 261

Diving into Statistical Databases 264

Data.census.gov 265

Social Explorer 270

Historical Statistics of the United States 272

Statista 273

DataPlanet 273

Additional Statistical Mapping Databases 273
PolicyMap 274
SimplyAnalytics 274

UNdata 274
UN Comtrade Database 275
Additional Statistical Databases, Fee and Free 276
Big Data 276
Exercises 278
References 279
Beyond the Textbook 279

12: FROM BIBLIOGRAPHIC DATABASES TO FULL-TEXT E-BOOKS 281
WorldCat 282
WorldCat as a Reference Tool 283
WorldCat for Citation Verification 283
WorldCat and Foreign-Language Searching 285
WorldCat Search Examples 285
Search Example 1: Finding Materials in Other Languages 286
Search Example 2: Finding Materials for a Specific Audience 287
Search Example 3: Finding Materials by Genre 288
WorldCat.Org 289
WorldCat.org Search Examples 290
Search Example 1: A Known Item Search 290
Search Example 2: Using WorldCat.org from within Google Books 290
Search Example 3: Finding Musical Scores 291
Local Library Catalogs: Current Trends 291
Google Books and Local Library Catalogs 292
The Weakest Link 292
Information Access Anomaly 292
Enter Google Books 294
Library Catalog: Not the Best Discovery Tool 294
HathiTrust 296
Differences between E-journals and E-books 297
Exercises 298
References 299
Beyond the Textbook 300

13: WEB-SCALE DISCOVERY DATABASES 301
Federated Searching in Libraries 302
The "Clinic" Put On by Google 302
The Google Age 304

Discovery Tools Come on the Scene 305
The Unevenness of the Search 308
Putting Discovery Tools to the Test 309
Testing *Summon* 311
Testing *Primo* 311
Testing the Merging of *Summon* and *Primo* into the Central Discovery Index 311
Testing *EBSCO Discovery Service (EDS)* 312
Testing *WorldCat Discovery* 312
Discipline-Specific Databases versus Discovery Tools versus Google Scholar 313
The Despair of Depth 315
Exercises 316
References 317
Beyond the Textbook 317

14: USER BEHAVIORS AND MEETING INFORMATION NEEDS 319
Users and Their Behaviors 319
Information-Seeking Behaviors 319
Personal Observations of Library Users 320
Reference Resources 321
The Reference Interview 322
Determining the Real Question 324
Match the Resource to the Question 325
Dismissiveness 326
Virtual Reference: Email and Chat 327
Search Strategies 328
Thinking like an Indexer versus Thinking like a Text 329
Format-Independent Thinking 329
Have a Brainstorming Session with Yourself 329
Modes of Searching: Keyword, Controlled Vocabulary, Citations, Full Text 330
When to Prefer Keyword Searching 330
Make Databases "Your Own" 331
A New Way to Brainstorm Keywords 332
Going beyond Databases: Using Database Output for Citation Management 333
Client-Based versus Cloud-Based Software 333
Word Processor Integration 333
Exercises 335
References 336
Beyond the Textbook 336

15: EVALUATING DATABASES 337
Why Evaluate? 337
Evaluate for Subscription or Purchase 338
Evaluate for Replacement 339
Evaluate for Budget Cuts 339
Evaluation Considerations 340
Scope and Coverage 340
User Interface and User Experience 340
Subscription Model: Rental or Ownership 341
Relative Cost (Value) 341
Cross-Database Functions 341
Peer Institution Holdings 342
Aggregators and Disappearing Content 342
Tools for Evaluation 342
Perform Your Own Tests 342
Ulrichsweb 343
Vendor Database Coverage Tools 344
Comparison Tools 345
Charleston Advisor 345
Setting Up a Trial 345
Help from Beyond 346
Usage Statistics 347
Exercises 348
References 348

16: TEACHING OTHER PEOPLE ABOUT DATABASES 349
The Role of Teaching 350
Teaching Databases to Groups 350
One-Shot Instruction 350
Embedded Instruction 351
Teaching Databases in the Classroom 352
Teaching Databases to Individuals 352
Individual Consultations 352
Teaching Databases during Consultations 353
Remote Consultations 354
Teaching Databases over Email 354
Teaching Databases with Library Guides 354
Database Teaching Tips 355
Exercises 356
References 356
Glossary 357
Index 365