

Investigating Technological Approaches For Translation - Interpretation Between Vietnamese And Japanese

Nguyen Ngoc Nguyen

FPT University, Vietnam, Email: nguyennnsa170275@fpt.edu.vn

Abstract

This article discusses the problems of translating and comprehending Japanese while also analyzing the existing technology for Japanese-Vietnamese translation. This research intends to assist students to enhance their translation and interpretation abilities while also utilizing technology to make interpreting more effective and time efficient. The questionnaire data in this article were developed based on the perspectives of around 70 students from FPT University's Japanese language department, all of whom had experience working in Japanese firms through the program internship. The questionnaire is meticulously constructed, and the findings are then examined to determine the most effective strategy to improve the interpreter's skills. The findings indicate that interpreting technology has become an essential element of the toolset for assisting students in better completing their interpreting tasks.

Keyword: language, technology, translation, Japanese

I. INTRODUCTION

According to the findings of Ismailova and Mamataliev's (2021) research showed that in the age of globalization, high-quality human resources who are familiar with the worldwide environment are gaining a lot of attention from university training techniques, and multinational corporations see this as an essential and urgent issue. Meanwhile, Japanese human resources dominate the job market in Vietnam. By the statistics based on the chart of Vind & Fold (2010), the number of Japanese human resources has lately increased, and competition in the labor market traveling to Japan in Ho Chi Minh City is becoming significant. Translation and interpretation work, on the other hand, arose for a while and drew the interest of language majors, especially Japanese ones. As enterprises' recruiting demands become more intensive, it raises the question of whether university students can comprehend the knowledge and abilities of translation and interpretation when majoring at

the university, and if the educational material is truly relevant (Brown & Williams, 2004). As a result, to analyze the benefits and drawbacks of translating and interpreting education at universities, thereby improving translation and interpreting skills, the difference between Japanese translation and interpretation at FPT University in HCMC, as well as how to improve translation/interpretation skills were investigated. The Japanese language major at FPT University in Ho Chi Minh City is taught alongside Japanese and English, which is extremely beneficial to university students' foreign language abilities (Sampson, 2019). However, while majoring at FPT University, university students may gain a wide range of translation and interpretation information and abilities, from beginner to intermediate. However, graduates are unable to apply their expertise after graduation. It's because university graduates majoring in Japanese do not have the opportunities to test, and as a result, they hone their skills in translating and misconstruing

Japanese differently. In this study, knowledge and skills related to Japanese translation and interpretation will be integrated to consolidate specialized knowledge of Japanese at FPT University. The study report will then give suggestions based on new technologies to enable students to apply to interpret more simply.

2.1. DEFINITION OF INTERPRETER AND TRANSLATION

The translation is the substitution of sentences in one language with ones in another. The translators have ample time to read the original material (Barik et al., 1994). There is also editing time when compared to the original translation. We can employ dictionaries, spell checkers, and glossaries as translation tools. The translation is more exact and fluent than the translation since it requires more time to plan and apply supporting technologies (Gaspari & Doherty, 2015). Translators must be able to use materials translated in a variety of ways while maintaining accuracy and entire meaning. Knowing a foreign language does not guarantee that a student will be a skilled interpreter (Barik et al., 1994). The meaning of the paper is known, but it must be delivered to the reader properly and thoroughly. Neubert et al. (2000) showed that translators must be proficient in their original language, be able to utilize words smoothly and be able to translate translations in the most complex manner. Knowledge of culture and life, as well as living capital, all play an important role in translation. Moreover, the resources from book translation, academic document translation, specialist document translation, press translation, economic contract translation, and notarized translation are all common occupations for translators. An interpreter, on the other hand, is a translator who translates or reinterprets a speaker's sentence to make it easier to grasp while retaining the exact meaning of the phrase. When interpreting writings that demand a high level of accuracy and

fluency, interpretation should be easy to grasp and brief (Tavana & Mohebbi, 1997).

2.2. CORRELATION BETWEEN TRANSLATION AND INTERPRETATION AND TECHNOLOGY

The rapid growth of technology has made human-to-human translation faster and more precise. Most people who work in multicultural settings or who are learning a language are familiar with translation and interpreting technologies. Several technologies are now available that can automatically translate voice or text. This link is comprised of language and programming by a programmer employing technology. Translation and interpretation technologies, in particular, offer several methods for using words, interpretations, and situational analysis to filter language, resulting in smooth and objective translation material (Tavana & Mohebbi, 1997). However, in addition to the dominance of computing technology, translators and interpreters suffer from laziness in thinking and expressing language. As a result, many individuals work in software-based translation contexts where they are not encouraged to be creative or propose unique translations. Professional interpreters' life are getting more professional and convenient as industry technology allows them to work from home while face-to-face interpreting rather than commuting to a conference room (Lee et al., 2007). This has several advantages, including lower travel costs for interpreters on the client side and lower time costs for interpreters who need to do several communication sessions translated in many different locations in one day.

2. LITERATURE REVIEW

As translation work has grown in popularity in recent years, so has the number of translation-related writing (Gaspari & Doherty, 2015). The

following novels stand out in terms of translation/interpretation. Many topics have been examined in portions of literature that have not yet been studied. Niizaki's (2019) research paper entitled "Translation training techniques and applications in Japanese language education" discusses the advantages and benefits of interpreter translation and distribution in language education (新崎隆子 & 西畑香里, 2019). Japanese for non-native speakers, as well as language and international communication for university students. As a result, he provided four required abilities to accomplish language-related work: "acceptability," "manufacturability," "interoperability," and "intermediate ability." Besides, the majority of translation and interpretation training programs have yet to meet the actual demands (Vind & Fold, 2010). One of the reasons pupils are unable to satisfy the above standards is a lack of capability. On the other side, as technology progresses, interpreters and customers may get closer, and the translation process has gotten simpler (Sager et al., 1994). As a result, it might be claimed that as technology advances, translation utilizing technology will become more consistent and accurate, even if the translator's talent is limited. In light of the foregoing research, we suggest a strategy for improving the translation/interpretation skills of Japanese language majors through various ways of leveraging technology to make interpreting and interpreting more convenient.

3.METHODOLOGY

Both computational and quantitative methodologies are linked in the study article on the use of technology to algorithms to make the data and certifications more rigorous. The data evaluated in the essay was gathered from prior researchers' documents. First, methodologies for assessing data from various research sources on the use of technology in translation-interpretation are presented.

The methodologies used to examine the strengths and limitations of the technology, as well as the demands of users with translation needs, are analyzed in the next step. The main research object here is a group of 70 students studying languages at FPT University in Ho Chi Minh City. The students chosen for the survey are individuals who have worked in the language for an extended length of time.

4.DISCUSSION

4.1.Machine Translation (MT)

Computer-generated translations may translate enormous quantities of material without the need for human intervention (Somers et al., 2011). The primary approach of MT systems may be used to classify them. The researchers demonstrate that two key patterns may be detected using these two classifications: the rule-based method and the corpus-based approach. The rule-based approach requires a considerable quantity of human expert input since human experts establish a set of rules to characterize the translation process (Mukesh & Goswami, 2010). People from the past. In contrast, in the corpus-based method, knowledge is automatically collected by examining translation instances from a parallel corpus generated by human specialists. When these two models are combined, the translation process becomes faster and more powerful. When discussing the benefits of machine translation, the following can be mentioned: Saves time because it is possible to translate the entire text in seconds, though editors must always revise the text after it is completed; Reduces costs because it requires less involvement of many people in the translation process; The ability to repeat and remember words when used previously. This makes minimal contribution to the translation industry's data infrastructure (Figure 1).

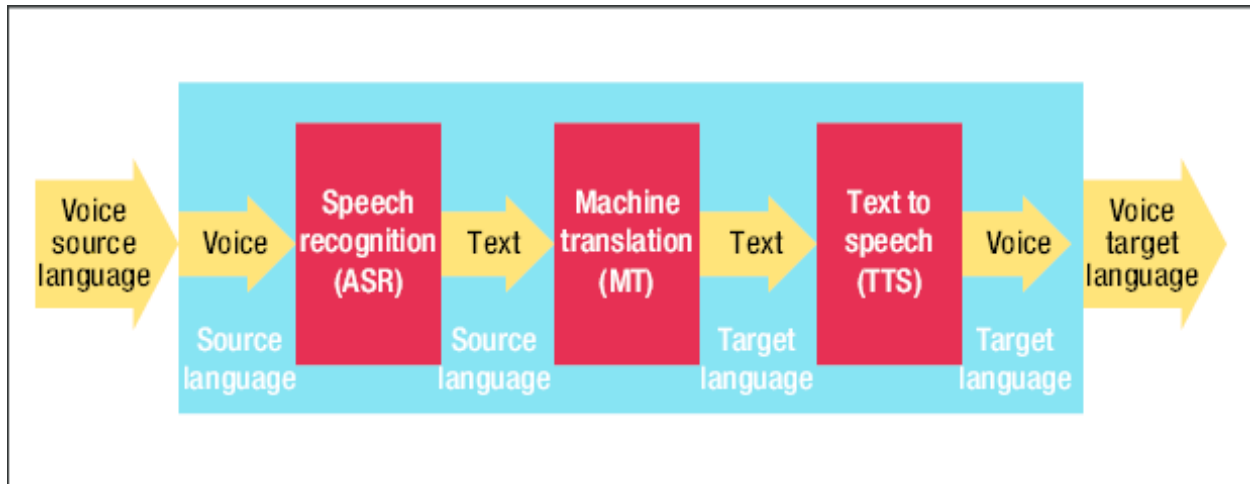


Figure 1. The process of translation by machine

Machine Translation began to be studied in the 50s with ancient computers that were even weaker than today's casino machines. However, Machine Translation is heavily invested by the military and government, but it is based on simple rules, so there are many problems. Then, from the 1990s to 2010, SMT (Statistical Machine Translation) was developed by many researchers and scientists, but there were still many obstacles in the development process, so it could not achieve the standard translation quality at this

time (Barik et al., 1994). Since 2014, NMT (Neural Machine Translation) began to be researched, gained users' trust, and opened a revolution for translation. Statistical machine translation has been in use for 25 years and is adopted by most commercial machine translation products such as Google, Bing, and Amazon with constructs such as Japanese or Arabic, which are far from English, because most Statistical Machine Translations work with English (Vaswani & Uszkoreit, 2018).

4.2. Neural Machine Translation

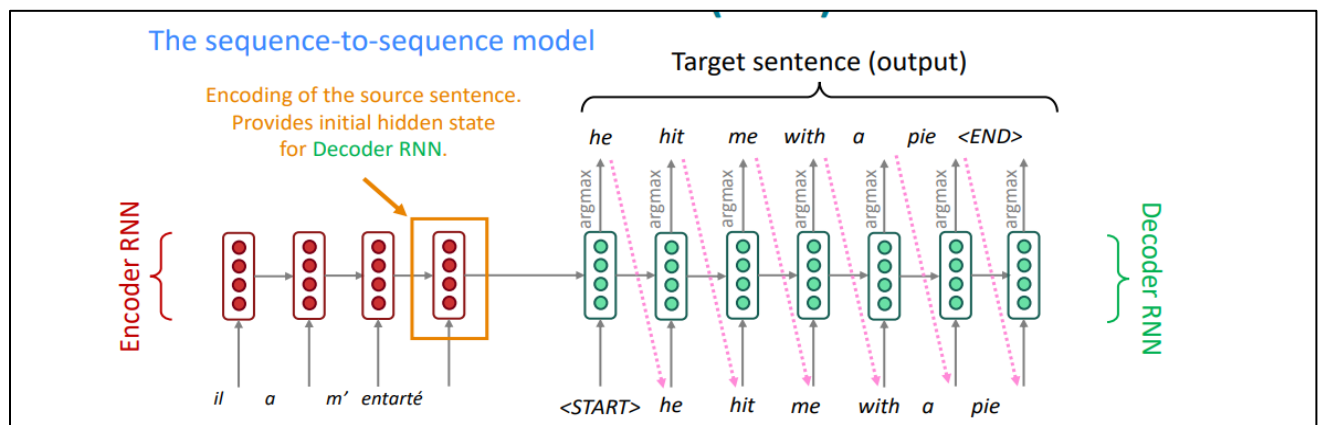


Figure 2. Neural Machine Translation

NMT (Neural Machine Translation) is a combination of machine translation (Machine Translation) and artificial neural network (Artificial Neural Network - NN). And specifically in this report, the neural network used in the Neural Machine Translation model is the Recurrent Neural Network (RNN) and the Neural Machine Translation is the model built according to Google's Neural Machine Translation architectural model, based on the Tensorflow library for Python by Source Code. Powering up Machine Translation works by breaking sentences into phrases and translating them on a phrase-by-word basis. The final result will be a compound sentence from the translated phrases (Barik et al., 1994). Following the approach is called clustered translation and the results are not very impressive because its approach is not similar to how the user in translation is read the entire text. The statement, the meaning of the

question, and correspond to the translation given (Figure 2). And Neural Machine Translation is built entirely on this approach. Neural Machine Translation is how to near Machine Translation is popular for about 4 years near here and has produced really good results, to par or above everyone. Witnessing this evolution of Neural Machine Translation the translation industry has become stronger than ever.

Encoder

A stack contains the subnets that are elements of the RNN (or the memory cells of the LSTM or GRU) that receive the devices of an element of the input sequence and transmit it to the end of the network. In a question-and-answer problem, the input string is the set of all the words of the question. Each word is represented by x_i where i is the word order.

$$h_t = f(W^{(hh)} h_{t-1} + W^{(hx)} x_t)$$

Decoder

A stack of subnets is the element of the RNN that predicts the output y_t at time t . Each of these words takes as input the previous hidden state and

generates its output and hidden state. In a question-and-answer problem, the output string is the set of words of the answer. Each word is represented by y_i where i is the word order.

$$h_t = f(W^{(hh)} h_{t-1})$$

4.3.Video Remote Interpretation

The quickest-increasing language other than English interpreter in the nation is video-distant interpreting. VRI, or video remote interpretation, is indeed a video telecommunication services solution that gives spoken or sign language interpretation services using devices such as webcams or corded phones. Indeed, excellent communication is an integral part of quality

healthcare in all professions. Acute care providers are resorting to remote video interpretation to guarantee the availability of language services for a variety of language demands at all hours of operation (VRI). When Covid broke out, the strain of patients raced to congested hospitals, rendering medical institutions incapable of coping. As a result, VRI is an excellent alternative in the aftermath of Covid. In many circumstances, at healthcare facilities or hospitals. Hospitals

must nominate a licensed medical and international language translator when providers visit patients who do not speak English or even have limited English proficiency (LEP). As little more than a result, acute care agencies in the United States have observed a rise in the frequency of LEP meetings and also the number of languages necessary. However, this system is highly costly and does not ensure that all patients can speak with the nurse (Gaspari & Doherty, 2015).

Through a survey of Japanese language students, the research has collected students' needs for translation. At the same time, applying various technologies to make the translation more

fluent. Thereby, many students still use Google Translate because of the convenience factor as well as Google already has a certain amount of data in the translation. Google Translate can translate more than 90 languages with the ability to translate images or translate handwritten text from the touch screen. More specifically, Google Translate can also instantly translate from the pictures you just took, the photos, and the menu. For students, the application of technologies in translation also has many disadvantages in translating, making students lazy in translation. However, improved technologies that can translate through voice and camera become the highlight for convenience and speed (Table 1).

Table 1: Highly applicable translation applications used by students

	Applications	Voice translation of text	Text translation via camera	Website
1	Google Translate	Available	Available	https://translate.google.com
2	Microsoft Translator	Available	Available	https://translator.microsoft.com
3	iTranslate	Available	Available	https://itranslate.com
4	VIKI Translator	Not - Available	Not - Available	https://vikitranslator.com
5	SayHi	Available	Available	https://www.sayhi.com
6	Cambridge English Dictionary	Available	Not - Available	https://dictionary.cambridge.org

5.SOME RECOMMENDATIONS

In this day and age of technological advancement, the translation and interpretation business must be more demanding in terms of translation quality and content depth. The study paper will also give straightforward guidelines to assist students to grow in the field of translation and interpretation with the following components. More specifically, the Vietnamese economy is currently in the top 40 in the world and in the top 4 regions. Which, the amount of foreign investment is FDI growing exponentially year by year. That is why the economy in Vietnam also opens up many opportunities for all industries to

open up when we are more active than ever in signing major agreements such as CPTPP (Comprehensive and Progressive). Agreement for Trans-Pacific Partnership), EVFTA (European-Vietnam Free Trade Agreement), UKVFTA (The Vietnam - UK Free Trade Agreement). Here, when the connection and commercialization are connected, the role of the work related to the translation of documents, contracts, and commerce is put on top. Also for the above reason, Vietnam also promises many contracts. Translation companies are also actively changing themselves and promising to have a new look, creating a business market in the 4.0 era.

First, colleges must prioritize the training of translators and interpreters, as well as teaching staff, in order to instill professional ethics in students. To arrange cultural exchange events between Japanese and Vietnamese cultural groups in order to improve students' awareness of Japanese culture and conduct. Promoting themes that pique students' interests, particularly through exchange activities, can help pupils develop a diverse vocabulary and knowledge of cultural history.

Second, students should be taught search abilities, since this is one of the talents that will allow them to utilize technology to transmit the information as rapidly as possible. Students can utilize a variety of electronic dictionaries to speed up the exchange procedure. And by doing so, pupils will be able to complete their work more quickly. There is no denying the positive effects of technology on the translation industry in the current era. As translation algorithms and improvements are helping people translate faster, and save time and effort with a number of translation aids. It can be said that the translator never has to retype the same content a second time because this software have an internal translation memory that can be used many subsequent times. When inherited from memory, many lines and specialized words will be automatically translated, and they also create abundant translation resources, continuously updated in the future.

Third, translators in the translation industry have many opinions that in order to translate, translators must be knowledgeable in the field they translate. Because the translation is not only translation work but also creative work with the author. For the current translation, the rich culture and knowledge of the translator also contribute a lot to the translation content. As well as the quality of the translation. And moreover, the

translator has to re-express and rewrite ideas and opinions from one language of another country into their own language. Many times, there are terms that do not exist in the Vietnamese language. Translators must consider using an equivalent word or inventing a new word that the public can understand. Or there are specialized terms, if the translator does not have scientific knowledge in that field, it is difficult to translate accurately.

6.CONCLUSION

Although, it can be said that technology has advantages and disadvantages for human thought formation. However, if universities and translation training centers can focus on students' professional and ethical practices, it will become practical and practical to use technology to conduct translation. more incentive. Technologies tend to be more innovative and radical, which makes it easier for people to reach their full work potential.

CONFLICT OF INTEREST

None

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