

natural language, the subprocess under consideration is not only a translation of a search request into IRL, but it is reduced to a presentation of the information about a user's information need in IRL that is contained in both a search request and a task. It is obvious that to employ such a subprocess a system's IRL should allow indexing of both a search request (this is always the case) and a task (this occurs seldom). Clearly it is possible that not all information about IN that is contained in a search request and a task will be represented in IRL. The information included depends on the quality of the system's IRL and on the methods of constructing query formulations. Note that it is natural to refer to the result of expressing a search request and a task in IRL as query formulation. This, by the way, agrees with the accepted understanding of query formulation, although the components other than the thematic component are rarely used. It is because of this fact that we call the subprocess under consideration a subprocess of constructing a query formulation.

It seems useful to consider a further example of a task influence on the realization of subprocesses of a retrieval process. With this aim we will refer again to the retrieval situations introduced earlier: one is formulated by the search request "Waste-water treatment" and by the task "Development of new or improved treatment methods," and the other is formulated by the same search request and by the task "Review preparation." It may be stated that usually in the selection of documents for review, thematic boundaries of search requests are essentially treated in a wider manner than they are in the selection of documents for developing new treatment methods. This can be taken into account in different ways. For example, in the construction of a query formulation within the scope of the second retrieval situation, we can additionally use a "broader" glossary than for the construction of a query formulation within the scope of the first retrieval situation. Alternatively, we can apply a tougher criterion on output within the scope of the first retrieval situation as compared to the second retrieval situation. It is obvious, however, that, regardless of the method selected, the realization of subprocesses of the retrieval process in given retrieval situations will be different. This confirms the existence of task influence on the realization of subprocesses of the retrieval process.

So, we have considered a number of examples showing that the task affects both the retrieval process organization and the realization of its individual subprocesses. Nevertheless, as noted earlier, in interaction with a user for the purpose of obtaining information on his or her IN, preference is usually given to expressing a thematic component of this need rather than some other (complementary) ones. In particular, special procedures allowing one to express a thematic component—such as formulating a list of key words "revealing" the user's IN (carried out by a user) or compiling a user-prepared list of document titles or abstracts conforming to the user's IN—are under development, which unfortunately is not done in order to express a goal component. We say "unfortu-

nately" because we have already seen what an important role taking account of a goal IN component could play in forming required retrieval results.

It seems that the more accurately a goal component is expressed, the better one can expect the retrieval result to be. Hence, it is necessary to give due attention to the development of special procedures enabling one to express a goal component of IN in the most accurate way. We believe a good step in this direction is an approach to expressing IN that assumes the task formulation as an independent retrieval directive.

The very approach under consideration stimulates the user to recognize the goal component of his or her IN as clearly as possible. Furthermore, perhaps it would be simpler and more convenient for the user to submit separate formulations for the search request and the task than it would be to express both goal and thematic IN components in a single text. In this case, development of special procedures allowing the user to express a goal IN component becomes more purposeful. For example, in the case considered, a rather natural procedure would be for the user to examine the list of "typical" tasks. Then the user would easily "see" his or her task or, using this list, the user would be able to formulate the goal component clearly enough. We will focus on the concept of typical tasks in more detail.

We consider "typical" the tasks that are found rather frequently during information retrieval and that can form retrieval situations with a great number of various search requests. To the typical tasks may be rightfully attributed, say, the task "Developing new methods, devices, approaches, or machines" or the task "Review preparation." As for a task such as "Making up a medicine chest for travel," from our standpoint this task is not typical because of its too specific nature or, as we will say from here on, its not very high "generalization level." This level ranks below the generalization level of such tasks as "Developing new methods . . ." and "Review preparation."

It is clear that while identifying a specific task we can determine requirements of this task for organization of the retrieval process and its results. It is reasonable to include into the typical task list not only the task itself but also the requirements dictated by this typical task. This will help a user to understand what is concealed behind the formulation of a particular task and to obtain a more accurate notion of it. It should be noted that in the perception of some users a typical task may be related to requirements that differ from those in a typical task list. For example, initially the task "Development of new methods . . ." would have been related to the following natural requirement for retrieval results: output obtained should be as *close* as possible to an *ideal* one; that is, it should only contain all relevant documents available in the collection of documents. At the same time in the user's view the task mentioned may be related to the requirement of obtaining output containing no more than three documents, but only relevant ones. How should one respond in such a case? For