THE ROLE OF COMPUTER SKILLS IN THE FORMATION OF MODERN TRANSLATOR’S PROFESSIONAL COMPETENCE

1. IMPORTANCE OF COMPUTER SKILLS IN TRANSLATOR’S PROFESSION

Over the last thirty years the notion of ‘translation competence’ has been viewed and defined in different terms. In the 1970s and before it was considered to be a mode of bilingualism, which was open to linguistic analysis at any level of language system (Pym 2003: 482). Such an interpretation of the above term has been subject to radical changes starting from 1980s onwards, when historical, political and social changes, especially in the beginning of 1990s, resulted in radical changes in market demands. From then on, ‘translation competence’ has been viewed as a multi-componential competence, which involved sets of skills of linguistic, cultural, technological and professional character. And today, given the increasing use of information and communication technologies (ICT) and electronic resources as translation tools, this multi-componential view of ‘translation competence’ seems to be too narrow to encapsulate all new skills and proficiencies necessary to pursue successful career of a professional translator.

The worldwide integration of countries on the level of economic, political and environmental organizations inescapably increases the need to provide the market with more and more translations in real time. Moreover, a growing level of translation workload contributes to the fact that translation itself ceases to be viewed as an exclusively creative activity. Instead it is mostly perceived as a trade or industry, and the work of translator resembles semi-automatic processing of never-ending stream of similar documentation, contracts, agreements and legal regulations. The above perception is particularly applicable in the case of legal and technical translation (and to some extent, in case of translation of scientific texts), and hence it is frequently referred to in the literature as ‘industrial translation’ (Kuebler 2002: 161).

It is common knowledge that in case of any industry, a worker needs some tools to duly perform the tasks ahead. And it is the same with ‘industrial translation’, which requires adequate and reliable instruments in order to ensure high-quality output.

Traditionally translator’s work involved dealing with symbolic (textual) information. And I am of the opinion that it is still the case, but what is more and more noticeable is the fact that the culture of the so-called printed word has been superseded with the so-called ‘screen culture’, as contemporary translators mostly work with texts in electronic form, which means that the entire translation process is conducted on the monitor screen. As a result, information
is created, transferred and received directly through the medium of the computer. Hence, it should not be surprising that computer has become a major instrument of contemporary translator, and that its ubiquitous presence provided stimuli for rapid development of computer technologies and dedicated translation software.

The above-mentioned computer technologies are referred to in the literature as Machine Translation (MT) and Computer Assisted Translation (CAT). The former term (MT), which is also referred to as ‘automatic translation’, encapsulates technologies which aim to fully automate the translation process (obviously enough, with a varied rate of success). The latter (CAT), on the other hand, encompasses technologies which aim to aid and facilitate (semi-automate at best) the translator’s workflow in terms of its multiple aspects. The most popular applications of the latter type are ‘translation memories’.

However, computer technologies come to the fore not only in the translation process itself. They are also extremely important organization, communication and management factors, which facilitate workflow planning in case of both individual translators and specialized companies. To this end, computer technologies are used as modes of communication with clients and contractors through electronic mail, File Transfer Protocol (FTP) applications (used to transfer data from one computer (FTP client) to/from another (FTP client or FTP server) through a TCP network, such as the Internet), to name just a few. They also facilitate communication with other professional translators and associations of translators in the world over through Internet forums and discussion groups, as well as enable effective division of tasks among project managers, terminologists, translators and proofreaders, particularly in case of specialized translation offices.

As a result, today and in the near future a successful translator is someone who has both translator’s skills (encompassing linguistic, cultural, textual and domain-specific competence) and translation skills (encompassing understanding the character of the ICT-dominated translation workflow, research and search competence, as well as advanced ICT skills). Knowing the above, any up-and-coming translator is definitely in a better position to progress and succeed on more and more competitive job market, and to meet the requirements posed by specialized translation offices.

Therefore, in this paper I aim to address three important issues, namely: 1) What ICT skills should be taught to students in the first place? 2) What are the barriers which hamper effective teaching of the said ICT skills to those students of English who selected translation specialization? 3) What solutions can help overcome the barriers hampering effective teaching of the said ICT skills to students of English?

1.1. Computer assisted translation (CAT) tools and Translation memory systems (TMs)

As it has been stated above, Computer Assisted Technologies (CAT or CAT-systems) aim to facilitate the translator’s workflow in terms of its multiple aspects, such as reuse of previously translated materials, terminology search, word processing and dictionary consultation. The most popular and, at the same time, the most comprehensive CAT applications are ‘translation memories’.

The idea of a translation memory (TM) has been subject to heated debates for a long time (more than twenty years) but only recently has it become an important and viable commercial entity (Giammarresi 2008: 419). Basically, a translation memory is a computer program which scans a source text and matches segments (e.g. phrases, sentences, or paragraphs) against a database of paired source and target language segments in order to reuse previously translated materials. Some TM-systems use an algorithm of literal matching, which means that they can
only retrieve the exact match of a sentence, while others employ fuzzy matching algorithms to retrieve similar (not exact) target language segments. As a result, TM-systems considerably facilitate translation of highly-repetitive texts, such as multilingual documentation of any kind, technical manuals, legal documents etc, which are the texts with the highest supply on the market. Application of TMs for translation of highly-creative texts, however, is of limited value due to the low degree of repetitiveness of information in such texts.

The most important benefits of using TM-systems are the following: 1) translated documents are consistent, especially if they include definitions and specialist terminology (particularly in case of job-sharing when multiple translators work on the same project and terminological discrepancies seem to be inescapable); 2) translation process is accelerated due to reuse of previously translated material; 3) reduction of costs and time, which again results from reuse of previously translated material; 4) option of sharing translation memories between translators.

The main problems hindering wider use of TM-systems include the following: 1) when one buys any TM-system, its database is empty and it can be used effectively as translators translated and simultaneously fill it in with translated segments in source and target languages (the process is called ‘building as you go’ (Somers 2003: 33); 2) commercial TM-systems account for a considerable investment – their cost ranges from circa PLN 2 500 to PLN 12 000 for ‘fully-equipped’ professional versions (however, more and more open-source TM-systems are available on the Internet).

As an integral element of the workstation of a professional translator, TM-systems are used in conjunction with other dedicated CAT applications, such as terminology management systems (see subsection 1.2.), word processing program (e.g. Microsoft Office or Open Office) and concordancing agents.

1.2. Terminology management systems (TMSs)

Nowadays the interdisciplinary field of terminology is connected with collection, processing, description and presentation of terms, which are lexical items belonging to specialized subject fields (Bowker 2003: 49, Cabre 1999: 9). Subject fields, such as law, medicine, physics, etc. all have a plethora of domain-specific terminology, and identification of terminological equivalents frequently constitutes a major (i.e. time-consuming and labour-intensive) part of any translation project. Therefore, effective terminology management systems (TMS) can help reduce costs, improve quality and accelerate the translation process as a whole by reducing turn-around times.

In simple terms, TMS-systems allow translators to create and maintain a personal database of terminology, which is referred to as a ‘termbase’, which means that it is a custom-designed repository for consolidating and storing terminological information for use in future translation projects (Bowker 2003: 53). The structure of contemporary termbases features high degree of flexibility as they are two- or multi-directional (mapped in multiple language directions), and allow translators to define their own fields of information (e.g. for specific contexts, clients, contractors, etc.).

Some modern TMS-systems also offer numerous additions, such as for example ‘automatic terminology look-up’ and ‘term-extraction tool’. The former feature resembles automatic dictionary look-up, which is activated as translator moves through the text and the terminology recognition component automatically compares text fragments in the source language against the contents of the database (if there is a match, translator can view the term and further copy and paste it directly into the target text). The latter feature, i.e. term-
The most important benefits of using TMS-systems include the following: 1) they enhance and encourage terminological consistency and thus improve quality of translated texts; 2) prevent translators from undertaking the same terminological searches every now and again; 3) translation process is accelerated due to reuse of previously translated terminology.

TMS-systems may operate (and they mostly do) as standalone applications, or as integrated into other CAT applications, such as TM-systems or word processors. The latest additions to state-of-the-art TMS-systems include managing concept systems and thesauri, merging termbases, and printing termbases in a user-friendly and user-specified glossary format (Bowker 2003: 57).

### 1.3. Localization software

According to Esselink (2000: 9), the term ‘localization’ is complex itself and thus may be defined and interpreted in various ways.

Firstly, localization may be defined as translation and adaptation of a product, software or web product [an example illustrating this definition can be a translation of a multimedia presentation in the Powerpoint format, or a website from English into Polish – in such a case translator receives ppt file and html file, and has to translate and adopt them in such a way that neither linguistic nor meta-linguistic information (tags) is lost and the output files still have the same layout and format (i.e. ppt and html, respectively); a more complex but still viable example is provided by Esselink (2004: 2) - to localize a software application, localization engineers receive a copy of the software build environment, extract the resource files with translatable text, prepare translation kits and support translators during their work; then at post-translation stage, the engineers merge the translated files with the build environments and compile localized copies of the software application].

Secondly, localization involves making the product (e.g. translation project) linguistically and culturally appropriate for a target country, country region or language where particular product will be offered on sale and used [an example illustrating this definition can be a use of normalization translation strategy for the names of some fast-food products, such as WiesMac™ etc.), which is also referred to as ‘content localization’ or ‘language localization’. Thus summing up, localization stands for combination of language and technology in order to produce a product that can cross both cultural and linguistic barriers. It may range from translation-related issues, such as idiomatic or domain-specific language, to adaptation of graphics, local-colour sensitivities, adoption of local currencies, use of proper forms for dates, addresses, gender roles issues and phone numbers, and many other details, including even rethinking the physical structure of a product. Therefore, successfully localized product or service (e.g. translation) is the one that appears to have been developed within the local culture.

Due to the broad character of the term ‘localization’, dedicated ‘localization software’ encompasses various applications, such as project management systems, content management systems (CMS), desktop publishing tools (DTP; e.g. PageMaker or QuarkXPress), mark-up editors, as well as assemblies of multimedia products.

Using localization software is invaluable for translators, particularly those who frequently undertake translations of Internet websites (html/htm/xml/php files), multimedia presentations
In such a case, translators do not need to become engineering experts in any of the said technologies [as the mark-up editor, e.g. TagEditor, which is a component of Trados Translator’s Workbench, will scrap all meta-information (tags), the translator is left with translatable text segments and thus he can concentrate on his core job, which is translation of words.

2. PROBLEMS WITH TEACHING COMPUTER SKILLS TO STUDENTS OF ENGLISH AND SOME PROPOSALS OF SOLUTIONS

It is common knowledge that the aim of institutions of higher education offering specialized courses in translation is to train future professional translators, and therefore develop both translator’s skills and translation skills, as specified in the introductory section above. As a result, the institution, let it be Institute of English at a university, should also provide training in technology, i.e. the ICT skills and dedicated translation software referred to in subsections 1.1, 1.2 & 1.3. Unfortunately, developing the said skills among students is not as simple as buying computers and dedicated software and teaching students how and when to use them. In practice, implementation of elements of ICT skills and dedicated translation software into the curriculum runs up against two major areas of resistance, which are closely related to each other: resistance on the part of students and educational institutions.

2.1. Barriers to teaching computer skills to future translators

Nowadays, the most conspicuous discrepancy in teaching translation is that developing ICT skills and practical knowledge of dedicated translation software is best implemented among students of technological profiles, whereas students of philology have a humanistic profile. As a result, teaching advanced skills in operating dedicated translation software, such as translation memories (TMs), terminology management systems (TMSs), online databases, localization software, content management systems (CMS), web editing software, DTP, FTP applications or spreadsheets, to name just a few, usually involves high degree of resistance among students, whose contact with technologies on their first two years of studying is limited and frequently even none. Given that professional translators need both humanistic (translator’s skills) and technological profile (translation skills), students graduating from translation specializations are deficient in ICT skills and their chances to prosper on the job market decrease considerably.

One of the solutions to the above problem may be modification of the curriculum and study plans in order to include technology-oriented subjects. In practice, however, such a superficially simple solution is problematic itself.

Firstly, modification of the curriculum is a long-term and complicated process riddled with organizational (curriculum design and position of other subjects) and pedagogical (specialized staff) impediments. Even if curriculum planners show their best intentions, their proposals of modifications of study plan are always subject to external entities involved in the process, e.g. the Ministry of Science and Higher Education with its standards of teaching at establishments of higher education. As a result, if more teaching time is devoted to technology, then there is less teaching time for other subjects, such as literature, linguistics, culture studies etc., as standards of teaching impose strict guidelines on the amount of teaching workload for particular study disciplines.
Secondly, teaching staff at humanistic departments is frequently not acquainted with advanced ICT skills and dedicated translation software, so there is a need either to hire specialists and experts in the field to conduct translation technology courses (which has serious financial implications), or provide lecturers and instructors with in-house or external trainings (which again has serious financial implications), which may postpone the launch of courses.

Another problem refers to funds required to invest in dedicated software itself (e.g. TM system, office packs, file managers etc.) as well as in learning infrastructure (computers with access to the Internet and accompanying gadgetry, such as cables, hubs, beamer etc.). According to my modest estimates, the funds required to launch a dedicated translation laboratory for 15 students amount to PLN 100 000).

However gloomy and pessimistic the above picture seems to be, there are some solutions to the above barriers, which may alleviate the resistance areas and solve, at least partially, some of the organizational, pedagogical and financial problems.

2.2. Proposals for overcoming barriers to teaching computer skills to future translators

Given the limitations inherent in curriculum design and study plans, one of the solutions may be the integration of technology and ICT skills into existing courses and subjects, which are not specifically devoted to technology (e.g. linguistics, practical grammar, descriptive grammar). Setting mixed aims for such subjects should lead to reconciliation of technological skills and traditional content and, in particular in the long-term, such a solution may soften the resistance to technology among students of humanistic profiles, and solve some organizational problems.

As far as pedagogical problems are concerned, it is common knowledge that finding and employing external specialists has serious financial repercussions. It is difficult, however, to imagine successful training in dedicated translation software without the experts on the field. Therefore one of the solutions may be regular invitation of software developers who frequently organize free sessions or workshops targeted at popularization and increase of sale of software (obviously enough, the framework of co-operation should be subject to discussion so that its form is the most beneficial for both software developers and hosting institutions).

It is common knowledge that acquisition of dedicated translation software described in section 1 of this paper may constitute substantial financial burden for educational institution. Even though any investment in technology is related with high expenditures, it is still possible to optimize such investments.

One of the solutions is the switch to free open-source software, which is possible in case of operating systems (e.g. Linux), translation memories (e.g. Wordfast), word processors and spreadsheets (e.g. Open Office). Given that prices for translation memory systems range from PLN 2 500 to PLN 12 000, using high-quality (and free!) open-source software alleviates the pain of financing expenditures on investment in dedicated software. The same effect may be also achieved through extensive use of available online resources, which may supply students with free termbases, software documentation etc, as well as provide effective platforms of communication (discussion groups) between students, and between students and an instructor (Google Groups, online chats etc). Such an approach to the use of software and communication resources contributes to the creation of semi-professional environment in the classroom, which to a considerable extent reflects real-life working environment of professional translator and provides further stimuli to soften resistance to technology on the part of students.
Another solution to resistance to technology is the creation of blended learning environments (i.e. combination of traditional learning and electronic/distance learning) which are flexible enough to adopt to most contents, types of students as well as limitations and areas of opportunities inherent in educational systems. Offering translation courses as a combination of online classes and traditional classes may be effective particularly at advanced BA-level courses and MA-level courses, and it may have numerous advantages in financial and pedagogical terms.

The financial effort when designing an online module of the course involves investing less in technology than in case of a traditional program with the same content (more opportunities to use open-source software and free online resources; students have their own computers at their places of living etc.). As a result, the money saved on technology may be transferred to teachers and instructors as they require support (in particular, financial support) to develop online course materials, as well as to provide students with individualized feedback (in the form of either face-to-face meetings with students or communication via e-mails), which increases overall teaching workload. It seems that regular contact sessions (including intensive face-to-face meetings or communication via e-mail) combined with online pre-meeting tasks and extensive online follow-up tasks, may provide an effective blended learning environment, which develops both translator’s (linguistic, cultural and textual and domain-specific competence) and translation skills (including skills of searching for information, doing research on particular subject areas, and ICT skills and successful operation of dedicated translation software).

3. CONCLUSION

In conclusion, it seems that high requirements posed by the job market to professional translators require institutions of higher education to train students of translation in the use of technologies (i.e. dedicated translation software) and develop their skills in handling information and communication technologies. Having solved some problems related to implementation of technology in study plans, inclusion of ICT skills and dedicated translation software into translation courses is feasible in economic terms and in terms of course contents. The earlier this process is successful, the smaller the discrepancy in the requirements posed by translation market and instruction received by students of translation in institutions of higher education.

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Summary. This article is concerned with the use of ICT and dedicated translation software in teaching students of translation specializations at institutions of higher education. In particular, it concentrates on such issues as localization, use of CAT tools (e.g. translation memories, terminological databases), which are indispensable elements in the professional competence of contemporary translators. In section two, the author attempts to define barriers and impediments of organizational, financial and pedagogical character, which hamper effective implementation of technologies into the translation courses offered to students of translation specialization. The article concludes with proposals of solutions to the aforementioned types of problems.