

toward the formulated (in this book) function and developing this structure is a necessary step before constructing individual elements of the system. Because every element of the system represents some process, the construction of an element requires finding some method of realizing this process. It should be pointed out that in constructing an IR system it is necessary not only to have its structure but also to have an information retrieval language. This issue is discussed in Chapter 5.

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Bibliographic Remarks

The following references contain discussions dealing with the theoretical aspects of goal, function, and structure of IR systems.

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5

Information Retrieval Language

5.1

Introduction

It is only natural that the necessity of creating an IR system has led researchers to the study of the information retrieval phenomenon itself, its nature and its characteristics. This is why in Chapter 3 we reviewed the general characteristics of any retrieval process, including information retrieval. We also noted in that chapter that any retrieval is possible only through the use of a language (natural or artificial), and languages used in the retrieval of information are called information retrieval languages (IRL). Thus, in creating any new form of information retrieval, it is necessary not only to select an IRL but to clearly understand that the form itself (its constructive embodiment) depends a great deal on the chosen IRL. For this reason, in Chapter 5 we review IRLs that are usually used in a new form of information retrieval, specifically the IR system. However, before discussing IRLs used in the IR system, we will try to answer several general questions that are not so much of a constructive nature but of the ideological one.

The first question can be formulated as follows: Is it necessary to create a special IRL if there are natural languages successfully being used by people? In other words, why not use a natural language as the IRL in creating an IR system. To answer that question let's briefly review the evolution of the retrieval methods and languages used in retrieval in order to clarify some notions related to natural language and its use in retrieval.

5.2

Languages and Methods of Information Retrieval

In fact, everything started with the retrieval of information using a natural language. During the dawn of the formation of the first storages for manuscripts (or the first libraries), ancient users of information found needed texts by read-