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**TEACHING COMPUTER - ASSISTED TRANSLATION  
TECHNOLOGY: A CASE STUDY**

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*Abstract*

When teaching Computer-Assisted Translation (CAT), the technological component is the core element on which depends the concept of the entire course, as such courses are by definition practical courses. Thus, the success of a CAT training greatly rests upon the availability of translation tools. In the context of educational budgets lowering every year (at least, this is the case of the Romanian educational system), offering translation technology courses can be a problem in terms of costs. Fortunately, cloud-based translation technology and free translation tools offer a great alternative (a much cheaper one) to the commercial translation software that students can access only in the laboratory. Free translation tools can be successfully used for educational purposes. We do not undervalue the performance of translation systems existing on the current market, but we want to focus in the present article on the use of free translation tools, especially cloud-based translation systems in CAT courses as a cheaper yet viable alternative, aiming at offering students an insight into the functioning of CAT tools and at developing students' technological skills. Free CAT tools such as Wordfast Anywhere, Memsource personal, Google Translator Toolkit, OmegaT can be used in CAT training for a wide range of exercises and assignments: text alignment, creation of a translation memory, glossary creation, editing, machine translation post-editing, review.

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## 1. Introduction

Nowadays, when talking about computer-assisted translation (CAT) in a context that does not necessarily include translation professionals, people first think of Google translate. This may also occur to the first year students in translation studies programmes. This is why studies on CAT tools generally begin by making the difference between human-assisted machine translation (HAMT), which is more frequently referred to as machine translation (MT), and machine-assisted human translation (MAHT), which is commonly known as computer-assisted translation (CAT). Therefore, the main difference between MT systems (Google Translate included) and CAT tools is based, as Bowker says, on the roles that the computer and the human translator play in the task of translation:

*“In MT, the computer translates the text, though the machine output may later be edited by a human translator. In CAT, human translators are responsible for doing the translation, but they may make use of a variety of computerized tools to help them complete this task and increase their productivity. Therefore, whereas MT systems try to replace translators, CAT tools support translators by helping them to work more efficiently.”* (Bowker, 2002, p.4)

If nonspecialists confuse MT systems and CAT tools, they are not to be blamed as CAT technology has been designed, to a certain extent, with the same prerequisites as the MT systems: at the beginning it was a computer-based solution to the poor results of or to the very high expectations from the first MT systems and, later on, it integrated MT in the translation technology environments. On the other hand, a broader definition of CAT technology could include any kind of technological tool that translators use in the translation process. Integrated in a CAT technology environment, MT could be seen, therefore, as a supplementary tool that translators can use along with the human translation memory that they create within their translation memory application. Hence, the confusion between the two ways of addressing translation.

In its narrower definition, CAT technology refers to translation environments that integrate several specific applications aimed at facilitating the work of the translator, not at producing an automatic translation. The key concept is the translation memory (TM), which is a linguistic database, created, step by step, by the translator himself. This linguistic database stores source texts and their equivalent translation so that translation units saved in the TM can be reused later on in the same translation project or in other projects. Yet, if TM is the key concept within CAT tools, it is not their one and only application, terminology databases and project management solutions being as important as the TM.

Each year, when introducing the CAT course to our students, we, too, begin by underlying the difference between the TM software and the CAT systems. If students are somehow disappointed that using a translation memory does not mean that their document will be automatically translated with excellent results in terms of quality, we remind them that if so were the case, they would no longer have a job as future translators. Fortunately, as Oustinoff (2003) concludes in the chapter he dedicates to automatic (machine) translation, MT ignores what the theoretical writings about translation call *opérations de traduction* which underlie an authentic rewriting (a human quality that a machine, as sophisticated as it might be, will never possess).

As far as TM systems are concerned, according to Reinke (2018), the great change they have produced over the past 20 years in the translation as a professional service might be due to the fact that

they help translators in their everyday work ‘without radically influencing cognitive translation processes in those situations that require the creativity and knowledge of the human translator’ (p. 56).

## 2. Problem Statement

The postgraduate programme on translation studies at the Faculty of Letters of the University of Pitesti (Romania) started in 2001 as Science and Practice of Translation (French-Romanian) and was designed as a postgraduate course on literary translation from French to Romanian. It was a three-semester full time MA, with its fourth semester devoted to the preparation of the dissertation paper under joint supervision (Romanian and French teachers, within a collaboration with the University ‘Jean Moulin’ of Lyon). Students would attend translation intensive workshops delivered by French experienced academics specialized in literary translations. The initial aim of the programme was to form translators for the French-Romanian pair of languages mainly in the literary field.

In 2009, in compliance with the Bologna system, the postgraduate programme became a second cycle higher-education programme (French translation studies; two years, full time). In order to comply with the competences in the field of translation required by the most important economic agents present on the local and national labour market, the curriculum was tailored so as to form professional translators that could activate in various fields of specialized translations, not only in literary translations.

In 2014, for the new national accreditation, the MA programme in French translation studies merged with its correspondent MA programme in English translation studies and formed the present MA training: *English/French Translation Studies. Translations within the European Context*. This was also because the number of students that choose to study French has lowered constantly in the past years.

In 2010, within the framework of a Sectorial Operational Programme for the Development of Human Resources (POSDRU no. 33310: *Lifelong learning and career change for teachers of foreign languages in the field of translation*), we acquired 12 SDL Trados Studio licenses for educational purposes. SDL Trados Studio 2007 (with 2009 MultiTerm) was integrated in our CAT course. The feedback from our students was positive; graduates that work as freelance translators or have their own translation companies are using the SDL technological competence acquired during the CAT course in their translation projects.

Yet, the PCs in the laboratory where the software licenses were installed are now out of date and because the faculty has been facing an important budget deficit (mostly because the number of the new enrolled students in our faculty has greatly diminished and because of the insufficient funds raising from contracts with the socio-economic actors/agents), there has been no investment in maintenance or hardware infrastructure. We had to find a solution to the financial constraint of the CAT tools teaching. Moreover, students need further practice outside the laboratory course that would enable them to successfully accomplish the second year translation projects. As our students generally work part time or full time and most of them commute to work/to university, the time they spend in the laboratory is limited. Therefore, we opted for free translation technology that would allow students to have access to it at any time and from any other place than the university laboratory.

### 3. Research Questions

As it results from our introduction and from the short presentation of the context of the present MA programme in translation studies delivered by the Department of Language, Literature, History and Arts of the Faculty of Theology, Letters, History and Arts, one of the important issues of the CAT tools course was, in our case, to search for a cheaper alternative to commercial CAT systems that could nevertheless offer students the possibility to understand how professional translation technology environment works, to use such tools also outside the university laboratory, therefore ensure them a continuity between university laboratory guided practice and individual practice at home, and to develop their translation technological skills.

Along with the question of why using free translation tools in teaching CAT, two other questions arise: what free tools to use and what exercises/assignments/projects to use them for?

### 4. Purpose of the Study

Free CAT tools are based on almost the same working algorithm as commercial software, they may not have all the advanced features that commercial ones have, but, as the working principle that underlie them is the same, they are a great alternative for students to gain confidence and experience in using a professional translation technology environment.

The aim of the present article is to present the way free translation tools, especially cloud-based translation solutions, can be used during CAT tools courses in order to offer students an insight into the functioning of such tools, insisting on translation memory systems that are now usually integrated with a lot of other tools, namely terminology management systems, concordancers, spelling checkers, predictive typing, machine translation.

### 5. Research Methods

In addition to describing the features of some of the free CAT tools currently available on the web, the benefits and the drawbacks of working with cloud-based translation tools during CAT courses, this paper also exemplifies translation exercises that have been proposed to our students in order to enhance both their linguistic competence and awareness and their technological skills.

*Wordfast Anywhere*, *Memsource Personal* and *Google Translator Toolkit* are the main cloud-based systems that we generally use in our CAT course. In order for students to get used to different interfaces, we alternate between *Wordfast Anywhere*, *Memsource Personal* and *Google Translator Toolkit* for various translation related tasks. Together with these tools, we also use the *Memsource Academic Edition* for the translation project course that students have to take during their second year of the MA translation programme. The *Memsource Academic Edition* is an edition of the translation tool that *Memsource* offers to universities or other types of academic institutions and can be used in the framework of their translation programmes on request of a teacher or other official representative of the respective institution.

## 6. Findings

As they are cloud-based solutions, that is they are designed to work via a browser, there is no need to install them, but their functioning depends on the internet connection. This can be both an advantage and a drawback. It is a great advantage as the users (in our case the students) don't have to install or to update any software and the documents uploaded and/or translated are saved on the server of the tool provider, which makes them available from any other device (including mobile devices) in case of need (e.g. computer breakdown). The system's dependence on the access to a (good) internet connection can at the same time be viewed as a drawback, as students cannot use it in case of a connection breakdown. Moreover, documents are saved and stored on the server of the CAT tool provider for a certain amount of time, not for always. Yet, users are announced when a document is going to be deleted so that one can save it on a personal device. For example, Wordfast Anywhere warns the users twice before deleting documents that have not been used for more than three months. For students, who are supposed to access, edit or use the documents for their translation assignments on a regular basis, the above mentioned aspect is not to be seen as a learning impediment.

Uwe Muegge (2012) makes a detailed description of the benefits and drawbacks of cloud-based translation memory systems. The principal benefits he points out are the following: there is no software to download and install; software is automatically updated; the cloud-based systems are compatible with different operating systems and mobile devices; they are designed to ensure easy collaboration among the users (more users playing different roles – translators, reviewers, project managers - have access to the TM simultaneously and automatically); they have workflow and project management features; they require low/no investments. As far as the drawbacks of the cloud-based systems, Muegge (2012) mentions the system's dependence on a good internet connection, the privacy issues and the control over linguistic assets.

From our experience, the drawbacks that come with the system's dependence on the internet connection are less important than the advantages: in case of short internet connection breakdowns in laboratories, students can continue their activity within the translation system on their own mobile devices or via mobile hotspot connections.

The privacy issue is related to people's fear of this 'phantomatic' cloud storage and possible breaches, but, for demonstrative purpose or other educational purposes, teachers generally use non-confidential documents. Moreover, the user of the cloud-based translation memory system decides whether to share or not his translation memory with other users by marking the translation memory as private or as viewable by other users (as translation units not as a whole document). Finally, it's all about choosing the correct setting related to sharing one's translation memories.

For illustration purposes, we will briefly describe the way we use one of these tools, namely *Wordfast Anywhere*, in CAT teaching.

Wordfast Anywhere (WFA) is an excellent tool to initiate students into a professional translation workplace. It has an intuitive, user-friendly interface, which makes it appropriate for learning aims. Students create their WFA accounts very easily and, once their account is created, for the initial configuration, they also specify the source language and target language codes of their translation, creating a TM on the spot. If they need to work with other language pairs, they can create other TMs and

their correspondent glossaries. In our case, we mostly use RO-FR and FR-RO language pairs for translation practice but we also use EN-RO, RO-EN and EN-FR for text alignment exercises. Unfortunately, the Wordfast AutoAligner does not support RO-FR and FR-RO language pairs.

After having prepared their translation environment (creating a new TM and glossary or opening an existing TM, uploading the document to be translated), students start the translation. They can upload documents in various formats: DOC, XLS, PPT, RTF, TXT, tXML, MIF, INX, PDF and they can store up to ten documents in their workplace. The fact that there is a document limit is not a real limitation of the system because students/and translators do not translate ten documents simultaneously and once a document has been translated, it can be downloaded to the computer, creating thus free space for other documents to be uploaded.

As WFA integrates MT, post-editing MT is another type of exercise that can be done when using this tool.

The translations proposed by the MT are not fully acceptable, but they can be of great help from a terminological point of view. 'Each edit operation' is, according to Popović and Arčan (2016, Introduction, para. 1), 'a correction of a translation error'. In terms of the learning process, post-editing MT enhances error awareness and develops students' translation revision competence.

Another important aspect is the fact that students can use not very expensive tablets or smartphones to access this tool. This mobile aspect of cloud-based CAT tools such as WFA is an advantage if we consider that students have to cope with deadline issues in translation project assignments. Such use of mobile phones is suitable for urgent tasks rather than for daily translation practices. In terms of easiness and ergonomics, we are rather skeptical about the use of mobile phones as a routine translation behaviour. When accessing CAT tools from a mobile device, students should use a wireless keyboard and a mouse for editing or post-editing tasks. Despite this disadvantage from an ergonomic point of view, we welcome the possibility to use mobile devices with cloud-based translation technology for demonstrative purposes during CAT tools courses.

For group translation projects, WFA allows students to collaborate from within the online environment. TMs and glossaries can be shared by simply adding the email address of another colleague (guest, as WFA calls them). This feature develops instant collaboration among students and increases translation efficiency and consistency. For example, two of our students chose last year to work with WFA and Google Translator Toolkit for their final thesis on the translation and localization of our Department's website into French. Beside the theoretical and descriptive approach inherent in a thesis, this topic or research had a predominant practical dimension.

## **7. Conclusion**

The focus of CAT teaching is the technological dimension of the translation process. Yet, the preliminary competence on which lies any translation activity is the linguistic one. From this perspective, CAT tools teaching and learning could be viewed as a more specific language teaching/learning. More precisely, when learning how to use CAT tools, students practise on specialized texts and deal with repetitive terminology in various fields.

With machine translation services integrated in CAT systems, such tools also enhance students' ability to detect errors, to categorize and correct them.

Many of these tools are now free or require little investment, which is a great advantage from the financial point of view. The advantages of using such tools in teaching and learning CAT tools are not related only to the economic aspect; in our opinion, it is the fact that students can access them outside the laboratory that makes them so valuable.

Theoretically, web-based translation workplaces make all that mobile because they can be accessed through the web browser and can run on any device that has an internet connection, including smartphones and tablets. Yet, taking into consideration the difficulty of editing on mobile phones and other aspects related to ergonomics (e.g. eye discomfort), we believe that the use of mobile phones in teaching/learning is suitable for demonstrative purposes during CAT courses or for coping with urgent tasks, but is not adequate for intensive use.

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