

In Webster's dictionary, "Information is something received or obtained through informing: as, knowledge communicated by others or obtained from investigation, study, or instruction" (*Webster's 3rd International*, 1961). A remark of Wiener is of interest: "Information is information, not matter or energy" (Weiner, 1961).

It would seem that the presented definitions are sufficient to illustrate the complexities associated with a single and "right" understanding of information. Nevertheless, in spite of the obvious difference in the approaches, the traditional meaning of "information" has not been lost and is becoming increasingly timely. In terms of this, one should note that the assignment of multiple meanings to the term has long caused dissatisfaction among some investigators. For example, one of the most authoritative experts in the area of information exchange, Cherry, in analyzing Shannon's direction, noted: "In some sense one has to regret that mathematical concepts . . . in general have been called 'information'" (Cherry, 1966). Some philosophers also mention this. However, in reality it is too late now to introduce changes into different uses of this term and they have to be somehow reconciled. Thus, we go on to a refinement of the concept, which we shall be using in further exposition.

It is obvious that the term "information" in information science is used in its traditional meaning. In our analysis of vital activity, we considered information as the product of satisfying an IN, with *the information as the product existing only as long as the IN exists*. We especially emphasized the meaning of information for the development of behavior algorithms, and in connection with this we indicated that information for a system is everything that decreases uncertainty during the formation of the system's behavior algorithm. In other words, *information is a form of relationship of the user to the signals*, signals in the broad sense. This can be a word, the noise of an approaching train, a scent or a mosquito bite, a pain in the back, or cold wind.

Of course different users can relate differently to a cold wind or to the same word. However, when this relation affects a decision process or the formation of a behavior algorithm, it is possible to assert that the system extracts information contained in the signal and transforms it into actual information. In fact, in this sense one should understand the subjective character of information which we discussed earlier. Hence, on the one hand the actual information can satisfy the information hunger of the user (the user's IN), and on the other hand, without the user this information does not exist. That is the reason why in analyzing information processes one always assumes the existence of a user. In some cases this is not explicit and the user is not some concrete person but rather an abstraction, such as when information is created by a person. Any author has in mind some reader, even when writing an intimate diary (in which case the designated reader often is the author). It is often said that some book (or other document) contains information. However, in essence, it implies that this book either has or will have a reader sometime (a user of the information generated

by the book). In other words, if someone is absolutely sure that a certain book is not needed by anyone and no one ever under any circumstances will use it, then that person will not claim that this book contains information. In some cases, speaking about the presence of information outside the user, one refers to the experts who select the documents (for this, instead of "document" we often say "information") for input into a system. But first, in *selecting* they are now users; second, they are selecting in fact for the users of the system, that is, again for its (the information's) users.

In terms of what has been said, some well-known questions are of interest. For example, is actual information always something new or can it be old? Essentially the answer is already contained in the concept of actual information itself, in its definitions given earlier. It is obvious that in those cases when something decreases uncertainty in the behavior algorithm, this is already actual information and this is always something new. Another question: Is actual information something true or can it be false? Again, if we base our response on its behavior, then, first, it is already actual information, and, second, it is always true. We do not make conscious and free decisions being aware that they are mistaken. Only the result of actions can show us the falsity of some of our premises.

There is an opinion that in the process of contact, saying something to an interlocutor, we send him information. Thus it objectively exists and is outside the user. We send the interlocutor a communication in which our knowledge, that is, the information available to us, is encoded (for example, by vocal means). This does not mean that it exists without a user. We are its users and carriers. We are the subjects using it. And it is not at all obligatory that any other user perceives it. However, if another does perceive it, then the perceived information can be distinguished subjectively from the sent information. In this case, the process of expressing the information available to us is our activity and this process is an intermediate step of satisfying some of our needs.

There is an ongoing controversy about the presence of particular specific properties in information. We will touch on only some aspects of this discussion. Consider the following example: Suppose that a teacher explains the Pythagorean theorem to one hundred students. The question arises: Did the amount of information increase as the result of his presentation? *Yes*, if we think about each of the hundred students, knowledge increased for each of them. *No*, if we think about the amount of original information that people had already accumulated, its amount did not change. For this reason, in the first case we talk about *acquired* actual information, and in the second case we talk about *accumulated* potential information. In other words, as in many cases described earlier, everything depends on the point of view and the tasks of the investigator. This example illustrates the relatively frequent consideration of potential information as a commodity. It is not difficult to see that the teacher sells his or her wares (information) for pay.