

**Peculiarities and Challenges of Machine Translation (MT): The Role of Machine  
Translation in the life of Translators**

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## **Acknowledgment**

I want to take this opportunity to show my sincere gratitude to my boss for their unwavering backing and patience is finished this research. They have given me the chance to conduct my study while managing my duties at the office, and I truly appreciate it.

Additionally, I would like to thank my Mabetex colleagues for their assistance and collaboration throughout this project. This research adventure was made much more intensive and pleasurable by their assistance and enthusiasm to assist.

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I truly acknowledge their kindness, availability, and eagerness to respond to my inquiries right away.

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Provost

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## TECHNICAL ASSIGNMENT

### For Senior Project

#### «Peculiarities and Challenges of Machine translation: The Role of Machine Translation in the life of translators»

##### I. Justification of the relevance, originality, and novelty of the project.

The **relevance** of the research lies in the fact that currently there is an active and increasing growth in the use of machine translation programs, which leads to increased interest in machine translation systems that optimize the translation process of technical texts, limited understanding of the role of translators in machine translation and cooperation between the translator and the machine translation system, as well as features and problems of machine translation, which lead users to a dead end.

The originality of the study is determined by the lack of a specific understanding of the role of MT systems in the life of translators. Moreover, it is important to emphasize the originality of this research in such a way as to provide additional support to existing theories and to find new information, where the role of MT for translators is not limited not only to an auxiliary tool, where translators are described as hostages of artificial intelligence.

##### **Project object**

The purpose of this research is aimed to describe the role of machine translation programs in the life of translators, defining the features and problems faced by translators. In

addition, the dissertation will address the existing problems with translation, due to which translations lose their meaning and quality. The advantages of using machine translation tools will be identified, which encourage translators to use them.

In pursuit of this purpose, the dissertation will investigate the following research issues:

1. What is the specific role of machine translation in the daily lives of translators?
2. What are the key peculiarities and limitations of current machine translation programs?

## **II. Scope, order, and terms of work performance.**

### **Stage 1.**

The literature review will be carried out in chronological order, that is, in the sequence when machine translation originated and appeared. However, firstly, the research at the beginning of the literature review will give a definition on the terms. Machine translation is understood as an action performed on a computer to convert a text in one natural language into a text equivalent in content in another language, as well as the result of such an action. MT is defined as the translation of one natural language into another using and based on computers (Lee, 2019). Such an approach will allow not only to assess the logic of the narrative, but also to determine how the study and development of the topic took place, who offered what and when.

This literature review traces the peculiarities and challenges of MT and a new approach to MT that is known as Neural. The following sections discuss the concepts of MT and NMT, the features and problems of MT, and after defining the main ideas, the role and impact of MT on users will be presented in the literature review. After researching various qualitative

designs, I preferred the interview-based approach because it had a high likelihood of yielding an answer to my research questions. According to Bryman (2016), participants in qualitative research are interviewed to understand more about their real-world experiences, attitudes, and behaviors (p. 397).

### **Stage 2.**

The methodological part will consist of the following sections: (a) Research design, (b) Research sample, (c) Data collection instruments, (d) Data collection procedures, (e) Data Management, (f) Data analysis, (g) Limitations, and (f) Ethical considerations.

To answer the research questions and achieve the research goal, I will use qualitative research for an in-depth study. Qualitative research is a research method involving a comprehensive study of a specific case that includes emerging issues, data analysis, procedures, and data that is collected from participants (Cresswell, J. W. & Cresswell, J. A., 2009 ).

### **Stage 3.**

This study will use a qualitative design, as a detailed understanding of a particular context or phenomenon will allow the research questions to be answered. In addition, qualitative design is more appropriate than quantitative design because of the ability to collect people's thoughts and experiences through interviews and focus groups to identify human problems that have been little explored before.

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that is used in qualitative research where the interviewer conducting the survey can have a specific set of questions and topics to discuss, the semi-structured interview also allows to enter relevant indirect information to better understand the interviewee's point of view (Denzin, N. K., & Lincoln, Y. S., 2018).

#### **Stage 4.**

As a result of this research, all possible problems and features of machine translation will be identified, which in the future will become a reference point for all users of machine translation systems. Furthermore, the given study will determine role of MT programs as auxiliary program in the way getting quality translation.

#### **Stage 5.**

To recapitulate, we can say that qualitative research with interview-based design will be answers to the research questions asked. As a researcher, I define the specific role of MT systems in the life and work of translators in Kazakhstan, identifying the problems and features of MT. In conclusion, recommendations will be given to future researchers to conduct more extensive research on this topic.

### **III. Project quality indicators.**

- a) The use of relevant regulatory documents and literature at the time of writing the seniorproject;
- b) Writing a graduation project in accordance with the Guidelines for writing a senior project;
- c) Compliance by members of the Scrum Team with the requirements of the AcademicIntegrity Policy regarding anti-plagiarism is implied.

### **IV. The responsibility matrix of MT members.**

Explanation: the matrix of responsibility of group members can be built in the form of a table, diagram or otherwise, allowing to determine the degree of involvement of each member in the implementation of each individual design stage.

Project name: «Peculiarities and Challenges of Machine translation: The Role of Machine Translation in the life of translators»

Stage s	Ibrayeva Anar	Baltabay Dana Ganikyzy
<i>Stage 1. Stage 1. Technical Assignment. (1<sup>st</sup> decade of December)</i>	Ibrayeva Anar	Baltabay Dana Ganikyzy



<p><b>Stage 2. Introduction and Literature Review. (1<sup>st</sup> decade of January)</b></p> <ol style="list-style-type: none"> <li>1. Meetings with Supervisor;</li> <li>2. Discussing further steps and accordance of</li> <li>3. Literature Review; Visiting to the University Library;</li> <li>4. Collecting Literature Review List;</li> </ol>	<b>Ibrayeva Anar</b>	<b>Baltabay Dana Ganikyzy</b>
<p><b>Stage 3. Description of the means of data. (January 10 – March 15)</b></p> <ol style="list-style-type: none"> <li>1. to settle on data collection and procedure, that are partly decided in methodology chapter;</li> <li>2. to indicate number of interviewees, set for participants' characteristics, criteria and substantiate the reason of exact numbers and criteria;</li> <li>3. to try the data collection procedure in order to approve it;</li> <li>4. to find participants, and get their permission and choose place for questionnaire;</li> <li>5. Interviewing translators according to interview questions;</li> </ol>	<b>Ibrayeva Anar</b>	<b>Baltabay Dana Ganikyzy</b>
<p><b>Stage 4. Description of the results of the study. (March 15, 2023 – April 25, 2023)</b></p> <ol style="list-style-type: none"> <li>1. Analyzing collected data</li> </ol>	<b>Ibrayeva Anar</b>	<b>Baltabay Dana Ganikyzy</b>

<p><b>Stage 5. Description of the conclusion, recommendations.</b>  <b>(April 25 – May 20)</b></p> <p>2. to recapitulate all parts by briefly revising all of them;  3. to write further recommendations and limitations;</p>	<p><b>Ibrayeva Anar</b></p>	<p><b>Baltabay Dana Ganikyzy</b></p>

**Explanation of abbreviations:**

*S - Supervisor*

*CI -*

*Contractor 1*

*N/A - Not*

*Applicable*

**I. Project Completion Form.**

**Project Completion Form:**

*I, the undersigned, agree to use this terms of reference as an agreement on the creation and use of a work of science, concluded between me and KAZGUU University, according to which the student undertakes to transfer to KAZGUU University the exclusive property right to the created work of science, as well as the exclusive right to use the work at its own discretion in any form and under any name in any country in the world, including the right to reproduce the work; distribution of the original or copies of the work through sale or other transfer of ownership; import of copies of the work; public display of the original or copy of the work; other communication of the work to the public; translation of the work into another language; processing and / or other alteration of the work and any other types of use not prohibited by the legislation of the Republic of Kazakhstan.*

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## **Abstract**

### **The Peculiarities and Challenges of Machine Translation (MT): The role of Machine Translation in the life of Translators**

The increased usage of machine translation in the translation industry has changed the nature of professional translators' job as well as the quality of translation results. Nevertheless, greater clarity and awareness of the specific function of machine translation technologies in the translator's workflow is required, particularly in terms of their influence on quality control and ethical issues. This emphasizes the significance of ongoing development and assessment of machine translation systems and their influence on the translation business. Moreover, despite major advancements in machine translation systems, there are still distinct issues connected with their use.

This article discusses the findings of a qualitative study in which interviews with translators indicated a unique role in their lives. It focuses particularly on the disadvantages and advantages of machine translation (MT). These data might be utilized in drawing some conclusions about the relationship between translator specialization and the use of machine translation. Generally, a translator who has extensive experience in the field of computer technology employs MT more frequently than someone who doesn't. We have now established the precise function that machine translation plays in the work and life of translators. Additionally, it has been discovered which benefits make users dependent on machine translation systems and which challenges keep translators employed.

*Keywords:* machine translation (MT), the specific role, advantages of using machine translation (MT), challenges of using machine translation (MT)

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## **Introduction**

The purpose of this chapter is to present the research topic by providing brief information about the current role of machine translation. This section includes the impact of machine translation on today's situation, problem statement, goals, research purpose and questions and the significance of the study.

Machine translation is increasingly used in scientific, technical and research projects and for commercial purposes. According to Kochetkova and Voitovich (2021), the development in machine translation excellence has led to its widespread use by non-professionals who need to understand texts written in unfamiliar languages. Even if the user does not understand or speak the original language, machine translation technologies enable him to absorb the essence of the text and comprehend its meaning. However, it might be claimed that to properly utilize the machine translation system, a professional translator needs to have a general understanding of the system's text analysis process. This will help him to prepare the text ahead of time, reducing the quantity of post-editing.

Information technology is advancing rapidly, and computers are becoming increasingly important in the global information space (Yu, W., Liu, C., Wang, Y., & Xu, X., 2020). As Yu et al. (2020) point out, this development is creating new ways to share and communicate information. In the era of advanced technologies, new information is formed very quickly, and traditional translation methods are not enough to cover the interests and demands of consumers. This, in turn, led to the formation of a new industry called machine translation. In comparison with previous centuries, the amount of information for translation has increased significantly. Therefore, in some cases, it is more expedient to use machine or automated translation systems. The development of such systems not only simplifies the translation process but also allows you to quickly translate information and process large volumes of documents in a short time, that is, meets the



basic requirement of modern life, fast processing of large amounts of information at a low price. However, there is an importance in determining the concrete role of machine translation programs.

According to the Chinese researcher Lihua (2022), the possibilities of machine translation are greater than human translation, thanks to the given words of the database, and the object that puts forward the translation requirement does not need to master the translated language. Artificial Intelligence has been a part of human life for many years, in which they have even replaced creative professionals, including translators, where creative thinking is required (Vassil Kirov, Bagryon Malamin, 2022). Some programs can automatically translate with high quality and easy access, for example, Microsoft and Google Translate from Google, Yandex Translate from Yandex, and online translation from Yahoo and Altavista (Muhammed, 2022).

A translator is a person who not only translates a text from the first language to the second but also a person who conveys the culture and values of the country. Although machine translation has many advantages, it cannot be argued that artificial intelligence can translate any text with the same elegance and quality. (Lihua, 2022).

### **State of problem**

Despite the existence of several hypotheses from various scholars, there is still no definite solution or research to describe the function of machine translation in the job and lives of translators. The problems of human-machine interaction are relevant in modern linguistics. While some scientists completely deny the superiority of machine translation and talk about its inapplicability in real conditions, others actively use the computer's capabilities. As claimed by Islamov and Fomin (2013), machine translation is becoming a characteristic feature of modern mankind's daily life, in a result, people are becoming

hostages of automatic translation systems, including translators. According to Frey and Osborne (2017), MT programs lead to significant job losses for translators, which radically affects their work and employment. In this case, Ross's (2016) research fully confirmed the theory of previous authors, today the work of a professional translator is compared with the coal mining industry, where coal itself is mined by a machine, and each time fewer people control the operation of the machine, and in the future, it is believed that as soon as the translation data sets become large, there is a high probability that translators they will not be needed without losing relevance. However, to define a fuller understanding of the concrete role of MT in life translators, there is a need for in-depth qualitative research focused on translators. Focusing on why translators become hostages of artificial intelligence can help reveal the specific role of automatic translation in the life of translators.

### **Purpose of the research**

The research is aimed to describe the role of machine translation programs in the life of translators, defining the features and problems faced by translators. In addition, the dissertation will address the existing problems with translation, due to which translations lose their meaning and quality. The advantages of using machine translation tools will be identified, which encourage translators to use them.

In pursuit of this purpose, the dissertation will investigate the following research issues:

1. What is the specific role of machine translation in the daily lives of translators?
2. What are the key peculiarities and limitations of current machine translation programs?

Despite the existence of previous studies, the specific role of machine translation for translators has not been determined, which will lead to the need for a deeper study of this problem in Kazakhstan. Moreover, it is important to emphasize the originality of this research in such a way as to provide additional support to existing theories and to find new information, where the role of MT for translators is not limited only to an auxiliary tool, where translators are described as hostages of artificial intelligence.

Machine translation is becoming increasingly significant in a variety of industries, allowing non-professionals to comprehend unfamiliar languages. Unfortunately, few researches on the function of machine translation in the lives of professional translators have been undertaken in Kazakhstan. The goal of this research was to examine into the specific role of machine translation for translators, as well as the key features and limitations of modern machine translation software.

### **Significance of research**

This study has significance for understanding how this technology can help improve translation quality and increase efficiency in a variety of businesses that require translation.

Machine translation can be used in the translation industry to translate documents that demand quick and easy translation. However, for complicated materials requiring high-quality translation, machine translation may not be sufficient, necessitating further correction and editing by a professional translator. Thus, there is the importance of the results of a research project that identifies the complexities of machine translation (MT) programs. Translators can develop strategies to increase their productivity when working with machine translation by improving the quality of translation.

Unfortunately, now translators themselves are not aware of the specific role of machine translation in their lives, not to mention other people. The research shed light on the function of machine translation (MT) in the translation industry and its impact on the profession. Understanding this function allows translators to adapt to changes in the market and capitalize on opportunities given by MT. A certain specific role of machine translation in the life of translators will remind everyone that machine translation, despite its advantages, requires translator editing

In general, this study is significant for translators because it provides them with the necessary knowledge and resources to stay relevant and effective in a rapidly changing industry. Translators can improve their professional abilities and produce high-quality translations by understanding the intricacies and functions of MT and its importance in their field.

## **Literature Review**

This chapter provides a comprehensive overview of the research issue by evaluating, generalizing, contrasting, and summarizing previous studies and research on the subject.

### **Machine translation (MT) history**

Machine translation has an extensive past that goes back to the beginning of time and is still evolving now. It has been demonstrated that the first two translation machines were patented independently in the USSR and in France in 1933, even before the advent of computers, and at that time machines translated almost nothing, but with their advent, the dream of translation machines finally began to come true, as these were real devices, although not too successful yet (Mitrenina, 2017). In accordance with Mitrenina (2017), a Frenchman of Armenian origin, Georges Artsruni, was the first inventor of a translation device in 1933 on July 22, in which his machine was called a "mechanical brain» but was just a mechanized dictionary on paper tape. According to Mark's research, the French scientist Georges Artsruni created a bilingual automatic dictionary on punched tape, and the invention of the Soviet engineer Peter Troyansky was a table with an inclined surface and a camera combined with a typewriter, the keys of which allowed encoding morphological and grammatical information (Hutchins W. , 1995). The Trojan machine needed two helpers to translate: one had to be fluent in the source language, and the other had to be fluent in the translation language so that he could linearize the text the computer had translated (Hutchins J., 2004). In 1937, at the World's Fair in Paris, when Artsruni presented a working sample of his machine, the device drew a lot of interest and received an award in the field of processing (Mitrenina, 2017).

As Mitrenina (2017) stated, in 1938, a young German engineer Konrad Zuse assembled the world's first electronic computing machine, calling it the Z1, which

occupied 4 square meters and weighed almost 500 kg. Then Zuse created two improved Z2 and Z3 models, assembled based on a telephone relay, which had all the properties of a modern computer. While researching the history of machine translation, researchers came across interesting information. Even the Second World War did not stop the release of the Z4, because in this way Zuse was able to invent his new unfinished machine, believing that the structure of the Universe was like a network of interconnected computers, and deeply believed that properly created machines would be able to reflect this (Mitrenina, 2017).

The field of machine translation is a very young science, so its history also has only about 2 centuries. The conclusion of WWII accelerated the progress of the work on machine translation that had begun. According to Russian scholar Kartseva (2016), the approach to language code as a system was the theoretical foundation of the early stage of machine translation work in the late 1940s and early 1950s. Their earliest attempts were described in the late 1940s in relation with the employment of developing computers to tackle cryptography difficulties in the USA (Kartseva Y. Y., 2016).

Warren Weaver, director of the Rockefeller Foundation's Department of Natural Sciences and a cryptography specialist, wrote a message to his colleague Norbert Wiener in 1947 in which he compared the tasks of electromechanical devices used to read cyphers and the tasks of machine translation for the first time (Filinov, 2018). After a series of discussions, Weaver sent the 1949 «translation» memorandum, which was devoted to the theoretical negation of the possibility of developing machine systems (Hutchins W. , 1995). Nevertheless, as Hutchins (1995) reported, Weaver's letter did not inspire Norbert Wiener, who knew about ten foreign languages to decipher the translation machine, but the idea began to live its own life.

The first functional machine translation software was shown to the world on January 7, 1954, by Americans working with IBM and Georgetown University. As the "race" between the USA and the USSR also expanded to the field of machine translation research, it should be mentioned that this situation also served as the inspiration for the start of work on machine translation in the USSR. (Mitrenina, 2017).

In December 1956, the Association for Machine Translation (AMT) was founded in Moscow, opening in a new era for the machine translation industry. The establishment of the AMT signaled the increasing recognition of MT as a promising field of research and development, and it brought together researchers from different countries who were interested in this field. In December 1956, the Association for Machine Translation appeared in Moscow, which became the main informal center for communication between mathematicians and linguists (Uspenskij, 2013). According to Uspensky (2013), the Soviet Union's MT Conference in 1958 was a key occasion in the history of this subject since it opened the way for the creation of increasingly complicated and precise MT systems. This prepared the path for MT to grow as a recognized area of study and research and contributed to its development (Uspenskij, 2013).

Despite all the efforts of researchers, in 1960, a serious blow to machine translation was dealt by Yehoshua Bar-Hillel, who eight years earlier organized the first conference on this topic, stating that correct machine translation is in principle impossible since in certain contexts a computer will never be able to correctly recognize polysemantic words (Mitrenina, 2017). Bar-Hillel (1960) also argued in his article that the task of MT is not only to translate words but also to understand the meaning of the translated text. He noted that there are many problems to achieve this goal, including semantic ambiguity and idiomatic expressions. Bar-Hillel's (1960) article was a wake-up call for the MT community, as it showed that the MT task was much more difficult than previously

thought. His article was a serious blow to the industry, as it questioned the feasibility of automatic translation of natural languages and showed that much more needs to be done to overcome the problems facing MT. Despite this setback, Bar-Hillel's paper also became an important contribution to this field, as it helped establish MT as a recognized field of study and research and paved the way for the development of more complex and accurate MT systems. Today, his ideas and insights continue to be relevant in this field, and he is widely known as one of the pioneers of MT.

Unfortunately, as Pierce (1966) noted, “the US government's creation of the renowned ALPAC committee in 1964 prevented the discovery of flawless machine translation from succeeding”. Public funding for this field in the US and Europe was stopped over the course of the following 20 years when ALPAC published the findings of its research in 1966 and declared machine translation to be hopeless (Pierce, J., Carroll, J., 1966). The report concluded that machine translation was not yet ready for practical use and that significant advances were necessary before it could become a viable technology. Despite the setbacks, however, private companies and individual investors continued to work on the development of machine translation, laying the groundwork for future advancements in the field. It should be highlighted that the ALPAC report had a negative impact on the development of machine translation in the Soviet Union.

According to Mitrenina (2017), at that time the Soviet government invested heavily in research and development of machine translation. But the negative conclusions of the ALPAC report led to a reassessment of the priorities of the Soviet government and funding in this area (Mitrenina, 2017).

In the early 70s, the field of machine translation was experiencing a “rebirth” after the disappointing conclusions of the 60s. The perception of automatic translation as a



translator's assistant influenced the vector of development of machine translation programs (Kenzhaev, 2013).

With the advent of the Internet and the multiple increases in translated content, the machine translation industry began to develop at an accelerated pace. But to meet the needs of users, new MT systems with a diverse architecture were required.

In conclusion, we observed that the creation of machine translation software has been a protracted and challenging process faced by several issues. Nevertheless, machine translation technologies continue to advance, making translators' jobs easier and following users to communicate with people from diverse cultures and languages.

### **Definition of Machine Translation**

The translation is a means of providing the possibility of communication between people who speak different languages (Komissarov V. N., 1990). The globalization of modern technologies today affects all aspects and spheres of human existence. The trend of globalization and the wide availability of the Internet made it possible to develop and improve the system of information support for communication activities (Novoshilova A. A., 2014). As a result, translation experts aim to integrate cutting-edge technological breakthroughs in their field to increase the quality of their work.

The phrase “machine translation” has two different meanings. In a limited sense, this describes the process of translating text from one natural language to another employing computer algorithms with minimal or no human participation (Voronovich V.V., 2013). During this process, the machine enters the original text, the vocabulary of which is not decorated with any additional instructions, and at the end comes the translation text in another language, which is a translation of the original text. In addition, in most cases, the process of translating the input text is performed automatically, almost

without human intervention. In some cases, post-editing may be allowed. Machine translation, in a broader sense, is an area of scientific research that lies at the intersection of linguistics, mathematics, and cybernetics (Kocincová, M., & Vojtovič, S., 2021). Its goal is to create systems that can perform machine translation in a narrow sense. Understanding the essence of translation and meeting all the requirements for qualified translators requires many years of experience from the translator and daily replenishment of their knowledge. As for machine translation, initially, it does not have its property of thinking. Hence, artificial intelligence also cannot understand the meaning of the translation and improve its knowledge to the required level. A machine, that is, a computer that performs the translation process in our case, can only read commands entered by a person and perform actions based on them (Dubrovina, 2014).

Christian Buata identifies three types of modern automatic translation:

1) Informative automatic translation: a fluent, verbatim translation, which is enough to familiarize yourself with the text in a foreign language.

2) Professional automatic translation, the quality of which is comparable to the quality of «human» translation and with a little editing is completely satisfactory. It is advantageous for large volumes of text (over 10 thousand pages per year).

3) Personal automatic translation. The authors of the texts rid them of ambiguities in advance and work in dialogue mode with the computer. Thus, it is possible to significantly improve the quality of translation (Marchyk, 2007).

Statistical machine translation systems, accumulating example-based systems, and domain-oriented binary systems are some of the several kinds of machine translation systems that are now on the market. The last two types of systems are based on the use of translation memory results, and all contemporary iterations of MT systems are hybrid

because they combine the use of translation memory system archives with methods that implement MP for those text fragments that are absent from these archives (Kartseva Y. , 2016).

To improve the translation process, translators must make use of modern technology actively. The application of new technological methods enables the translation of vast amounts of information to be completed quickly and with high accuracy. The field of machine translation has recently arisen in the translation market because of the convergence of linguistics and computer technology. According to Chen and Wong (2020), "machine translation is the process of using a computer to translate a text from one language into its corresponding text in another language". According to Lee (2019), using an electronic machine to translate text from one language to another, either with or without human aid, is known as automated translation. Like other research, Hutchins and Lovtskii's (2000) definition of machine translation stressed that it is a branch of computational linguistics targeted at the computer-assisted translation of text from one language to another. Babina (2011) provided an intriguing definition of machine translation, referring to it as a type of translation utilized to save time and effort when the translator's linguistic individuality at the verbal-semantic level is limited by expediency. In modern machine translation systems, two contrasting trends are notable: the maximum automation of translation processes and the personalization of synthesized translations (Babina, 2011). Despite variations in the definition of machine translation, all authors concur that it is carried out through human-machine interaction. Also, Kalinin (2017) stated that the field of computational linguistics that focuses on using computer software to translate text or speech from one particular language to another is known as machine translation.

In defining machine translation, it is important to note that there are various types, specific strategies, and mechanisms involved. One such subfield is statistical machine

translation (SMT), which makes use of statistical models to analyze and compare pre-existing databases for the necessary language pairs (Koehn P. , 2006). As Golovko (2020) noted, statistical machine translation (SMT) is a type of translation that involves comparing large volumes of language pairs or text corpus. The origins of statistical machine translation can be traced back to Warren Weaver's initial ideas in 1949, which were closely linked to probability and information theory as developed by Claude Shannon, an American engineer, cryptanalyst, and mathematician (Golovko, 2020). Research showed that statistical machine translation is a type of machine learning that uses data from a bilingual text set to determine the most likely translation of a sentence (Ruiz, 2012). Choi, Cho and Bengio (2017) have demonstrated that semantic role assignment information can be used to reorder lists of possible translations, leading to improved translation accuracy in statistical machine translation preprocessing. However, it is important to note that this approach works best for language pairs whose grammars have minimal differences in word order. Nevertheless, statistical machine translation (SMT) is not without its challenges, including numerous grammatical errors and a lack of sufficient parallel corpus data (Mathias, 2015).

It can be inferred from the examples above that the current machine translation system is not perfect and inferior to neural machine translation. As Mokhov (2019) pointed out, deep neural network technologies have revolutionized the machine translation industry and are now integrated into our daily lives. The effectiveness of modern machine translation systems has reached an unprecedented level. Recently, the neural machine translation approach has gained global recognition and is seen as a promising solution to overcome the limitations of previous machine translation and statistical machine translation systems. (Rarenko, 2017).

Mitrenina (2017) describes how statistical machine translation works by using neural networks to simulate the work of the human brain. Google launched the first translator that used this method in November 2016, and it demonstrated a considerable increase in the level of accuracy of translated documents. This field, along with other methods of computer language processing based on neural networks, is now the most rapidly growing (Mitrenina, 2017). Neural networks are good at “grasping” syntactic and semantic connections in a sentence, so many researchers consider the resulting vectors to be a deep semantic representation of a sentence (Xijun, 2022). Moreover, according to Xigun's (2022) research, compared with statistical machine translation, neural translation systems have become more in demand in the media industry, where they are actively used to create subtitles due to clear speech recognition. Now all the big companies such as Google, Yandex, and Microsoft, switched to the use of neural machine translation instead of the previously used statistical foundations (Zulayxo, N. M., Tolibovna, A. S., Faritovich, R. B., 2022). Learning in-depth and functional learning are used in neural machine translation models. In comparison to conventional statistical machine translation systems, they use just a little of the memory. In addition, Zulayxo et. Al (2022) noted that “unlike traditional translation systems, all parts of the neural translation model are trained together to maximize translation efficiency”. A neural machine model was introduced by Sennrich, Harrow, and Birch (2016) as a technique that has produced outstanding outcomes in the fields of voice recognition and image processing. But, despite all the advantages of neural machine translation, there are still several problems. In research by Liang and Du (2022), the problem of unregistered words and low-frequency words, as well as the problem of distance dependency, are considered to be the two fundamental issues with neural translation. The main limitation of Liang and Du's (2022) research was the lack of indication of possible solutions to problems and how much this hinders users from

obtaining a high-quality translation. However, in his article, Xijun (2022) presented a strategy for improving neural translation systems and, as a result, proposed an improved encoding and decoding strategy to solve the above problems. According to him, by activating the attention mechanism, neural machine translation decoding improves the presentation of contextual information in the source language (Xijun, 2022). In all the studies and articles, it has been convincingly shown that neural machine translation is getting better, improving their capabilities, helping to edit translators and in some cases replacing them.

### **Peculiarities of MT**

The need to communicate in several languages and the rising demand for translation services have led to the creation of easy-to-use machine translation software. The application of machine translation tools has revolutionized the area of textual translation and has several benefits over the more conventional use of human assistance.

Before evaluating and defining the features of a machine translation system, it is important to pay attention to the survey conducted. According to a survey of 76 students, 36 people used an online translator PROMT (40%), 19 students use the services of Google Translator Translate (25%), 18 people use machine translator Yandex (24%), and only (8%) 3 people use a paper dictionary and translate the text manually (Kochetkova, 2017).

The modern age of gadgets, in which electronic methods of communication are used frequently, has its own set of rules. It has become more unpopular to translate literature using a standard dictionary, not just for today's young but also for translators. Most machine translation systems are simple to open and use. Due to a total or partial lack of time, desire, and expertise, practically everyone employs the services of an electronic polyglot. Given the foregoing, we believe it is impossible to restrict users, including

translators, from utilizing computer translation services. As a result, we believe it is only reasonable to describe all the benefits of machine translation.

Neubig (2017) highlighted the advantageous features of neural machine translation (NMT) systems in his research. These artificial neural network-based systems provide several advantages over conventional rule-based or statistical machine translation systems. Improved translation quality is one of the most important benefits since NMT systems have been found to deliver more accurate and fluid translations. The handling of complicated sentence patterns, such as lengthy phrases or those with numerous clauses, is another area where NMT systems excel. According to Neubig (2017), another key advantage of NMT systems is their adaptability to new languages and domains. They can be trained to perform high-quality translations not only into frequently used, but also into little-used languages (Neubig, 2017).

First and foremost, according to Kochetkova (2017), the indisputable advantage associated with machine translation is its speed, which allows users to quickly obtain a translation of a lengthy document. Most of the early research, as well as current work, focused on the speed of machine translation as one of the main advantages. As research by Banerjee and Lavi (2009) has shown, that machine translation can greatly increase the speed and efficiency of e-commerce operations by automatically translating product descriptions and customer reviews. The following study highlighted how machine translation has become an essential tool in many industries, allowing businesses to quickly and easily translate large amounts of information and communicate with customers and partners in several languages (Lihua, Zh., 2022). Another study demonstrated how machine translation can facilitate rapid and effective communication between people speaking different languages, breaking down language barriers and ensuring cross-cultural cooperation (Doherty, 2016). The authors Sanchez and Padilla (2020), like the other

authors, compared the speed of machine translation with human translation, showing that in some cases machine translation can be much faster, especially for large volumes of text. These studies provided valuable information about the benefits of machine translation, including its speed and efficiency, and demonstrate how it has become an essential tool for businesses, organizations, and individuals around the world.

However, the following scholars have indicated why they believe accessibility is the most significant advantage of machine translation. Machine translation, in their point of view, is extremely useful in real time. For example, Al-Onaizan and Papineni (2002) presented an overview of the history and future of machine translation, highlighting accessibility as one of its primary benefits. They addressed how machine translation increases productivity and convenience by allowing users to swiftly and easily translate text from anywhere with an internet connection (Al-Onaizan, Y & Papineni, K., 2002). Another study emphasizes the availability of these systems as a key advantage, providing examples of how machine translation systems have improved translation efficiency and convenience, allowing users to translate text in immediately without involving human translators (Liu, Q., Zhou, Y., 2017). Sadrzadeh and Clark (2011) supported the previous theories, assessing its accessibility as a major advantage. Furthermore, another paper explored the advantages and disadvantages of neural machine translation, citing accessibility as a crucial advantage. Way and Koehn (2017) provided instances of how greater availability of machine translation systems has enhanced translation efficiency and convenience, allowing users to translate text quickly and simply. These researchers demonstrated why availability and accessibility are considered as the primary benefits of machine translation by scholars, demonstrating the increased efficiency and convenience that these systems provide for users.



The following authors suggest that when translating specialist materials, machine translation can offer greater accuracy. This means that translating technical and scientific materials may benefit from using specialized machine translation models. According to Cheung and Chan (2019), when domain-specific terminology and language are employed, customized machine translation can offer considerable domain-specific benefits. A customized machine translation model was created for translating medical texts from English to Arabic in a different study by University of Wolverhampton researchers (Abushariah, M. A., Salem, A. A., 2020). As Abushariah and Salem noted, “the model was trained on a corpus of medical texts and was able to outperform a traditional machine translation model in terms of translation efficiency”. The effectiveness of using specialized machine translation to translate scientific abstracts from English to Chinese was examined in a study that was published in the journal *Translational Neurodegeneration* (Zajac, 2019). A custom machine translation model created by Zajac (2019) and tested against a corpus of neuroscience papers was found to be more accurate than a standard machine translation model. The authors concluded that individual machine translation, particularly when utilizing a language appropriate to a given subject area, might be a beneficial tool for translating specialized scientific publications.

Koehn (2017) discussed the advantages of NMT in his book, including enhanced translation accuracy, greater processing of complex phrase structures, adaptation to new languages and topic areas, end-to-end learning, and lower development and maintenance costs.

Overall, his research highlighted the potential of NMT systems to revolutionize machine translation, making it more efficient for all users (Koehn., 2020). In contrast to Koehn, O'Brien (2018) argued about how machine translation could assist translators be more productive, cost-effective, and able to translate enormous amounts of material more

quickly. Machine translation can also provide strategies to enhance quality and preserve translation consistency (O'Brien, 2018). Unlike others, Bowker and Buitrago (2019) focused on the benefits of machine translation for scholars in their book. They suggested that machine translation may speed up the translation of enormous amounts of information, allow academics to more easily access research performed in other languages, and minimize time and resources (Bowker, L., Buitrago S., 2019). Moreover, according to the researchers, nowadays machine translation (MT) programs are widely used regarding of their advantages such as low cost, high efficiency, and quality. Also, machine translation (MT) programs have simplified translation so much that every user can translate text using image translation and speech translation (Wang, H., Wu, H., He, Z., Huang, L., & Church, K. W., 2017).

To sum up, it should be emphasized that machine translation provides several benefits in terms of cost reductions, including decreased labor expenses, greater efficiency, steady quality, and individualized customization. Scientific studies have repeatedly shown the advantages of employing machine translation (MT) for translations. However, in almost all studies, disadvantages of using machine translation algorithms have been identified.

### **Challenges of Machine Translation**

Despite all the advantages of using machine translation programs, unfortunately, there are a number of obstacles that reduce the quality of translation. Even with their rapid growth, the machines are still too weak to know the exact lists of all syntactic constructions possible in a given language, as well as many other things that any self-respecting translator needs to know. In this part of the literature review, modern research on machine translation problems is considered.

These challenges can include issues with word sense disambiguation, idiomatic expressions, and cultural nuances, as well as the difficulty of accurately translating specialized technical terminology. In his article, Neubig (2018) outlined several issues of programs of machine translation (MT) he faced. Data sparsity, where there may not be enough parallel data available for low-resource languages, trouble with rare and unknown words, as well as extended sentences and document-level translation, were among the obstacles. Furthermore, linguistic disparities between languages, as well as domain-specific translation, pose difficulties for machine translation systems (Neubig, G., 2018). Unlike the previous researcher, Koehn and Knowles (2017) recognized six issues with the usage of neural machine translation (NMT) and offered empirical results comparing its performance to classical statistical machine translation (SMT). Koehn and Knowles (2017) highlighted such disadvantages as poor translation quality associated with the rejection of adequacy in favor of smoothness, the volume of training data, unusual words, extended phrases, word alignment and improvement of narrow beams were considered.

First and foremost, I will discuss one of the main challenges of machine translation (MT) - translation of idiomatic words. This problem has been the subject of discussion among researchers for a long time and continues to this day. They are an essential aspect of human language and are widely used in ordinary discussions, literature, and other forms of communication. They do, however, provide a significant challenge to machine translation systems. Machine translation algorithms frequently take a literal approach to language, making it challenging for them to grasp idiomatic expressions (Belinkov, Y., & Glass, J., 2021). This can result in awkward or meaningless translations. Idiomatic expressions are phrases or sentences whose meaning cannot be understood by the individual words they contain (Goyal, R., & Sahu, R., 2021). Idiomatic expressions are generally difficult to translate straight and require a deeper grasp of the culture and context to convey the

meaning effectively (Och, F.J., & Ney, H., 2003). Furthermore, grammatical differences between languages provide significant challenges to machine translation systems. Grammatical structure such as word order, verb tense, and noun terminologies differ significantly between languages, making machine translation systems challenging to generate accurate translations (Koehn P. , 2010). Cultural references and local dialects can also pose significant challenges to machine translation systems. Different cultures have unique expressions and references that may not exist in other languages, which can be difficult for machine translation systems to interpret (Jiang, J., & Zhou, Z., 2018).

For example, Goyal and Sahu (2021) investigated the usage of idiomatic terms in machine translation from English to Hindi. They discovered that idiomatic terms were frequently translated inaccurately, making the translations difficult to interpret. The author claims that machine translation of idiomatic phrases is not only inconvenient, but also fundamentally destroys the sense of the original expression. In the same way, Zhou et al. (2020) studied the usage of idiomatic expressions in machine translation from Chinese to English. They discovered that idiomatic terms were frequently mistranslated or omitted, resulting in translations that missed the nuances and humor of the original text. Furthermore, Belinkov and Glass (2019) investigated the performance of modern machine translation systems on a data set comprising idiomatic idioms. They discovered that even the most prolific systems have difficulties correctly translating idiomatic idioms, and translations are frequently either partial or wrong. The text was translated literally by machine translation, which left out the idiomatic meaning of the expression.

A number of recent researches have shown that modern NMT systems are problematic when translating rare words. Although this disadvantage can be eliminated at this stage by using the attention mechanism to copy rare words, this approach is unreliable at scale because the quality of alignment varies depending on the language and the hidden

alignments created by the attention mechanism are unstable. In this case, simple copying may not always be the best strategy for processing rare words, for example, when transliteration appears more appropriate (Zhiltsov, A.A. & Yolkina, N.V., 2017) According to recent research, contemporary neural machine translation (NMT) systems lack stability while translating rare terms, resulting in poor translation quality in particular situations (Wang, X., Liu, Y., & Zhang, Y., 2020). In one study, Liu (2021) examined the performance of various NMT models in the task of translating from Chinese to English and discovered that rare terms were frequently wrongly translated or left untranslated by systems. Similarly, Wang et al. (2020) assessed the translation quality of multiple NMT models in a Korean-English dataset and discovered that uncommon words were the primary source of errors. Currey, Heafield, and Koehn (2019) investigated the ability of NMT systems to translate rare words under resource constraints and discovered that the systems struggle to provide accurate translations of rare terms, resulting in a drop in overall translation quality. They discovered that systems frequently fail to translate unusual medical terminology correctly, which can have major ramifications in the medical industry. These investigations offered more evidence that machine translation programs have trouble interpreting rare words, implying that this is a continuous and complex problem for modern NMT models.

The next major problem of machine translation is ambiguity in machine translation. Problem areas, because words can have multiple meanings, and determining the correct meaning in context is a difficult task for machines. According to the authors, ambiguity is an important obstacle in machine translation since words and phrases can have numerous interpretations depending on context (Luong, M. T., Pham, H., & Manning, C. D., 2015). Koehn (2010), an esteemed scholar and expert in the subject of machine translation, has written extensively about the difficulties of translating from languages with differing

structures and how ambiguity can be a major obstacle to obtaining correct translation. Koehn (2010) emphasized the problems of dealing with ambiguity in machine translation, particularly when translating between languages with differing syntactic patterns. Artetxe's research has led to a better understanding of why perfect machine translation necessitates a vast number of models and a massive amount of high-quality training data. Unlike the previous author, however, the writers suggested viable remedies to this dilemma. To address the need for high-quality training data, the ideal way is to employ semi-supervised or non-supervised learning approaches that rely on unidentified data to train the model in addition to restricted annotated data (Artetxe, M., Labaka, G., & Agirre, E., 2019). Other scholars have proposed employing interlanguage transfer learning to improve the performance of low-resource languages (Chen, Y., Li, X., & He, X., 2021).

Furthermore, machine translation (MT) has some limitations, according to Liu and Xia (2018), such as the inability to offer reliable translations of PDF formats. Furthermore, as Hutchins and Somers (1992) pointed out, the strength and dependability of internet access can alter the quality of MT. These constraints may affect MT's overall efficacy as a translation tool.

Summing up, it is important to emphasize the fact that machine translation in the 21st century continues to face a number of problems, especially when it comes to the idiomatic expressions, rare or low-frequency words, cultural nuances. These problems can make it difficult for machine translation models to create accurate and natural-sounding translations that accurately reflect the correct meaning of the source text.

### **The role of machine translators in the life of translators**

Advances in computer technology have resulted in a new understanding of functional translation theories, which emphasize the significance of translating with a specific objective and a focused approach. Historically, translators used typewriters or pens

and paper. However, as technology has advanced, the period of high technology has delivered not only a new tool to the entire human race, but also a new tool to translators. This section of literature review is aimed to define the recent and previous researchers where described the role of machine translation programs in the life of translators or the impact of machine translation (MT) to the workflow of translators.

Machine translation has become an integral part of the translation industry, with a considerable impact on the job of human translators. With the introduction of advanced neural machine translation systems, translators are becoming increasingly reliant on artificial intelligence (AI), which aids in the effective execution of high-quality translations (Bezdorozhev, 2013).

The market for language services and technology on a global scale was appraised at \$49.6 billion in 2019, with machine translation constituting a considerable segment of the industry, as revealed by the report by Common Sense Advisory (Common Sense Advisory, 2020). According to Islamov and Fomin (2013), people have come to rely on machine translation software due to the quick speed of technology advancements and the volume of data to be processed. Furthermore, Garcia (2019) agreed with the authors by emphasizing how the advancement of machine translation can generate new opportunities for human translators. The expansion of artificial intelligence systems may boost the demand for skilled translators who are experienced in collaborating with these systems to improve and optimize their outputs (Garcia, 2019).

Many scientists, both domestic and foreign, such as Wilks, agree that machine translation is presently in an evolutionary and quality-improvement stage. As Wilks (2009) stated, the majority of programs of machine translation (MT) product consumers are pleased with the quality of automated translation, which presently accounts for 65-70% of accurately translated sentences.

Koehn (2010), after analyzing various approaches to machine translation in his research and presenting an overview of the statistical machine translation (SMT) paradigm, which is the most commonly used type, stressed that every day, more and more users, including translators, have become hostages of artificial intelligence. The main researchers focused on the function of machine translation (MT) as a tool that can help human translators. Nevertheless, it is important to pay attention to the modern role of machine translation in connection with colossal changes and technological developments. For example, O'Brien and Coughlin (2019) did a study in which they discovered that a machine translation programs can help human translators complete more work in less time, enhancing their productivity. Furthermore, the authors highlight the utility of MT in simple and clear translation jobs, allowing expert translators to focus on more complicated and subtle aspects of the text. They stated authors that by employing MT as an additional tool, human translators can enhance their productivity and translation quality, resulting in more effective cross-language communication (O' Brien, S., & Coghlan, D., 2019). They did, however, point out several limits of machine translation, such as the lack of accuracy and the risk of cultural misunderstanding. Plitt and Musselot (2020), who concur with the aforementioned author, investigated how MT can be utilized as a collaboration tool between human translators and MT systems, enabling them to cooperate to produce high-quality translations. These authors, in contrast to other authors, focused on the significance of instructing human translators in the efficient use of MT tools and technologies and highlighted the need for more study in this field to better comprehend the benefits and constraints of MT in translation workflows (Plitt, M., & Masselot, F. , 2019)

In comparison with previous studies, Bendazzoli and Lavaur (2018) conducted a study on the influence of excessive non-professional use of machine translation on translators' professional identities. According to the study, some translators may highly



rely on machine translation, giving the impression that their involvement in the translation process is being marginalized (Bendazzoli, C., & Lavour, J. M. , 2015). Similarly, Sanchez-Thorne and Fernandez-Marra (2020) investigated the difficulties related with incorporating machine translation into the translation works. The authors have pointed out the possibility that translators will struggle to adapt to new technologies and become unduly reliant on machine translation, perhaps resulting in a decline in translation quality (Sánchez-Tornel, M., & Fernández-Parra, M. , 2020).

Moreover, Corpus Pastor (2021) examined how machine translation might benefit translators and its possible impact on their profession in her article. It indicates that machine translation can be used to assist human interpretation by delivering quick and accurate translation of unknown terminology and idioms. When discussing the importance of machine translation in the life of a translator, the Corpus Pastor stated that it can be advantageous when working with a large quantity of materials and technical translations that require unique vocabulary. As a result, she believes that machine translation should be used to help human translators, not as a substitute for them (Corpas Pastor, 2021). According to the findings of a quantitative survey of Zaretskaya (2015) that measured the amount of usage of machine translation programs among translators, most translators considered advances in the field of MT as a positive process that may improve their income and productivity (p.10-11). Even though some translators still see high-quality machine translation as a threat to their career (Zaretskaya, 2015).

In general, these studies illustrate the possible specific role of machine translation (MT) programs as a tool in the life of translators. Although machine translation cannot replace human translators, it can only be used to supplement and improve their work. In addition, when working with machine translation programs, they allow the translator to

focus on more complex text or terms. However, there is a risk that translators would become unduly reliant on machine translation and disregard their professional job.

### **Summary**

The background of machine translation software is covered in the literature review for this study, with a focus on current and historical definitions of machine translation (MT). In addition, the previous studies mentioned in this chapter contain information about the disadvantages and advantages of a machine translation program. Moreover, demonstrating existing studies, articles and books, I have showed the role of machine translation programs in the life of translators.

However, the sources discussed in this chapter do not indicate the specific role of machine translation programs in the life of Kazakh translators. Unfortunately, the theoretical works presented do not show us which specific positive aspects of using machine translation have made the work of translators effective or have made them their hostages.

Nevertheless, in the following sections of the study, the specific function of machine translation programs in the lives of translators in Kazakhstan will be explored, as well as the problems and advantages of automatic software that affect their performance.

## **Methodology**

In this research, the methodology part will give a clear and detailed explanation of the research design, research sample, research method, and ethical considerations that have been followed by the researcher also limitations will be highlighted.

The goal of this research is aimed to examine the precise function of machine translation tools and how they affect the work of qualified translators. To better understand the function of machine translation in the translation process, research on the subject of translation studies will be carried out.

Pursuing this goal, the dissertation is aimed to study several research questions:

1. What is the specific role of machine translation in the life of translators?
2. What are the key peculiarities and limitations of current machine translation programs

Studying these research questions, the purpose of this study was to identify the advantages and challenges of machine translation systems in the context of professional translators in Kazakhstan and other countries. Additionally, this study will help us understand professional translators' experiences and perspectives on machine translation. It will also help us make recommendations for translators and translation companies on how to best use this technology in our work.

The methodology section played a crucial role in outlining the procedures and techniques in the research. The methodology is divided into the following subheadings: (a) research design, (b) research sample, (c) research method, (d) ethical considerations, (e) data analysis, and (f) limitations.

## **Research Design**

The goal of this section is to discuss the study design employed in this research. The implementation of a suitable research project becomes necessary for the process of adequate research.

As a researcher, I used the methodology of qualitative research to conduct in-depth research, achieve research goals, and answer research questions. Qualitative research makes it possible to delve into deep motives, preferences and experiences that are often not obvious to the translator himself using machine translation. This approach focuses on the description of phenomena and does not prioritize forecasting, unlike quantitative research. Qualitative research includes various methods such as literature review, case studies, discourse analysis, focus groups and interviews to explore people's experiences, thoughts and ideas (Creswell, J. & Creswell, J., 2009).

According to Creswell (2011), qualitative research is distinguished by an in-depth examination of occurrences in their natural settings to comprehend the meaning and interpretation of participants' experiences. I will utilize a qualitative technique in this study since it will help me to better understand the participants' experiences and viewpoints on the issue under study. According to Merriam (2009), qualitative research allows researchers to get a nuanced and thorough picture of the topic under investigation by investigating participants' different viewpoints and experiences. Furthermore, as Charmaz (2006) found, qualitative research methodologies such as observations,

By Merriam (2009), qualitative research enables researchers to gain a nuanced and comprehensive understanding of the phenomenon under study by exploring the diverse perspectives and experiences of participants (Merriam, 2009). Furthermore, as Charmaz (2006) noted, qualitative research methods such as observations, interviews, and other

data-gathering methods can give rich and thorough data that can lead to the development of new ideas and hypotheses.

After studying all qualitative designs, I decided to use the interview-based, as with the help of it there was a high probability of finding an answer to my research questions. According to Bryman (2016), in qualitative research, participants are interviewed in order to learn more about their real-world experiences, attitudes, and behaviors (p. 397). The choice to use an interview-based design can be supported by a number of elements, including the requirement for a more in-depth comprehension of the research topic, a participant-oriented approach, flexibility, and the capacity to gather large amounts of data (Bryman, 2016). Another benefit of using interview-based design is its adaptability, which allows the interviewer to change his strategy depending on the participant's responses or ask additional to get further information to help answer to their research questions (Flick, 2018, p. 158). Moreover, as Flick (2018) noted, "this adaptability can be especially helpful when researching sensitive or complex subjects because it enables researchers to modify their strategy in the moment to ensure that participants are at ease and comprehend the study's objectives" (p. 160). Furthermore, in accordance with Seidman (2013), throughout history, people have relied on retelling their experiences through interviews, and researchers have used it as a primary method, turning interviewing into a fundamental way of conducting investigations (p. 8). Understanding the experiences of people whose lives reflect these concerns is an effective technique of gaining information about societal challenges (Seidman, 2013). Also, Seidman (2013) pointed out that the most reliable method for investigating people's ability to construct meaning through language is through interviews (p. 14).

However, despite all the limitations of using interview-based design, there are several limitations that the researcher should be aware of. One limitation is social

desirability bias, which may cause participants to provide responses that they think are socially desirable or acceptable, rather than their true thoughts and behaviors (Rubin & Rubin, 2011). Another issue is the interpretation of data gathered with its assistance, as there are no clear guidelines on how to proceed (Flick, 161, p.161).

This study's research method began with the formulation of a research problem, which was followed by the formulation of a research aim and research questions. Based on study questions, data collecting instruments were created, including an 8-question interview process. The interview methodology was tried on three individuals and then modified as needed.

To make sure that participants were properly informed and provided their interview consent form to participate in the study, ethical issues were considered. After selecting 12 participants, the information was gathered through individual interviews that were audio recorded and verbatim transcribed. A thematic analysis method was used to examine the encrypted data, which involved finding themes and patterns in the data. To offer a thorough knowledge of the study phenomena, the subjects and patterns were then categorized into more general categories. To get a deeper grasp of the research issue, a questionnaire was also created based on the data gathered during the interview and disseminated to a wider sample of participants.

The adoption of an interview-based design allowed for the collection of rich, comprehensive information about the participants' perspectives and experiences. Furthermore, the theme analysis technique enabled us to gain a thorough comprehension of the studied topic. The questionnaire provided a broader perspective on the research issue and allowed for the comparison of replies from various participants. In general, the combination of various data-gathering to a trustworthy and thorough grasp of the study issue.

In conclusion, it should be noted that the research approach in the study was qualitative, with interview-based design. The methodology was considered acceptable because it allowed for an in-depth analysis of the participants' experience and points of view on the topic under study. The combination of interview-based data collection methods and thematic analysis methodology made it possible to obtain and analyze extensive, detailed data, which led to a deep understanding of the research problem.

### **Research Sample**

The purpose of this section is to describe in detail the sample of participants in this study. The 12 experienced translators were selected using purposive sampling. Purposive sampling is a probability-free strategy in which participants are selected based on specific qualities relevant to the research problem (Creswell, J. W., 2014). The purposive sample, according to authors Kvale and Brinkmann (2009), is used to choose participants based on their knowledge and experience in the field of the research subject, and to employ this sort of sample, people who have encountered the phenomena under investigation must be identified. According to Patton (2015), the sampling strategy in qualitative research differs from the approach in quantitative research. The first entails planned participant selection rather than random selection (Patton, 2015). In the current study, 12 translators participated in data collection and were chosen based on their expertise and qualifications in the field of consecutive and simultaneous translation. Six experienced translators were chosen from the Mabetex group, including four from the Astana branch and two from the corporate office in Lugano. All participants had at least two years of building translating experience. The research included a broad range of participants, each with their own set of qualifications and expertise in translating.

The sample included three individuals with a Master's degree in translation, one of whom works as a translator in the Ministry of Defense of the Republic of Kazakhstan,

while the other two work as office managers while also offering translation services. The research also included one participant with a bachelor's degree in translation. This participant finished translation studies in Kazakhstan and is now studying in America through the Bolashak program while also working as a translator. Finally, a National Geographic translator with more than five years of expertise was included in the sample after a comprehensive search procedure. After a lengthy search, the final participant in this research was located in one of Astana's translation firms.

It should be mentioned that the sample's variety was a planned feature of the study's design, to represent a wide range of points of view and expertise in the field of translation. The inclusion of persons with varying levels of education and professional attitudes helps the study's external dependability and guarantees that the findings are relevant to a broader range of circumstances. When selecting participants for my study, I create a precise set of criteria to guarantee that we have recruited people with the required abilities and expertise to offer relevant information on the subjects under investigation. I was specifically searching for people with at least six months of translating experience. Additionally, I made sure to select candidates that were enthusiastic and eager to take part in my interview process, which was a crucial step in our data-gathering procedure. The participants in the research ranged in age from 23 to 40.

The Mabetex group was chosen as the data-gathering site for this project. Mabetex was a suitable site for the study since it is a significant worldwide construction firm with subsidiaries in several countries, including Astana and Lugano. Interviews were performed with six experienced translators, four of whom were based in Astana at various building sites, and the remaining two at the company's headquarters in Lugano.

Participants were interviewed to gather data; the format of the interview changed based on the participant's location. The four participants with Astana residences underwent



in-person interviews over a period of three weeks at the Mabetex office. The interviews were performed during breaks and over a cup of tea or coffee, and consent papers were given to each participant before the interview. A warm and calm atmosphere was also created.

Due to logistical constraints, online interviews were done for the two participants stationed in Lugano. Before the interviews, participants were emailed consent forms and a set of interview questions via email. Zoom software was used for the interviews, which allowed for real-time video and audio communication. Overall, the choice of the Mabetex group as the study's venue, as well as the utilization of varied interview methodologies based on the participants' locations, aided in ensuring a strong and thorough data-gathering procedure. A previous study has demonstrated that when participants cannot meet in person owing to geographical or logistical restrictions, online interviews are an acceptable and effective tool for qualitative research (Braun, V., & Clarke, V., 2013). (Braun, V., & Clarke, V., 2013).

Except for one, a series of online interviews were undertaken to gain further information on the participants' experiences with machine translation and its significance in the translation business. The participants were requested to identify their availability to arrange the interviews, and a permission form and list of questions were delivered to them through WhatsApp. After the participant completed the consent form, one interview was performed offline at my house.

Participants were questioned about their experiences with machine translation programs and their thoughts on the future of machine translation in the translation business during the interviews. Open-ended questions were given to elicit elaborate replies, and attempts were made to establish a pleasant and relaxed atmosphere during the interviews.

The participants requested that the interviews be performed online, and their anonymity was preserved throughout the procedure to guarantee their confidentiality. Overall, these interviews offered useful information on the participants' experiences with machine translation and their ideas on its future in the translation business.

The sampling strategy used in this study allowed for the selection of persons with the necessary experience and knowledge to contribute meaningfully to answering the research topic. The purposive sampling approach was used to choose 12 participants based on unrelated research topic criteria, as well as their experience and skill in the subject area. The study was able to collect information from a wide range of participants while ensuring their anonymity and confidentiality by using both face-to-face and online interviews.

### **Research Method**

The importance of carefully choosing a suitable qualitative research method for a particular study cannot be overestimated, since this affects the relevance, completeness and reliability of the data obtained. As mentioned earlier, I chose a qualitative research design that includes many approaches from which researchers can choose. The effectiveness of scientific research largely depends on the choice of an acceptable qualitative research method, since an insufficient approach can lead to incomplete or distorted data, which will prevent the researcher from understanding the topic under study (Maxwell, 2013).

#### ***Semi-structured interview***

Qualitative research methods cover a wide range of methods that can be used to collect data and analyze phenomena. According to Denzin and Lincoln (2018), case studies, focus groups, interviews (structured, semi-structured or unstructured) and observation are the most common methods used by most researchers (Denzin, N. K., & Lincoln, Y. S., 2018).

Based on the two proposed qualitative research questions, it seemed that the research technique of interviews will be appropriate for examining the experience, perception, and attitude of translators toward machine translation to define a specific role in their life. The interview-based research technique, as defined by Creswell (2014), is a qualitative research approach that entails conducting interviews with participants to collect data and comprehend a certain topic or phenomenon. If we pay attention to Dörnyei's research (2007), he supported his colleague supporting that interviews are a crucial tool in qualitative research as they offer significant insights into individuals' thoughts and emotions. Additionally, the maid in recognizing themes and patterns in the data, contributing to a comprehensive analysis of the subject matter (Dörnyei, 2007). According to Spradley (1979), an interview-based research approach allows researchers to study social and cultural situations in depth, helping them decipher the meaning behind people's views and behavior. There are several types of interviews, including structured, unstructured and semi-structured interviews, each of which has its own set of advantages and disadvantages. As a researcher, I have carefully considered the research question, the research objectives, and the advantages and disadvantages of each type of interview before choosing the most appropriate method.

By Creswell (2014), there are three primary interview types, namely structured, unstructured, and semi-structured interviews. Structured interviews use a set of predetermined questions that are asked in a specific order to maintain consistency. Nevertheless, critics argue that structured interviews may not provide a complete understanding of participants' points of view and experiences, and they may limit participants' ability to fully express themselves due to the fixed nature of questions and answer options (Kvale, S., & Brinkmann, S., 2009).

Semi-structured interviews provide a balance between structure and flexibility, allowing deep exploration of participants' experiences and perspectives, as well as a series of open-ended questions that guide the interview and also allow the participant to shape the conversation (Denzin, N. K., & Lincoln, Y. S., 2018). For my research, both semi-structured and structured interviews can be effective data-gathering approaches. However, after weighing the benefits of each strategy, I chose the semi-structured interview method. This decision was taken because of the benefits that this technique provides in terms of flexibility and the potential to acquire rich and diverse data.

As a researcher, my goal was to determine the specific role of machine translation in the life of translators based on their real experience, determining which advantages make machine translation dependent on translators and which disadvantages of machine translation do not make translators completely hostage. First, as Braun and Clark (2013) noted, semi-structured interviews provide more flexibility for both the researcher and the participant, allowing participants to expand their answers or provide additional information.

In addition, semi-structured interviews ensure researchers a valuable opportunity to ask more about specific topics or ask additional questions in more detail. In the role of researcher, I presented participants with the opportunity to shape the direction of our conversations during data collection and to explore three distinct research questions. Moreover, numerous researchers have conducted a comparative analysis of the use of structured and semi-structured interviews as data collection methods in the field of qualitative research. For instance, the research of Knot and Scragg (2016) has shown that the flexibility and comprehensiveness of the semi-structured interview approach allowed for the collection of rich and detailed data from participants regarding their experiences, in contrast to the more rigid approach of the structured interview.

### ***Expert Content Validation of interview questions***

The Expert Content Validation approach was employed to assess the extent to which the interview questions supported the research objective and questions. The three respondents, who were thoroughly familiarized with the 12 interview questions, were instrumental in confirming the validity of the research methodology and interview questions.

Despite the difficulty of identifying suitable experts, the three respondents who were selected from my workplace consisted of two engineers and one assistant architect.

The experts identified some grammatical errors in the interview questions, and two of them recommended deleting the last three questions. According to experts, the remaining ten questions comprehensively covered all research questions and also objectives. The third expert agreed with this opinion, arguing that additional questions would only serve as a waste of time for the participants.

In conclusion, the approach to the verification of expert content provided an opportunity to clarify research questions, which led to their better formulation. Consequently, I removed the last four questions and improved the clarity and effectiveness of the interview.

### ***Process of data collecting using a research method***

Twelve translators with at least six months of experience in the field participated in semi-structured interviews, as detailed in the research methodology portion of this study. The interview questions focused on determining the true function of machine translation tools in the work of translators as well as the benefits and drawbacks of employing these tools.

Data was collected through semi-structured interviews that were conducted between January and March, with more than half of the interviews conducted over the phone or via the ZOOM software due to participants' requests. Despite these limitations, the collected data adequately addressed all research questions. The interviews were conducted ethically, with participants providing their answers and sharing personal experiences, including cheating moments in their work or study using machine translation programs.

Each semi-structured interview lasted between 10 and 20 minutes. Before the commencement of each interview, the goal and topic of the study were presented to the participants, who were given ample time to think about this problem and grant their consent. Each interviewee was given a welcoming environment that encouraged truthful and quality responses.

To summarize, I picked the semi-structured interview approach because it is flexible and enables the collection of rich and diverse data. Semi-structured interviews provide a compromise between structure and flexibility, allowing you to delve deeply into the experiences of the participants. Peer evaluation of the material was also employed to determine how well the interview questions aligned with the study's goal. Three experts validated the correctness of the interview questions and suggested that some be removed.

### **Ethical Considerations**

The Research and Ethics Committee of KAZGUU university has approved permission to conduct this research. It is important to observe ethical considerations when conducting research. Each participant got interview consent form (Appendix B) for an interview with an explanation of the goal of this study, in compliance with ethical norms and to avoid disagreement between the parties. The participation of each translator was

entirely voluntary. Before the interviews began, the participants were given all of the necessary study information and the opportunity to refuse to any interview question. The form includes details about the study's goals and interview questions, as well as the safety measures taken to guarantee participant anonymity and informed consent. To prevent any misconceptions during the conversation, the study's objectives and interview questions were explained to all 12 participants.

As noted by Bryman (2020), “ethical consideration in research is a set of ethical principles that researchers must follow during their research to ensure that they conduct their research in good faith while keeping the rights and well-being of the participants in mind.” According to Feynman (2016), when carrying out research in scientific fields, it necessary to be truthful, not to fool yourself or others, and to speak out not just the data that support but also those that contradict a theory.

### ***Naming of Participants and Research Sites***

Identifying the specific role, disadvantages and advantages of machine translation (MT) programs in the lives of 12 participants was the most important aspect of my research. But when it came to interviews, many participants didn't want to participate because of confidentiality. Protecting the privacy of participants and ensuring their interest to take part in the study required keeping confidentiality and anonymity. I developed an interview consent form as a researcher that assured participants that their information would be treated in confidence and that their identity would be kept secret. Names and other personal data have been changed to protect their privacy. Participants were only given identification cards with the numbers "Participant 1" through "Participant 12" on them in order to protect their identities. Any information that could establish their personal information was deleted

First and foremost, it was initially challenging for me to obtain their permission, because of I am their colleagues, but after reading the consent form for interview and objective of research, they agreed.

### **Data Management**

I'd like to highlight the importance of effective data management in order to protect participants from harm. All data gathered throughout the study was securely maintained on a personal laptop that required a password to access. I was the only person who had access to this information, and all identifying information on my work computer was deleted. All files on my phone and WhatsApp messages were removed after decoding.

To sum up, this section highlighted ethical considerations in research, especially in terms of protecting the confidentiality and anonymity of participants. As a researcher, I received ethical approval and made sure that all identifying information was removed from the non-reliable devices and securely stored to protect the confidentiality of participants.

### **Data Analysis**

This section describes the data analysis steps that I used to interpret the results. Data analysis is an important part of qualitative research (Silverman, 2016). As stated by Bloomberg and Volpe (2008), this section describes how the researcher maintains, organizes, and analyzes the obtained data in preparation for presenting the findings. Furthermore, Miles and Huberman (1994) stress the significance of data analysis in research, noting that it is in this area that the researcher demonstrates his capacity to understand the data.

I conducted twelve semi-structured interviews, each lasting 10 to 20 minutes, using my iPhone recorder. I edited the recorded interview on my phone, decreasing the noise and speed. I stored each interview as a separate file on my laptop for future data processing



convenience. I also copied the data and saved it on another hard disc. The file was converted to mp3 format and stored on Google Drive.

### ***Transcribing Process***

The initial step in the encoding procedure was to write down the audio recording of the interview. To convert spoken words into text, I did not utilize a transcription program. Each interview was manually recorded. Each semi-structured interview took me twelve days to transcribing. Unfortunately, I came into several types of issues during the transcription process. Fortunately, the difficulties did not affect the quality of the decrypted text.

Among the problems were repeated words of participants, such as "I think", "you know", "how", language accents and disparate ideas. I did not record nonverbal signals, pauses or intonations of the respondent. It should be emphasized that throughout the decryption process, I made sure that the decrypted text accurately reflected the information transmitted during the interview.

### ***Initially Reading***

After completing the transcription process, I read the transcripts to thoroughly familiarize myself with the content and topics. Throughout this procedure, I have been highlighting phrases or terms that would be interesting to me and relevant to the research topic. These procedures helped me get a preliminary understanding of the data and helped in the further coding process.

### ***Coding Process***

First, I looked through the material several times to gain a thorough knowledge of its contents. This assisted me in gaining a clear image of the data as a whole. After evaluating the data, I utilized a method known as coding to identify major themes and

patterns. The process of assigning a brief word or phrase to represent a significant feature or essence of collecting qualitative data, such as text or visual information, is known as coding (Saldaña, 2015). To do this, the data had to be split up into smaller segments, and each segment's contents were given a code. I was able to systematically find reoccurring thoughts and ideas in the data by employing this method. Researchers can use coding to divide huge amounts of qualitative data into smaller, more manageable units, which can then be evaluated and interpreted (Charmaz, 2006).

After manually encoding the data, I used a computer program called NVivo to further analyze it. NVivo is software that enables researchers to explore and identify patterns, themes, and correlations in their data, as well as visualize and present their findings in a variety of forms (Creswell, J. W., & Poth, C. N., 2018). To start the coding process in NVivo, I gave 12 interview titles and tagged them according to the participants. I entered the 12 project files into NVivo and then highlighted the relevant text. Then, based on the research questions as well as the patterns and themes I discovered, I developed a coding scheme. The coding scheme included general codes as well as sub-codes that corresponded to different aspects of research issues.

In the margins of the transcripts, I highlighted the corresponding text and added a descriptive code next to it. For instance, I discovered that a lot of codes are connected to disadvantages of MT programs, so I made a category named «Challenges of using MT», and included all the pertinent codes under it. I kept going until I got several categories that reflected the key themes of the conversation. At the end of the coding process, I examined the categories and codes to determine the role of MT programs in the life of participants to answer the main research question. Also, I looked for connections or trends between the categories and codes. Through this procedure, I was able to gain a more nuanced picture of the participants' MT experiences and pinpoint important areas that needed more research

for the analysis. The codes that appeared were «Disadvantages of using MT», «Advantages of using MT», «Influence of MT to the workflow of translators », and «MT programs in Translator's Life». Open coding helped to identify important topics and patterns in the data that will be shown at the Findings and Discussion stage.

Summing up, we can say that data analysis was an important part of qualitative research, which included decoding, reading and encoding data to extract significant topics and patterns. A computer program called NVivo was used to further analyze the data and develop the coding scheme. The coding process helped me get a more detailed understanding of the participants' experience in machine translation and identify important topics and patterns in the data.

### **Summary**

This chapter explains the methodological components of this study in detail, including research design, sampling, research method, ethical issues, data analysis, and study limitations.

## **Findings**

This study's objective was to illustrate the specialized function of machine translation software in the work of translators, as well as to evaluate the benefits and drawbacks of using it. The use of machine translation currently has issues that can decrease the quality of translation, and these issues were given particular focus in this work. Additionally, benefits of adopting machine translation have been found to positively impact translator effectiveness.

This chapter illustrates the research's findings based on the analysis of 12 semi-structured interviews in which 12 translators took part. Twelve semi-structured interviews were performed as part of this study to examine the concrete role of machine translation (MT), drawbacks and traits of machine translation (MT) and how they affect the work of professional translators. Twelve semi-structured interviews were conducted over the course of two months, with the participation of six translators from the Mabetex construction company, three translators with master's degrees, one student from the Bolashak program who has a bachelor's degree in translation, one translator from an Astana translation agency, and one translator from the National Geography of Kazakhstan magazine.

I divided findings into three clusters to achieve the purpose of the research and answer research questions. The following groups were divided into: “Advantages of using machine translation (MT)”, “Disadvantages of using machine translation (MT)”, and “Role of MT programs in Translator's Life”.

### **Advantages of using MT**

Two questions (question 1, question 3) out of eight semi-structured interviews were aimed at determining the advantages of using machine translation in work. First and foremost, with the help of the first question, I decided to determine their use experience.

As a researcher, I had to make sure that all the selected participants were active users of machine translation programs. All respondents answered that they are all active users of machine translation systems. Many of them listed the names of machine translation programs and their advantages, and some said that they used them in written translation, only one participant (Participant 8) said that she started using them only as they became more developed. After analyzing the third question, according to the answers of the participants, I identified four important and main advantages of machine translation.

### ***Timesaving and speed***

It's hard not to notice how all the participants answered the question about one of the most important advantages of machine translation - saving time. The translator of the Ministry of Defense of the Republic of Kazakhstan, three translators of construction company, and translator of National Geographic Qazakhstan (Participant 1, 4, 9, 11, 12) replied that machine translation can significantly save time and economize the energy with a large volume of documents consisting of 20-30 pages when deadlines are compressed. The next participant with master's degree in translation studies (Participant 2), responded that due to the use of translation software he has an opportunity to save her time and effort. The participant 3 answered that she uses them when she doesn't want to waste her time. Contrary to other participants, Participant 5 highlighted that thanks to the quick translation of machine translation programs she could good relationship with her boss. Another translator of the construction company Mabetex group (Participant 6) briefly answered the third question, saying that the main advantages of using machine translation are speed and time savings. The student of the Bolashak program (Participant 7) said that using machine translation (MT) saves time when it comes to fast translation of articles, books, and written translations. The next translator from Mabetex company (Participant 8) replied that the

advantages of an automatic translator are to save time, since the participant values his time very much.

### ***Large selection of languages***

According to answers, the second advantage of using software for automatic translation is a large selection of languages. The five participants in the semi-structured interviews appreciate them because they allow them to utilize languages other than their working languages. Despite the advantages of speed and time savings, student of the Bolashak program (Participant 7) frequently use machine translation services to translate their academic papers into other languages such as French and Spanish. The construction company's translators (Participants 4, 5, 12, 8) stressed the use of machine translation to produce high-quality translations into any language. This benefit is especially essential for professional translators, who sometimes operate under strict deadlines and are confronted with a language other than their working languages that they cannot leave without translating. Machine translation enables translators to easily build translations of texts in various languages. Participant 5 shared a fascinating experience she had at work when the translator carried out so well with the language that the native speaker did not notice the difference and found a mistake.

### ***Low cost and availability***

In addition, the development of machine translation has made translation services available to all users with limited financial resources. For example, especially small companies and freelancers with limited funds can use machine translation systems not only to translate their translation works, but also personal materials. The translator of the Ministry of Defense (Participant 1) of the Republic of Kazakhstan expressed that different texts can be translated, or a ready-made human translation can be checked in a variety of machine translation tools. And it's all free, from Google Translator's basic statistical

machine translation to more advanced programs like DeepL and Multitran. Students with a master's degree (Participant 2, 3) noted that one of the advantages of using them is the ability to check the text translated by a person and correct some grammatical and translation errors. Unlike other participants, the translator from Mabetex group (Participant 6) emphasized not only the availability of machine translation (MT) programs. Moreover, this participant answered the third questions, because one of the advantages of using them is their modern approach, which allows them to use a smartphone camera. Another colleague (participant 8) briefly spoke about the advantages of machine translation in terms of their cost efficiency. Also, the translator (Participant 10) of one of the translation agencies replied that, in her opinion, these programs open the way to a large vocabulary. In general, semi-structured attendees agreed that the availability and cost-effectiveness of automatic translation systems make them advantageous.

### **Challenges of Using machine translation (MT)**

#### ***Low accuracy and poor quality***

It is believed that translators usually work with texts related to a particular topic or topics with which they are more familiar, such as medical texts, construction texts, legal documents, and texts about their studies. However, many translators during the interview talked about the low accuracy and quality of machine translation, which limit their use. This seems to be expected, because despite the improvements in the machine translation system, they are still weak when it comes to phraseological units, terms, jokes. When it came to the biggest disadvantage of machine translation, nine out of twelve participants actively replied that the main problem with using these programs is low accuracy, which leads to poor quality.

According to a freelance translator with experience in literary translation (Participant 2) and translator of Mabetex group (Participant 6), machine translation lacks sensibility in

which cannot translate literature and jokes. The translator underlines the relevance of human translators in addressing literary works' beauty and originality. Also, comparable to Participant 6, translator of Mabetex group (Participant 8), responded that during the translation of humorous texts, approximately all programs lose the meaning of translation giving the poor-quality translation. Moreover, participant 8 and participant 12 gave an example that, relying on machine translation, they faced uncomfortable situations at their work. A translator from a translation agency (participant 10) in Kazakhstan said that machine translation (MT) programs translate one word with different meanings, while applying a different meaning and translating. It is emphasized that when translating, the whole meaning of the sentence is lost and a clumsy, incomprehensible structure of the text is obtained.

### *Usage Limitations*

One of the limitations of implementing Machine translation (MT) tools has been recognized as the limiting of use. Four experienced translators emphasized that this challenge is the most difficult problem they face while translating after low accuracy issue.

The Ministry of Defense translator (Participant 1) stated that while there are no major issues with using machine translation tools, there are some limitations to their free use, as well as restrictions on translating long documents and documents in PDF format.

This answer is noteworthy because it emphasizes the cost and availability advantages of employing MT tools. It also underlines the restrictions that may exist when utilizing free versions of these programs, such as issues translating huge texts and papers with unique formatting requirements. The response of Participant 1 is supported by translator of Mabetex group. When translating lengthy papers in PDF format, the translator (Participant 9) discovered that the translation was constantly lost. Moreover, another



translator from the Mabetex group (Participant 6) said that there are restrictions on the use of machine translation (MT) programs when it comes to using functions such as audio translation. Contrasting with the other three participants, the translator of Mabetex group (Participant 4) stressed one of the most significant issues while utilizing them during the interview - the dependence of these programs on the Internet. MT tools need on online access to function, unlike conventional translation techniques, which do not. This reliance on the Internet may be a drawback in circumstances when connectivity is poor or nonexistent. People or organizations operating in distant or isolating regions or in nations with poor Internet connection may find this to be a particular difficulty.

Additionally, employing an Internet connection for translation might be a security issue because the sent translated text could be traced or intercepted.

#### ***Low quality of Kazakh language***

Kazakh is a language with complicated morphology and syntax. The users often face mistakes when translating from Russian and English into Kazakh. Today, most machine translation systems, such as Google, Yandex, and Prompt, employ the Kazakh language. Three translators highlighted the low quality of their native language during using machine translation (MT) programs. The low quality of the Kazakh language was the second major issue the translator of the Ministry of Defense of the Republic of Kazakhstan had to deal with. The bad quality of the Kazakh language is what the individual (Participant 1) constantly faces at work, according to participant 1's response. Furthermore, this challenge was highlighted from another two respondents (Participant 3, 9).

To summarize, these respondents (Participant 1, 3, 9) give vital data regarding the usage of MT in Kazakhstan. On the other hand, the Kazakh language appears to be improving in quality. However, apart from Google Translate, Sozdic.kz, and Yandex

Translator, the low quality and lack of adequate tools remain the major reasons why most translators restrict themselves when it comes to their native or state language.

After analyzing the answers of almost all the participants, as a researcher, I realized that in words or articles where it is written that a machine translation program can replace human translators, the problems of machine translation were not sufficiently investigated, and this is possible only in the distant future.

### **Role of MT programs in Translator's Life**

The findings of the study shed light on the role of machine translation programs in the lives of translators. It is obvious that MT programs have become an integral part of the translators' workflow. But their specific role is still unknown. This part will define the specific role of machine translation programs that answer the first research question.

The results of the study indicate that machine translation software has become an essential tool for translators, providing them with access to faster and more accurate translations.

To define the specific role of machine translation tools and answer to the first research question, during the semi-structured interview, I dedicated three questions (Question 5, 6, 8). Participants received questions not just about the specific role of machine translation, but also about its position in the translation business. As a researcher, I did not restrict myself to just two questions; I also asked participants if they could imagine their lives or jobs without these technologies.

All participants in the survey were asked whether they believe machine translation systems would eventually replace translators. The translator of the Ministry of Defense (Participant 1) and translator-freelancer with master's degree in translation (Participant 2) replied that, despite the development of artificial intelligence technologies, MT will not replace human translators, stressing that translators are always needed. Also, the

respondent (participant 2) noted that this is impossible regarding the nuances of the language and the cultural context of languages that even human translators can hardly cope with. The next respondents (participant 3, 4) briefly replied that this would not happen, supporting the colleague's answer. In comparison to other answers, the Mabetex translators' response was interesting, as seen by an unusual example. These respondents said that is possible. The respondents (Participant 5, 6) responded to this question saying that same as pilots operate clever contemporary airplanes, translators will manage translation technologies in the future. However, the response of the next respondent (Participant 7) was positive. According to this participant, translators will be replaced in the future, since they have already become irrelevant in Kazakhstan. The answers of next respondents (Participant 8, 9) were negative. According to them, high-qualified, experienced translators will always outperform any machine translation tool. Other participants (Participant 10, 12) also reacted negatively to this question, stating that translators will not be replaced either now or in the future, since they are now correcting machine translation errors and will be corrected in the future. Another respondent (Participant 11) suggested that in the future translators will be replaced by machine translation. Moreover, the participant said that it was a wrong assumption that he chose the profession of translator, thinking that this is a sought-after profession. In general, based on the responses to the fifth question, I determined that eight participants stated that machine translation could not replace translators, only one stated that they would do so, two translators stated that, regardless of advancement, human translators would always manage them, and only one answer was vague, but close to the answer is the possibility of replacement.

The question that follows proves to be interesting: What function does machine translation play in the life of human-translators? The participants (Participant 1, 2, 6, 9, 10)

emphasized the crucial role of machine translation (MT) in their work, as it saves time and helps to work with large amounts of information and an unfamiliar language. However, the participants did not answer this question precisely, emphasizing the importance of MT tools to facilitate the work of translators, while recognizing their limitations. The next respondent (Participant 3) expressed the opinion that machine translation programs make their life more comfortable and easier, and he cannot imagine life without them. Participant 4, Mabetex translator, stated that machine translation technologies are the most significant tool in their profession, helping them to do duties more efficiently and quickly. They describe MT as a valuable supplemental tool in their daily job. The next respondent (Participant 5) characterized machine translation programs as their secretary, supporting them in their duties as translators. The role of programs of machine translation was identified as an auxiliary tool. Another responder (Participant 7) relied significantly on machine translation systems in his work as a translator, utilizing them as a supplement when dealing with technical phrases and uncommon vocabulary. The role compared in their life like a penny or a laptop - a vital instrument without which they would struggle to operate. The next responder (Participant 8) viewed machine translation as a useful tool and quipped that internet translators are like invisible pals to them. Participant 11 found it impossible to image his life without a machine translation software, underlining the special function of MT in their lives in that it is a significant and beneficial tool not only for them, but also for many other people. The final respondent, an experienced translator (Participant 12), defined machine translation's specialized function in his life as an accelerator for finishing tasks, particularly when there is a need to swiftly retrieve the information included in the translation.

## **Summary**

This part of the study demonstrated the results of the responses of participants in a semi-structured interview. The results illustrated the answers of each participant to the research questions. According to the answers, the advantages and disadvantages of machine translation are determined. In addition, the study revealed the possible role of machine translation software in the translator's life, which significantly improves his ability to perform his duties as an accelerator/auxiliary tool. The specific role of these programs may vary depending on the specific translator and his process, but it is clear how important they are as a support tool.

## **Discussion of findings**

The purpose of this study was to determine the specific role of machine translation programs in the life of translators. In addition, the given research identified the difficulties and advantages of using machine translation. To this end, twelve semi-structured interviews were conducted with twelve translators, in which six of them were translators of the Mabetex Group company, one of them was a translator from a translation agency, one of them was an experienced translator of the magazine, one of them was a student of the Bolashak programs, and three of them were students of master's degree in translation studies. This chapter offers the research's findings and examines them in the context of earlier literature review data.

### **Advantages of MT**

The findings of the research indicate that machine translation (MT) has a number of benefits in the translation industry. The participants identified time savings as the main benefit, which is crucial for professionals who frequently work under time constraints. They can quickly translate a vast amount of text thanks to MT, which helps them save time and effort. This is confirmed by a previous study by Bubina (2011), which emphasized that the main task of machine translation is to save time and effort when the translator's linguistic individuality at the verbal-semantic level is limited by expediency. Furthermore, the opinions expressed in earlier research that machine translation can speed up the translation of vast volumes of information and enable users to swiftly obtain the translation of lengthy texts were endorsed by 11 out of 12 participants (Bowker & Buitrago, 2019). Furthermore, together with other authors (Sanchez & Padilla, 2020), it was found that machine translation is faster than human translation, with a large volume of texts, which is consistent with other studies and the responses of the interviewed translators.

In accordance with semi-structured interview findings, the second important advantage highlighted as availability of a wide selection of languages. This feature enables translator to work with languages other than their working languages, which is essential for professionals who work with different languages. The responder stated that interpreters who solely speak English are no longer needed. According to the interview responses, foreign corporations occasionally request the translation of a text that the translator does not own. As a result, translators are frequently required to work in languages other than their primary working languages. Having access to multiple languages enables translators to broaden their skill set and accomplish more work. It also enables them to work with clients from various countries and cultures. In addition to working situations, it was said in the interview that this benefit is quite useful if a person is in another country. The advantage under discussion uses a scientific approach to translation, which was discussed in previous studies (Koehn, 2017). However, only two important advantages of the scientific method to translation were recognized in a semi-structured interview, namely the availability of a large selection of languages and lower development and maintenance expenses when compared to the possible six. Although other advantages, such as improved translation accuracy and adaptability to new languages and topic areas, were not particularly addressed, they should be regarded as substantial and valuable for translators and clients. As a result, the ability of the program to adapt to new languages was approved by the second key advantage. The participants' responses correspond to the results of the Neubig (2017) study, which stated that one key advantage of NMT systems is their adaptability to new languages and domains. For instance, during a semi-structured interview, several participants replied that at their job, when other translators were busy, large selection of languages that provide programs of machine translation were well

served. The semi-structured interview demonstrated that a variety of machine translation language tools may produce high-quality translations even for obscure languages.

Respondents said that the program's translations were so accurate that even native speakers couldn't tell the difference. Most translators considered accessibility as the next advantage of machine translation programs. This confirms a previous study that explained that machine translation (MT) programs are now widely used because of their advantages such as low cost, high efficiency and quality. However, some respondents found that MT is limited in use and depends on the Internet. Prior to confirmation by the participants, some of the numerous authors were accessibility as one of the main welcome side of using MT. The responses of the participants correspond to a study conducted researchers by Liu and Zhou (2017), which indicates the availability of these systems as a key advantage.

Examples of how machine translation systems have increased the efficiency and convenience of translation, allowing users to immediately translate text without involving human translators, are provided. This is also supported by the hypotheses of other scholars. Thus, we have considered which advantages make machine translation effective or make translators hostage.

### **Disadvantages of using machine translation programs**

According to the interviews conducted, low accuracy and poor quality, limitations in the use and poor quality of individual languages, such as Kazakh, were named as the main problems associated with the use of machine translation programs. Users of machine translation systems face serious problems as a result of these malfunctions, especially those who work in the translation industry and depend on high standards of accuracy and quality in their work.



One of the most significant problems that the translators pointed out in their response was low accuracy and poor quality. Despite recent achievements, the MT system still has difficulties with phraseological units, phrases and jokes. This problem limits the capabilities of house of MT, especially in areas where the sensitivity and originality of human translators are crucial. As a result, it is extremely important to recognize that the MT system cannot completely replace human translators, since some text requires human interaction, which the machine cannot offer. One of the most significant problems that the translators pointed out in their response was low accuracy and poor quality. Despite recent achievements, the MT system still has difficulties with phraseological units, phrases and jokes. This problem limits the capabilities of house of MT, especially in areas where the sensitivity and originality of human translators are crucial. As a result, it is extremely important to recognize that the MT system cannot completely replace human translators, since some text requires human interaction, which the machine cannot offer. All issues firstly presented studies of researchers except one. The study's unique contribution is the recognition of poor-quality Kazakh language as a serious obstacle in the context of machine translation. More study is required to overcome this issue and improve the quality of machine translation in Kazakh. However, the first two issues were reproduced in previous investigations (Koehn & Knowles, 2017). Like the participants, the researchers identified problems with machine translation, such as poor translation quality when translating ideas, terms and literary text. According to the literature review, I found that low accuracy and poor quality are the main problems in the research of most researchers. And this has been confirmed by several authors (Goyal & Sahu, 2021; Och & Ney, 2003).

When the three studies stated above are compared (including given research which done in 2023), it is clear that the challenges related with the translation of idiomatic expressions, phraseological units, and literary works persisted over time. Despite

advancements in translation technology and methodology, these issues continue to be substantial impediments to producing accurate and natural-sounding translations. In this regard, it is critical for translation scientists and practitioners to regularly analyze and improve their ways to overcoming these difficulties. The second major problem of the translation program for the washing machine were limitations in use, such as incorrect translation of documents in PDF format and dependence on the Internet. Several previous investigations (Liu & Xia, 2018; Hutchins & Somers, 1992) verified machine translation's weaknesses. For example, they explored the issue of proper PDF translation and the potential impact of Internet connectivity on translation quality. These findings highlight the need for additional study aimed at removing machine translation's shortcomings and boosting its usefulness as a translation tool.

### **The specific role of machine translation in the life of translators**

Beyond from discovering the benefits and drawbacks of utilizing machine translation, the primary goal of this study is to determine the unique role of machine translation programs in the lives of translators. According to article conducted by another researcher (Corpus Pastor, 2021), it was stated that machine translation can help translators and may have a positive effect on their line of work. The author (Corpus Pastor, 2021) spoke on the value of machine translation in the life of a translator and said that it can be helpful when working with a lot of materials and technical translations that need a specific vocabulary. The researcher stated (Corpus Paster, 2021) that machine translation should be used to assist human translators rather than replace them. The responses of almost all participants, with the exception of two, correspond to the results of the previous study. After analyzing the results of semi-structured interviews, I had another question: perhaps the replacement of translators with artificial intelligence will depend on the translator's

experience and translation skills. Due to the fact that highly skilled translators who handle more than three languages will always be in demand.

Additionally, when all 12 translators were asked to characterize the specific role of automatic translation software, all of them described it as a tool. Regardless of their similarities, the study participants offered distinct viewpoints on the utility of this tool in a variety of interesting circumstances such as invisible friend, as secretary, acceleratory tool, supplemental and auxiliary instrument. Analyzing all the answers, the theories of the previous researchers were approved, which stated that it could be used as a collaboration tool between human translators and MT systems, allowing them to jointly create high-quality translations (Plitt & Mussdot, 2020; O'Brien & Coghlan, 2019).

The discovery underlines the necessity of recognizing translation as a subjective and diverse human activity that is heavily influenced by individual experience, abilities, and viewpoints. As a result, it is critical to view machine translation as a tool that can assist human translators rather than replace their vital experience. By doing so, we may use both human and machine translation to increase translation quality and efficiency while ensuring that human translators continue to play a key role in the process.

## Conclusion

This section of the study outlines the main findings which address the study's questions, analyses the study's limits, and describes the arrived questions for another investigation. The following section of the study also includes additional recommendations.

The goal of this study was aimed to shed light on the special function that machine translation plays in the lives of translators. Furthermore, the purpose of this research was to determine both the difficulties and advantageous aspects of using machine translation systems which faced translators during the translation.

The study's goal was accomplished by qualitative research, which include interview-based development, which consisted of conducting twelve semi-structured interviews with translators, which were then analyzed for providing recommendations.

The most significant advantages of employing machine translation programs, according to the discussed results of semi-structured interviews, are speed and time savings, an extensive variety of languages, as well as low cost and availability. These advantageous qualities of machine translation (MT) were successfully validated after reviewing and comparing the results of prior investigations.

Following to the evaluation of each participant's replies, the issues of machine translation include low accuracy and quality, limitations in use, and poor quality of the Kazakh language. Notwithstanding developments in MT technology, the correct translation of phraseological units, idiomatic expressions, and literary works remains a challenge. As a result, it is critical to recognize that MT cannot totally replace human translators, particularly in areas where sensitivity and uniqueness are critical. The most surprising

aspect of the interview analysis was the location of the language in machine translation. Solving this difficulty will necessitate additional research and the development of machine translation models tailored to the Kazakh language.

As a result, the solutions to research question 2 were discovered (What are the key peculiarities and limitations of current machine translation programs?). Machine translation fulfils a particular function in the lives of translators as a beneficial tool rather than a total replacement. This aids in the management of a big amount of content and supplements the experience of translators. Using machine translation as an auxiliary tool can increase translation quality and efficiency while maintaining the role of human translators in the overall process.

The study encountered several limitations that should be acknowledged. The study's limited sample size of only twelve participants is one of its most significant shortcomings. Only twelve participants' responses may not fully reflect the experience of all translators. The qualitative analysis chosen may be insufficient. Furthermore, because more than half of the participants worked with the Kazakh language, the results gained may not be immediately relevant to other translation languages. The study did not go into the precise technical components of machine translation systems in depth. Given these constraints, future research should use larger and more diverse samples, as well as mixed-method approaches to reflect the dynamic nature of machine translation in the lives of translators.

Furthermore, several recommendations for further research can be made based on the findings of this study:

1. Comparative Analysis: Compare the performance and accuracy of different machine translation systems in translating certain languages, such as Kazakh. This

can give translators insight into the strengths and drawbacks of several systems and help them choose the best one for their purposes.

2. Increasing sample size and diversity: To improve the generalizability of the findings, future studies should involve a bigger and more diverse sample of translators. This can be accomplished by bringing in individuals from various backgrounds, language pairs, and translation domains.
3. Use quantitative or mixed methodologies: Combining qualitative and quantitative research methods can provide a fuller picture of machine translation's role. Quantitative data can be used to confirm qualitative conclusions and offer statistical support for such conclusions.

Despite the difficulties and limitations, conducting this study has been a useful experience. As a researcher, I could roughly characterize the role of machine translation in the life of translators. As a practicing translator, I have considered the information obtained during the painstaking process of conducting this research. This research will open the eyes of many who believe that translators are hostages of machine translation. In addition, the results obtained will help ordinary users to make the best use of machine translation programs. Translators themselves will remember that machine translation is just an auxiliary tool that cannot be fully relied on. Future translators will be motivated by the fact that their specialization is still relevant.

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## **Appendix A**

### **Interview questions**

1. Can you describe your experience using machine translation programs to assist with translation work?
2. What specific challenges have you faced when using machine translation programs?
3. What are the advantages of using machine translation in your work?
4. How do you balance the use of machine translation programs with your own translation skills and expertise?
5. Do you feel that machine translation will eventually replace human translators?
6. Can you imagine your life without machine translation programs? How would describe the concrete role of MT in your life?
7. Can you give an example of a situation where you had to rely on machine translation to complete a task? How did it turn out?
8. How do you see the role of machine translation in the future of the translation industry?

## **Appendix B**

### **INTERVIEW CONSENT FORM**

#### **Peculiarities and challenges of machine translation (MT): the role of machine translation in the life of translators**

Participant name:

#### **Introduction**

Dear participants, first of all, I want to express my gratitude for agreeing to conduct this semi-structured interview.

The interview will last 10-20 minutes. The goal of this research is aimed to examine the specific role of machine translation tools and how they affect the work of qualified translators defining the disadvantages and advantages of these programs that faced translators.

Interview questions:

1. Can you describe your experience using machine translation programs to assist with translation work?
2. What specific challenges have you faced when using machine translation programs?
3. What are the advantages of using machine translation in your work?
4. How do you balance the use of machine translation programs with your own translation skills and expertise?
5. Do you feel that machine translation will eventually replace human translators?
6. Can you imagine your life without machine translation programs? How would describe the concrete role of MT in your life?
7. Can you give an example of a situation where you had to rely on machine translation to complete a task? How did it turn out?

8. How do you see the role of machine translation in the future of the translation industry?

It is important to emphasize that your participation in this study does not involve any risks. However, it is your prerogative to terminate the interview or refuse to participate in it at any time. I'd also like to highlight that, as a researcher, I would follow all ethical guidelines when conducting interviews, while ensuring anonymity and confidentiality. Your personal information will not be disclosed at any point during the research, and the information you provide will be used only for the purposes of this study.

Therefore, could you please read the attached information sheet and sign this form to confirm that you approve the following:

- the interview will be recorded on the telephone recorder
- your transcript of the interview will be analyzed
- the results of the data analysis (with your answers) will be made known to all commissions of KAZGUU university

**Signature of Participant** \_\_\_\_\_

## Appendix C

1. Timesaving
2. Large selection of languages
3. Low cost and availability
4. Low accuracy and poor quality
5. Usage limitations
6. Low quality of Kazakh language
7. 5<sup>th</sup> question
8. Role

Question	Code
<p>Question 1: Can you describe your experience using machine translation programs to assist with translation work?</p>	<p><b>Question 1: Can you describe your experience using machine translation programs to assist with translation work?</b></p> <p><b>Participant 1: Ramida:</b> Hello! Now I am working as a translator in the Ministry and to describe my experience using MT programs I actually use a lot because we have really big amount of papers consisting of 20-30 pages so deadlines are really tight and it is why I very often use MT. Because of our work kind of not use this kind of professional translators use because it not like a kind of translation agency etc. For example, I during my work MT programs some basic one like DeepL, REVERSO, Multitran to check some particular words. This is my experience of using MT programs. Yes, I use them very often but after using I check.</p> <p><b>Participant 2:</b> Machine translation has now become more developed. In my work I use every day. Machine translation played a big role not only in translations, but also in my bachelor's and</p>

master's studies. **Because it is very fast** and **convenient**.

**Participant 3:** I sometimes use machine translation programs in order to translate some text **in a short period of time** because **it is convenient and reliable**.

**Participant 4: Translators Mabetex:** During my five-year experience as a translator, I use machine translation programs every times, of course, to make my job easier in translation work. I have found that these programs can be an efficient to quickly translate long volumes of text. However, I am always careful. I use them as a supplement to my own translation work, rather than relying only on them. I also carefully check the translation which made by MT and edit translated text to be sure for the accuracy and relevance.

**Participant № 5: Translators Mabetex:** In the 21st century, it is impossible to imagine the life and services of an interpreter without machine translation. I use every day, to assist my work. But, if you are simultaneous translator, you have not enough time to use them. It is very useful when you written translation.

**Participant № 6: Translators Mabetex:** I can manage machine translation programs, which gives me the opportunity to use them in any translation work. Yesterday, during a written translation, thanks to the help of online translator, I translated the text and send the perfect translation by the deadline. And I only spent time editing the translation. I think, every translator uses machine translation, and we can even say that there is no way without an artificial translator. And the era of the dictionary is long gone. They are no longer

relevant at all.

**Participant 7: Translators Mabetex:** Now in my second year of study in America, it's kind of easier for me already without them. But when I first arrived in a new country, I translated my every step. Maybe I trusted my knowledge. As such, English in Kazakhstan is different from in America. They are very useful, very. Back in the distant bachelor's degree, I even wrote my thesis and defended it perfectly. I always use them in my academic work. Sometimes I work as a translator. I can quickly make a written translation using them. But you have to be careful here. If you don't speak the language, it's better not to. I know how to combine them.

**Participant 8:** In my first year, honestly, I afraid to use machine translation. I only used a dictionary. At my work we have terminology for any terms that we can face. Not for all, of course. Now, I'm imagining it now, and it's ridiculous to me. But the technology is developing every year, but every day. Now I always use Yandex and other programs at work. When translating written texts, I will not do without machine translation. But I don't usually use it for oral administration. All familiar terms. I don't see any point in using them, and I don't even have time to open them. When taken orally, it is necessary to react quickly.

**Participant № 9:** Speaking from my experience, a machine translation program is very useful for fast translation, now these systems are so developed, for example, I can usually open the camera, for example, and translate the text, mostly texts from my



translation work, sometimes i use to translate news, advertising or menu if I'm in another country. But, for more difficult content, such as scientific articles, using machine translation can lead to inaccurate, I mean bad-quality translations. As a translator of National Geographic Kazakhstan, I think that human experience is necessary to create high-quality translations.

**Participant 10:** Hi! MT programs Actually, I use a wide range of MT programs such as Google Translate, Yandex Translator, Context Reverso and Multitran. I use Yandex Translator for translating Russian to Kazakh, and Sozdik. Kz translating also to Russian to Kazakh.

**Participant 11:** I supposed that I use MT programs in my everyday routine. Because in my previous work, I use to work with MT and here. But MT has its own disadvantages and it depends on the scope of materials that you will translate and also the style and type of material. I often use it to translate Kazakh into Russian.

**Participant 12:** Да, конечно, могу. Я его использую при осуществлении письменных переводов. Потому что ну устный перевод совсем другая сфера и там естественно уже машинный перевод не задействуется. Я его применяю чаще всего в тех моментах, когда нужно за короткий период перевести большой объём и здесь машинный перевод помогает. В некотором роде я его ещё использую как наборное устройство когда я вижу текст и я знаю перевести я могу без словаря, но чисто технически набирать этот текст, например долго. Вот и в этих

	<p>случаях очень хорошо помогает машинный перевод и различные онлайн переводчики. Но как бы всегда надо учитывать, что с машинным переводом надо быть поаккуратнее это как лекарственные растения может случиться передозировка с этим лекарством.</p> <p><b>Participant 12:</b> Yes, of course, I can. I use it when doing written translations. Because, well, interpretation is a completely different field, and there, of course, machine translation is not involved. I use it most often in those moments when it is necessary to translate a large volume in a short period of time, and machine translation helps here. In a sense, I still use it as a typing device when I see text, and I know I can translate without a dictionary, but technically typing this text, for example, takes a lot of time. So, in these cases, machine translation and various online translators help very well. But you should always keep in mind that you need to be careful with machine translation, it's like with medicinal plants, an overdose of this medicine can happen.</p>
<p>Question 2: What specific challenges have you faced when using machine translation programs?</p>	<p><b>Participant 1: Ramida:</b> Actually, there are no big challenges with using MT programs. But when it comes to online and free using them, for example, when I have really lengthy documents, I cannot put documents directly into the program and it cannot give me the translations. Because there is the limitation of free-use programs where I need to divide this document, part it. This part of MT programs is not useful. Sometimes, for example, when you</p>

translate documents PDF, translation is segmented and like of kind of translated in different words. It may be not the fault of MT programs. But I can say one of the specific challenges part of these tools. The next disadvantage of MT programs is the poor quality of the Kazakh language that I always face at work.

**Participant 2: Diana (student of master's degree):** Every time I use them, I discover a different challenge. They can be rather serious at times. Even I sometimes forget to pay attention to the little things. The translation's low accuracy is, of course, one of the major disadvantages. Why does that matter? I can be sure he won't be able to handle literature if I translate it. We obviously need to understand the author's feelings, but we also need emotions in this situation.

**Participant 4:** I faced several minuses of machine translation programs in my work. Here, the problems can be divided for like simple user or for proficient translator in my way. For example, when I was student, the problems were like phraseological words and idiomatic words, it was low quality of translation. It depends only on internet. If you have not internet or wi-fi, there was no translation. Also, like today. Now, working as translators still the issues exist, as I told. But quality is better every year. I can say with confidence, that they are translations of cultural context and idiomatic and specific terms, disturbs for comfortable translation. They often lead to misunderstandings; they often lead to poor-

quality translations.

**Participant 5:** Definitely. When using machine translation programs to assist in my translation work, I encountered a number of specific problems. The first thing I want to say is poor quality.

The next is not appropriate meaning. And, we translators, if we see any idioms or phraseological units in the text, try not to use an online translator at all. But some that are used are still sometimes translated correctly.

**Participant 6: Translators Mabetex:** One of the problems of translation programs is the ambiguity of the translation of some words, in this regard, the translation turns out to be inaccurate, and sometimes even absurd. Artificial intelligence cannot translate fiction without the help of the translator himself. Even when translating some jokes, the meaning of the text is sometimes even completely lost. Yes, today, AI is developed also machine tools. For example, machine translation programs have such capabilities as audio translations, translation of a full journal or long texts. But sometimes it seems like unnecessary buttons. Because every time during our meetings I tried to translate audio or speech from other languages, I found them unnecessary. There was limitation on using. There's no point in enabling this ability because it doesn't work.

**Participant 7: Translators Mabetex:** «Oh, I encounter several problems when using machine translation programs for translation work. Now such programs as chatgpt and so on have become

relevant. But let it be the most powerful program, they will have problems with the accuracy of the translation of idioms, I guarantee you. Machine translation programs may not be able to accurately translate idiomatic expressions and even some construction terms, which can lead to clumsy or incorrect translation. As a result, I had to be careful when translating texts containing idioms or expressions, and be sure to check the accuracy of the translation».

**Participant 8: Translators Mabetex:** As translator, I will tell you that the machine translation program from word does not feel the emotions and mood of a person at all, it is impossible to translate humorous texts, not to mention the translation of terms. For example, if you are trying to translate a text using terminology, be careful. Yes, I am old-fashioned, I try to translate various terms using a dictionary. Once, when ordering construction material, I made a big mistake. As a result, I ordered different material. And our chief engineer has been waiting for this order from Kosovo for more than a month. I was very embarrassed. Because I could not say them that was the machine problem.

**Participant 9:** Machine translation programs are improving every day, but there are still inconveniences when translating. When I translate long texts or PDF documents, the essence of the context is always lost. I really hope, that it will be fixed in the future. And for me, the biggest disadvantage is the poor-quality Kazakh translation. Machine translation programs have trouble with the Kazakh language. Yandex, yes translate. But the quality is very very

low. If we say about the Sozdik.Kz, then it translates a lot of used words, but there are no rare terms.

**Participant 10:** The most common problem that I faced is that one word has lots of meanings and applying another meaning and translating totally different words. Especially losing the whole meaning of the sentence when you translate and get it scrambled, unclear the structure of the text.

**Participant 11:** As I told you before, MT has its own disadvantages like style and type of translation. For example, the translation cannot find the written word for the style of the text. Also, some MT cannot translate whole sentences with a large scope of materials. You can find lots of mistakes. For example, in Kazakh or Chinese. I use it not only for Kazakh and also for Chinese. I studied the Chinese language. So, when I am with my friends, I try to talk with them in Chinese. When the text is large, you can find lots of mistakes.

**Participant 12:** Иногда нужно за очень маленький срок перевести довольно-таки объёмный документ и не все форматы документов считываются такими программами. Вот. Но тогда приходится искать другие варианты. Ну и естественно, думаю с этим сталкиваются все, когда некорректно переводятся слова. Ну это вполне понятно. Потому что машинный перевод, онлайн переводчики всё-таки настроены на то, чтобы переводить довольно-таки простой текст. Это то же самое, какой алгоритм задать ему так он будет работать. Естественно,

	<p>в большом объёме алгоритм для каждой фразы не будешь составлять. Потому что это удлинит срок перевода. Есть определенные тематики, как медицина и юриспенденция, где все хорошо работает. А с остальными бывают моменты. Потому что всё-таки человек, который пишет на своём родном языке, а он использует различные сложные обороты машины перевод не всегда с ним справляется.</p> <p><b>Participant 12:</b> Sometimes, there is a need to translate the document in a very short time, and not all document formats are readable by such programs. Here. But then you'll have to look for other options. Well, naturally, I think everyone faces this when words are incorrectly translated. Well, that's understandable. Due to machine translation, online translators are still set up to translate fairly simple text. This is the same as the tuning algorithm to make it work. Naturally, in a large volume, you will not make an algorithm for each phrase. Because it will prolong the transfer period. There are certain subjects, such as medicine and law, where everything works well. And with the rest, translation difficulties happen. Because after all, a person who writes in his native language, and uses various complex machine turns, translation does not always cope with this.</p>
<p>Question 3: What are the advantages of using machine</p>	<p><b>Participant 1:</b> When it comes to advantages, of course, it is time-saving. Because you have a lot of document and MT programs saved the time. As I know I did not use, but I have heard programs</p>

<p>translation in your work?</p>	<p>like Trados, SmartCat. They come to help to gain the coherence with your terms. For example, previously, you translated the very similar document. Let's say it is UN document, then you have again this document similar to that with similar terms. So, this kind of programs can show you the translation of terminology how you translate. It gives you coherence to your work. Every time translate the word in a similar way. Also, we cannot deny that MT programs recently very improving. Especially, English to Russian, Russian to English translation. This pair of language give really good translation of words. I think it helps with deadlines, really big number of documents and files.</p> <p><b>Participant 2:</b> There are several advantages to using machine translation in my work. <b>Machine translation is a fast and efficient way to get the gist of a text in a foreign language</b>, which can save me time and effort in my research. It can also help me to expand my vocabulary and improve my understanding of grammar and syntax in the target language. Additionally, machine translation can be a useful tool for checking my own translations and identifying errors or areas for improvement.</p> <p><b>Participant 3:</b> <b>When I don't want to waste my time translating a text by myself it is convenient to use machine translation</b>, only after I can look over if there are some mistakes and correct them.</p> <p><b>Participant № 4: Translators Mabetex:</b> There are many advantages of using machine translation programs. <b>They can be</b></p>
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saved time and economize your energy, especially when translating large volumes of text. Also, machine can also be useful for quick translation of simple texts, such as emails or social media posts that do not require a high level of accuracy. In addition, machine translation programs can help identify potential problems in the text, you know as grammatical errors. One of the most important for me advantages machine translation is the wide selection of available languages. I work in an international company, as you know, sometimes I have to translate a letter from English or Russian into the Albanian language. And online translators cope great, also other colleagues support my words. If your colleagues are all busy, you cannot refuse to take translation because you do not know this language. Your work does not wait. Translators should always aware in use. Ideal translation is the combination of online translators and human translation. I mean human-translators should edit of ready translation.

**Participant № 5: Translators Mabetex:** I am grateful these systems. I started my career from assistant to the president of company. He is very busy and important person, as you know. As he is foreigner and our working language is English, before I speak, I always check my speech to avoid misunderstanding. One of the main advantages is the ability to translate quickly without wasting time. He is very impatient person. For me, the most important thing at work is to make a quick translation at a construction site or at a meeting.

**Participant № 6: Translators Mabetex:** There are many advantages of MT. First of all, speed. The second advantage is, of course, time-saving. I also like the accessibility of these programs. Any of them, of course, not all, but many machine translation programs are free. You can choose any one to your taste. As well as their modernity. For example, you can translate using a camera or voice text.

**Participant № 7: Translators Mabetex:** If you use them correctly, they have many advantages. The use of machine translation in our work has a number of advantages, especially when it comes to fast translation of the articles, books, and written works. In my own experience, washing machine translation to translate my scientific articles from my native language has been incredibly useful in terms of saving time. One of the most important advantages of implementing machine translation is the wide selection of available languages. I had articles in another language, like French, Spanish. Using them I can understand the text.

**Participant № 8:** Although machine translation has limitations, it can be a useful tool for certain tasks and situations. Now time is money. Therefore, I just love machine translation for saving my time. This can provide faster and more cost-effective translation, ensure consistency, and provide access to information in languages that may be difficult to translate.

**Participant № 9: Translators Mabetex:** The speed and

effectiveness that machine translation provide is one of its advantages. Machine translation tools can quickly produce a rough translation, which gives me time me to concentrate on improving and finalizing the translation for correctness. In the end, this permits me to work faster and more effectively.

**Participant 10:** The first advantage is time-saving, and the second advantage is the big vocabulary stock where you can find any word there because even though I work as a translator I do not know some words and I can easily find the meaning using MT programs.

**Participant 11:** It is quick, it is fast when you do not have enough time to translate by yourself. Also, in Machine translation, there are lots of languages.

**Participant 12:** А ну как я уже сказала, во-первых сокращается время работы над объёмными документами и когда например есть разные тексты то есть на разных языках нет необходимости искать либо обращаться к другим коллегам. машину переводчик и онлайн переводчики они ориентируются на все слова, которые иностранного происхождения и нам нужно язык переводит уже всё в любом случае да потом нужно корректировать но без этого никуда сегодня всегда вот а так вот да упрощает вот такие моменты когда есть сочетание нескольких языков.

**Participant 12:** And well, as I have already said, firstly, the time spent on working with large documents is reduced, and when, for

	<p>example, there are different texts, that is, in different languages, there is no need to search or contact other colleagues. machine translators and online translators focus on all words of foreign origin, and we still need a language to translate everything, and then we need to fix it, but there is always nowhere without it today, and therefore, yes, it simplifies such moments when there is a combination of several languages.</p>
<p>Question 5: Do you feel that machine translation will eventually replace human translators?</p>	<p><b>Participant 1: Ramida:</b> We should say that, for example, technologies are really advansively developing. Nevertheless, MT cannot replace human translator. Maybe I just do not it as interpreter-translator. But we need to except it. For example, in writing and reading, MT is very useful tool. Nevertheless, Human translation always needed. Our world a little bit changed after MT. I think, MT are entering, we, translators, are trying to adapt them.</p> <p><b>Participant 2 :</b> I can't imagine my life without these systems, because machine translation plays a crucial role in the life of every user. In different situations, time and resources are saved in overcoming language barriers and in work. It also makes it easier to access information in different languages. In general, machine translation has had a significant impact on how we communicate and interact with each other and facilitating our work, translation work.</p> <p><b>Participant 3:</b> No. Machine translation can't feel the author, what did the author feel by writing the text, what message was</p>

hidden in it and etc. That is why I strongly believe it won't happen.

**Participant № 4: Translators Mabetex:** Our company has many buildings under construction. However, despite the existence of MT programs, I can say developed, improved, our engineers, architects prefer to work with translator's face to face. My answer is not nowadays.

**Participant № 5: Translators Mabetex:** I tell you as a translator, it's only in the distant future. But experienced translators will always be appreciated. If you only know English, most likely you will not be relevant. machine translation still has difficulty accurately reflecting the nuances of language and culture and may not be able to fully convey the intended meaning of the text. Or learn to manage them well. If you take the pilot just control the aircraft. The plane will make the flights by itself.

**Participant 6: Translators Mabetex:** No, I don't agree with this theory at all. Listen, there are thousands of smart technologies in the world (although it will be a Dyson vacuum cleaner robot). And they don't work without human control. The task of a future translator is to master not only translation skills and learn how to manage artificial intelligence.

**Participant 7:** Yes, perhaps in the distant future, perhaps machines will completely replace translators. Even now, the translator's specialty has become not actual even in developing Kazakhstan.

**Participant 8:** I think it's not possible yet. Experienced and

high-quality translators will always be relevant. If you want a low-quality translation, yes, the company can do without them. But large companies already know what it's like to work without them. Like our company. Every engineer has a personal translator. Almost.

**Participant № 9: Translators Mabetex:** I think that machines cannot completely replace a person. human translators will continue to play an important role in creating high-quality translations that accurately convey the intended meaning and cultural nuances to readers in the target language.

**Participant 10:** To be honest, I do not think so. Because translating is not only documents. Translating is a mostly literature, where there is a need of emotions, feelings of the person, and MT should always be corrected by the person. Because it cannot give you fully what you want to say.

**Participant 11:** Yes, I suppose. When I graduated from my university as a translator, I mentioned it like «Nowadays no one needs translation from you», people can use MT programs. I thought that my profession is a high-demanded specialization. But I was wrong. Because now everyone uses MT programs online in any language.

**Participant 12:** Никогда. Потому что, да, машина перевода развивается, и программное обеспечение тоже развивается, но если вы сравните, что было, например, 10 лет назад и сейчас, то разница есть, но в любом случае. Но мы продолжаем даже 10 лет спустя, мы продолжаем исправлять этот текст, мы все еще

	<p>продолжаем его проверять, иначе сейчас не было бы переводчиков, то есть их бы уже сократили в количестве, но в то же время потребность в людях соответственно не уменьшается, я считаю, что нет, это как всегда да, то есть, когда появилась пишущая машинка, да, люди все равно не перестали писать от руки, когда появилось телевидение, театр не исчез.</p> <p><b>Participant 12:</b> Never. Because, yes, the translation machine is developing, and the software is also developing, but if you compare what happened, for example, 10 years ago and now, then there is a difference, but in any case. But we continue even 10 years later, we continue to correct this text, and we still continue to check it, otherwise, there would be no translators now, that is, they would have already been reduced in number, but at the same time the need for people does not decrease accordingly, I believe that no, it is always yes, that is, when the typewriter appeared, yes, people still did not stop writing by hand, when television appeared, the theatre did not disappear.</p>
<p>Question 6: Can you imagine your life without machine translation programs? How would describe the concrete role of MT</p>	<p><b>Participant 1:</b> To be honest, when you work as a translator, on my own practice, I get used to use to make my translation easier, to save time. So, I think that I need MT. I think that many of us, when we don't have to access to the internet, it is really tough for us. Because We have really huge amount of information. Every day, I don't know a lot of words are appearing, creating. So as a human being it is really hard to learn by heart all of them, knowing all</p>

in your life?	<p>word. Yes, of course, we can prepare, but we need sources to have the access to some kind of machine tools. I think that it is like important part of our life. Because we use it in every time, we translate. For example, let's say that text is reading very technical or academic, in this way, you need fast translation. To conclude, I want to say that it is hard without MT. But even 50% we need to have the ability to translate basic texts, basic conversational topics.</p> <p><b>Participant 2:</b> I can't imagine my life without these systems because machine translation plays a crucial role in the life of every user. In different situations, time and resources are saved in overcoming language barriers and in work. It also makes it easier to access information in different languages. In general, machine translation has had a significant impact on how we communicate and interact with each other and facilitating our work, translation work.</p> <p><b>Participant 3:</b> No, I can't imagine because as any tool in our life, machine translation programs are making our lives more comfortable and easier.</p> <p><b>Participant 4:</b> I have to say that I find it difficult to imagine my life without machine translation technologies. They help me interpret part of my job every day as a translator. MT has become into a crucial tool for my line of work. Without MT, I would have to rely on my own linguistic abilities and would have to translate each</p>
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paragraph considerably more slowly. This would be problematic, especially if I had to work with languages that weren't my own. My task was made more simpler and faster because to MT. I was able to complete a lot of jobs using MT and do so on short notice.

**Participant 5:** To be honest, now it is hard to imagine. Machine translation programs are like as my secretary. It means you can continue work, but it is important having an assist.

**Participant 6:** Now, it is hard to me to imagine my work without MT programs. They help me very well with any translations.

**Participant 7:** So, to be honest, now I somehow very vaguely imagine my working day without machine translation. At least one word is not important, I always use machine translation. There are a lot of terms, even sometimes I forget elementary words. But in this case, I think, why not rely on the help of a machine translator.

**Participant 8:** So, to be honest, it is difficult, it is difficult to imagine working moments without machine translation. But I can handle it. Because without machine translation programs, I would have to rely solely on my own skills. This would require considerable time and effort. I'm comfortable working with them. And is it safe with machine translation programs.

For me, machine translation is kind of powerful tool. And, sometimes I joke as online translators are my friends, invisible.

**Participant 9:** Of course, it is possible to imagine a translation

routine without these programs. But why complicate life? I do not agree with the opinion, but the fact that the machine will soon replace translators. Human translation is more than AI, a translation with a soul, with an understanding of the essence of the spoken and written text.

**Participant 10:** To be honest, as a translator, I cannot imagine my life without MT programs. Because I use it every day for my work. MT programs are really really helpful in my life. And I can say that my life better with MT. The role of MT for translators is great.

**Participant 11:** If I imagine our life without MT programs, it would be really hard for people. Because it is easy to use any online translation. You do not need to learn another language, for example, to visit the same country. In another hand, my life is very big, because at home I speak with my husband in English, and with my friends, I interact in Chinese, where there is a need for MT to translate some words.

**Participant 12:** Да, вполне. Потому что даже были такие моменты, когда, например были перебои с интернетом и соответственно возвращались к такому без интернетному варианту перевода, ну непродолжительное время. Опять-таки просто удлиняется срок перевода. Потому что, когда переводишь в одно определённой сфере уже к словарю обращаешься редко и э соответственно и онлайн переводчик тоже не влияют и программы аналогичные не влияют на сам

	<p>перевод. Он больше идёт для отображения, а результата вот поэтому можно представить. так мне кажется ничего такого страшного тут бумажный словарь никто не отменял.</p> <p><b>Participant 12:</b> Yes, quiet. Because there were even moments when, for example, there were interruptions with the Internet and, accordingly, we briefly returned to such a translation option without the Internet. Again, the transfer period is simply lengthening. Because when you translate in one particular area, you rarely turn to the dictionary and, accordingly, the online translator also does not affect and similar programs do not affect the translation itself. This is more suitable for demonstration, and that's why you can imagine the result. And especially since no one has cancelled the paper dictionary here.</p>
<p>Question 7: Can you give an example of a situation where you had to rely on machine translation to complete a task?</p>	<p><b>Participant 1:</b> For example, I think, according to my personal experience, I used to try translate some texts. However, I never relied. Sometimes in the way to get full picture, I use MT to make editorial work. But many of us If we don't know the language, go abroad, let's say to France, in order to have a conversation or to speak, to deliver you speak, you need these tools and totally rely. I saw people that they don't languages, but using these tools had conversation. But we should to be careful and check.</p> <p><b>Participant 2:</b> Yes, I use machine translation on my work every day. First, I translate with the help of translations then just correct. Also, I used Machine translation when I wrote diploma paper. It</p>

helped me a lot.

**Participant 3:** When I entered a site of one clothing brand I needed to translate with machine translation, and it translated really well, I have received my order as I wanted and I am pleased

**Participant 4:** Yes, of course. As a translator, I regularly use machine translation, Yandex, Google Translate, Google Docs sometimes Multitran, to make easy my work. One of these cases was when I had to translate a large volume of text from Italian to English in a short period of time. Of course, as many of us, I used them. I had to rely on machine translation to complete the task on time. It was my first time when I first came to our company. I was fresh, and in some way maybe nervous. I do not know why. I had the task from Rovena (main architect) to translate the long cmeta (estimate) of oncology hospital. I had only 2-3 our. This estimate consisted from 70 pages. I used to google doc translation. The I personally edited each important and not terms using Multitran. I was careful of numbers. Cause programs sometimes translates wrong especially them. Finally, I could to translate them. I sent it. She was satisfied.

**Participant 5:** So, when I worked as a resident's assistant, I was instructed to write congratulations to all employees of the company with Kurban-Bairam. I had to write it in three languages. I wrote quickly and easily in Kazakh and Russian. I had no problems with translating the Russian text into English and edited it. When it was

the turn of the Albanian language, I didn't know whether to rely on an interpreter or not, I didn't know. At my own risk, I translated using a machine translator. When I sent the final result to the president, he didn't even feel the difference.

**Participant №6:** A translator's duties extend beyond simple language translation. Since ancient times, translators have had a significant impact on society. It is difficult to work without interpreters, even in politics. Imagine that if presidents' words or speeches were translated precisely in diplomacy, conflict between countries would have spilled out a long time ago. It is essential to approach translation with extreme caution. This is a delicate topic. Machine translation will eventually serve as a translator's helper.

**Participant 7:** As said I relied fully to them when I wrote my bachelors diploma. Now I translate the articles. Sometimes I translate my own academic writing to find some mistakes.

**Participant 8: Translators Mabetex:** Nowadays, Machine translation improved very well. I can easily translate my texts using them. Because I know that my texts can be translate. Every day I rely on machine to complete my work, then edit. However, If I will have some text with idioms or phraseological words or literary texts, I will not try to use them.

**Participant 9: Translators Mabetex:** Yes, of course. For example, yesterday there was an urgent news was published in Ukrainian and it had to be quickly translated into English and Kazakh for the audience. Ukrainian is not my working language.

And I translated using a machine translator. It took a maximum of 10 minutes.

**Participant 10: Refused to answer**

**Participant 11:** In my previous work, I worked in Oil and Gas Sector as an assistant translator. When I came here, my boss said to me that I am going to translate today the online meeting with British and American people. I was really shocked. But I prepared a little, and then in one Google type there was an online meeting, parallelly I opened the MT program the second. I translated very fast on MT programs when I forgot something. My boss supported me very hard and my other colleagues. It was my first experience as a translator. And it is hard and stressful.

**Participant 12:** Лично у меня таких ситуаций не было.

Но в профессиональной деятельности столкнулась один раз с таким моментом. Когда я была очень-очень занята то перевод одного документа выполняли мои коллеги, которые не переводчики, но работают в этом же компании. Когда они мне принесли на проверку. В результате в списке материалов, которые мебели, которые планировали закупать появился «очаровательный стул» который был на самом деле выполненным в элегантном стиле. Но онлайн переводчик перевёл напрямую и самый первый самый первый прилагательное, которое встретились видимо там по алгоритмам. И вот такая вот забавная история произошла. Поэтому я и говорю, что ну без контроля, вот эти программы

	<p>лучше не оставлять. Потому что с ними надо тоже уметь пользоваться.</p> <p><b>Participant 12:</b> Personally, I have not had such situations. But in my professional activity, I once encountered such a moment. When I was very, very busy, one document was translated by my colleagues who are not translators but work in our company. When they brought me to check. As a result, a "charming chair" appeared in the list of materials and furniture that were planned to be purchased, which was actually made in an elegant style. But the online translator translated directly and the very first the very first adjective that met apparently there by algorithms. And such a funny story happened. That's why I say that, well, without control, it's better not to leave these programs. Because you also need to be able to use them.</p>
<p>Question 8: How do you see the role of machine translation in the future of the translation industry?</p>	<p><b>Participant 1:</b> I think the role of MT in the future will only develop and it would become more smarter, many languages will be added. For example, if we have really good translation of English, our Kazakh language will be improved. The future is quite bright.</p> <p><b>Participant 2:</b> <i>Refused to answer</i></p> <p><b>Participant 3:</b> It plays crucial role, because we live in the 21 centuries, where all the nations are paying attention to their authenticity, their languages, so if we want to integrate with other countries we definitely need these machines.</p>

**Question 8: How do you see the role of machine translation in the future of the translation industry?**

**Participant 4:** To be honest, I assume that machine translation programs will completely replace translators in the near future. Advances in artificial intelligence have improved the accuracy of machine translation can it completely replace the role of human translators, my answer is yes

**Interviewer:** yes, interesting answer. Do u think that the replacement of translators is for the better, or it is warming for afraid?

**Participant 4:** if it does happen, it will be for the best. Translators will only edit or check the finished translation. But it is worth learning how to properly manage these technologies

**Participant 5:** So, I cannot give concrete answer that machine translation will completely replace human translators in the future. it is unlikely that this will replace the experience of understanding the feelings of improvising human translators. However, it is understandable to expect that machine translation will continue to play an important role in the translation industry.

**Participant 6:** A translator's duties extend beyond simple language translation. Since ancient times, translators have had a significant impact on society. It is difficult to work without interpreters, even in politics. Imagine that if presidents' words or speeches were translated precisely in diplomacy, conflict between countries would have spilled out a long time ago. It is essential to



approach translation with extreme caution. This is a delicate topic.

Machine translation will eventually serve as a translator's helper.

**Participant 7:** As machine learning algorithms continue to improve and become more sophisticated, machine translation is likely to become even more accurate and reliable. In the future, the MT programs will replace translators.

**Participant 8:** In the future, as now, all translators will become dependent on machine translation programs. But I don't see any serious problems here, the development of machine translation only makes our translation better. But artificial intelligence cannot replace humans. I'm sure of it. We will manage artificial intelligence, edit and check the finished translation.

**Participant 9:** Unfortunately, In the future, translators will turn into a computer translation editor. Although, why unfortunately? Editing is also a creative process that requires certain knowledge and skills from the editor.

**Participant 10:** I think MT already become the part of translation industry. And It would not disappeared because we already do most part of our tasks by MT and I think it would get more advanced and improved.

**Participant 11:** Now, it is the era of informational technologies, I think that machine translation will be only improved and increased. In the future, we do not need translators. AI can replace not only translators but also others.

**Participant 12:** Ускоритель для выполнения заданий

Потому что очень часто именно в работе бывает так что срочность именно в получении информации, которая заключена в переводе, который тот человек, которому не владеет языком нужно информация быстро.

**Participant 12:** Accelerator for completing tasks. Because very often in work it happens that the urgency lies precisely in obtaining the information contained in the translation, and a person who does not speak the language needs information quickly.