Empowering translation students through the use of digital technologies

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ABSTRACT: Digital technologies are widely used in various settings, including in translator training. The advancement of digital technologies, particularly translation technologies, has altered both translator training and professional setting. The present study investigates how these technologies can empower students in their learning environment. A group of 21 undergraduate translation students at Sultan Sharif Ali Islamic University conducted a series of 12-week media translation projects, consisting of social media translation and subtitling. The study results were made based on their project reports and a questionnaire to determine their attitudes towards technologies, such as Aegisub and Memsource. Based on the findings, the students showed positive attitudes towards projects and technologies. Most of them see improvements in their confidence. The projects prepared them with sufficient translation and technical skills to become professional translators, including critical thinking and teamwork skills.

Keywords: translation, digital technologies, learning environment

1 INTRODUCTION

Empowerment is a powerful word, which may imply different meanings depending on the context. Cambridge Dictionary (n.d.) defined the term as “to give someone the official authority or the freedom to do something.” If students are put into context, it generally means to authorize the students to do something. However, this definition remains vague and may be misinterpreted. It lacks the intended meaning that the present study tries to imply. It agrees more with Collins Dictionary (n.d.), defining it that “to empower someone means to give them the means to achieve something.” This definition is more suitable for this study’s context, as it intends to investigate how digital technologies can empower translation students. Lightfoot (1986) mentioned four elements in decision making when defining empowerment: autonomy, choice, responsibility, and participation. These four elements are crucial suitable when empowering students in a learning environment. Even though they are free and encouraged to make decisions for themselves, they must be responsible for every action they make.

Recent years have seen significant changes in the translation industry as the demands for translation and localization services have been rapidly growing. The increasing demands have led to the importance of producing good quality translations in a short time. As a result, there has been a shift in the translation profession. It now requires technical skills to meet the ever-increasing demands of clients. Machine translation (MT) was the first translation technology introduced in 1954 and designed for the Georgetown-IBM Experiment to translate from Russian into English (Hutchins 2004). However, the effort stopped for a long time as they hit a dead-end. Later in the second half of the 1970s and early 1980s, studies on MT were revived. Several MT systems, such as Systran and Logos, emerged for general application even though the dictionaries they used were modified for specific subject areas (Hutchins 2007). Since then, MT systems have evolved from

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using rule-based to the current neural approach, translating more than 100 languages for various purposes.

Another well-known translation technology is the computer-assisted translation (CAT) tool. In 1990, the first CAT tool was first introduced by TRADOS, which is later acquired by a language service provider, SDL, and now known as SDL Trados. Compared to MT systems, CAT tools typically consist of main features, such as Translation Memories (TMs), Terminology Management Database (TermBase), alignment. However, as times change, CAT tool developers have incorporated numerous features, such as MT systems and cloud-based management systems. These upgrades have increased translators' productivity and quality (Koponen, Aziz, Ramos & Specia 2012; Koponen & Salmi 2015; Sismat 2019) and improved attitudes towards the tools (Guerberof 2012; Alotaibi 2014; Çetiner 2018).

Over the past decade, CAT tools and MT systems have become “an integral part of translator training and professional practice” (Sismat 2016). The new normal requires translators to adapt post-editing (PE) practice in their work. Such changes have also altered translation training. Translation programs offer more than just learning and applying translation theories, methods, and strategies; but they even offered technology-related modules to train students to become tech-savvy professionals.

The current COVID-19 pandemic has also impacted the translation and language industry as it has forced more translators to work remotely from home. However, this is not a new normal for freelance translators who have been working at home before the first outbreak. Translators who have technological skills remain on the top. The pandemic has also changed the contents to be translated. For example, media contents on various platforms, such as Netflix, YouTube, and social media, have quickly attracted more users as people stay at home due to movement restriction order and lockdown since March 2020. The surge in the number of online users has led to translating a more considerable amount of media content.

Socially, more established terms have emerged and are commonly used in the new normal, such as social distancing, contact tracing, lockdown, shutdown, and self-quarantine. These terms are historically not fresh as they were popular in past events. The term ‘coronavirus’ itself was first used in 1968 during the H3N2 virus pandemic. In the 17th century, the term ‘self-quarantine’ was used during an outbreak of bubonic plague. Coronavirus neologisms have also been widely used and may sound alien to many people. For example, colonials describe the generation born during the COVID-19 pandemic. Covidiot is a combination of the terms ‘covid’ and ‘idiot,’ representing people who break the government guidelines in combating the COVID-19 crisis, while infodemic is a combination of the terms ‘information’ and ‘pandemic’ to tell the spread of information that causes speculations, panic or anxiety. Most of the terms, as mentioned above, can be tricky to translate and may sound alien to many people who speak other languages. For example, the word ‘social distancing’ is translated to Malay as ‘*penjarakan sosial*’. This term was ‘new’ and odd to Malay people, particularly in Brunei, but now it is widely accepted and used. However, not all of these terms are loosely translated in Malay. Instead, these terms were also borrowed in Malay to make it sound more familiar, such as *infodemik*, *asimtomatik*, and *generasi coronial*.

Due to the shifts in the contents and demands for technical skills in the translation industry the translator training has also been altered as computer-assisted translation (CAT), machine translation (MT), and media translation have become core modules in most higher education institutions that offer translation programs, including Sultan Sharif Ali Islamic University in Brunei Darussalam, or locally known as Universiti Islam Sultan Sharif Ali or UNISSA.

In these advanced modules, translation students were given the opportunity to conduct their translation projects to empower them to use their critical thinking skills in making decisions. Therefore, the present study aims to investigate the roles of digital technologies in empowering translation students at UNISSA. Therefore, this study will answer the following research questions:

- RQ1: What are the translation students' attitudes towards the use of digital technologies?
- RQ2: How can digital technologies empower the students learning process?

2 METHODS

2.1 *Participants*

The present study involved 21 undergraduate students who were majoring in Arabic language and translation at UNISSA. The students were Malay native speakers and typically translated between three languages: Malay, Arabic, and English. They had previously studied the basic knowledge of translation methods and strategies, and most of them had learned English and Arabic for more than 12 years.

2.2 *Translation projects*

For this study, the data were collected from translation projects in one of the core modules: 'Media Translation.' The module includes audiovisual translations, which required the students to conduct subtitling projects, and social media translation, which involves the use of CAT tools and MT engines.

A series of six translation projects were conducted within 12 weeks. In each project, the students play three different roles: project manager, translator, and proofreader. Before running these projects, the students were given hand-outs and a series of hands of practice to familiarize them with the subtitling software programs. They must use the previously mentioned translation technologies to translate social media content for the first three projects and then focus on the remaining three projects' subtitling projects.

Each project was usually carried out within two weeks. As project managers, the students must find texts and contents suitable for their team members to translate. The translators then received the materials and began with the translation process. However, as part of the subtitling projects, the translators must complete the transcription process first before they could translate them. Once translated, the translators had to submit both transcript and translation to the project managers, who would pass the translations to the proofreaders to analyze and correct any translators' errors. Once edited, the groups could begin with the subtitling phase, which requires precision, critical thinking, and teamwork skills. At the end of each project, the project managers had to present their final products and share their learning experience, particularly finding solutions to any difficulties they faced in their projects.

Also, translators and proofreaders had to submit a report on their work to share their working ethics and solutions to solve any difficulties. These reports reflect their level of critical thinking skills in decision making. Apart from the report, they had to also submit invoices for their service as practiced in the translation industry. This exercise was incorporated into the projects to give an insight into the professional setting and increase their interest in becoming professional translators.

2.3 *Digital technologies*

The present study uses various digital technologies as contents and assisting tools. In social media translation tasks, project managers were allowed to choose any social media content. Most of them chose popular platforms such as Instagram, Facebook, and Twitter, mainly advertisements, news, and entertainment. For the social media translations, they must translate the contents using a cloud-based CAT tool, called Memsourse, which incorporates MT engines in the program. On the other hand, the subtitling tasks required them to use a free, open-source subtitle editor tool, called Aegisub. A wide range of videos was translated for these tasks, such as songs, cartoons, film trailers, motivational videos, and educational videos, obtained from different sources, such as YouTube, Facebook, and other media websites. Also, translators and proofreaders must submit a report on their work to share their working ethics and solutions to solve any difficulties. These reports reflect their level of critical thinking skills in decision making. Apart from the report, they must also submit invoices for their service as practiced in the translation industry. This exercise was incorporated into the projects to give an insight into the professional setting and increase their interest in becoming professional translators.

2.4 Data analysis

A questionnaire was designed to determine the students' attitudes towards digital content and technologies to answer the research questions. The questionnaire was divided into three sections. The first section consisted of subjective questions regarding the project information as follows:

- a. What type(s) of content you used in the social media translation projects?
- b. Which one of them do you prefer best? Why?
- c. What type(s) of content you used in the subtitling projects?
- d. Which one of them do you prefer best? Why?
- e. What is the most difficult process in subtitling? Why?

The second and third sections consisted of 5-point Likert scale questions to validate the following statements:

Section 2: Social media translation

- a. I enjoy translating social media content.
- b. Social media contents are easy to translate.
- c. Memsorce is easy to use and suitable for translating social media content.
- d. Raw Machine Translations generated from Memsorce Translate are editable and usable.
- e. The media content influenced the quality of the translation.
- f. The projects improved my confidence as a translator.

The projects encouraged my creativity.

Section 3: Subtitling

- a. I enjoy subtitling.
- b. Subtitling is a delicate work, which requires both translation and technical skills.
- c. Memsorce is suitable for translating transcripts.
- d. Aegisub is easy to use and suitable for subtitling.
- e. The media content influenced the quality of the subtitles.
- f. The projects improved my confidence in subtitling.
- g. The projects encouraged my creativity.

As previously mentioned, the projects required the students to submit a report depending on their role. Their translations and reports were examined to see whether they acquired crucial skills, such as critical thinking and teamwork skills, in solving translation problems and technical skills.

3 RESULTS AND DISCUSSION

3.1 Project information

Table 1 represents Questions 1 and 2 in Section 1 of the questionnaire regarding the contents translated in the social media translation projects and the preferred contents. Over one-third (8 out of 21) of the students translated news posts, while others translated infographics (5 students), advertisements (4 students), and healthcare posts (4 students). However, when asked about their preferred content, almost half of them chose infographics. They stated that the infographics consist of fascinating subject matters, such as local economic developments, languages, and Covid-19 statistics. Meanwhile, one-third of them chose news because they are current and easy to understand, such as the covid-19 pandemic, online learning, elections, and local news reports.

The students were then asked similar questions on the subtitling projects. Table 2 indicates that the students subtitled various videos such as comedy, songs, cartoons, trailers, motivational and educational videos. When asked their preferred contents in Question 4, 7 of 21 students chose comedy videos, stating that comedy videos are fun to translate. Therefore, it makes the subtitling process less stressful. 5 out of the students chose cartoons, stating that subtitling animated films are easy to translate because they had previously watched the movie repeatedly when they were

Table 1. Types of contents and preferences in social media projects.

Type of content	Q1	Q2
News	8	7
Advertisement	4	2
Infographics	5	10
Healthcare	4	2

Table 2. Types of contents and preferences in the subtitling projects.

Type of content	Q3	Q4
Songs	2	2
Animation	5	7
Cartoons	3	5
Trailers	3	3
Motivational videos	4	2
Educational videos	4	2

Table 3. Results of section 2 of the questionnaire.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	7	10	4	—	—
2	18	3	—	—	—
3	—	15	6	—	—
4	—	16	5	—	—
5	4	13	3	1	—
6	2	14	5	—	—
7	3	16	2	—	—

kids. Others who preferred songs and trailers said they are of their interests, such as singing and playing video games.

In response to Question 5, most of them stated that both spotting and line break is the most difficult processes as the former requires precision. The latter is limited to 42 characters in two lines per subtitle. They had to rephrase some of the words to ensure that the subtitle does not exceed the character limit. Exceeding them would affect their readability. Some of them also stated that the transcription process is the most challenging as it requires excellent listening skills.

3.2 Social media translation

Table 3 shows the second part of the questionnaire's results regarding the students' experience and attitude towards social media translation projects. Regarding Statement 1, the results indicate that most of them enjoyed the project. A possible explanation for this may be related to Statement 2, indicating that 18 out of 21 students found the social media contents are easy to translate while the other three students remained neutral. When examining their reports, some students stated that hashtags are tricky to translate as the translation must also be as catchy as the original. For example, the hashtag #banar2brunei was challenging to translate to Arabic as it could mean بروناي الحقيقي (Truly Brunei) or بروناوي حقيقي (a True Bruneian). However, the translator chose the latter as it is more suitable for the given context.

In response to Statement 3, most of the students (71.4%) agreed that Memsourse is easy to use and suitable for translating social media contents. A possible explanation for this is that CAT tools typically preserve the formatting of the file. Therefore, it reduces the number of efforts in designing and formatting the content. Furthermore, when examining their response to Statement 4,

Table 4. Results of section 3 of the questionnaire.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	10	11	–	–	–
2	2	14	5	–	–
3	-	8	9	4	–
4	-	14	7	–	–
5	4	15	2	–	–
6	3	15	3	–	–
7	10	9	2	–	–

16 students found the raw MTs generated from Memsourse Translate were editable and usable when translating the social media contents. This statement may be a possible explanation for the previous statement regarding the easiness and suitability of Memsourse for translating the contents.

In response to Statement 5, most of the students agreed that the contents influenced their translations' quality as they stated in their report that it is easy for them to translate the exciting contents. They must be knowledgeable of the subject matter. This statement is linked to Statement 6 regarding their confidence after carrying out the projects. 16 out of 21 students agreed that the projects improved their confidence as a translator while the other five remained neutral, indicating that content and subject matter contribute to improving their confidence level. Similarly, in Statement 7, most students agreed that the projects encouraged their creativity, suggesting that social media content and translation projects can empower them. These exercises boost their confidence, creativity, and critical thinking skills, as reflected in their reports.

3.3 Subtitling

For the subtitling project, students were asked similar questions to the previous questions. 4 shows the last section of the questionnaire's results regarding the students' experience and attitude towards subtitling projects.

Similar to the previous section, students were first asked if they enjoy subtitling. Based on their response to Statement 1, shown in 4, all of them enjoyed subtitling. However, most of them also understood that subtitling processes are delicate and require both translation and technical skills (Statement 2). Their reports also stated that they helped each other when they faced transcription and subtitling difficulties, indicating their excellent teamwork skills (Çetiner 2018).

In response to Statement 3, only 8 (38.1%) out of 21 students agreed that Memsourse is suitable for translating transcripts. 9 students remained neutral, while 4 of them disagreed. A possible explanation for this is that based on their reports, and some stated that they preferred translating the transcripts without Memsourse because its MT, Memsourse Translate, could not provide editable and usable translations for some contents. Particularly, songs and films may contain idiomatic expressions and metaphors that MT cannot translate directly. For example, when translating the idiomatic expression 'it's raining cats and dogs' into Malay, Memsourse Translate rendered it as '*hujan kucing dan anjing*', which completely does not make any sense. Another example is the term chicken as a metaphor for a coward. However, Memsourse Translate rendered 'You're a chicken' literally as '*Awak ayam*', which sounds comical as it is not the intended meaning.

When asked about the easiness and suitability of the editing tool (Statement 4), two-thirds of the students agreed that Aegisub is easy to use and suitable for subtitling projects. Some of them stated that the 'shift times' feature enhances the subtitling process. It allows users to modify the start/end timestamps by time or frames. They also found that the software interface is user-friendly and straightforward. In response to Statement 5, most students agreed that the contents also influenced the subtitles' quality. They stated in their reports that different types of content require different approaches to translating them. Even though they stated that they enjoyed subtitling, expressions in some content, such as songs and films, require deeper understanding and knowledge of the equivalent terms and phrases in the target language and culture (Alotaibi 2014; Hutchins 2007).

Despite the complexity of the subtitling linguistically and technically, most students (85.7%) agreed that the subtitling projects boosted their confidence as translators (Statement 6). A possible explanation for this is that some of them reported that Aegisub was challenging to use at first. However, they slowly familiarized themselves with the tools and found it easy to use after a while. The technical skills they acquired increased their confidence level and prepared them for professional settings. In response to Statement 7, most students (90.5%) also believed that the projects encouraged their creativity, reflected in their presentation skills. In addition to the main contents, project managers were competitive in producing introduction videos as their creative way to introduce their projects and team members. The videos also surprisingly looked professional and were of high quality.

4 CONCLUSION

The overall findings suggest that digital technologies can empower translation students through translation projects to some extent. Despite facing some difficulties, students managed to use their critical thinking skills when carrying out the projects technically and linguistically. Based on the results, Memsourse seems to be more suitable for translating social media contents than translating the videos' transcript, due to the incapability of Memsourse Translate in providing equivalent terms and phrases, particularly idiomatic expressions and metaphors in songs and films. The complexity of the contents also influenced the quality of the final products. Apart from the equivalence issues, the contents also need to be interesting to make the translation and subtitling processes more fun and less stressful. As a result, most students also displayed positive attitudes towards digital content and technologies in social media translation and subtitling projects. They also saw improvement in their confidence because they prepared them with the necessary skills to become professional translators and subtitlers. Surprisingly, the students also showed their competitiveness and teamwork skills, mainly when presenting their projects.

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