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THE FUTURE OF TRANSLATION AND INTERPRETING IN THE DIGITAL WORLD

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ABSTRACT

While technological development has had a horizontal and slow-moving curve for millennia, it has begun to form a fast-growing and rising curve, especially in the last 50-60 years, and is now being felt more seriously than ever in every aspect of our lives. Artificial intelligence was first on the agenda in the mid-1960s. As the technology at the time could not fully explain what artificial intelligence was and did not have sufficient technological infrastructure, research was halted and came back on the agenda in the early 2000s. With artificial intelligence entering our lives as a new term, people are now much better equipped. Researchers who have based their studies of the translation process exclusively on the (human) translator and thus on the sociological, political and translation studies elements that feed the translator's background knowledge have, since the early 1990s, introduced many tools/products that contribute to the translation process by adapting simple artificial intelligence technologies. However, among the high-tech artificial intelligence products, the possibility of a post-translator (i.e. a translator beyond the human) who is involved in the translation process through his/her own actions has not been mentioned in detail. The function and role of the translator are changing today. This article explores the future of translators and translation in a rapidly digitising world.

Keywords: Artificial intelligence, translation studies, translation profession, computer-assisted translation program

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Introduction

For thousands of years, the technologies we have created have participated in our lives as long as they have supported us. The discovery of the wheel, the use of fire, today's communication and information technologies are examples of this. But while this technological development had a horizontal and slowly progressing curve for millennia, it has started to form a rapidly rising curve, especially in the last 50-60 years. Technological developments are now more noticeable than ever in every aspect of our lives (Kushchu 2019). In other words, humanity is now rapidly moving towards an age where technology is planning our lives, where we are living much faster lives and where it is not technology that is keeping up with us, but we with technology. Is that really the case? Another point to highlight is the technological singularity. There are situations in which artificial intelligence catches up with human intelligence and becomes indistinguishable from it. In this case, in the near future, our biological characteristics will distinguish us from the new humans with artificial intelligence, and it will be possible for us to live together in the future (Çağatay 2019). Natural selection pressure has been going on for centuries. In modern times, the question is whether this selection will be replaced by technological selection in the new generation that may emerge from the combination of genetics and robotics. Another future-oriented work is the transfer of human consciousness. Consciousness is transferred to a machine, the person's memory is copied and transferred to a computer system, and after the person dies, all this information is transferred to another biological or robotic body to ensure continuity. At this stage, the brain and the necessary technology must first be sufficiently resolved. A lack of information will affect the completion of the universe. The next question we need to ask is: if we perceive the brain, will we consider the entire universe to be solved?

Impact of developments in artificial intelligence

Artificial intelligence was first addressed in the mid-1960s and was the subject of many films at the time. As the technology at the time could not fully explain what artificial intelligence was and did not have sufficient technological infrastructure, research was halted and came back on the agenda in the early 2000s. Today, when people talk about Industry 4.0, they think of the application areas of artificial intelligence. There were many disappointments of this kind at the end of the 1960s (Coşkun & Gülleroğlu 2021). Although artificial intelligence is believed to be properly deployed in today's technology system, the expected performance is not yet visible. Large companies in particular have invested heavily in artificial intelligence studies, yet they have not achieved the desired performance. According to one study, 55% of companies using artificial intelligence have not yet reaped tangible benefits from artificial intelligence, while 43% believe it is too early to do so (Helm et al. 2020). Programmes that have begun to work on the basis of artificial intelligence algorithms and are able to translate into target languages in less than a second have once again called into question the competence (capacity) and task of the translator, who is at the heart of the translation, in the process of rewriting the text.

All machine intelligences that have been developed and used in real life so far are called "narrow/special artificial intelligence", which are "specialised in a narrow field", are "special applications", and are artificial intelligences for object recognition, report writing or editing (Aydın & Değirmenci 2018). On the other hand, the dream of artificial intelligence research to create a truly intelligent system that can think through new ideas, be aware of its own existence, and have coherent conversations continues, and an artificial intelligence that is as advanced as humans (that thinks like humans) is called "general artificial intelligence" (Gür et al. 2019). Can artificial intelligence, which has begun to penetrate all areas of life, create a new text instead of a translator? Can the creation of a literary work (work of art), which is considered a human talent, be left to such a technology? It is a fact that questions such as "Will we leave writing, i.e. literature, to artificial intelligence? Is an artificial intelligence with the soul of a poet possible?" will occupy researchers for years to come. Let us imagine a translator who can control his emotions and feelings in the process of interpretation or who acts with advanced interpretive intuition. How can a critic who criticises the translator, i.e. the critic of the source text, on the basis of the target text, criticise a text produced by an artificial intelligence that can control its emotions and intuitions? Can we speak of digital criticism here? Can digital criticism only be done by artificial intelligence? The digital world, which is becoming more and more important thanks to artificial intelligence, is not equally distributed in science courses in every department. There are those who think it is a convenience for people outside science and those who focus on its efficiency as an application that will be compulsory in the future and save time. There should be an examination of how each subject area takes shape within itself and how this affects the chain of knowledge transfer

to make sense of it. There will also be points where the areas of change are similar and dissimilar. What is clear is that digital transformation has a positive impact on human realisation (Durdağı 2000).

In 2013, David Rotman pointed out in an article in the MIT Technology Review that MIT Sloan School professors Brynjolffsen and McAfee believe that the slowdown in employment rates over the past 10-15 years is largely due to spectacular advances in computer technology-from industrial reporting to automated translation services (Edwards 2020). An article in TheEconomist in January 2014 asked the question: "What impact will today's technologies have on the future of our professions?". Apart from the positive and negative aspects of AI, it can be said that AI in its broadest sense adds value to many professions and to academic research. Digitalisation and technological change have led to changes in the way many scholars work, covering fields such as literature, history, linguistics, archaeology, art history, cultural studies and social sciences (Öztemiz & Özel 2020). Translation work is one way of restructuring the identity of translation in the 'digital library'.

The changing identity of the translator

The identity of the translator has changed considerably in recent years. Whereas in the past it was assumed that translators only translated texts into another language, today the role of the translator is much broader and more comprehensive. Translators no longer limit themselves to translating texts, but also take on tasks such as creating a link between cultures, ensuring the accuracy and reliability of translations and making sure that translations are presented to the reader in the best possible way. This change is also reflected in the training of translators. Instead of focusing on grammar and grammar alone, translators are now also concerned with intercultural communication, translation technologies and translation ethics. This enables translators to develop a better understanding and deliver more accurate translations. This new identity has also increased the career opportunities for translators. Translators are no longer limited to translating written texts, but can also translate audio texts, videos and other digital content. This means that translators can work in a variety of sectors and follow different career paths. Translation is a multidimensional and complex process and is defined as the transfer of images and meanings from one language to another (Kushchu 2019). According to Kızıltan (2017), translation, which is as old as human history, is an attempt to overcome language barriers caused by foreign languages and will exist as long as different languages are spoken. Therefore, translation can link several different languages and cultures, which makes translation necessary for knowledge transfer (Kızıltan 2017). Ili and Komissarov (2016) argue, that messages are not only translated into another language, but also into another culture; therefore, the translator must overcome both linguistic and cultural barriers in order to be better understood by readers of the target language (Ili & Komissarov 2016). Five characteristics that include the meaning of the situation The situation of translators is analysed within the framework of the sociology of translation. Pym, Grin, Sfreddo and Chan (2012) define 'status' as a set of social signals that indicate the belief that someone possesses a quality or competence in a desired skill, as well as the value associated with that skill. They also identify five characteristics that comprise the meaning of status as follows: It is well known that translation has led to many cultural and social changes throughout human history (Helm et al. 2020); therefore, translation and translators play an important role in any interaction between foreign societies (Ersoy & Erkut 2014). Translators not only transfer words and sentences in linguistic terms, but also take on the role of cultural mediators, building a bridge between source and target cultures through cultural communication. Therefore, translation is no longer considered only as a cross-linguistic activity, but is also a remarkable form of cross-cultural communication (Abbasi & Abbasi 2012). However, successful communication depends on the skills of interpreters. The work of translators is more difficult than it seems, because translating is not just about finding equivalents for words and sentences. Translators have to perform many different tasks. According to Göktaş (2014), translation consists of many steps that follow each other and cannot be separated. At this point, translators ensure that this process is understandable for those who do not speak the language. With such an important task, interpreters should be given the status they deserve in society (Göktaş 2014). The status of translators is a complex and multidimensional concept. Aspiring translators may have different perceptions of their profession before they have different perceptions of their profession. For example, Sinković's (2018) study found that translation students perceive translation as a profession with high professional status, but believe that people outside the field do not appreciate their work. There may also be differences in the perceptions of translators and interpreters (Sinković 2018). The study conducted by Katan (2009) study showed that translators perceive themselves as a middle- and low-status profession, while interpreters have a higher opinion of their profession (Katan 2009).

According to Melkumyan and Dabaghi (2011), translators play a key role in general and literary translation by making a unique composition universal (Melkumyan & Dabaghi 2011). Their role is described with various metaphors, such as bridging the gap between source and target (Bassnett 2002), as note-players and puzzle-solvers, or as music promoters. It is a semi-profession where it is very difficult to achieve full professional status and one of the main reasons for this is the lack of recognition by society (Kang & Shunmugam 2014). Ferreira-Alves (2011) argues that society has misconceptions and prejudices about the place and importance of translators in the social system (Ferreira-Alves 2011). A survey of translators/interpreters conducted by Bahk-Halberg (2007) showed that translating is seen as a profession with low prestige and that, for example in the Korean context, clients treat translators like secretaries. According to Dam and Korning Zethsen (2008), not only translators and translation scholars but also non-translators agree that translation is a low-status profession. Dam and Korning Zethsen (2008) also found that translators' salaries and their potential impact on companies are lower than expected. External views of the translation profession include "barely recognised and underpaid" (Dam & Zethsen 2008). Consequently, translation and translators play a remarkable role in the dissemination of knowledge and the enrichment of cultures. Translation involves various mental activities such as language, thinking, problem solving, information processing and perception. The translator acts as an active expert who perceives, processes, makes sense and produces meaning (Coban 2015). However, the profession of translation does not seem to receive the desired and deserved attention in society. Since translator education programmes are expected to raise awareness of the translating profession from different perspectives, translator candidates were also included in this study.

The impact of Deep Learning technology on translation programmes

Computer assisted translation programmes (CATPs) are software used to translate text or audio between different languages. In the past, CATPs often produced very superficial translations and were often semantically misleading. Nowadays, however, especially those programmes developed using "deep learning" technology provide more accurate and semantic translations (Chambers 2011). For example, translation programmes such as Google Translate and Microsoft Translator are very popular today and can translate between different languages. The 1990s saw the emergence of large-scale translation facilities with the advent of translation workstations (or translator workbenches) on the market. The original idea of combining different computer-based facilities for translators in one place dates back to the early 1980s, in particular systems from ALPS. Translator workstations combine multilingual word processing, tools for receiving and sending electronic documents, OCR functions, terminology management software, harmonisation functions and, above all, "translation memory". The latter is a facility that allows the translator to store original texts and their translated versions side by side, so that the corresponding sentences of the source and target languages are harmonised. The translator can thus search for a phrase or even a whole sentence in one language in the translation memory and display the corresponding sentences in the other language (Ersoy & Balkul 2014). These can be exact matches or approximations ordered by proximity. In large companies, it is common for technical documents, manuals, etc. to undergo many revisions. Large parts may remain unchanged from one version to another. With a translation memory, the translator can find and reuse parts that have already been translated. Even if there is no exact match, the versions displayed can be used with minor changes. It also provides access to terminology databases, especially company-specific terminology, for words or phrases that cannot be found in the translation memory. In addition, many translator workstations now offer fully automatic translations with MT systems such as Systran, Logos and Transcend. The translator can choose to use them for the whole text or for selected sentences, and can accept or reject the results as required (Neerincx et al. 2005).

Future needs and developments

Despite recent developments in PC systems and Internet services, it is fair to say that there is still nothing that is really suitable for independent professional translators, i.e. those who do not work in large companies or translation organisations. It is well known that some translators have tried to implement commercial PC-based software to suit their needs, but the amount of customisation required and the generally low performance have made it inefficient and uneconomical. A more cost-effective solution for the independent translator would be a translation workstation. However, the workstations currently available on the market are still too expensive for the individual translator. While there are promising low-cost computer tools for this potentially large market - e.g. terminology and merging software and perhaps alignment software - this segment is undoubtedly not as well

covered as many other areas. Another area that is not currently covered is the need for reliable but low-cost translation of documents into unfamiliar foreign languages when users do not want to work with specialised bilingual translators. There are no problems with translation into the recipient's language - PC systems can produce "rough versions" that are sufficient for the user to get an idea of the basic message, but there is no solution yet for translation into an unknown language. Recently, there are some inexpensive Japanese products that meet this particular requirement for "writing in a foreign language" in the case of business letters (based on standard phrases and document templates), but also in other areas and for longer documents where there is less "stereotyping". For translation into another language unknown (or little known) to the sender, one needs software whose quality can be relied upon (and most PC products are not good enough). A number of research groups are looking at interactive systems where the sender works with the computer to produce a MT-friendly version of a letter or document. Given a sufficiently "normalised" input text, the MT system can guarantee grammatically and stylistically correct output. So far, however, this work (e.g. at GETA in France) is still in the laboratory phase (Boitet & Blanchon 2009).

The phenomenon of untranslatability

The "phenomenon of untranslatability" is indeed an important concept for translation theory and practice. This phenomenon states that the translation of a text cannot convey exactly the same meaning or some meanings may be lost **(**Tellioğlu 2018). This phenomenon shows that translation is limited by factors such as language, culture, history and subject matter. For example, the translation of a Chinese proverb into English may not convey exactly the same meaning due to the differences between Chinese culture and history and English culture and history. Similarly, translating a poem text can be difficult because poems are usually written with beautiful words and rhythms, so the translation cannot be expected to convey the same rhythm and beauty **(**Öztürk & Şahin 2018). Untranslatability refers to expressions of a particular language that simply cannot be translated into other languages. This can be a single word or phrase, a written text or a spoken expression. Sometimes the obstacle is a phrase or metaphor that only makes sense in the context of the deeply rooted cultural experience of the language or country in question. In other cases, there may be no literal or dictionary translation of the words that make up the expression. The best attempts at translation may prove counterproductive and tend to confuse the original meaning. Some theories depend on the competence of the translator, who can always resort to certain linguistic transformations when necessary to remove the lexical or semantic inconsistency, since no translation process can correspond to a particular text in another particular language (Tomaszkiewicz 2010). So can artificial intelligence studies view the phenomenon of untranslatability differently from humans. Human-assisted translation uses not only computer programmes but also real translators. This type of translation is supposed to provide more accurate and semantically better translations. Human-assisted translation is preferred especially for important or critical texts.Computer-aided translation programmes (CATPs) are software used to translate text or audio between different languages. However, CATPs usually provide only superficial translations and are often semantically misleading. Therefore, human-assisted translation is preferred to obtain more accurate and semantically better translations. As far as the dissemination function (producing publishable translations) is concerned, human translation is generally more satisfactory and cost-effective when it comes to translating a specific text in a specific field (science, technology, medicine, law or literature). Machine translation requires costly investment in maintaining and updating dictionaries and costly involvement in final editing. This can only be justified (i.e. cost-effective) when large volumes of documents in a particular field are translated. It may also be justified when translating into more than one target language (when pre-editing and/or vocabulary and grammar checking of the original texts is required). When there is significant repetition. In such tasks, the human translator is overwhelmed by the volume of the task, tedious repetitions and the need to maintain terminological consistency. In contrast, the computer can handle large volumes and maintain consistency automatically. In short, machine translation is ideal for large and/or rapid translations of (lengthy) technical documents, (highly repetitive) software localisation manuals and real-time translations of weather reports. The human translator is (and remains) unrivalled for non-repetitive, linguistically complex texts (e.g. in literature and law). For the translation of texts for assimilation purposes, where the quality of the output may be lower than for texts intended for publication, machine translation is clearly an ideal solution. Human translators are not prepared (and resent being asked) to produce 'rough' translations of scientific and technical documents that can be read by a single person who only wants to know the general content and information and does not care if everything is understandable, and stylistic clumsiness or

grammatical errors certainly do not deter them. Of course, they might prefer better output than is currently provided by most MT systems, but if the only alternative is not to translate at all, then machine translation is perfectly acceptable. For information exchange, a human translator may still have a role to play in translating business correspondence (especially if the content is sensitive or legally binding). However, for the translation of personal letters, MT systems are likely to be increasingly used, and for electronic mail and information extraction from websites and computer-based information services, MT is the only viable solution. For interpreting, on the other hand, there will continue to be a market for human interpreters. It is certainly unlikely that automated translation will replace interpreting in diplomatic and business communications. Although research into computer-assisted translation of telephone enquiries has been carried out in very limited areas and future applications in this field can be envisaged, it is unlikely to replace human interpreting for a large proportion of telephone communications. Many translators today often use machine translation tools in the translation process. What is important here is the conscious use of these tools. Translators use these tools, for example, to save time and to ensure terminological consistency. Although technology is developing faster than ever before, machine translation cannot completely replace the human translator, at least not today. In the future, machine translation and human translators will complement each other, speed up the translation process and continue to play an important role.

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