

Contents

Acknowledgments	xi
Introduction	xiii
Chapter 1 Thesauri: Introduction and Recent Developments	1
1.1 Thesaurus: A Brief History	1
1.2 Thesauri and Information Architecture	15
1.3 Faceted Search User Interfaces	18
1.4 Exploratory Search Interfaces	25
1.5 Dynamic Term Suggestion Systems	28
1.6 Thesauri and Social Tagging	33
1.7 Conclusion	35
Chapter 2 Thesauri in Interactive Information Retrieval	43
2.1 What Is Human Information Interaction?	43
2.2 Information Seeking and Information Retrieval Interaction Models	46
2.3 Thesaurus Interaction Models	54
2.4 Conclusion	59
Chapter 3 User-Centered Approach to the Evaluation of Thesauri: Query Formulation and Expansion ..	63
3.1 Thesaurus-Assisted Search Term Selection and Query Expansion: A Review of User-Centered Studies	63
3.2 Approaches to Search Term Selection	65
3.3 Sources of Search Term Selection	65
3.4 Thesaurus-Aided Search Term Selection: User Studies	66
3.5 Query Expansion	81
3.6 Conclusion	93

viii Powering Search

Chapter 4	Thesauri in Web-Based Search Systems	103
	4.1 Thesauri in Digital Libraries	105
	4.2 Thesauri in Subject Gateways and Portals	117
	4.3 Thesauri in Digital Archives	126
	4.4 Thesauri in Linked Data Repositories	129
	4.5 Conclusion	133
Chapter 5	Thesaurus-Based Search and Browsing Functionalities in New Thesaurus Construction Standards	137
	5.1 Rationale for the Integration of Thesauri Into Search User Interfaces	137
	5.2 Networked Knowledge Organization Systems and Services	139
	5.3 NISO Workshop on Electronic Thesauri	140
	5.4 BS 8723: Structured Vocabularies for Information Retrieval	142
	5.5 ANSI/NISO Z39.19	150
	5.6 Conclusion	154
Chapter 6	Design of Search User Interfaces for Thesauri . . .	159
	6.1 Thesaurus Information Elements	159
	6.2 The Information Search Process	160
	6.3 Thesaurus-Aided User Interfaces: Early Systems	162
	6.4 Research-Based, Thesaurus-Enhanced Prototype Search User Interfaces	163
	6.5 Commercial Thesaurus-Enhanced Prototype Search User Interfaces	186
	6.6 Conclusion	201
Chapter 7	Design of User Interfaces for Multilingual and Meta-Thesauri	205
	7.1 Multilingual Thesauri	205
	7.2 Multilingual Thesauri Search User Interfaces . . .	206
	7.3 Meta-Thesauri and Subject Interoperability . . .	220
	7.4 Search User Interfaces for Meta-Thesauri	223
	7.5 Conclusion	236

Chapter 8	User-Centered Evaluation of Thesaurus-Enhanced Search User Interfaces	241
	8.1 Free-Text Versus Controlled Vocabulary Searching	241
	8.2 User Evaluation Methodologies	242
	8.3 Key Findings From User Evaluation Studies . . .	246
	8.4 Thesaurus-Based Searching in the Semantic Web Environment	250
	8.5 Conclusion	253
Chapter 9	Guidelines for the Design of Thesaurus-Enhanced Search User Interfaces	257
	9.1 Interface Design Process	257
	9.2 Search User Interface Design Principles	259
	9.3 Information Architecture Design Guidelines and Principles	263
	9.4 Guidelines Specific to the Information Search Process	265
	9.5 Design Guidelines Specific to Thesaurus-Enhanced Search Interfaces	266
	9.6 Categorization of Design Guidelines for Thesaurus-Enhanced Search User Interfaces . . .	270
	9.7 Conclusion	274
Chapter 10	Current Trends and Developments	277
	10.1 Search User Interfaces	279
	10.2 Digital Libraries	281
	10.3 Query Formulation and Expansion	283
	10.4 Thesaurus Construction	286
	10.5 Semantic Web	288
	10.6 Conclusion	291
	About the Author	295
	Index	297