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TECHNICAL TRANSLATION QUALITY ASSURANCE

**KVALITĀTES NODROŠINĀŠANA TEHNISKAJĀ
TULKOŠANĀ**

DIPLOMA THESIS

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ANOTĀCIJA

Šis darbs sniedz visaptverošu ieskatu tehniskās tulkošanas nozarē, īpašu uzmanību veltot dažādiem aspektiem, kas palīdz nodrošināt tulkošanas kvalitāti. Darba mērķis ir apzināt visus tehniskās tulkošanas jomā pieejamos līdzekļus, piemēram, datorizētos tulkošanas rīkus, tulkošanas stila vadlīnijas, kas palīdz nodrošināt tehniskās tulkošanas kvalitāti, analizēt tos, lai izvērtētu to ietekmi uz tulkošanas kvalitāti un uzzinātu, cik lielā mērā tie palīdz nodrošināt kvalitāti tehniskajā tulkošanā. Izpētes rezultātā var secināt, ka tehnisko tulkošanu reglamentē dažādas tulkošanas stila vadlīnijas un specifiskas tulkošanas pasūtītāja prasības, kā arī datorizētie tulkošanas rīki. Šie līdzekļi palīdz nodrošināt tulkojuma kvalitāti, tomēr tulkojuma kvalitāte galvenokārt ir atkarīga no paša tulkotāja prasmes izmantot visus pieejamos līdzekļus, kā arī pieredze un zināšanas konkrētā tehniskās tulkošanas jomā.

Atslēgvārdi: tehniskā tulkošana, lokalizācija, tulkojuma kvalitāte, datorizētie tulkošanas rīki, stila vadlīnijas, vispārējās valodas normas, tulkojuma pasūtītāja prasības.

ABSTRACT

The purpose of this paper is to provide general overview about technical translation today with special attention being paid to different aspects which contribute to translation quality. The aim of the paper is to study all the available resources in technical translation domain, such as technological tools, translation style guides which help to assure quality in technical translation, and to analyse them in order to be able to draw the conclusions about their impact on translation quality as well as find out to what extent they help the translator to ensure quality. After the analyses we can conclude that technical translation is very much governed by technical translation style guides as well as translation commissioner's specific requirements and computer-aided translation tools. These resources help to ensure translation quality, however, translation quality still depends on the translator's ability to use all the available resources and on the experience and knowledge in the particular technical translation domain.

Key words: technical translation, localization, translation quality, CAT tools, styleguides, general language norms, commissioner's requirements.

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INTRODUCTION

This paper introduces the reader with technical translation as one of the translation fields which has expanded to unprecedented scale in recent years partly due to development of information technologies as well as global market and general dissemination of information in the world. The technical translation process is very much governed by different technological tools and domain specific language norms. The paper will set about discussing the quality issue in technical translation, different resources which help to ensure translation quality as well as difficulties to assure the quality.

The aim of this paper is to show that professional translation is not just a matter of ‘languages’, especially technical translation requires domain specific knowledge and master of more and more sophisticated technological tools which have become indispensable in technical translation today. The paper looks at translation quality as the main issue and goal and explores different aspects which contribute to quality. The paper will conclude by evaluating different issues why quality in translation cannot always be achieved.

The following **hypotheses** have been proposed: the translation quality can be assured by following translation commissioner’s requirements, technical translation style guides and by using various available technological tools, such as computer-aided translation tools and technical quality control tools.

The **research method** used to prove the above mentioned hypotheses was the analyses of different technical translation resources, such as technical translation style guides, requirements provided by the translation commissioners as well as various technical tools.

The outline of Diploma Thesis

After introducing a number of theoretical issues in Chapter 1, Chapter 2 and Chapter 3 presents general overview of technical translation and localization today. Chapter 4 will explore different translation tools as well as their impact both on the translation process and the language quality. In Chapter 5 we turn our attention to quality requirements in technical translation. Chapter 6 provides detailed information about different style guide norms and other linguistic conventions. A range of examples is provided to illustrate norms and rules which should be taken into account in order to avoid commonly made mistakes in technical

translation. Chapter 7 explores the long translation process and different agents involved in the translation process and which partially contribute to quality assurance; this chapter also examines the technical quality control in the post-translation phase. Chapter 8 describes situations and reasons when quality cannot be assured in technical translation.

1. TECHNICAL TEXTS AS ONE OF THE TEXT TYPES IN TRANSLATION

Written materials can be classified according to criteria such as the field of discourse (journalistic, religious, scientific etc.). Another approach is based on text function (literary, poetic, didactic etc.). When it comes to translation traditionally all the texts are grouped into three main types: informative or content-oriented, vocative or reader-oriented and expressive or author-oriented (Buhler's classification).

1.1 Text type as the translator's focus

The approach to translation depends on the text type. Since every text has its own communicative function or purpose, translator's task is to analyze the text and to identify the text type. Depending on the text type the translator chooses the translation strategy.

Informative texts comprise news items, scientific articles, operating instructions etc. The function of these texts is to convey the information in a concise way, the main emphasis lies on the content. Translation of these texts requires precision, especially that of terminology. **Vocative texts** constitute promotional writing – advertisements, marketing materials, electoral speeches, tourist brochures etc. The main function of the vocative texts is manipulative function: these texts are written to influence the reader's behaviour or reaction. The reader is the centre element of the communicative function. This is why the translator should take into account the addressees' cultural norms during the translation process. **Expressive texts** comprise fiction and, unlike many informative and vocative texts, are almost never anonymous, they are author-oriented. These texts convey the author's poetic world and offer the reader an aesthetic experience.

Although there are three rather distinctive text types, every text will display features of more than one type, i.e. a text will have more than one communicative function. Hatim and Masson argue that, 'This multifunctionality is the rule rather than the exception' (1990:138).

1.2 General characteristics of technical texts

Although technical texts belong to informative text type, still we can have a question: what is a technical text? The authors of the article *What is Technical Text?* came to conclusion that, ‘Technicality is not a genre; that it is instead a feature of a number of genres. However, we can identify textual features which seem to indicate of text technicality’. Technical texts contain a large number of domain specific-terminology. According to Byrne, ‘Specialized terminology is one of the key features of technical texts though it alone is not sufficient for classifying a text as “technical” since numerous disciplines and subjects possess specialized terminology’ (2006:5). As an example Byrne points out religious texts which have a very specific terminology and very definite style, but they are never regarded as “technical texts”. Unlike expressive texts the technical texts contain little or no figurative language. These texts contain straightforward messages and are usually free from connotations, emotive language, sound-effects and original metaphors. Technical texts contain fixed expressions, domain-specific verbs as well as non-textual elements. Very often technical texts are structured using paragraphs, sections, chapters. The function of these texts is to pass information concisely and lucidly. The main emphasis lies on the content.

The authors of the article *What is Technical Text?* after a research come to conclusion that

A technical text is quite likely to have an identified topic on which it is focused. It will communicate knowledge about that topic in a serious and objective manner, developing its thought in a logical, orderly way. This produces a document with a hierarchical organization in which information can be accessed at random. Sections in such documents often bear titles or headings. Authors typically uses terminology specific to the domain and avoid colloquialisms and humour or invective. Their writing is likely to use same-sense domain verbs and to make generic references (talk about classes rather than individuals). Moreover, technical texts frequently have an introduction and a table of contents or index. Technical documentation may be presented with special fonts or punctuation or according to some commonly-understood convention. It avoids vague terms or figurative language and tends to use explicit analogies, unambiguous references and nominalizations (Online 2).

Technical texts relate to technological subject areas, trade, industry, economy, medicine or deal with the practical application of scientific and technological information; they concern technical products or services. The most typical technical documents include manuals for installation, operation, maintenance, repair or disposal of technical products, such as devices, engines or software systems. Other common documents are product data sheets,

product specifications, parts lists and catalogues, marketing and branding materials, website content.

Technical documentation focuses on a technical product and very often also on the use of the product describing both objects and activities. Some documentation is concerned only with activities, in particular the documentation of services. The content of technical documentation is therefore predominantly descriptive and instructive.

Technical documentation consists of texts about the product. In addition, devices, engines, etc. frequently contain product text, that is, text elements within the product. Product texts are also, for example, words on or near switches, as well as longer pieces of texts that appear on control panels, displays, user interfaces.

1.3 Theoretical approaches for technical translation

Technical translation is one of the specialized translation or the translation of language of special purpose (LSP) involving translation of text types common in scientific, technical and commercial domain. There is also a widespread use of the term ‘pragmatic translation’ to refer to translation where the purpose is to translate a message as efficiently and as accurately as possible and where the emphasis is on the content of the message as opposed to its aesthetic or literary form.

Technical translation requires a high level of subject knowledge and mastery of the relevant terminology as well as linguistic-stylistic skills. The knowledge of the subject matter is the main difficulty for the translator. Even a very experienced translator with a perfect command of both source and target languages may fail to translate, for example, on caterpillar tractors, if they do not have the expertise in this subject matter. So there is always room for doubts about the ability of linguists to understand and translate technical materials and conversely about the engineers’ ability to translate.

Gouadec considers that

the ideal situation would be one where translators and technical experts work in partnership, with the latter checking and revising from the technical point of view the work done by the translator [...], and it is this kind of partnership which normally produces the highest quality translations by pooling skills and resources (2007:238).

In reality the *ideal situation* is rarely met since the expenses of translation would be far too heavy for the clients or commissioners. There are cases when the translator asks for the technical experts' advice concerning a specific term or its clarification.

Since there are different text types there are different translation approaches for each text type. Theoretical approaches define very general translation guidelines and can assist the translator to choose the appropriate translation method.

Attempts to develop theories for the translation of scientific and technical texts were relatively new. The main theoretical approaches applicable to technical translation include those of functionalist and communicative approaches. Functionalist approaches to translation are derived from a general theory of translation called *Skopostheorie*, brought forward by the German scholar Hans J. Vermeer in the late 1970s and early 1980s. *Skopostheorie* regards translation as a purposeful activity intended to mediate between members of different culture communities. The purpose (*skopos*) is generally determined by the initiator's (i.e. client's or commissioner's) needs. Consequently, the purpose is largely constrained by the target text user and his or her cultural background and situational circumstances.

In *Skopostheorie*, it is no longer the source text (as in equivalence-based models) but the target text's functionality or adequacy that sets the standards for translation. [...]. In order to produce an adequate target text, the translator needs as much information as possible about the situation for which the translation is needed (including the addresses audience)' (Nord, 2010:122).

The term communicative approach used by Newmark (1988) denotes a mode of translation which focuses on meeting the expectations of the readership. According to Zauberga, 'Communicative translation is social, concentrates on the message, tends to be simple, clear and brief' (2004:132).

These translation approaches provide a general plan of action, such as reflection about the intended purpose of the text, the importance of the target audience, taking into account the human communication norms in different cultures which is essential for a professional translator whose aim is to ensure that the target text fulfils the desired communicational function within the target audience as well as the target text receiver's expectations.

However, more specific translation norms and conventions are provided by general translation guidelines drawn up by the translation agency and client or commissioner. These issues will be discussed in details in the Chapter 4.

2. TRANSLATION OF TECHNICAL DOCUMENTATION TODAY

In the 21st century the transfer of information and knowledge across linguistic boundaries has expanded to an unprecedented scale, due in part to globalization as well as development of information technologies. Translation is what has rendered this information mobile and accessible for people of different cultures and languages. According to Cronin, ‘There must be some means by which localities communicate with each other. The linguistic linkage is what is commonly understood to be translation, the attempt to bridge the distance of language difference through the agency of the translator’ (2010:134).

It has been estimated that technical translation account for some 90% of the world’s total translation output each year (Byrne, 2006:2). Scott Montgomery argues that despite the prevalence and some should say dominance of English as a universal *lingua franca*, particularly in the sciences, the demand for technical translation has never been so great or indeed so assured’ (Online 1).

It has become a vast and flourishing activity since the management of economic activities is organized on global scale. There is a strong need for ‘the global dissemination of information’: product specifications, instruction leaflets, user guides, etc., in many languages, as well as for the localization of software applications (Cronin, 2010:135). This is partly related to changing nature of goods in post-industrial societies where the information is increasingly integrated into the product (online help, user interface), for example, a car with a navigation system or a smartphone with a touchscreen. So today for any product sold internationally the translation of its technical documentation is a necessity or even a legal requirement.

From a social point of view, the position of translator in each of the various fields of translating is very different. Few can earn living from literary translation, which is often done for the sake of the intellectual or aesthetic pleasure it procures. Many freelance technical or administrative translators rely on regular work from agencies or clients in order to make a living. Staff translators for large firms or international organizations form yet another category; their work may be repetitive and often involves performance under pressure of time.

3. LOCALIZATION

The development of information technologies and the Internet today produces an overwhelming amount of information in digital content. As translation technologies and digital content have become almost ubiquitous, the difference between translation and localization has become somewhat difficult to define. Today's localization projects can deal with anything from large-scale enterprise applications, softwares to rapidly changing web-based content such as customer support information. As Gouadec points out, 'localizers are a particular category of translators who translate material that is embedded in media other than paper or print or audiovisual media (software packages, Web sites, video games)' (2010:114).

Localization activities include translation (of digital content as diverse as user assistance, websites and videogames) and a wide range of additional activities. Localization projects are very often repetitive, large volumes, and often of a technical nature. Content is often multimodal, it can contain text, graphics, audio, or video, and can be stored in a large variety of file formats. Translators working in the localization industry are among the most innovative in their profession. They were the first to use computer-aided translation tools.

Many products containing digital content such as software products, web applications and on-line services are sold internationally and need to be adapted for the potential customers in other countries. During the localization process a product, documentation or a website is being adapted culturally and linguistically to the new market it will be sold and used.

Cronin affirms that

For many digital products such as cameras, the crucial sales period is the first four weeks, IF product information is not available in the customer's language at the time of the release of the product, the potential sales loss can be significant. The objective then becomes the simultaneous availability of the product in all the languages of the product's target markets (2010:135).

So the localization has been the key factor for international product acceptance and success. Many companies are translating and localizing their products for legal reasons. In many countries importing or even using products which are not in the country's native language is not permitted. Schäler points out that 'A product such as Microsoft Vista was already being localized into ninety-nine languages in 2007 (Microsoft 2007), a number that is set to increase in the future' (2000:160).

Translation is only one of the activities in localization. In addition to translation a localization project includes many other tasks such as project management, software engineering, testing, and desktop publishing. To be adapted or localized, digital material requires tools, technologies, skills as well as a technical translator who can juggle all these components simultaneously. Translation for the localization project is highly-technical task since the use of different computer-aided tools as well as special on-line localization tools and special software localization tools to translate and test software user interfaces, i.e. dialog boxes, menus, and messages has become a norm. Digital content to be localized becomes more sophisticated, so the translators use special translation tools for the localisation projects. Very often the localization vendors have developed proprietary tools, which they prefer to use. In some cases translators may need an additional training to get acquainted with the tool and be able to perform the translation task. Translators working for a localization projects are expected to have the same skills and knowledge as a traditional translator, however, he/she is expected to have an advanced knowledge of computer applications and different computer-aided translation tools.

In the localization industry there is a movement away from desktop TM systems towards Web- and server-based access to TM databases so that many translators can use the same translation memory working simultaneously with the same translation project.

‘Approximately 80% of software products are localized from English into other languages because the majority of software and web applications are developed in the USA’ (Schäler, 2010:211). In addition, software manufacturers in other countries often develop a product in English. Sometimes this can cause a problem for the technical translators since the software technical writers in other countries are not native English speakers and produce linguistically poor quality technical documentation. Translator, however, need to cope with it and produce a high-quality translation despite the poor quality source text.

In more recent years, Central Europe, China and India have become the central hubs for the world wide localization industry mainly because of the lower cost of employment in these regions. According to Schäler, ‘The pressure to produce high-quality translations within short time frames and at low cost is extremely high, and although this is seldom officially stated, time and financial constraints are often more important than the quality of the translation’ (2000:159).

4. TRANSLATION TOOLS

Today technical translation is very much affected by the technology. Time pressure drives the development and the use of translation technologies such as translation memories, computer-aided translation software or web-based machine translation services. Today the translators who want to be competitive in the translation domain and to earn living with translation have no choice but to use the different translation technologies and tools.

4.1 Computer-aided translation

Computer-aided translation (CAT) is a predominant mode of translation in technical translation and localization. The term computer-aided translation denotes the translation process where computer software is used to assist a human translator in the translation process. The translation still remains the responsibility of a person, but the software is used to facilitate the translation process. According to O'Hagan, it is 'a natural consequence of the shortened timeframe available for translation and increasing budgetary constraints resulting from globalization, as well as the progressive digitalization of source content'(2010:48).

There is a wide range of CAT tools specially designed for the translation their main function being information storing, searching and retrieving (i.e. terminology extraction and terminology management systems). Some CAT tools are integrated within standard word processors, but some are not. The most popular and widely used CAT tool is the Translation Environment Tool (TEnT), sometimes referred to as a translator's 'workbench', which is in fact an integrated suite of tools. Individual components differ from product to product, however generally it comprises a translation memory (TM) as well as a terminology management system (TMS).

One of the earliest translation technologies emerged in the 1970s is the TM. It is a tool that allows translator to store previously translated texts in the database and then consult it and reuse it in a new translation project. To permit this, the source text (ST) and the target text (TT) is divided into segments (usually sentences) and stored in a TM database as bitexts. The TM database consists of source text and target text segment pairs. Since technical texts such as user manuals very often consist of repetitive phrases, this function is useful. When there is

a new sentence to be translated, the TM system tries to identify whether this sentence has been previously translated and stored in the TM database. If TM finds a matching segment (exact match, full match or fuzzy match), it presents it for the translator who can reuse it. Thereby the translator does not have to retranslate the same phrase again and again. It is timesaving for the translator but also cost-saving for the client since he or she pays less for the exact matches. This tool also assures the consistency, which is one of the technical translation quality issues as well as client's requirements.

TM also provides a pre-translation function which compares the new ST against the content of the TM database and automatically replaces any ST matches with the corresponding target language segments stored in the TM database. A hybrid text is produced, partly in the source language and partly in the target language. The translators' task is to translate the remaining ST segments. In this case translator is not paid for the pre-translated segments, however the reviewer of the translation can be asked to verify these segments and check whether they suit into the new context. TM is particularly functional for technical documentation. Many technical materials, especially software applications are regularly updated so the existing translations can be easily re-used in the new version.

A terminology management system (TMS) is a tool used to store terminological information in and retrieve it from the termbase. Translator can consult it during the translation process using the concordance tool. This tool searches for a given term in many different contexts (previously translated materials) in which it appears. Using this function the translator can verify the use of the term and make sure it really suits the given context. Translators can customise the termbases according to client or subject field. Moreover, since many clients may have their terminological preferences TMS is of great functionality for the translator to maintain consistency and appropriateness by using termbases specific to certain client or text type.

4.2 Machine translation

Translation memory (TM) should not be confused with machine translation (MT). The major difference is that using the machine translation the text is being translated by the computer program from one language into another automatically, while in TM systems, a computer only stores the translated text segments and thus assists the translator in the

translation process. MT replaces the human translator producing actually the translation task. Although there have been a significant improvements in MT systems, the general output still needs to be post-edited by a human translator since MT systems cannot analyze the linguistic nuances and expressions, interpret the meaning and thus produce errors.

Today there is a new way of approaching machine translation called statistic-based translation. Many web sites offer online translation services, using the machine translation engine. One of the most well-known is Google Translate. It is a free statistical machine translation service available online. Statistic-based translation is done by a search engine which searches into the millions of words and word pairs on the Web and thus produces matches. Anyone who has ever used it knows that sometimes it produces some fairly decent results but often this kind of MT service delivers rather inaccurate translations. Still MT is used despite the poor quality output as they reduce significantly the translation costs. Such translation tools will inevitably become more and more sophisticated. However, precision and accuracy cannot be achieved without a help of a human translator. As Montgomery points out, 'At present, it [MT] can be an aid but not a solution' (2010:304).

4.3 CAT tool impact on translation process and language

CAT tools become more and more sophisticated and are an indispensable aid for professional translators since they increase translators' productivity and reduce the translation cost for the client. Moreover, CAT tools such as TM and TMS assure consistency in technical translation as well as correct spelling. TM also guarantees the consistency in terminology which is one of the most important issues in technical translation. When there are several translators working for the same translation project, terminological consistency can be challenged, but this is no longer a problem since networked or server-based use of TM databases is nowadays available allowing many translators use the same TM simultaneously. According to O'Hagan, 'A study on consistency in technical translation suggests that while the consistency facilitated by TM is in keeping with the general aim of technical translation, it is not always welcomed by some translators when the same segment appears in different functional context' (2000:50).

The use of CAT tools such as TM and TMS is time saving for the translator since it offers a possibility to reuse the previously translated texts. Texts that are internally repetitive

such as user manuals will tend to generate useful matches. This will save the translator's typing time since they can be automatically copied and pasted directly into the target text, while reducing the potential for typographic errors. In some projects, reuse of 60% and higher can now be achieved, significantly cutting down on translation cost and time. However, TM system is only useful for highly repetitive texts such as user manuals or software updates, for texts that are less repetitive or do not contain so much terminology such as marketing materials TM cannot bring any significant benefit. On the one hand TM and TMS facilitates the translation process and increases translator's productivity since he/she can translate faster, but on the other hand the reuse of previous translations becomes the main strategy to cut down on translation cost – the clients generally ask to pay less for exact matches or fuzzy matches generated by the TM. However, my personal experience have proved that significant productivity gains using CAT tools are usually realized over the medium to long term, rather than over the short term, because the introduction of new CAT tools entails a learning curve during which productivity declines.

Moreover, the same text can have a different interpretation. TM provided by the clients do not support different interpretations, clients desire to have the same phrase being translated the same way all the time since TM automatically generated previously translated segments cost less for the client. This contributes to reduction of linguistic and stylistic richness of the language.

While some translation platforms and localization tools provide a visual translation environment allowing the translator to see the context and translate the strings in context and to see the positioning of these translated strings in relation to other strings, controls and dialog boxes on the screen, this is not always the case. It is in the nature of translating digital material that translators often have to translate strings out of context. Moreover, the segment-by-segment processing used in TM tools means that the notion of text is sometimes lost.

Sometimes there are even strings that have been translated correctly can be corrupted when used by an application or a browser for reasons not always apparent to translators, localization engineers and testers. Schäler points out that, 'Combined with a significant pressure to produce high-quality translations within short time frames, this is very stressful, highly automated and technical translation environment for which specialised training is required' (2000:160). Translator need to support different CAT tools and associated language resources at the same time. Translators working with technical translation projects have to

have a command of several different translation softwares, provided by the translation agency or software developed by the client. This could probably be the reason why translators do not always exploit all the CAT tool functions – since sophisticated translation tools are rather complex and translators simply do not have the necessary skills to use all the available functions.

Aids to translators are improving all the time but with regard to quality, CAT tools still depend on human translators, their ability to fully exploit them.

5. GENERAL QUALITY REQUIREMENTS FOR TECHNICAL TRANSLATION

To be a professional translator it is not enough to have knowledge of the language and a good dictionary. Translation is not about simply changing the words and sentences from one language into another. A professional technical translator knows that good translation is the outcome of a very demanding and complex technical activity. Like all translation work, technical translation is guided by target language norms and text conventions. According to Schubert 'Especially in technical field, the translation work is additionally controlled' (2010:353), he argues that the controlling influences can originate from many agents directly or indirectly involved. The instruments of control comprise the job specifications, style guides, handbooks, standards and legal stipulations. They can also be implicit in resources or software system provided by the translation agency or commissioner of the translation, such as termbanks, translation memories or parameter settings for CAT tools.

Translation aims at allowing effective communication. Whether the source document is online software or the electric appliance user manual the translation must meet a number of requirements, both in the message conveyed and the way it is conveyed. According to Gouadec it must comply with:

- The client's aims and objectives: the translation must be effective, facilitating the use of or maintenance of the appliance, for example.
- The user's needs or requirements. A translated instruction manual or a user guide, for example, should enable the user to perform whatever operations have to be performed and to do this efficiently and safely.
- The usage, standards and conventions applicable: the grammar, spelling, terminology, phraseology, style, value systems, etc, must be those of community concerned (2010:5).

The 'products' being transferred to the target culture must be acceptable within the target culture. In order to do this the translator must understand exactly what message has to be carried over, to whom and to what purpose. This information generally is provided by the commissioner as a translation brief. The translation brief should include explicit or implicit information on the intended functions of the target text, the addressees and some general translation guidelines.

However, how the issue of translation quality is to be tackled? What criteria should be used for evaluating a translation? The functionalist theory of translation (explained in Chapter 1.3) claims that it is *skopos*, i.e. the purpose of the translation which is the most important aspect. The way the translated text is adapted to the target language and culture norms is of primary importance. The translator must achieve the functional equivalence – the target text should have the same effect on the reader as the source text – both texts should fulfil the same communicative function. According to Jumper, ‘The basic requirements of technical translation are simplicity, clarity and precision’ (2000:247). As parameters of quality he mentions equivalence, adequacy and accuracy. He also points out that stylistic choices are determined by the target language and purpose of the translation and they are independent of the source text.

The translator cannot be guided by the source language norms since they may differ radically from language to language. There are genre conventions proper to each language, general guidelines drawn from translation theories, language norms and sets of rules to which the translator should theoretically adhere in order to produce a quality translation.

A quality translation should be all of the following:

- Accurate: the contents of the translation must be true to the facts.
- Meaningful: the message must be meaningful in the target language and culture.
- Accessible: any person using the translation must be able to clearly understand the information and the message conveyed. Translation must be readable, coherent, logical and well-written.
- Effective: the message must fulfil its initial purpose.
- Compliant with any applicable constraint in terms of target communities’ linguistic and cultural standards.

Regarding technical translation there are four major criteria which should be taken into account in order to produce quality translation:

- Style
- Accuracy
- Terminology
- Grammar

Style: Translator should use neutral and efficient language avoiding the redundancy since the goal is to speak to the audience in the most natural, effective way. The technical texts should not contain archaisms, jargon or slang. There is more casual, liberal use of colloquialisms in English technical texts than in Latvian where more formal style is used. The tenor of discourse in technical texts should be polite and formal. In technical translation there is primacy of content over form. The translated text should be coherent (i.e. have continuity of sense) and cohesive (i.e. display connectivity between its surface elements).

The technical texts must be emotionally neutral. Since the target user of the technical documents such as user manuals generally is not an engineer or expert in the domain, the translator should think about the comprehensibility of the text and try to produce a reader-friendly translation. Simple syntax and use of short sentences is a common practice to maximize the readability of a technical text. As Mendez-Cendon points out in the article *The Coming of Age of Technical Translation*, 'Merely presenting the information in technical texts is not enough, it must be properly phrased and structured within a text in order to produce coherent and readable target texts' (Online 1).

Accuracy: Technical translation requires precision and rigour. Accuracy is important constraint of technical translation. The translation should comply with the given context. The translation must be true to the facts and to the interpretation of the source text content. According to Nida (1964) the translator should translate exactly what is said rather than assume responsibility for reinterpreting the sense. Translator should give a complete transcript of the ideas of the original work using proper terminology and style.

Moreover, the translation should achieve the functional equivalence – the target text should achieve the same desired effect on the target audience as the source text. As the principle of equivalence sometimes imposes constraints for the translator, he or she chooses literal translation keeping the source text's syntax which makes the target text heavy-handed, forced and difficult to grasp. Translator's task is to transform the formal equivalence in order to achieve functional equivalence. The translation should be perceived as autonomous text and pass as original creation. 'The ideal situation is when the translation is not recognised as a translation' (Olohan, 2000:247).

Terminology: Terminology has very close ties to technical translation where it is one of its characteristics and the use of precisely defined terms is one of the rules in technical translation. The terms facilitate communication in specialized fields and terminological

accuracy and consistency add clarity the overall use of language. As Gouadec points out, ‘In fact, the use of the appropriate terms and phrases is seen as the hallmark of technical competence’ (2010:8). The terms used should comply with the respective domain terminology or the client’s provided glossary. Stolze asserts that terminology can cause problems unless it is standardized. In cases where terminology is not standardized the terms must be checked carefully because intercultural incongruity can result in the same concept being designated differently in different culture” (Online 1).

Some clients may have preferences concerning terminology and the translator should ensure terminological consistency thorough all translation material (product). If the client has no terminological preferences but there are synonym terms available, the translator should use pragmatic criteria for selecting one term rather than another are generally based on considerations such as economy (one term may be shorter and easier to write or remember correctly than another), transparency (one term may be more precise and less ambiguous than another), and appropriateness (one term may be more widely used than another) (Schubert, 2010:352). Sometimes translators may even need to create a new term if one does not exist in the target language. According to Bowker, ‘Several methods of term creation exist, including borrowing, loan translation, explanatory paraphrase, adaptation and complete new creation’ (2000: 289). It is very important to assure terminological consistency in the translation. Synonym terms should not be used since it can create confusion and misunderstanding within the target audience. In order to be able to use a proper terminology the translator must have knowledge of the subject matter. When finding equivalent terminology in the appropriate field causes problem, the translator may consult a domain specialist or an authorized institution.

Grammar: The translation should comply with the grammatical, syntactic and morphologic system of the target language. This implies also correct spelling and punctuation. Special attention should be paid to missing full stops, opening quotation marks, closing quotation marks and double spaces. Very often the source language syntactic structures have to be exchanged for target language structures in order to avoid clumsy phrases.

Even if the translator has all the required competences and knowledge of the subject matter he or she cannot ensure the quality of the translated material all by oneself. There are several other agents (commissioner, project manager, reviser ect.) involved in the translation process who partially contribute to translation quality by providing all necessary material, help, raw material (terminology), guidelines, briefs and specifications.

Apart from translator's competences and skills what is needed to assure quality is also:

- Cleared and fully detailed specifications (rules, style guides)
- Reasonable time frame
- Availability of all required technical resources (translation tools)
- Availability and validity of any material for the re-use in the translation (translation memory, in-house terminology and related documents)
- Good communication between translation work provider and translator
- Relevance, thoroughness and efficiency of quality checks and quality control
- Feedback

6. TRANSLATION STYLE GUIDE SPECIFIC TO INFORMATION TECHNOLOGY DOMAIN PRODUCTS

Very often commissioners provide translators involved in the translation projects with product-specific linguistic guidelines and standard specifications that may be different from general language norms (i.e. use of different quotation marks or decimal marks) or are more prescriptive than those found in language reference material. The style guide may cover the areas of formatting as well as grammatical conventions.

6.1 Linguistic conventions for IT domain products

In order to avoid commonly made mistakes the following grammar, syntax and orthographic conventions should be taken into account when translating from English into Latvian different technical documentation in the IT domain such as the user interface texts. User interface (UI) is a special technical text type, where specific style guide norms are applied. These texts generally comprise interface elements (windows, menu, command, option, error message, setting, icon, button etc). In order to translate them correctly the translator must know the use of interface elements and their functionality. Moreover, the quality of translation is an essential precondition for the usability of the product or device.

- **Possessive pronouns**

When rendering the English “your” and “our” in technical texts and software products possessive pronouns “jūsu”, “mūsu” should be avoided.

Table 6.1 Example

English	Incorrect	Correct
Click your mouse.	Noklikšķiniet ar savu peli. Noklikšķiniet ar jūsu peli.	Noklikšķiniet ar peli.

- **Unlocalized feature names**

Software names or trademarks should not be translated (unless the client asks for the localization). Non-translated product names are preceded by the respective descriptors if the non-translated product name stands in other grammatical case than the nominative case and possessive case. It is important to follow this rule in running texts for correct understanding of the meaning which depends on the grammatical case in Latvian.

Table 6.2 Example

English	Incorrect	Correct
Download free antivirus software for Windows 7, Vista and Windows XP.	Lejupielādējiet bezmaksas pretvīrusu programmatūru Windows 7, Vista and Windows XP.	Lejupielādējiet bezmaksas pretvīrusu programmatūru operētājsistēmai Windows 7, Vista and Windows XP.

- **Modifiers**

In Latvian text, translator need to add the modifiers (descriptions of the object the name refers to) before names of objects, menus, commands, dialog box elements, icons, and other elements. In general, English text does not have these modifiers. In order to put a correct modifier the translator need to know the function of the element (whether it is a button, an option, a command etc).

Table 6.3 Example

English	Incorrect	Correct
Click Save and close the window	Noklikšķiniet Saglabāt un aizveriet logu	Noklikšķiniet uz pogas Saglabāt un aizveriet logu
Select Save form the File menu	Fails izvēlnē noklikšķiniet uz Saglabāt	Izvēlnē Fails noklikšķiniet uz izvēlnes elementa Saglabāt

- **Unjustified use of feminine and masculine ending**

However, sometimes the modifier may not be used. In this case it is not recommended to use unlocalized company name, software name or devices model name with the verb describing

the gender since use of feminine or masculine ending may not be comprehensible. The use of simple present/past/future tense is therefore recommended in Latvian text.

Table 6.4 Example

English	Incorrect	Correct
Microsoft is committed to protecting your privacy window	Microsoft ir apņēmies aizsargāt jūsu konfidencialitāti. Microsoft ir apņēmusies aizsargāt jūsu konfidencialitāti.	Microsoft apņemas aizsargāt jūsu konfidencialitāti.

- **Capitalization**

In English, it is a general practice to capitalize all first characters of the words in titles, names, etc, and sometimes middle characters in words too. This is an error in Latvian text.

Table 6.5 Example

English	Incorrect	Correct
Move Down...	Pārvietot Lejup	Pārvietot lejup
AutoArchive	Automātiskā Arhivēšana AutoArhivēšana	Automātiskā arhivēšana

In the English texts, additional short explanations in brackets often start with the capital letter. In Latvian, this kind of text should start with a small letter unless the text in brackets is not a full sentence.

Table 6.6 Example

English	Incorrect	Correct
Keep existing driver (Recommended)	Saglabāt esošo draiveri (Ieteicams)	Saglabāt esošo draiveri (ieteicams)

- **Incorrect use of prepositions**






Because of the English language influence very often there is an incorrect use of prepositions in Latvian translations. The preposition ‘uz’ should be used when clicking a button, icon, tab, menu or menu item. No preposition should be used when clicking a field and desktop. In these cases, locative may be used.

Table 6.7 Example

English	Incorrect	Correct
Click the button	Noklikšķiniet pogu Noklikšķiniet ar pogu	Noklikšķiniet uz pogas
Do you want it to be placed on the desktop?	Vai vēlaties, lai mape tiktu novietota uz darbvirsmas?	Vai vēlaties, lai mape tiktu novietota darbvirsmā ?

When translating texts, where the actions are done using the touchscreen, the verb ‘pieskarieties’ should be used together with the object in appropriate case or with appropriate preposition. If the object is inflective noun, it should be in dative. If the interface element is graphic symbol, a preposition ‘pie’ should be used before it.

Table 6.8 Example

English	Incorrect	Correct
Touch Save.	Pieskarieties pie pogas Saglabāt. Pieskarieties Saglabāšanai. Pieskarieties Saglabāt.	Pieskarieties pogai Saglabāt. Pieskarieties pie Saglabāt.
Tap  .	Pieskarieties  .	Pieskarieties pie  .
	Pieskarieties pie simbola 	Pieskarieties simbolam 

- **Word order**

The most commonly made mistakes refer to syntax – incorrect word order. Influenced by the English language, many translators keep the source text word order. Although there is

assumption that Latvian word order is relatively free, word order is important not only for fluent expression of the idea but also for correct understanding of meaning especially in complex sentences. The Latvian word order significantly differs from the English word order. In English, adverbials of time and place as well as conditional clauses are usually placed at the end of the sentence, whereas in Latvian, they are generally placed either at the beginning of the sentence or before the predicate. Therefore, using English word order in Latvian translation makes sentences unnatural and clumsy.

According to Kauķe, ‘The main criteria which determines the word order is the perceptibility, unambiguity and fluency of the text. If one of these criteria is not achieved, the word order may be considered as wrong’ (2010:9).

Table 6.9 Example

English	Incorrect	Correct
You can change your profile settings at any time if you don't want search engines to index your profile.	Varat mainīt sava profila iestatījumus jebkurā laikā, ja nevēlaties, lai meklētājprogrammas indeksētu jūsu profilu.	Ja nevēlaties, lai meklētājprogrammas indeksētu jūsu profilu, jebkurā laikā varat mainīt sava profila iestatījumus.

- **Literal translation, English sentence structure**

Influenced by the English language, many literal translation examples slip into the Latvian texts. Partly it may be due to the time pressure or a slip of the pen.

Table 6.10 Example

English	Incorrect	Correct
You are now connected to the Internet.	Tagad jūs esat savienots ar internetu.	Jūsu datorā tagad ir izveidots savienojums ar internet.
Republishing the entire blog will republish the main page and feeds.	Visa emuāra pārpublicēšana pārpublicēs galveno lapu un plūsmas.	Pārpublicējot visu emuāru, tiks pārpublicēta galvenā lapa un plūsmas.

- **Yes/no questions**

The general yes/no questions in Latvian should always start with the interrogative word ‘vai’ whereas in English the interrogative word can be omitted.

Table 6.11 Example

English	Incorrect	Correct
Save the file?	Saglabāt failu?	Vai saglabāt failu?
Make object visible?	Padarīt objektu redzamu?	Vai padarīt objektu redzamu?

- **Acronyms**

Generally the English acronyms used in the IT industry should not be translated in Latvian.

Table 6.12 Example

English	Latvian
DDC/CI (Display Data Channel Command Interface) protocol	protocols DDC/CI

However, acronyms may be translated by using a full form when an approved Latvian translation exists.

Table 6.13 Example

English	Latvian
LCD	šķidro kristālu displejs
LAN	lokālais tīkls vai LAN
URL	vienotais resursu vietrādis vai vietrādis URL

Unlocalized acronyms may obstruct the reader from correct perception of the text since they do not show their syntactical relationships and the role in the sentence especially if used in locative or dative. In these cases, another sentence construction should be used to avoid misunderstanding of the meaning. Possible solutions include putting the acronym in the

nominative or possessive case. Alternatively, the unlocalized acronym may be preceded by an appropriate modifier in the necessary grammatical case.

- **Keyboard keys**

Currently, keyboards are not localized in Latvian; therefore translator should assume the usage of the English keyboard, e.g., “Delete key” should be translated as ‘taustiņš Delete’. However, the key names that do not appear on the physical keyboard should be translated, e.g., atstarpes taustiņš, augšupvērstā bultiņa, tabulēšanas taustiņš, atpakaļatkāpes taustiņš etc. Key names should not be capitalised.

- **Use of non-breaking space**

The non-breaking space is used between words or words and numbers that should not separate onto different lines. On the screen, a non-breaking space looks like a degree symbol (°), but it will be invisible in the text, it will look like a space.

Typical situations where non-breaking space should be used:

- ✓ Long date format: 2011. gada 17. novembris
- ✓ Between the shortening of the first name and the family name: J. Liepiņš
- ✓ In temperature designations between the number and degree symbol: 37 °C
- ✓ In measurement designations between the number and the measurement abbreviation: 7 cm
- ✓ In numbers consisting of many digits – a non-breaking space is used to group digits by 3 (except four-digit numbers): 24 567 345

Technical translation is governed not only by the general language norms, many specific stylistic, semantic as well as text formatting rules are applied to technical translation texts. The translator should follow all the domain specific style guide norms in order to assure quality in technical translation. Violating linguistic norms and domain specific convention can result in poor quality translation and is a sign of unprofessional conduct.

6.2 Contradictions in different client specific style guides

Although the style guides generally comply with the Latvian language rules and sets the norms the translator should take into account in order to produce quality translation,

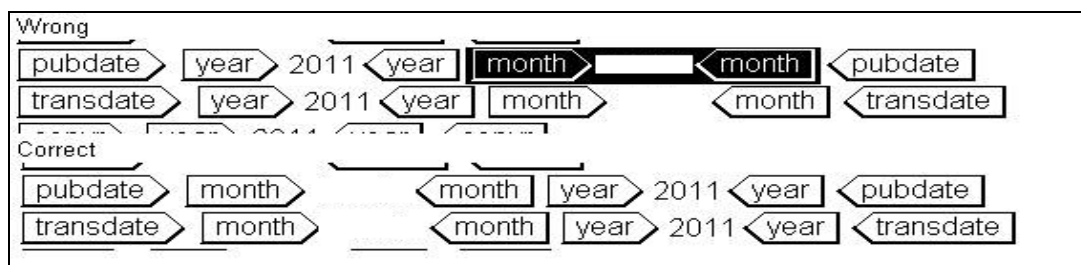
however, the clients may provide the style guides where the linguistic norms/formatting requirements or punctuation rules are in evident contradiction with the general Latvian language norms.

Some translation systems do not recognize the non-breaking spaces or curly quotes thus producing corrupt characters so the translator is asked not to use this kind of characters in the translation even though it is in conflict with the general translation guidelines and may produce errors in the translated text. The translators may be even asked to perform a check (using Search/Replace command) in order to detect these ‘prohibited characters’ in the target text.

Another example concerns the tags (a sequence of characters in a markup language used to provide information, such as formatting specifications, about a document). Generally, the translator is able to change the order of tags which enclose the translatable text to make a syntactically and grammatically correct phrase in Latvian. Some clients provide tagging instructions which can violate the Latvian grammar rules and commonly accepted practice. For example, in Latvian, the date is put in a different order than in English. However, the client asks to keep the order of the source language since the translation tools do not support different tag order and produce a corrupt text.

Client requirements: *the tags have to go in the exact order that they are in the English – <day><month><year>. The translations for day, month and year have to be in their respective tags, without any extra words (like prepositions) or characters.*

Table 6.1.1 Example



This example shows the wrong and the correct tag order determined by the client. Moreover, it is not possible to put any punctuation mark nor the word “*gads*” (year) after the number of the year which is a rule to write correctly the long date in Latvian language. In this case,

because of the client's requirements the translator cannot comply with the Latvian general grammar rules thus producing erroneous translation as shown below.

Table 6.1.2 Example

pubdate	month	janvāris	month	year	2011	year	pubdate
transdate	month	janvāris	month	year	2011	year	transdate

Sometimes all the contradictions regarding different style guides can cause a real confusion for the translator since the translator simply cannot take into consideration the general Latvian grammar and syntactical rules but have to follow client specific requirements which are in obvious contradiction with Latvian grammar rules.

7. QUALITY ASSURANCE IN TECHNICAL TRANSLATION

The work carried out by the translator and his partners consists of a long and complex sequence of operations and the work carried out by each of the partners involved in the translation project partially assure the quality of the translation.

7.1 Translation process and quality

Generally the translation process in the translation company starts with the commissioner's request for a translation. In the best case scenario the commissioner delivers the material to be translated as well as the style guide, the translation memory, the glossary, the reference materials, other job specifications and requirements as completely and precisely as possible.

The translation requirement is usually received by the project manager who prepares the translation kit for the translator containing all the original source material, reference material such as terminology databases, translation memories, style guides and forwards it on to the translator. All these different materials are highly important for the quality translation so the job performed by the project manager in the pre-translation phase is consequential for the further translation process.

The translator should translate the material taking into account the translation style guide as well as the domain specific language standards or commissioner's requirements. Once the material is translated the translator processes the spell check and passes the translated material on to the project manager who reviews the material in order to ensure that all the files have been translated and there are no missing files in the translation project. Then the translated material is forwarded to the reviser or proof-reader who checks the quality of the translation as regards the style, terminology, factual information and meaning: corrects, rewrites any faulty, deficient or inadequate sentences to bring the material to the required quality standard. The revised material is once again passed on to the project manager who performs the technical quality control (if required by the commissioner of the translation project). The technical quality control may also be performed by a special technical employee (if any). When the technical quality control has been done, the project manager can deliver the translated material to the commissioner.

Several essential components are required to ensure the translation quality starting from the complete source materials and project specific documentation, professionally performed work by the project manager, translator and reviser. To ensure formatting, terminological and language consistency in technical translation a double-quality control may be performed using special technical quality control softwares.

7.2 Technical quality control

Technical quality control is performed by the project manager or a technical employee using special quality control tools. These tools are used to perform extra quality control of the translated and revised files in order to ensure terminological consistency or general translation consistency. These tools are widely used in technical translation since the consistency in technical translation is of primary importance (repetitive texts consisting of standard phrases and a great number of terms should be translated consistently throughout the product). The aim is to provide a zero-defect quality which is a challenge since the work of the translator and the reviser still involves the human factor such as inattentiveness.

There are different tools used to perform the technical quality control which is usually the client's requirement. The technical quality control tools provide the possibility to double-check the translation for formal errors and compliance with the project guidelines. Quality control tools check for many different translation inconsistencies, omissions, formatting inconsistencies such as terminology, numeric values, number formatting and quotation marks. Very often the material to be translated consists of many files (there can be hundreds of them), the translator's task and challenge is to maintain, for example, the terminological consistency throughout all the project files or use the same kind of quotation marks in all the documentation. These tools are used to check for potential inconsistencies in all the translation project files. Once the material has been translated and revised the translation files can be processed by a quality control tool. These tools are very useful since they check and report the errors which cannot always be found by the human translator or reviser.

There are different technical quality tools which perform different quality checks. They can be provided by the commissioner or the translation company. Various tools perform different kind of quality checks and have been designed to process different file formats (some tools are specially designed to process Trados TagEditor files while others process only

SDLX .itd. files). Some tools like the SDL NumCheck are designed to perform a single quality check, such as mismatching numbers; others perform different kind of formatting, language checks simultaneously – QA Distiller, ApSIC Xbench, Transistor. The ‘errors’ found by the quality control tool are generally presented in a log file showing the source segment and the target segment.

Example of a mismatching number message produced by the SDL NumCheck quality control tool.

Table 7.2.1

SDL NumCheck v 2.1			
TASK141001_EN-US-LV_E11STORAGE01-en-lv-3-20111109-1017_xml.itd			
Segments with mismatching numbers			
62	<table border="0"> <tr> <td style="border: 1px solid black; padding: 2px;">The tray under the seat is a hide away facility offering space for 1st aid kit or CD storage.</td> <td style="border: 1px solid black; padding: 2px;">Paliktņis zem sēdekļa ir slēpta ietaise, kas piedāvā glabāšanas vietu pirmās palīdzības aptieciņai vai kompaktdiskiem.</td> </tr> </table>	The tray under the seat is a hide away facility offering space for 1st aid kit or CD storage.	Paliktņis zem sēdekļa ir slēpta ietaise, kas piedāvā glabāšanas vietu pirmās palīdzības aptieciņai vai kompaktdiskiem.
The tray under the seat is a hide away facility offering space for 1st aid kit or CD storage.	Paliktņis zem sēdekļa ir slēpta ietaise, kas piedāvā glabāšanas vietu pirmās palīdzības aptieciņai vai kompaktdiskiem.		
ceturtdiena, 2011. gada 17. novembrī - 12:06:15			
I hereby certify that I have checked all entries in this log and that the remaining entries are fully valid translations.			

The source segment comprises a number (1) while the target segment does not. The quality control tool identifies it as an error since theoretically all the source and target segments should comprise identical number values.

Examples of various quality controls performed by the technical quality tools:

- ✓ **Untranslated segments** (incomplete translation)
 - Source: Frequently used functions can be accessed using the direct buttons.
 - Target: Bieži izmantojamām funkcijām var piekļūt, izmantojot the **direct buttons**.

- ✓ **Inconsistencies in target text** (the same source text has been translated in two different ways)
 - Source: Direct buttons
 - Target: tiešie taustiņi (1 time)
 - tiešie vadības taustiņi (1 time)

- ✓ **Inconsistency in source text** (two different source segments have the same target translation)
Source: Menu/option
Target: Izvēlne/izvēlne

- ✓ **Target and source text is identical**
Target: Menus for Shooting Functions
Source: Menus for Shooting Functions

- ✓ **Consecutive spaces** (too many consecutive spaces found in target segment)
Source: Menus for Shooting Functions
Target: Menus for Shooting···Functions

- ✓ **Missing closing/opening brackets**
Source: Menu Settings (p. 38 to 54)
Target: Izvēlnes iestatījumi (no 38. līdz 54. lpp.

- ✓ **Different number values**
Source: Zoom lever p. 21, **24**
Target: Tālummaiņas svira 21., **27.** lpp.

Technical quality control can be of great aid in order to ensure formatting, terminological as well as language consistency. However, it does not ensure stylistic or grammatical correctness which still depends primarily of the responsibility of the human translator and the reviser.

8. CHALLENGES MEETING QUALITY IN TECHNICAL TRANSLATION

One could imagine that today technical translators have all the resources to produce the quality translation: highly sophisticated technical tools, different translation style guides, various reference materials, overwhelming amount of on-line documentation to study the subject matter, termbases, translation memories etc. However, quality still remains an issue whatever technical tools or documentary resources are used. Problems involved in technical translation are very different.

One of the main issues regarding translation quality in general is insufficient or superficial knowledge of the source language. This could be the reason of text misinterpretation which leads to erroneous translation. It is not enough to understand the meaning of each and every word in the text, translator should decode grammatical and lexical relations and grasp the nuances to be able to perceive the ST intentions and precisely and clearly reproduce the meaning of the source text. Moreover, technical texts are often produced by non-linguists, technical writers or scientists whose first language is not English (or other source language the translator translates from). So the translator may be confronted with the texts of poor quality which may comprise grammatical, syntactical and semantic mistakes and consequently the understanding the source text's meaning can be a puzzle. In this case the commissioner of the translation or colleague translator may come to translator's help to resolve the problem. Moreover, a very good command of target language is a rule for any translator; it should preferably be translator's mother tongue. As Hatim and Mason states 'It is in fact recognized by all translators that familiarity with the idea and underlying meaning of the writer of the a SL text is a vital aid to translating, whereas unfamiliarity breeds lack of confidence, or at least the inability to anticipate meaning when a text is in some way defective, obscure or just elliptical' (1990:75).

A highly important issue for technical translator is the knowledge of the subject matter as well as problems finding equivalent terminology in the appropriate field. To be able to translate the documentation of a particular domain the translator should have the knowledge of the subject matter in order to understand the functionality, purpose, mode of application of any kind of device, programme or software. It is recommended to do the information mining about the respective subject to become acquainted with different aspects of a particular

domain. During this process the translator also finds out the terminology used in the particular field. This is partly an issue of professional ethics – how much effort the translator puts in order to produce the quality – how much time and energy translator invests in order to solve a particular translation problem, be it of terminological or other kind, find the necessary reference materials, parallel documents, verify the terminology or contact the domain specialist. All this work contribute to translation quality but very often the time pressure and tight deadline work against the translator since the translator actually does not have enough time do the necessary pre- or post-translation work. Moreover, since technical translation comprises a large variety of different domains, translators cannot in reality be an expert in all the fields. Therefore the translator usually specialises in a particular field or domain in order to be an expert and produce quality translation.

Another important factor is a good cooperation and communication between the translator and the translation commissioner or the project manager. It is erroneous to assume that the translator alone can produce excellent quality translation. As it was stated before, the translation quality is also partly subject to many different aspects, such as explicit translation brief, complete reference materials, translation memory, termbases etc. Generally these materials are provided by the translation commissioner or the translation project manager. Therefore it is so important to have a good communication between the translator and the translation commissioner in order to be able to clarify any question concerning the source text, a functionality of a particular product, a possibility to prolong the due date or other issues. Bad communication may consequently influence the translation quality since the translator may not have all the necessary materials and information which help to ensure translation quality.

In case the client cooperates with different translators or different translation agencies the linguistic and terminological consistency which is one of the main quality criteria in technical translation cannot always be assured since different translators may use different mode of expression or even terminology and different quality standards. Generally clients choose one translation company in order to ensure stylistic and terminological consistency throughout the product (translation material).

Although today technical translators are equipped with sophisticated translation tools, the tools alone cannot ensure the quality of the translation. Technical translators need good skills of different CAT tools in order to exploit fully their functionality. If the translator has

all the necessary skills to use the CAT tools and follows other relevant stylistic and linguistic guidelines it may be a good guaranty that the end-product (translation) will be of quality. Sometimes the errors are made in respect to sophisticated CAT tools since the responsibility of the quality still remains that of the translator and his or her ability to fully exploit all the available technical tools as well as documentary resources.

Moreover, in the translation industry there is an increasing trend towards lower prices and faster turnarounds. Both negatively impact the quality. For example, students or translators who do the translation work for extra income often accept low prices offered by the translation commissioners for whom the quality is certainly not the priority. At the same time professional translators who care about the quality and do not agree to be paid the half price simply will not get the translation project. Moreover, performance under pressure of time which is a reality in today's translation industry largely influences the quality of the translation since the translator does not have enough time to study carefully the subject matter, look for the necessary information in order to understand the different linguistic details of the text or functionality of the device or software.

The lack of translation feedback after the translation has been reviewed by the reviser is often the reason for the reoccurrence of translation errors. Since the translator do not receive any kind of quality information about his or her translation work, translator simply cannot evaluate and reconsider his or her translation strategies, get to know the weak points or make other conclusions regarding the output quality. The feedback can give the translator very important information in order to improve the translation quality in the future.

Technical translation involves various activities and different agents which are interconnected in the translation process. The quality work and involvement of any agent is important in order to ensure quality translation process. There are different factors which influence the translators work, such as insufficient reference materials, lack of feedback, time pressure etc. My professional experience helps me to point out the areas or factors which contribute to translation quality or where some improvements should be made in order to provide the satisfaction for the translation commissioners as well for the translators' themselves during the translation process.

CONCLUSIONS

Technical translation has become a vast domain in the world today. It is very much influenced by the global economy and general dissemination of information. Technical translation has also become a highly computerized activity. Computer-aided translation tools can be of great aid since they ensure terminological consistency, enhance translator's productivity and reduce the translation cost for the commissioner. However, translator needs to have a good command of translation tools in order to exploit fully their functionality.

Technical translation is very much governed also by domain specific language norms and translation commissioner's requirements. The reason why the technical translation is so much governed by different style guides and language norms is to avoid or minimize any subjective factors during the translation quality assessment process.

Technical translation consists of long and complex sequence of operations and comprises various agents (commissioners, project managers, translators, revisers etc.). Thus translation quality partially depends on good cooperation and communication of all agents involved in the translation process. During the analyses of different technical, documentary and human resources involved in the translation process I found out that each and every component is partially responsible of the translation quality in general.

The hypotheses stated at the beginning of the research that the translation quality can be assured by following translation commissioner's requirements, technical translation style guides and by using various available technological tools, such as computer-aided translation tools, technical quality control tools is partly true. However, the quality assurance in reality is more complex process. Even if the translator follow all the specific style guides, commissioner's requirements and use the CAT tools, the translation quality assurance still depends on the translator's professional experience, work ethics, ability to put all the available resources in practice. Moreover, there always will be a human factor involved in the translation process since the human translator is the manager of a great part of the resources used in the translation process.

Another aspect that influences the translation quality is the fact that all the translation resources which are theoretically necessary and contribute partially in translation quality assurance in reality are not always available for the translator. The final conclusion could be the following: CAT tools, technical quality control tool, language style guides and

commissioner's specific instructions or requirements do not assure the quality but substantially helps to assure the technical translation quality which still remains largely the responsibility of the human translator.

THESES

- The translator's task is to ensure the satisfaction of the target audience as well as that of the translation commissioner.
- Technical translation requires a high-level of subject matter knowledge.
- Translators working for technical translation or localization projects are expected to have an advanced knowledge of computer applications and different computer-aided translation tools.
- Technical translation requires precision and consistency, especially that of terminology.
- Translator's level of competence in a particular domain of technical translation is indispensable in order to provide quality translation text.
- There are several other agents (commissioner, project manager, reviser etc) involved in the translation process who partially contributes to translation quality.
- Technical translation is very much governed by different language norms, domain specific standards, commissioner's requirements and various technical tools.
- Computer-aided translation tools, technical quality control tools, technical translation style guides and specific instructions of the commissioner helps to ensure technical translation quality.
- Technical translation quality still remains the responsibility of a human translator and its ability to use efficiently all the available technical and documentary resources.

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Ar savu parakstu apliecinu, ka pētījums veikts patstāvīgi, izmantoti tikai tajā norādītie informācijas avoti un iesniegtā darba elektroniskā kopija atbilst izdrukai.

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