

3**Information Crisis**

3.1 Introduction	51
3.2 Information Activity and Information Crises	52
3.3 The Modern Information Crisis	56
3.4 Search for Information	61
3.5 Conclusion	66
References	66
Bibliographic Remarks	67

4**Concept of an Information Retrieval System**

4.1 Introduction	68
4.2 IR System as Object	68
4.3 The Purpose of Creating an IR System	70
4.4 Function of a Documentary IR System	74
4.5 Structure of a Documentary IR System	78
4.6 Conclusion	87
References	88
Bibliographic Remarks	88

5**Information Retrieval Language**

5.1 Introduction	89
5.2 Languages and Methods of Information Retrieval	89
5.3 IRL for the IR System	96
5.4 Some Tendencies of IRL Development	103
5.5 Automatic Methods of Descriptor Dictionary Compilation	107
5.6 Semantic and Grammatical Components of IRL	113
5.7 Relevance, Pertinence, Recall, and Precision	128
5.8 Conclusion	133
References	134
Bibliographic Remarks	135

6**Automatic Indexing of Documents**

6.1 Introduction	136
6.2 On the Problem of Indexing	137

6.3 Main Directions in Automatic Indexing	141
6.4 Some Methods of Text Analysis for Automatic Indexing Using a Dictionary	143
6.5 Algorithms of the Automatic Indexing of Documents	152
6.6 Statistical Indexing Methods	155
6.7 Some Issues in Automatic Indexing	158
6.8 Conclusion	163
References	164
Bibliographic Remarks	165

7**Automatic Indexing of Search Requests**

7.1 Introduction	166
7.2 Some Aspects of Constructing Query Formulations	167
7.3 Approaches to the Automatic Indexing of Search Requests	173
7.4 Algorithm for Automatic Construction of Query Formulations in Boolean Form	185
7.5 The Choice of Bound Values	193
7.6 Some Aspects of Algorithm Functioning in Information Retrieval Systems	194
7.7 Conclusion	197
References	198
Bibliographic Remarks	199

8**Storage and Access to Information**

8.1 Introduction	201
8.2 Sequential File and Sequential Access	202
8.3 Primary and Secondary Storage	204
8.4 Relative File and Random Access	210
8.5 Inverted Files	214
8.6 Conclusion	220
References	221
Bibliographic Remarks	221

9**Control and Feedback in IR Systems**

9.1 Introduction	222
9.2 Some Questions for Constructing Adaptive IR Systems	223