

# Methodology of using distributed systems in advanced-level language learning

A.Ovodenko, S.Bezzateev, O. Mukhina,

E.Andreeva, A.Ivanova, O.Vlasova, A.Goncova

Saint-Petersburg State University of Aerospace Instrumentation  
Saint-Petersburg, Russia

## Abstract

Development of information and internet technology has led to the appearance of distributed systems in different spheres of human life. Distributed systems are created to simplify and accelerate business processes, which is relevant in the translation industry. Nowadays for professional translator is not enough to have excellent knowledge of the language, he should be able to work with the translation tool: CAT, machine translation, translation memory. The paper illustrates methodology of using distributed systems in advanced-level language and shows an example of realization education programme in Saint-Petersburg State University of Aerospace Instrumentation.

**Keywords:** Distributed system, CAT-tool, language leaning.

## 1. Introduction

In the modern world the demand for speeding up and simplifying the process of translation increases year by year. Business contacts, world literature, the movie industry and many other things require not only the knowledge of foreign language, but also skills of "digitizing" accumulated information. As it might seem that specialists in linguistics and translation belong to opposite pole from the information technology and they do

not need to have computer skills to do work of high quality, it is absolutely wrong. With the advent of special software, which significantly cuts the time of the work and improves its effectiveness, there arose a necessity to learn modern information technology. To date, it is difficult to find a good specialist-translator who has skills of the operating in specialized software. At universities and colleges they mainly teach only the language, but do not teach information technology, associated with the language. However, information technology is an essential element of effective work with documents and significantly accelerates work in systems that allow parallelizing document processing. In many instances, the translation tasks can help you in implement of such parallelizing and thereby the task of translating lengthy texts, of course, should be considered as a solution of the automated translation SDL Trados, Across or Déjà vu. Their main advantage is that they have Translation Memory bases and terminological databases, gathering results and offering them in next projects [1,2]. The general scheme of the work of such distributed systems of automated translation is represented on the Figure 1.

Companies, developing such software, have programs on preferential terms for students and universities, but a few use them, though learning such programs by

students during the process of education is equally useful for both students, and the translation agencies, and, of course, for developing companies.

The main benefits of the multilateral co-operation will be considered in the article as well as the example of the organization of training distributed systems programs of automated translation at the University.

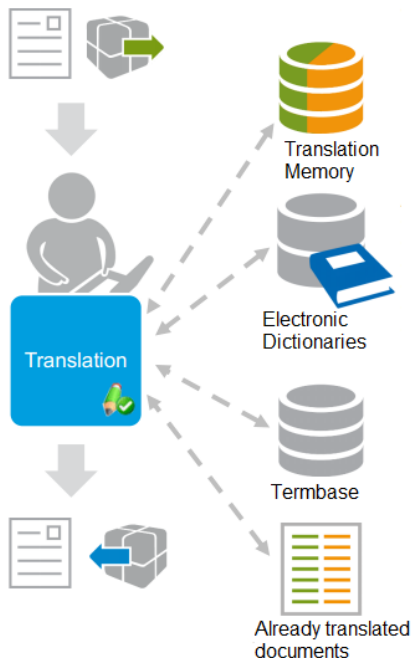


Fig. 1: Scheme of work automated translation programme

## 2. Advantages of the studying of distributed systems of the automated translation

It is already not enough for the specialist of translation to know one or two foreign languages in today's labor market. One should have a tool that would have helped him to carry out his own work quickly and efficiently. Unfortunately, certified specialists do not always possess such tools. They have to spend time and efforts on self-development of these programs in companies or pay for additional

courses after the graduation. To train young specialists is not profitable for companies, because they also spend employees' time who teaches newcomers, and, therefore, they lose profits. The solution of this problem is the development of training programs for students of language specialties, during which they would receive some skills of work with specialized software. As a rule the companies-developers accommodate such university initiatives and offer different benefit programs.

Got the tool of work in the first years, students can practice and hone their knowledge in practice [3]. Companies interested in trained staff will not need to grow employees "on their own". Cooperation with universities and providing with small, easy projects for student practice can really track their professional growth during the training phase.

There is also another important advantage of teaching students to work with the distributed translation programs [4]. This advantage is a receipt of working in team experience. Conditions most approached to real work of a translator, an editor or a project manager, are created during the process of education. The student at the stage of training can try his hand in different positions, and when he will finish university, he will clearly picture to himself the specifics of work and his preferences. Distributed systems in particular allow organizing process of education in such a manner to provide each student with an individual task which in its turn is a part of the project, and also to give opportunity to the teacher to have continuous control over [5].

## 3. The example of the implementing the training program at the University

Nowadays at the Saint-Petersburg University of the Aerospace Instrumenta-

tion concerted efforts of the Department of Data Protection, Translation Department and UNESCO Chair “Distance Education in Engineering ” had been developed education programme which includes the study of translation tools. Also interactive playground had been successfully organized on the basis of which all the students carry out some practical tasks, have the access to all necessary educational materials and relevant information of such events as seminars or meetings to discuss assignments and other important dates. Seminars and discussions take place with the help of video conferences, webinars or e-mails that simplify the interaction of students with the teacher, and also teach them to use modern information resources. The CAT-programs trainings such as Trados and Déjà vu already happen in the form of webinars. Some video lessons on the topics of information search and retrieval are also recorded.

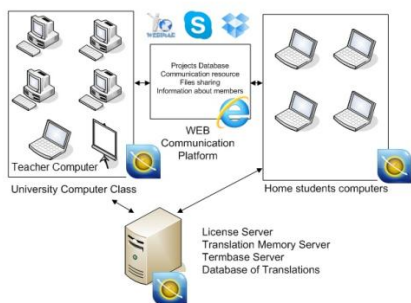


Fig. 2: Example of using distributed systems in education process.

Creation of a kind of incubator producing specialists working at the intersection of two Sciences - linguistics and technology – is a huge step forward, a breakthrough for the areas of Translation and Informatics.

Instead of the whole group of people, when everyone is dealing with his own branch for the subsequent connection, it is possible to invite only several persons who will have knowledge of several sci-

ences. It will considerably reduce the time and improve productivity.

#### 4. Conclusion

Synthesis of linguistics and information technologies is necessary at this stage of development of linguistics and the translation industry. The increasing number of translations requires systematic, regulating of results, and their accumulation for the subsequent usage. It is impossible without skilled professionals, which quantity is in inverse ratio. Carrying practical trainings, obtaining real projects from companies and participation in conferences are necessary for better efficiency when students learn software at universities.

#### 5. References

- [1] S. Seljan, D. Pavuna, “Translation Memory Database in the Translation Process,” *Faculty of Humanities and Social Sciences, Department of Information Sciences*, pp. 1-6, 2003.
- [2] Blatt, Achim. “EURAMIS: Added Value by Integration. Terminologie at traduction”, pp. 59-73, 1998.
- [3] B. Spolsky, F. M. Hult. “The Handbook of Educational Linguistics”, pp. 113-127, 2008.
- [4] “An Analysis of District Systems and Practices Addressing the Needs of English Language Learners”, Massachusetts Department of Elementary and Secondary Education, 2011
- [5] Coulouris, George; Jean Dollimore, Tim Kindberg, “Gordon Blair Distributed Systems: Concepts and Design”. Boston: Addison-Wesley. 2011