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PROBLEMS OF COMPUTER-ASSISTED TRANSLATION

Introduction. Today, the development of science and technology is impossible without the exchange of emerging special data in various countries of the world in scientific periodicals, special bulletins, patent literature etc. In this case there is an interpenetration of humanities and natural sciences that is due to the achievements of cybernetics, computer science and their significant effect on other sciences development.

Information technology computerization has stimulated the development of a new field of applied linguistics – computer linguistics, which includes data management tools in automated systems of different types. Linguists have a new means of action – a computer, with special dictionaries and grammar, formalized as much as possible, written in the form of algorithms (programs).

Purpose of research is to understand the problems people face while translating texts using a computer and what are the ways to solve them.

Problem statement is to simplify the work of translators as much as possible and make the translated texts more efficient.

Today, using computer programs, you can do a lot of laborious work: make dictionaries of different types: (spelling, translation, synonyms, antonyms, homonyms), translate standardized texts, create abstracts, perform correctional and partly editorial work, and support large-scale databases for a wide variety of research projects [4].

From the point of view of linguistics, translation – is a reproduction of written text or verbal expression means of another language.

The process of translation (human) involves the following steps:

1) visual or audible perception of the material, awareness of its content;

2) analysis of data in the original language and synthesis in another language;

3) playback of content in another language.

As far as translation is a transfer of what was expressed, not words grammatical constructions or other means of the original language are translated, but also thoughts, the content of the original text. According to the theory of translation, untranslatable material does not exist. There are just difficult to translate texts. During the translation there may be difficulties with the lack of ready-made counterparts in that language to state that has already been expressed by means of the original language or lack of knowledge: the original language, essentially the subject, and the target language [2].

In general, the translation of the text from one natural language to another involves understanding the text, and even more – an understanding of the "picture of the world" in which this text appeared. Almost all knowledge is needed regarding the recognition of attributes of the related text to the sphere of pragmatics: external design (for example, an article, a poem or a document of an established pattern); the branch of knowledge to which text relates (terminology recognition); the connectivity of parts of the text that is not always described by using syntax or lexical-semantic criteria; etc. For an adequate translation the translator (the person) must:

• know the internal structures of the languages;

• have a clear idea of culture, history, morality, the prevailing way of native speaker's thinking;

• have as much vocabulary as possible, more-less structured by the field of application (special terminology, dialects, idiomatics, slang);

• have an explicit or intuitive thesaurus of the words of both languages, that is, be able to offer semantic functions of a given word, such as synonym, antonym, classical attribute;

• be able to offer derivative portions of a given word, if any exist.

The problem of automatic translation appeared almost simultaneously with the appearance of the first computers. And even today it remains relevant. The interest in machine translation is constantly growing, almost straightforward in proportion to the

increase in the volume of messages. Various descriptions, instructions, e-mail, Internet-sites – all these require a qualitative translation. And there are quick programs to solve these problems. So, it is appropriate to note that there is often confusion and any program of word-for-word translation is called the translator. However using the machine switch help translate the entire text, unlike electronic dictionaries that translate only individual words [3].

The requirements for automatic translation are increasing annually, so the search of rational ways to solve a problem of vast material translation is relevant today. This problem is often solved by automated (computerized, semi-automated) translation [1].

The idea of automated translation arose in 1924 and in 1933 the Soviet engineer P. Smirnov-Trojan was granted a patent for a translation machine, based on the principle of mechanical way of comparison for matching from different languages. In the modern sense computerized translation as a term was first implemented in 1954 at Georgetown University. Today many experimental and practical systems of automatic translation are developed, for example, SYSTRAN systems, LOGOS, ALPS, METAL, GETA, EUROTRA, etc., which include more than 15 versions for different pairs of languages [4].

In the process of translating using a computer at different language levels: recognizable graphic images, morphological analysis and translation of words and phrases are analyzed (phrases and sentences), semantic (semantic) transformations are carried out, which provides content conformity of the entered and received sentence or text. Without understanding the purpose of the word in the text, without analyzing the context (content) of a certain word and the analysis of the sentence no translation is possible. To translate a text from one language to another using a computer is not simple task, because it requires not replacing the words of one language with the words from another, but the reproduction of the content in full volume, with all the shades [4].

Modern computer translation programs can be used for computer support translations of various materials, however translated text should be checked by

paying special attention to the translation of their own names, terms, linguistic realities (Gordian's knot), words in indirect sense and polynomials, paronyms (compare Russian and Ukrainian – moon), homonyms (English "be able to" can be translated, for example, as English "could") [4].

A computer-assisted translation is discussed a lot. However, compare the machine technology interpreters. Today there are two technologies of machine translation in the world: traditional, on the basis of rules (rule-based machine translation) and statistical (statistical-based machine translation) [4].

The advantages and disadvantages of these technologies need to be identified.

Technology of statistical translation. The word "statistical" here immediately leads to the opinion that mathematical methods are used to obtain the translation in the system. More precisely, the principle of work is based on the statistical calculation of the probability that the phrases from the source text coincide with the phrases stored in the database of the translation system [4].

The second problem is that the use of such a system requires a very large number of parallel texts. In fact, the larger the base of parallel texts, the greater the likelihood of the necessary coincidence. Obviously, the only source of such a base is the Internet. That is why in the comparative tests of translation from Arabic and Chinese to English, conducted by the National Institute of Science and Technology in 2005, the best recognized online translator was Google Translate.

Google Translate is Google service that can be used automatically to translate words, phrases and web pages from one language to another. Google Translate uses its own software for translation on the basis of statistical machine translation. From September 2008 it also supports translations into Ukrainian. The user enters the text in the original language and indicates the language in which the text should be submitted [5].

The disadvantage of programs that use technology to translate according to rules is the quality of translation; laborious intensive work is required. In fact it does not need to be done only to develop new algorithms, but also to improve previously created [5].

Each of these technologies has both advantages and disadvantages. For better translation it may be useful to combine these technologies. At the same time, today the best semi-automatic translations are provided by specially trained specialists, who are proficient in languages, subject knowledge in the relevant field, as well as modern information and communication technologies.

Conclusion. We can say that every year new technologies appear to solve the problems associated with the translation and many developers are working on improving the efficiency of translation, which is a positive factor, because now it is possible to understand the source text without losing its sense.

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