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Assessing the Training of Translation Students on Translation Technologies at the Algerian University

Hayet DRIAI[1], Mehammed Salah BEKKOUCHE[2]
[1] Laboratory of Historical Documents Translation, University of Algiers 2, Algeria
[2] Laboratory of Historical Documents Translation, University of Algiers 2, Algeria

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Abstract

In the 21st century, technology has become deeply embedded in every field, including translation, where its influence is now indispensable. Therefore, translation tools became a fundamental aspect and an integral part of both professional practice and academic instruction; thus, the need for training future translators to master technological tools properly gained momentum. In this regard, the present paper purports to assess the training in translation technology in the Algerian university by examining teaching methodologies, tools, and delivery modes through a designed survey addressed to translation teachers during the academic year 2023-2024. Findings reveal a significant chasm between the demands of the translation industry and the Algerian students' training. Therefore, this study addresses the gap between the translation market and academia inferring proposed ways to optimize translation teaching to improve graduates' employability and align their skills with market needs.

Keywords: Market demands, teaching, technology, training, translation

الملخّص

مع الانتشار الواسع للتّكنولوجيا التي تغلغلت في كلّ اختصاص في القرن الحادي والعشرين، و مع امتزاجها الكليّ بمجال التّرجمة على وجه الخصوص إلى الحدّ الذي صار معه مستحيلا فصلهما، باتت الحاجة ماسّةً لتدريب مترجمي المستقبل على التمكّن من الأدوات التّكنولوجيّة، وقد أصبحت أدوات التّرجمة على، وجه التّحديد، جزءًا لا يتجزّأ من مهنة التّرجمة و من تدريب التّرجمة على حدٍّ سواء. بناءً على هذا، تهدف هاته الورقة البحثيّة لتقويم التّدريب على استخدام تكنولوجيّات التّرجمة في الجامعة الجزائريّة من خلال تدارس نهج التّدريس و طرائق إيصال المعرفة، والأدوات المستخدمة، و تخلُص إلى اِقتراح طرق لتحسين جودة تعليم التّرجمة في محاولة لسدّ الفجوة بين مهنة التّرجمة و حقيقة تعليمها، مع السّعي إلى تلبية احتياجات السّوق و ضمان فرص أفضل في التوظيف لخرّيجيها.

الكلمات المفتاحية: تدريب، ترجمة، تعليم، تكنولوجيا، متطلّبات السّوق

Emails: [1] hayet.driai@univ-alger2.dz , [2]medsalahbekkouche52@gmail.com

Introduction

Translation Technology has become an essential element used by transnational companies and individual practitioners in the field of translation which significantly influences the workflow. This development involves chiefly the use of translation memories, online dictionaries, terminology databases, translation tools, and statistical machine translation, which are becoming more holistic and boundless by the day. As a result, unlike in the past when all the processes depended solely on translators' minds, nowadays, "the need for translation technologies is growing at an annual rate of 7.99% which requires the acceleration of TT research and development" (Wu, 2023, p. 143) and translators are more required to post-edit rather than to render (Král, 2012), which means that the majority of translation processes are outsourced to the machine (computer) resulting in the reduction of the work-load on the translator.

The lack of linguistic knowledge may lead many people to naively assume that assigning the work of rendering a message from one language to another to either a human or a machine is as simple as deciphering a code which leads to the assumption that machine translation has the potential of replacing human translation. This allegation can be easily refuted from both directions; because the machine can never acquire emotional intelligence, as well as fact that human resources are naturally limited, thus we can safely culminate in the validity of a cooperation human-machine that can brim over the lack of each of the two.

On the other hand, translators are not qualified enough in the technology field that they would disregard the importance of format where their translations would be returned for rework and review because they did not comply with technical and technological outlines. Therefore, to avoid the inconvenience when joining the market, it is highly recommended to train future translators so they acquire practical rather than theoretical skills master technical and technological aptitude, and equip them with the competencies to adjust to modern software tools, without neglecting the time and effort devoted to mastering such complicated tools and their diverse functions. This paper seeks to reflect on the situation of the Algerian translation students training on technologies specific to the field of translation. It aims to uncover how far academic training and the actual translation market demand. It presents a set of solutions proposed to narrow the gap between the two and equip translators well enough in the area of technology that serve their capacity to blend in the market after graduation and offer high-quality performance as professional translators. In this regard, it attempts to answer the following main questions:

- What are the different types of translation technology that students should be familiar with to be ready to join the translation job market?
- How familiar are translation teachers with integrating the different types of translation Technology (TT) tools in their classrooms?
- How could we introduce TT to translation students through their teachers to keep pace with the non-stop technological advances in the field of translation notably?

Historical Trace

The idea of introducing technology into the translation field dates back to 1949 when Warren Weaver – who is considered the pioneer in Machine Translation – wrote a memorandum entitled 'Translation' mapping out aims and methods surpassing the usual word-for-word approach to solving the problem of multiple word meaning by looking at a small

number of context words. Then, he suggested that logical conclusions on meaning could be deduced automatically by computer. In this regard, he proposed that a source language text could be regarded as an encryption of the target language text and that there exists a joint base for all human languages, making it easier to tackle translation problems (Encyclopaedia Britannica, 2024).

However, the first Machine Translation (MT) system was introduced in the 1950s by one of the leading and widely-known companies of technology: IBM, joining the effort with Georgetown University in Washington DC. (Hutchins, 2004). Although it relied on pre-programmed rules and dictionaries, it was a revolutionary step towards more advanced technology. Nevertheless, computer engineers lacked the necessary linguistic knowledge making them think that translating was a mere decoding of a cypher which resulted in being relatively poor and unreliable in its early forms.

In 1966, the Automatic Language Processing Advisory Committee (ALPAC) reported – based on the presentation of MIT scientist Yehoshua Bar-Hillel – that computers cannot comprehend semantic differences; therefore, this intrinsic aspect of the translation process was assigned to the human who has a particular awareness and reciprocity with the world that the machine just cannot clone (Mačura, 2012, p. 209).

Later on, with the introduction of personal computers, linguists and engineers contributed together to the growth of technology for translation purposes, not on the grounds of replacing human translators, but for their usefulness in strength and speed in processing data compared to human ability.

The digital revolution has had a significant impact on the translation profession, not only on how translators communicate and get paid, but it has also affected the way they mine information, the quality of their work, the timely span, and their final translation product.

Importance of Introducing Machine Translation to the Students

The value of any training program at the university level lies within the skills that the student would acquire to be empowered to join the work environment after graduation without hindrances and without the need to take any more courses to fit into the working space. Moreover, technology in any working space is nowadays referred to as universal, with its high impact on the quantity, speed, and cost which introduces a major qualitative shift on the same lane.

Nothing can discount the fact that translation agencies and any form of company or institution hiring translators nowadays require mandatorily from its candidate's proficiency in at least one of the translation aids/tools such as CAT tools. Therefore, translation institutes and translation training schools are seeking to catch up on the market demands and ensure their graduates meet the requirements of the current translation market.

Types of Translation Technology to be Introduced to Students

There are plenty of tools and systems that the translation market imposes on translators to use during their work, thus, students are also required to receive training on how to use them, or at least to be introduced to them. These types of TT fall in the spectrum of translation technological tools and translation technological systems (Sin Wai, 2023); they will be clarified in what follows:

- Translation Technological Tools which include:

- *General tools* such as word processors, grammar checkers, and electronic resources like terminology resources and terminology management tools to manage terminology databases, while the systems in these tools help especially with the consistency in the translation, namely electronic and online dictionaries, and forums, given that translation teams are inclined to the virtual work atmosphere; thus, they became more dependent on the use of online forums and dictionaries that ensure smooth and instant communication, sharing and discussion between them.
- *Specific tools* such as
  - data-capturing tools or Data Mining tools and corpus analysis tools. These tools also include information retrieval and quality assessment. It relies basically on the use of corpora with all its types (bilingual, parallel…etc) to gather patterns from large sets of data valuable to the translation process.
  - Translation Memory Systems or Tools (TM tools) where translation memory is the storage of pairs of sentences translated by humans into a database, therefore, when the translator constantly works on the same type of text, then there's a high chance of stumbling on a repetition of the same sentences or at least fractions of sentences; hence these tools would spare the translator from wasting his/her time and mental energy by suggesting previously met translations in similar cases.
  - Concordancers such as AntConc help translators spot words, phrases, or patterns in large corpora allowing them to understand their usage and meanings across different contexts.
  - Translation checkers and Statistical Machine Translation (SMT) compute the statistical likelihood that sentence Y in the target language is a translation of sentence X in the source language and also the probability that sentence Y is well-formed in the target language. It needs large amounts of bilingual corpora (original and translated by humans), which can nowadays be provided by the number of online resources). Besides, SMT uses large volumes of bilingual data to find the most suitable or probable translation for a given language input (Wu, 2023), whereas combining SMT with TM can be very efficient.

- Translation Technological Systems which include:

  • *Machine Translation*, where Machine Translation (MT) Software relies on software such as Google Translate, DeepL, Microsoft Translator, and others… to automatically translate a text from one language to another.

  • *Computer Aided Translation* or Computer-Assisted Translation (CAT) systems assist humans during their translation. They include SDL Trados, MemoQ, Wordfast…etc.

  • *Localization* or software localization is not a simple translation process, it stretches out to ensure conforming the culture of each end-user depending on the geographic location and the variety of cultures. It includes currency and measuring units, symbols and signs, traditions and societal characteristics and the layout design as well. Translators working in this field tend to use text extraction tools, CAT tools,

Translation management tools, and tools that help integrate localized versions during the development process.

- *Speech Translation tools* such as DeepL (voice input), iTranslate, and Meta's speech-to-speech Translator, among others, work on converting a spoken language into another language, combining automatic speech recognition ASR with MT and text-to-speech TTS synthesis.

It is essential to point out, next to all of the translation tools and systems that have been mentioned above, the necessity of introducing Project Management Tools to the students, given that project managers have to plan, instruct, monitor, and control large amounts of data quickly and accurately while facilitating the problem-solving and decision-making process during the translation project (Pérez, 2002). Asana, Trello, Monday.com, Jira, Microsoft Project, and Basecamp are some examples of these tools. They offer features allowing the users to create projects in the form of lists and cards. This helps in organizing and assigning tasks, tracking timelines and due dates, and integrating other tools and apps that a translator uses.

Challenges in Adopting Translation Technologies at the Algerian University

In light of what's been mentioned earlier, the following section defines the challenges that arise when attempting to deploy Translation Technologies (TTs) at the Algerian university and will elaborate on the methodology of the research which will be followed by some conclusions and recommended solutions.

Methods and Materials

In line with the objectives of this research paper consisting of documenting the situation of translation students' training on Translation technology at the Algerian University based on the respondents' perspective and report on its use in the translation classroom, we present the results of a quantitative descriptive study assessing whether the current programs provide the competencies that translation student need and utilize when they access the translation job market. Knowing that this side of the translation teaching at the Algerian University is relatively young, and very little research has been conducted on matching the students' target competencies with the translator profile; therefore, the principal goal of this paper is to narrow the divide between the two from an academic and vocational perspective.

Participants

This research employed a non-probability convenience sampling approach. Based on the availability, the only criteria for selecting the sample involved targeting translation teachers who are actively engaged in translation teaching at the Algerian University during the academic year 2023-2024. Fifty-seven translation teachers were requested to participate, but only twenty-six (26) responses were collected, representing a response rate of approximately forty-six percent (~46%) of the census of potential respondents.

Research Instruments

To collect the necessary data needed to address the research questions, an online survey questionnaire was built using the Google Forms software and distributed. The questionnaire had thirty-three questions, divided into five sections: demographics, general knowledge, the use of translation technology in the classroom, the student's perspective, and future considerations. It involved diverse types of answers, such as multiple choice, open-ended, and yes/no answers

(see Appendix A). Despite the great challenge in collecting data due to research limitations, the results yielded some interesting insights that encouraged to carry out the study outlined in this paper with the analysis of a larger sample. In the next section, we report the entire survey by presenting and discussing the findings.

Research Procedures

First of all, we have designed the research instrument in light of related previous research to collect the necessary data. The final version of the survey questionnaire was, then, distributed virtually to teachers across various Algerian universities offering translation as a major. Finally, the compiled data was analyzed, and the results were generated accordingly.

Results

The following section will provide a comprehensive analysis of the collected data. This includes a thorough examination and interpretation of the findings.

Demographic Data

The sample consisted of 46% men and 54% women, with a mean age ranging between 30 and 40 (77%), while 8% of them were between 40 and 50, and 15% of them were over 50. As for the academic profile, most of them hold a classic master's degree (67%), and 33% are currently pursuing their PhD degree while working as translation teachers. Still, they were all graduates of the translation department.

General Knowledge

Based on the findings, 62% of the respondents were familiar with translation technology; however, only 15% of them received training on the use of translation technology, which denotes the neglect of such vital knowledge and its exclusion from the educational and training curricula.

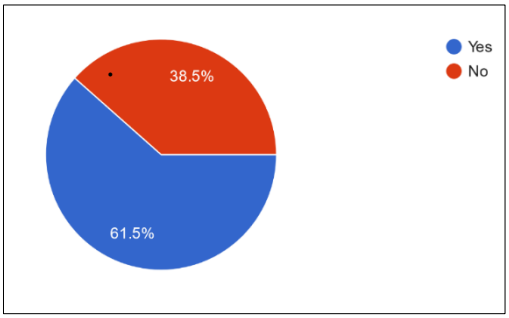

Figure 1. Teachers' familiarity with TT.

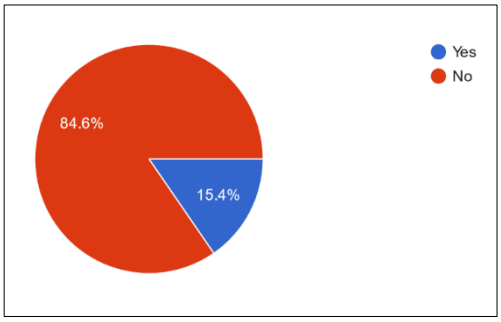

Figure 2. How many of them received training on TT

Merely 9% of the respondents who were familiar with translation technology reported that they have used commercial programs. In comparison, 19% used both commercial and online free programs, and 72% said that they could only use free ones, knowing that the free software would consistently rank lower than their commercial peers on the level of quality and specialization, with a total of only 18% who revealed that they find it difficult for use.

The Use of Technology in the Classroom

Concerning the use of technology in the classroom; it is closely tied to the personal background of the teachers, which manifests in the 54% of the respondents who stated that they had employed technology during teaching, unveiling that 43% of these cases were simply driven by the obligation of the properties of the module they were handling since it was a

technology-oriented subject. The remaining number of teachers had the choice of whether to employ technologies in their classrooms or not. It becomes a personal choice that depends on the teacher's method and strategy or his/her will to cope with the advances in the translation profession world.

An overwhelming majority of the tools used by translation teachers in their classrooms were simply online translation tools such as online dictionaries and free translation websites, followed by CAT tools. However, the teachers who used technologies in their classrooms also reported that it was not difficult for them to instruct the students on how to use them (75% reported so).

The teachers stated that they introduced technological tools to their students while working on all types of texts, whether general or specialized texts, with a slight inclination toward the specialized ones. Responses indicate that these technological tools were primarily introduced to students at the Master's level, surmising that being at this level means that the students are advanced translation students.

Teachers have shared several objectives for the use of technology in their classrooms. These range from reading comprehension and translating processes, to freelance ventures. Other goals include studying machine translation and the comparison of machine-translated products with human work.

The teachers aspire for more access to technological tools in their academic careers, even though they might find it difficult to instruct the students. They complained about the hurdles that consist mostly of the lack of equipment, weak internet coverage, deprivation from commercial programs, low information-technology competence, students' reluctance, and carelessness about proofreading and post-editing after getting the translated product from the machine.

Student's Perspective

The teachers expressed some of the fascinating details when they collected feedback on the use of technologies in education and training from their students. Although many students preferred using Google Translate software for the sole purpose of facilitating their translation tasks regardless of the quality of translation, a lot of them were happy to learn the usage of more specialized tools, particularly when realizing that translation technology facilitates learning and creates interactive atmosphere encouraging them to be motivated for learning and the production of better translations. Students who explored the difference between human and machine translation recognised the importance of comprehension and post-editing in the translation process. For some of them, the interest peaked so they opted to research this field in the form of graduation theses.

Teachers instructed their students on the use of technological tools through a variety of methods, using a projector and a computer. Some of them resorted to hands-on in-class strategy; they introduced several online translation tools, then assigned their students some translation tasks, dragging their attention to be paid to the differences between languages grammatically and syntactically, as well as the characteristics of the translation product when they inserted a sentence or a paragraph rather than simply questing for equivalence of single words. All of it was carried out in the frame of comparative analysis methods at different levels (structure, choice of terminology, etc.). In addition, teachers would fall back on recommending specific online dictionaries, pointing out the number of existing equivalences for a specific word in the target language and instructing the students to consider that when picking the

correct equivalence out of the given choices. Teachers guided their students to take notice of the various advantages and disadvantages of Machine Translation (MT) and Computer Assisted Translation (CAT).

Future Considerations

As Figure Four shows, there is some level of agreement amongst the respondents, as 77% of them showed a keen interest and veritable intention to use translation technology in their classes in the future. They insist on introducing it to advanced-level translation students rather than to beginners; however, percentages are equal regarding their judgement of whether TT is more suitable for undergraduate or postgraduate students.

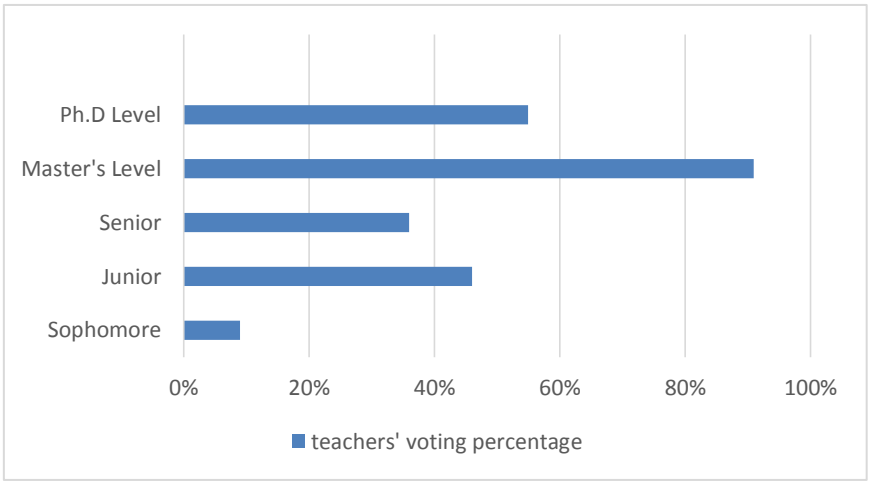

Figure 4. Teachers' insights on the ideal translation technology instruction levels

Respondents who believe that TT is more suitable for undergraduate students explain that they don't need to go through a whole level to be entitled to learn TT, saying that the first two years at the undergraduate level are enough ground for them to gain exposure to TT in the following year. Yet, some of those emphasize that learning TT is necessary for the training cycle of undergraduate students for a professional purpose because this means preparing them for the job market which relies massively on those tools. Moreover, they realize that Information Communication Technology (ICT) tools are rapidly and constantly evolving, therefore, learning TT skills has become a must for undergraduate students to avoid lagging. On the other hand, respondents who said it is more suitable for postgraduate students justify their choice with the belief that undergraduate students do not necessarily need the integration of translation technology in classes; on the contrary, they are entailed to practice with classical methods first and make sure to acquire the techniques and procedures of translation. They add that postgraduate students are selected students with high faculties of mastering the main concepts, methods and techniques of translation, they have the ability to distinguish when and how to use it, they have more interest in expanding their knowledge and higher ability in properly handling updated technologies in their field of study, unlike their undergraduate peers who are subject to misusing these technologies and relying entirely on them in doing their translation' tasks.

The respondents manifested that the only requirement their students need to meet is preliminary computer literacy and basic information mining skills, signaling the importance of being aware that these tools are not to be relied on mindlessly. They showed concern about

students not being motivated enough or even exclusively thinking that technology is bound to smartphones.

As for the teacher profile, the respondents consider TT of great usefulness in promoting translation speed, creating ready-made texts for analysis in practice, involving written production and decision-making practices, and enriching the translator's workbench by meeting the characteristics required under contract terms. However, only 38.5% said that they engage in continuous professional development to stay updated on translation technology trends and tools through self-directed learning either through direct use of free or commercial translation software or from online free courses and seminars, such as those available on YouTube and other learning platforms like Udemy, TEDx, Khan Academy, etc.

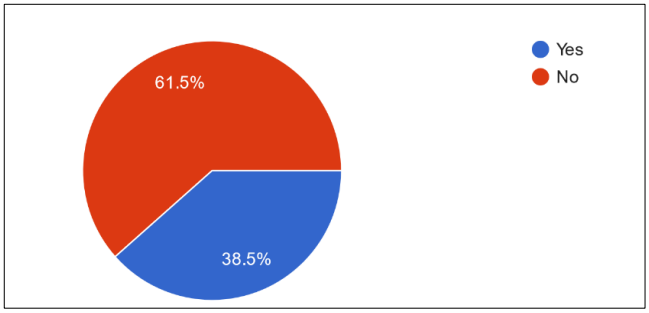

Figure 5. Teachers' engagement in professional development in translation technology

The data shed light on a very delicate attribute of the Algerian university teacher, namely the self-cultivation of quite essential skills. Nevertheless, depending on their sources, this method would highly prove limited due to some reasons; on the one hand, the dispersion of efforts when there is no clear goal and a clear path towards that goal, except for what they might have needed once in their academic research i.e., based on the mere incidental need, and the other hand, what the next question revealed about the type of programs they had access to, which were either commercial or online free programs.

The limitation on the use of commercial versus free software is due to the cost of translation commercial programs exceeding the monetary constraints of the teachers. Besides, the educational institutions don't provide these programs; neither to the teacher nor the student, making it an unpretentious individual effort by the teacher. The majority of teachers can deal with TTs smoothly and efficiently if they are introduced to them. However, not all self-trained users of translation technologies can handle them effortlessly; thus, there's a rising need for periodic training to tackle all the difficulties and set hands-on the ever-growing updates.

Relatively, it is not possible to introduce commercial programs to the students even if the teacher could afford to have them on his own because that would make the session utterly theoretical, which hinders the understanding and grasping of the different features, making it relatively ineffective and simply a waste of time, knowing that the student would not be able to afford to get the programs for momentary application. Likewise, translation teachers without proper training on the use of technologies prefer to deliver their lessons traditionally, considering that they feel more comfortable doing that and have some concern or worry about attempting to try new methods implying the use of technologies.

Utilizing technological tools, especially for translating specialized texts, could be justified by the widespread belief that specialized texts inevitably necessitate the assistance of specialized dictionaries because those texts have certain specifications, amongst which the

specialized terminology, especially knowing that most students of this field come with literary backgrounds. The diversity of aims out of employing technological tools unveils interesting facts presented in the growing attempt to keep pace with the technological advances in the translation field despite the vulnerability in materials and resources, training plans, and even the more existing types of technological competencies that surpass the aforementioned skills covered in class objectives. Nonetheless, findings reveal that the teachers are enthusiastic about learning more and coping with the ever-evolving world of technological advances; mainly because the sample covered mainly young teachers with high enthusiasm for learning, self-development, and passion.

The methods teachers followed in introducing translation technology, be it MT or CAT tools, clarify that even though the teachers had specific objectives to reach out of their classes, not all of them employed the suitable methodology despite that they would score many goals, the dispersed, unorganized efforts preclude the real and more significant benefits and objectives of technological tools and translation technology use in the classroom that can be achieved when employing the suitable method and having adequate resources and materials.

However, the respondents proved to be highly conscious of how purposeful introducing TT and even ICTs in the classroom is, with varying use that falls into distinct categories including pre-translation, during-translation, and post-translation phases, as well as using them in assisting translational tasks, or in analyzing inputs and outputs for a better understanding of the discourse and translation in itself, be it in a learning environment or a training setting, not neglecting the importance of knowing when and where to deploy those technologies, which necessitates an understanding of its actual value; an assistant and not a boss. Relatively, it is worth noting and pointing out to the translators-to-be that "for a large number of translation projects of large quantities, post-translation editing is an ideal choice "(Junsong et al., 2023, p. 15).

Discussion

As previously mentioned, the value of any teaching program nowadays depends on two primary criteria; how close it is to the reality of the job market, and whether it is coping with the advances in the technological field. This research has resulted in fulfilling statistics necessary for assessing the academic practices in the Algerian university programs for teaching translation, covering all three main elements, i.e., the teacher, the student, and the teaching-learning process, drawing on the following results:

The Algerian translation teachers realize the importance of keeping pace with the technological advances in either the field of translation or the field of pedagogy. They are also intrigued to use TT in their classrooms as a means and/or an objective. Nonetheless, they are facing hindrances such as the shortage of equipment (hardware and software), as Ameur et al. (2024) describe it as “a complex issue that discourages teachers from integrating new technologies into university classes” (p. 62), as well as the lack of proper training which stands as a stumbling block. Despite the progress that the standard open-access software has reached, these results can only indicate the limitation in the academic environment, which is mainly due to several reasons:

- Technical issues include licensing, versioning, and even Software/Hardware compatibility.

- Budgetary constraints do not allow acquiring the paid version for academic training in a university setting.
- Lack of conventions between Algerian higher education and the providers of up-to-date technologically advanced software.
- The absence of training the trainers on the use of TT, be it free or commercial.
- Lack of training on the ways of delivering such specialized knowledge, marking the difference between the know-how and teaching skills.

Teachers already have the potential and the will to learn, develop, and acquire more skills especially when it comes to technologies, even if they don't realize that; it is simply the lack of equipment and awareness that isolates them from working on these skills. On the other hand, even though the majority of the sample in my research reported that they have no issue handling technological tools, many teachers, as well as translation students, still have some sort of impediments that hold them back from getting well-acquainted with the use of a PC in general, even though it may sound strange in our current era of technological advances. Psychologically speaking, some people have a type of resistance and would find it tedious to step out of their comfort zone, having gone a long way without leaning on the help of technology, paving their comfortable way. There may be many reasons for that, namely, the concern of handing control over to the machine – which is supposed to be a servant, not a master – carrying a possible risk on the quality. Difficulties in adjusting to the constant burgeoning in the technologies and ceaseless updates in software along with the struggle to get rid of habits, because professionals trying to shift the work method from wholly based on their human intelligence and mind to entrusting it to the machine will result in more work, time and effort to be devoted to master the handling of translation technological tools.

As for the most convenient level for students to start learning TT, many researchers in the field of translation pedagogy believe that translation technologies should be introduced to students at advanced levels of their study because they think it is essential to master basic translation skills first, they consider technologies to be reserved only to advanced levels because it's an advanced skill in their point of view, which coincides with the point of view of the respondent teachers, however, current translator profile chartered by most leading pedagogical research institutes, such as the EMT translator profile, prove that technological tools are one of the most essential competencies in the translator training, in other words, incorporating them only in the Master's level is a sign of curricular deficiency for three reasons:

1) diminishing the stark importance of technological competencies.

2) reducing the chance of students' familiarization with using those tools.

3) creating a wide breach between academic translator training and professional needs.

The teachers highlighted that the students need to be cautioned about how much we can rely on those technologies, because aside from the cases where there are redundant phrases that already exist in the database of the software and the case of fuzzy matching, terminology bases function differently, knowing that terms' meanings often change according to the context, which seems to be an arduous task on the machine that considers language a bunch of logical codes and binary combinations, translators have to be astute around the suggested machine

translation to pick the convenient term corresponding to the context amid polysemy. However, some clients would require the translator not to make any adjustments to the already existing TMs, and the translator can only comply. Still, students must be cautious about the reverse psychology of this kind of case because it teaches them to mindlessly rely on existing TM without critical thinking. Besides, CAT tools often isolate short segments out of context. They also mess up the wording order in charts and tables which makes it difficult for the translator to decide the translation (Mačura, 2012, p. 213). Therefore, it is crucial not to trust the product translated by the machine unquestioningly.

Teaching technological skills to translation students is not limited to advanced levels of study or specialized fields. Technology has become a prerequisite in all fields nowadays, and translation is no exception. Such skills are important for all the training levels of translation, as well as for all types of translation, be it general or specialized. Students need training on translation technological tools progressing parallel to the usual translation skills training. Massey (2021) mentions that according to a CIUTI survey in 2018, one of the most essential perceived challenges to graduates was technological ones, and they were clustered around Neural Machine Translation (NMT), post-editing, and Machine Translation (MT) literacy. This can only mean that there is a high and prompt need to teach translators-to-be in their early stages of training on using and professionally managing translation technology.

Comparing the translation market demands with the competencies and skills incubated during translation students' training leads to the conclusion that courses are generally in line with the requirements of the practice of translation; however, assessing what these courses offer to their students and what the teachers aspire and/or try to offer has also revealed some divergences between the profession and academia which raises several issues that ought to be taken into account when designing translation courses. Translation technological tools should receive more attention and gain higher importance when training the students, more emphasis should be on providing the necessary tools and software programs for the training phases of future translators, and more attention should spot-light the adequate strategies for delivering courses related to translation technology, especially through training translation trainers.

Recommendations

Based on the discussion above, we may propose several recommendations to address the identified challenges and implement effective strategies. They are listed as follows:

- Attract teachers' interest in the use of technology in the classroom by revealing all the benefits, be it related to translation or simply technological tools for education (like online conferences software, forums, and so on).
- Ensure teacher training by the university as part of upgrading the teacher's profile rather than expecting the teachers to work on their self-development because it is ineffective as shown in the research results.
- Encourage realistic practical workshops led and organized by the teachers themselves, away from excessive theorizing, be it in-person or through webinars.
- Raising awareness amongst students about the importance and the helpfulness of mastering basic and advanced technologies for either research or translation-proper tasks. It will facilitate the learning process open new opportunities and improve the students' outcomes.

Even if the leaders of higher education recognize the importance of keeping pace with the advances in the technological and vocational world, depending solely on the teacher's effort takes us nowhere. Therefore, we recommend working harder on providing solutions, knowing that the teachers' interest in developing their skills is one of the most helpful keys to applying the suggested solutions. They can be listed as follows:

- Creating cooperatives between the university and the providers of programs using the permission of the university email to secure the accessibility to high-quality and specialized programs for both the teachers and the students, overcoming the problem of financial restraints, and pacing the gap between academia and job requirements.
- It is also feasible to afford a single software to avoid the financial strain of paying for multiple versions of various software tools because students only need to learn to use one software, and they are required to learn how to adjust later on with the updates or other tools. Therefore, it is indispensable to focus on the skills to acquire rather than the characteristics of each program separately.
- Providing the necessary hardware for the university setting to facilitate lesson delivery.
- Ensuring solid internet coverage, especially in the learning spaces.

Besides the impediments facing TT in the Algerian university, it is also worth noting that this field of TT teaching is already relatively young. Youlan (2023) states that the recent stage only starts from 2016 till the current day, which includes the curriculum system construction, textbook writing, and translation talent training, pointing out that the current status is "not satisfactory". On the other hand, Wu (2023) labels it with dawdling in curriculum construction, insufficient teaching resources, and old and traditional teaching methods. On this account, we recommend that Algerian researchers delve more into this issue to participate in the scientific contributions to improving TT pedagogy and training.

Conclusion

This paper has presented the results of a survey designed to assess the training of translation students in using translation technological tools at an Algerian university. Not only providing a better theoretical reflection on the integrity of technology in training future translators in the Algerian university, this research paper also proffers some valuable ideas that can be used as a springboard to yield a pivotal advance on the level of translation training and a fundamental headway in closing the gap between students' education and the reality of the job market. The current situation of this training side denotes a spot of weakness in the programs offered to the Algerian translator-to-be; however, teachers' awareness of the intrinsic importance of these competencies opens the gate for a quantum leap towards more improvement through the suggested resolutions, amongst others.

Additionally, it is integral to bring attention to one of the critical constituents of a successful program that touches on the methods of delivering information regarding translation technology. "Transmission" or "lecture model" still prevails in today's classroom despite realizing and admitting that learners need more deep learning and higher-order thinking skills, as the traditional way of teaching certainly causes apathy, boredom, and lack of interest amongst the students, new methods to support them in adapting to new, unpredicted problems with higher flexibility and ability to problem-solving could indeed be introduced through the

integration of more technological tools, since noting that the translation teachers still resort to the traditional methods. However, it is likely due to the scarcity of the equipment, therefore, once the university provides the necessary tools, teachers are coerced to employ novice methods of knowledge transmission, methods that include the active learner rather than the passive, as well as hands-on learning, notably when it comes to translation technology with all its diverse software and platforms.

About the Authors

Hayet DRIAI is a PhD student pursuing her studies in the field of Translation of science and technology at the University of Algiers 2 – Abou El Kacem Saadallah, Algeria. She has a Master's degree in Translation Studies in Arabic, French, and English, from the University of Setif 2 – Mohammed Lamine Debaghine. ORCID: https://orcid.org/0000-0002-6486-8373

Mohamed Salah Bekkouche is a Professor at the University of Blida 2, and the head of the Laboratory of Historical Documents Translation (Algeria). He has been supervising both undergraduate and postgraduate students since 1990. He is in charge of PhD project programme on Translation of science and technology. He is also training PhD students at the Institute of Translation, the Department of English, and the Department of Spanish. ORCID ID: https://orcid.org/0000-0001-2345-6789

Declaration of AI Refined

This document has benefited from the application of AI-driven tools, including Grammarly and Scholar AI Chat, to refine its linguistic aspects. These tools were utilized to correct grammar and spelling and improve the overall writing style. It is acknowledged that the use of these technologies may introduce certain AI-generated linguistic patterns. However, the core intellectual content, data interpretation, and conclusions presented remain the sole work of the authors.

Statement of Absence of Conflict of Interest

The authors declare that there are no conflicts of interest related to the research, findings, or recommendations presented in this paper. All conclusions drawn are independent and unbiased.

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Appendices

Appendix A

Survey on the Use of Translation Technology in Translation Classrooms

This is a survey to understand the use of translation technology in educational settings. Your valuable input will help to gain insights into the adoption and impact of translation tools in classrooms. This survey is anonymous, and your responses will be kept confidential.

Section 1: Demographics:

1. Age:
    1) Less than 30.
    2) Between 30-40.
    3) Between 40-50
    4) Over 50.
2. Gender:
    1) Male
    2) Female
3. Educational background:

Section 2: General Knowledge:

1) Are you familiar with Translation Technology? Yes/No
2) Have you received training on the use of translation technology in your translation studies? (Yes/No)
3) If you have ever used Translation Technology, which type have you used?
    1- Commercial programs
    2- Online free programs
4) Do you find it easy to use? Yes/No

Section 3: Use of TT in the Classroom:

1) Have you integrated Translation Technology into your classroom? Yes/No
2) If yes, please describe how:
3) Was TT introduced as: 1) a technology-oriented subject
   2) a part of regular coursework.
4) What types of translation technology have you used in the classroom? (e.g., online translation tools, CAT tools, AI-powered translation software)
5) With which level?

Freshmen - Sophomore - Junior - Senior

6) With which text type? - General - Specialized (please specify)

7) For which purpose?
   - Reading comprehension - Translation Class
   - Machine Translation Class - Others (please specify)
8) Do you find it useful? Yes/No
9) Do you find it easy to instruct the learners on how to use it? Yes/No
10) What challenges or limitations, if any, have you faced when using TT during the classes?

Section 4: Students perspective

1) Have you collected feedback from students regarding the use of TT?
2) If yes, please share some insights or comments from students:
3) What methods have you used to instruct them

Section 4: Future Considerations

1) If you have not used MT in your classes, would you use it? Yes/No
2) With which level? - Freshmen -Sophomore -Junior -Senior
3) Do you think it is more suitable for:
   - Undergraduates or -postgraduates
4) With which kind of software? -Commercial -Free Online
5) With which text type? -General -Specialized (please specify)
6) Are there specific technology-related skills that you think are essential for translation graduates to succeed in the field?
7) Which advantages do you think it has?
   - Promotes translation speed
   - user-friendly
   - easily creates ready-made texts for practice
   - involves error detection and correction practice
   - involves written production practice
   - involves decision-making (term equivalent selection)
   - others (please specify)
8) Which limitation do you think it has?
   - Low quality
   - text type constraint (not suitable for certain text types)
   - It requires instruction
   - others (please specify)
9) Do you engage in continuous professional development to stay updated on translation technology trends and tools? (Yes/No)

- If yes, please describe the methods you use for professional development.

Comments:

Is there anything else you would like to share regarding translation technology and its use in the classroom?

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