





# Developing Translators' Soft Skills in a Cloud-Based Environment Using the Memsorce System

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**Abstract:** The paper deals with the possibilities of developing translators' soft skills in a cloud-based learning environment using the Memsorce system. The main advantages of Memsorce in the educational process are identified. The main advantages of Memsorce in the educational process are identified: accessibility through the offer of a demo and an academic programme, easy for mastering, the user-friendly interface, a wide functional range. Experimental training of students in groups for translation projects with mastery of the tasks of team members of different statuses was carried out. Students' evaluation of the functionality of the Memsorce system was analysed in terms of learning effectiveness and application in their future professional life. A list of soft skills improved by students during the experiential learning period was identified: digital skills, communication skills, teamwork skills, self-monitoring abilities, responsibility, leadership skills.

## 1 INTRODUCTION


### 1.1 Statement of the Problem


Today, the arsenal of tools that translators use in their professional work is quite diverse. It includes not only automated and machine translation systems, terminology management systems and translation memory systems, but also a range of service programmes and translation support information sources. There is a clear tendency to focus not only on the use of information support predominantly from Internet resources, but also on the use of cloud services that duplicate traditional desktop systems and are accessed via network resources. This leads to the view that today it is not advisable to concentrate on mastering a single software product or information resource, but rather to form a cloud-oriented environment as a sys-


tem of necessary tools and resources to carry out the full range of operations for translation projects. At the same time, an important aspect of professional training of translators is the development of their soft skills when working in a cloud-oriented environment, as this type of activity requires the ability to cooperate, lead or follow a leader, and meet deadlines for tasks or individual phases of a task. It is common for large tasks to be carried out by a team of translators in translation projects. This requires clear coordination of the work of individual project participants, monitoring of task progress, self-monitoring of deadlines by translators (time management), digital skills in a cloud-oriented environment, and remote communication skills.


### 1.2 The Purpose of the Article

The purpose of this paper is to explore the possibility of developing the soft skills of prospective translators when completing training projects in a cloud-based environment using the Memsorce system.

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### 1.3 Literature Review

The popularity of cloud technologies is growing rapidly in all fields of application. The translation industry is no exception. Researchers in the field of language technology attribute the increasing use of cloud systems to their greater independence from operating systems and locations, easier conditions for collaboration, savings through operation without installation, and the offer of flexible licensing models (Imhof, 2014).

The last two decades have seen a dynamic of scholarly attitudes that correlate with the development of information technologies. In particular, whereas previously only the main benefits of information technology learning for translators were considered, with suggestions for rethinking the teaching of translation (Bowker, 2002), the translation process as a whole is now understood as an interaction between translator and computer (Bundgaard et al., 2016; Chan, 2015; O'Brien, 2012; Tarasenko and Amelina, 2020; Tarasenko et al., 2020). The proliferation of information technologies in the translation industry, in particular cloud-based technologies, is illustrated, for example, by data from TAUS, a think tank whose mission is to automate and innovate in the translation industry (Choudhury and McConnell, 2013).

According to Gambín (Gambín, 2014), one of the most important changes over the last ten years has been the proliferation of solutions with a clear trend towards cloud solutions. The use of cloud technologies in translation, according to the scholar, promotes competition, which in turn means lower and more flexible prices. This is particularly relevant for the activities of small groups of translators who do not have the infrastructure and finances that large corporations do, but thanks to cloud platforms, they will be able to compete with them in some way. At the same time, Gambín (Gambín, 2014) notes that the level of technologies on offer today is very different, but that high-quality solutions are becoming more affordable over time than they used to be. DePalma and Sargent (DePalma and Sargent, 2013) holds the same view and argues that the field of translation services will undoubtedly move to cloud-based solutions in the near future. Practitioners say the most popular translation management systems (TMS) on the market include SDL WorldServer, Memsource, GlobalLink, Across (Choudhury and McConnell, 2013; Tarasenko et al., 2020; Ultimate Languages, 2018). The availability of a choice of cloud offerings is emphasised by Muegge (Muegge, 2013), noting their wide range, e.g. Wordfast Anywhere, Lionbridge Translation Workspace, Memsource Cloud, Wordbee, XMT Cloud. Based on

the experience of teaching a master's course for translators, Muegge (Muegge, 2013) concludes that cloud-based systems are easy to use, because all a translator needs is an Internet connection and a login. Since the "heavy" processes (segmentation, TM and glossary search, etc.) in all cloud-based systems take place on the server, there are no multi-step installation procedures required as for desktop systems.

As we can see, from a scholarly perspective, the professional activity of translators is rapidly shifting towards working in a cloud-oriented environment and is carried out through the execution of a translation project by a team of translators. This form of work assumes that translators have a number of soft skills, primarily related to organisational and communicative aspects. Soft skills are classified as "a broad set of skills, competencies, behaviors, attitudes, and personal qualities that enable people to effectively navigate their environment, work well with others, perform well, and achieve their goals. These skills are broadly applicable and complement other skills such as technical, vocational, and academic skills" (Lippman et al., 2015). Recently, employers have been focusing on these skills, stating that university graduates lack them (ManpowerGroup, 2013).

Employers consider soft skills to help professionals succeed in the labour market as: social skills, communication skills, higher-order thinking skills (problem solving, critical thinking and decision-making), self-control skills and a positive self-concept (Lippman et al., 2015). In the context of our study, we should focus on some of these skills. Social skills are understood by scholars as the ability to get along with other people, to avoid conflicts and to find ways to resolve them when they arise. For the translators involved in the project, the ability to work as part of a team and to cooperate with other team members in a conflict-free manner are important. From this perspective, the communication skills of project participants are extremely important, which can be realised verbally or in writing, in particular in the form of communication within the project.

The broadest coverage of the list of soft skills necessary for the successful career of young professionals is presented, in our view, in the U.S. Secretariat's detailed analysis of the U.S. Commission on Achieving Required Skills (SCANS). The thinking skills cover creative thinking, decision making, problem solving, reasoning, and the ability to learn. SCANS specifies that personal qualities include responsibility, self-esteem, sociability, self-management, integrity, and honesty. SCANS identifies five groups of workplace competencies: the ability to allocate resources (time, money, facilities), interpersonal skills (such as

teamwork, teaching others, leadership), the ability to acquire and to use information, the ability to understand systems, and the ability to work well with technology (Kautz et al., 2014).

Given that the vast majority of publications on the subject of soft skills development also point to the importance of digital skills for professionals, we think it is worth considering the possibility of developing the soft skills of prospective translators precisely in the cloud-oriented environment in which they will have to work in the future.

## 2 RESULT AND DISCUSSION

### 2.1 Memsource as a Key Component of a Cloud-Based Environment in Which to Develop Translators' Soft Skills

The Memsource cloud-based system for mastering the principles of translation projects is a good choice as the basic component of a cloud-based training environment for translators. The following arguments can support this decision:

- although this CAT system offers proprietary software, Memsource provides the opportunity to take advantage of free software demos for 30 days, subject to registration and compliance with the relevant conditions,
- the software interface is clear and easy to master,
- the demo versions are functional on all the main operations of translation projects,
- ability to integrate with other cloud-based translation tools,
- there is a wide choice of interface languages during the registration process,
- the possibility of supplementing the functionality of the system by connecting terminology resources via terminology and translation memory databases.

An equally important argument in favour of using Memsource as the base element of a cloud-based system is its widespread use and study in the world's leading universities training translators (figure 1).

### 2.2 Selection of Memsource Version for Creating a Cloud-Oriented Environment From the Perspective of Translators' Soft Skills Development

The official Memsource website offers different versions of the programme, structured according to need and the level of work to be performed. In particular, offers are presented in different packages: for freelancers, small translation structures and powerful translation structures in four separate packages: Team Start, Team, Ultimate, and Enterprise.

Each of these packages can be used to form a cloud-based environment for translator training. However, we have chosen Team to model, as closely as possible, the organisation of the workflow and the automation of its stages with a multi-level management structure and control of the conditions of translation services according to the ISO 17100:2015 standard.

Of course, its potential for soft skills development in prospective translators also played an important role in the choice of the Team package. Having analysed the functional aspects of the package, we concluded that by using it, students can develop a number of soft skills necessary for their future professional activities, namely:

- the ability to work in a team, fulfilling a specific role assigned by the project administrator,
- the ability to communicate with other project participants based on the needs of the project,
- the ability to exercise self-monitoring in the performance of tasks within a translation project.

Another important condition for using this package was that we received an annual licence to use it under the academic programme (figure 2).

This is necessary, given that building a cloud-based environment based on this Memsource package is a painstaking and time-consuming job, and its use should provide training for students throughout the academic year, which unfortunately cannot be fully realised using the demo.

### 2.3 Developing Teamwork Skills in Implementing Translation Projects in a Cloud-Based Environment Using the Team Version

As mentioned earlier, the Team package is best suited to meet the needs of translation structures operating



Figure 1: Geography of university use of the Memsourse cloud system.

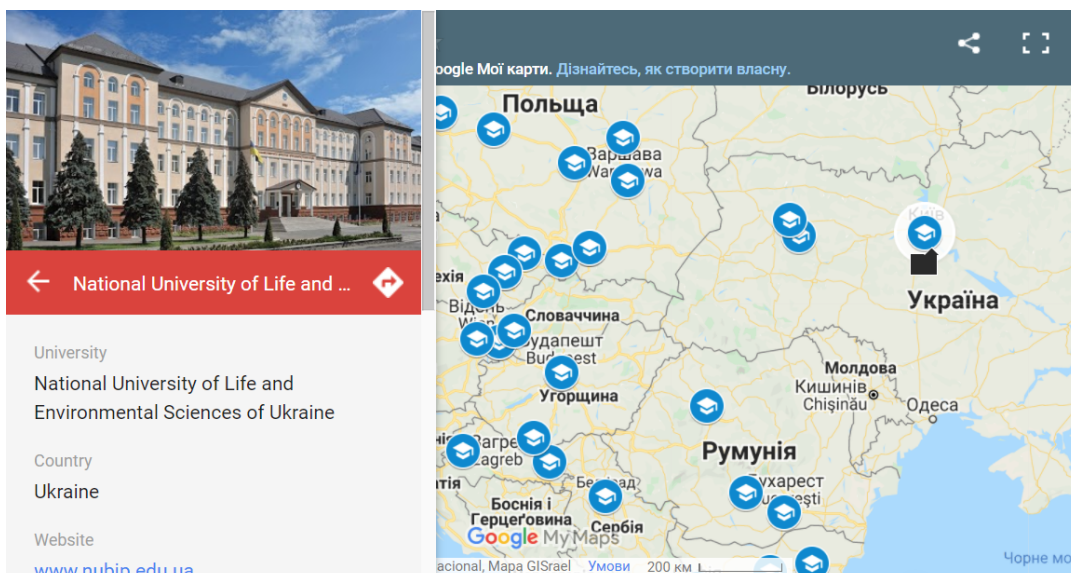


Figure 2: Marking on the Memsourse cloud system website that the licence has been granted.

under a defined management hierarchy and practising a team approach to delivering translation projects. Mastering the Team suite will enable students to acquire skills in the administration of translation projects, management of human resources, terminology management, automated task preparation and distribution, analytical evaluation of project tasks, and performance evaluation of each individual participant in project implementation.

In order to use the Team package, a number of additional steps need to be taken to form a team of translators, managers and task distribution.

As the Team package allows the organisation of a

hierarchical management system, a cadre of performers was formed from the students and given different statuses. In particular, the system provides four different statuses that can be given to enrolled performers, namely: "Administrator", "Project Manager", "Linguist" and "Guest". Depending on their status, each performer had different opportunities and rights of access to carry out certain actions.

The administrator provided by far the highest level of functionality. In particular, he or she could create translation projects; enroll new performers; set and change performer statuses; assign tasks to performers within a project; monitor the status of each individual

performer and the whole project team; and create, edit and populate translation memories and terminology databases.

The immediate work of the administrator, which started at the applicant enrollment stage, was the process of forming the project team, giving them appropriate statuses and distributing tasks among the participants. This enrollment could be done in two ways. One is to fill in the relevant form for each applicant and the other is to enroll applicants comprehensively by importing data from a pre-filled table in XLSX format (figure 3).

Once Memsourse has enlisted people with different roles in translation projects, it is necessary to form teams of performers for individually defined projects. In this case, a project manager is selected, who in turn distributes tasks between translators within the project, either alone or together with the administrator. Of course, all the steps involved in creating projects and allocating tasks to projects need to be completed before the tasks can be allocated.

In order to master other roles as participants in a translation project, students could be given the statuses of "Project Manager" and "Linguist", which changed over the course of their work on different projects.

Students with Project Manager status mastered management skills. The range of functionality of the system manager depended largely on the settings set by the administrator. One of the main functions of the manager was to work out the distribution of tasks between the projects implementers (figure 4).

However, it should be noted that by activating all the possible options for manager status, the range of his capabilities will come close to those of an administrator. If partial options are activated, his/her powers will usually be limited to access to a specific project only, managing the executors of that project as a team of translators (linguists), managing translation memories and terminology databases. By observing the activities of the students in the implementation of training translation projects, we have in some cases raised the status of project participants to managerial status, giving them the opportunity to exercise their own abilities at this level.

The settings established for this status also allowed for the creation and maintenance of terminology and translation memory bases within a single project, the management of its executing team, and the monitoring of the project's progress status (figure 5).

The project administrator can obtain information on the level of implementation of the individual tasks within a certain project, in particular the number of

translated and confirmed segments as a percentage, the status of the task as a whole, the name of the performer, etc. (figure 6). In addition to this information it is possible to perform various actions on the analysis of individual tasks. The use of these functions enables the development of critical thinking skills in the performers of the project. In particular, it is possible to see statistical indicators relating directly to the translation aspects of a particular task. In the structure of the window, a separate block called "Analysis" will be formed under the list of tasks. In this block, entries for the analysis of a particular task will be placed in separate lines.

To perform the analysis, it is possible to directly activate a table with a number of indicators (figure 7) related to the translation of the task for which the analysis is performed. These indicators will provide information on the total number of segments into which the system automatically divides the whole document, the number of pages in it, the number of words and characters. An important aspect of such an analytical table is also the information about the number of matches of these indicators against the translation memory, if such a database is connected to the project. In this case, the table contains detailed information even in terms of percentage matches between the words or segments present in the text and the corresponding words or segments in the translation memory database.

It is worth noting that the project participants, who were given the roles of administrator and manager, were able to demonstrate and develop their leadership skills through these roles. They were given full responsibility for the implementation of the project, so they coordinated the work of the entire team of translators.

The vast majority of the students in each individual project had the status of "Linguist". They were engaged directly to carry out the translation by performing a specific task. Students who acted as editors also held this status. The students who acted as editors also had this status. There can be any number of such performers in a project, but each of them must be assigned a separate task to perform. Both the administrator and the project manager can define such a task and monitor its progress. A translator with Linguist status also has a range of settings, which can restrict or expand the range of possible actions. These settings are usually made by the project manager. In particular, the settings can give the translator access to edit entries in the terminology database, edit entries in the translation memory, use machine translation, etc.

Before the translation started, the manager ensured that a specially created terminology and trans-

1	Last name	Email	Username	Role	Active	Receive newsletter	Note
2			Must be unique.	LINGUIST or PROJECT_MANAGER or ADMIN or GUEST	TRUE or FALSE	TRUE or FALSE	
3	Doe	alice.doe@company.foo	alice.doe	ADMIN	TRUE	TRUE	
4	Гаценко	megakiti@ukr.net	Catherine!!	LINGUIST	TRUE	TRUE	
5	Дещенко	mdeshchenko@ukr.net	Maria!!	LINGUIST	TRUE	TRUE	
6	Єрема	Ponomarenko320@ukr.net	Anna!!	LINGUIST	TRUE	TRUE	
7	Єрченко	oleksandrayerchenko@gmail.com	Alexandra!!!	LINGUIST	TRUE	TRUE	
8	Жеребченко	yanaolegivna93719@gmail.com	Yana!!	LINGUIST	TRUE	TRUE	
9	Коваленко	jambogirl666@gmail.com	Alexandra!!	LINGUIST	TRUE	TRUE	
10	Багацький	al3xc00ntcrush3r@gmail.com	Alexander!!	LINGUIST	TRUE	TRUE	

Figure 3: Enrollment of participants by the administrator and assignment of their respective roles.

#	Подтверждено	Файл	Статус	Перевод
1	100%	До_Лр_10_Memsource_завдання (1).docx	Завершено	UKUA
2	0%	Текст_1.docx	Новые	UKUA
3	0%	Текст_8.docx	Принято	UKUA
4	100%	Текст_9.docx	Принято	UKUA
5	0%	Текст_10.docx	Новые	UKUA

Figure 4: Distribution of tasks between project implementers in the Memsourse system.

lation memory database was connected to the project. This was done with the aim of having students with Linguist status practise the overwhelming number of possible features implemented in the Memsourse system. In particular, provided the original segmented text was presented in a special window, the student was able to fill in variants of the target text in different ways (figure 8). These included: writing the target text manually from the keyboard; substituting a suggested translation variant based on the translation results in the selected machine translation system; substituting a suggested translation variant based on the results of a match with a segment in the connected translation memory, selecting the corresponding individual term suggested from the terminology database.

## 2.4 Developing Self-Monitoring Skills Based on Translation Quality Management in a Cloud-Based Environment Using the Memsourse System

The large volume of material cannot be translated by using even highly qualified translators without the latest information technology-based tools. Experience has shown that the traditional approach to translating large volumes of documentation in the education sector by a team of translators has a number of negative

consequences:

- low productivity due to the need for each translator to translate the same terminology several times in isolation,
- lack of uniform terminology used by each translator in a particular academic and scientific field, which leads to difficulty in understanding the content of the translated text by users,
- the difficulty of coordinating the activities of a group of translators,
- the difficulty of coordinating the activities of a group of translators,
- a high degree of dependence of the successful completion of a translation on the individual translator as the individual owner of the terminology resource.

With this in mind, it is advisable to train translators with the understanding that their future professional activities will involve them mainly in teamwork in translation projects with the obligatory use of the latest information technologies. Cloud-based systems are promising in this regard and have a number of advantages, as already mentioned in this paper.

The execution of translation projects enables a team of translators to coordinate their work, distribute tasks and get results, thereby achieving the goal of translating large amounts of textual material.

Задания							
<input type="button" value="Новые"/> <input type="button" value="Редактировать"/> <input type="button" value="Скачать"/> <input type="button" value="Анализировать"/> <input type="button" value="Предварительно перевести"/> <input type="button" value="Инструменты"/>							
<input type="button" value="Удалить"/>							
<input type="checkbox"/>	#	Подтвержде но	Файл	Статус	Перевод	Поставщик	Срок
<input type="checkbox"/>	1	100%	До_Лр_10_Memsourse_завда ння (1).docx	Завершено	УК <sup>UA</sup>	Чеберяко Аліна	10 апр 00:00
<input type="checkbox"/>	2	100%	Текст_1.docx	Завершено	УК <sup>UA</sup>	Багацький Олександр	
<input type="checkbox"/>	3	100%	Текст_8.docx	Завершено	УК <sup>UA</sup>	Война-Кім Микита	
<input checked="" type="checkbox"/>	4	100%	Текст_9.docx	Завершено	УК <sup>UA</sup>	Верна Олександра	
<input type="checkbox"/>	5	0%	Текст_10.docx	Принято	УК <sup>UA</sup>	Гаценко Катерина	
<input type="checkbox"/>	6	100%	Текст_11.docx	Завершено	УК <sup>UA</sup>	Атаманчук Анастасія	

Figure 5: General monitoring of the status of projects and tasks in the Memsourse system.

Анализ							
<input type="button" value="Редактировать"/> <input type="button" value="Пересчитать"/> <input type="button" value="Удалить"/> <input type="button" value="Скачать"/>							
<input type="checkbox"/>	#	Имя	Поставщик	Тип	Создан	Автор	Языки
<input checked="" type="checkbox"/>	3	Analysis #3		По умолчанию	15 июл 18:26	r_tar!!!!	EN → UK <sup>UA</sup>
<input type="checkbox"/>	2	Analysis #2		По умолчанию	15 июл 18:23	r_tar!!!!	EN → UK <sup>UA</sup>
<input type="checkbox"/>	1	Analysis #1		По умолчанию	10 апр 16:48	Alina!!	EN → UK <sup>UA</sup>

Figure 6: Monitoring the level of implementation of the individual tasks within the project.

The execution of translation projects enables a team of translators to coordinate their work, distribute tasks and get results, thus achieving the goal of translating a large volume of textual material.

At the same time, however, there is also the issue of ensuring the quality of the translated material, since losses in translation quality can be due to various types of errors, ranging from minor ones that do not make the target text difficult to understand to important ones that can lead to future misunderstandings or even losses due to incorrect or inaccurate translation. Particular attention is required to ensure that translators working on the same project use consistent terminology in order to avoid disagreements when translating parts of the same text.

In this aspect, it is valuable for training future translators to learn to apply the QA (Quality Assurance) management processes built into Memsourse after the translation has been completed, or even in the intermediate stages of completion. This gives the translator a powerful tool to see what spelling mistakes have been made, identify missing elements in the translated segment in relation to the source segment, and ensure terminology consistency based on a

connected terminology database, and so on (figures 9, 10).

In order to successfully master the QA processes, students learned a sequence of actions, namely:

- activate the tab of the same name in the window, which, by default, displays the suggested translation options. In this case, a list of errors detected by the system will be displayed with the number of the segment in which they occurred,
- make the necessary changes to the target text in those segments where the system has detected errors.

Once the translation of the file had been completed, the students' next steps were to receive the translation results as a file in the format in which the original file was also posted, or to submit the results to the editor for review.

In the first case, they activated the browser tab with the translation project window, highlighted the task whose translation results were to be received as a file and selected the finished file for downloading via the context menu. Because of these actions, the student received on their own computer a downloaded

Базы памяти переводов: База\_1, lad10

Файл: Текст\_10.docx

		Сегменты		Страницы		Слова		Символы (без пробелов)		%		
Все		1387		29,68		8138		46683		100		
Повторы		31		0,23		61		385		0,7		
101%		7		0,16		47		249		0,6		
-	100%	Память переводов	96	39	0,21	0,07	104	43	366	119	1,3	0,5
		Непереводимые элементы		57		0,14		61		247		0,7
		Машинный перевод		0		0		0		0		0
+	95%-99%	46		0,47		133		761		1,6		
+	85%-94%	7		0,13		27		220		0,3		
+	75%-84%	16		0,35		75		568		0,9		
50%-74%		177		3,99		986		6375		12,1		
0%-49%		1007		24,14		6705		37759		82,4		

Figure 7: Table with indicators on the translation of the individual task.

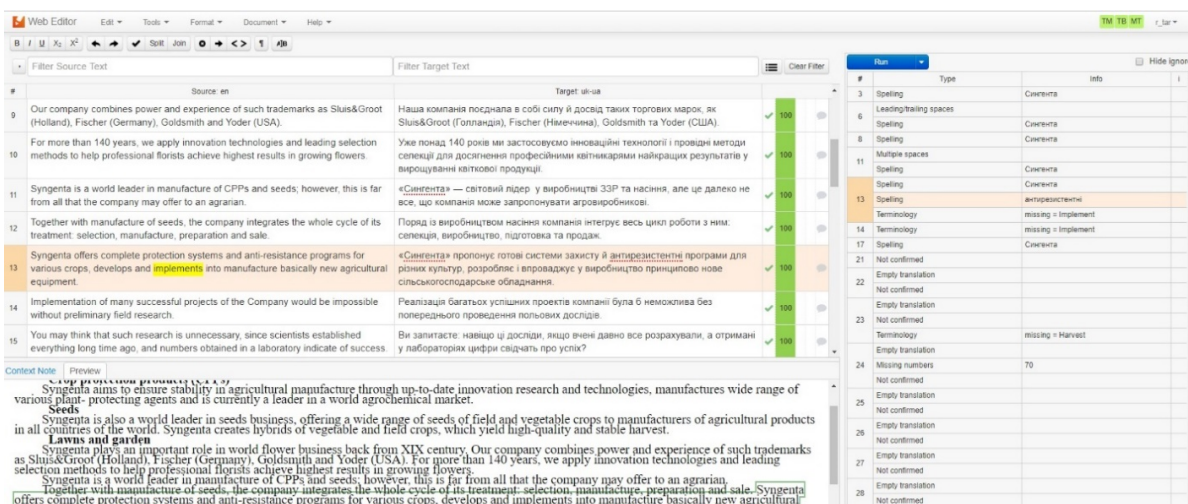


Figure 8: Example of translation in the Memsource system.

file with the target text, created based on the results of the translation and quality assurance activities.

In the second case, when editing is necessary before uploading the final translation results, students are reminded to select the DOCX option in the context menu. This will allow uploading the translation results by means of a bilingual text whose segments are placed in a table.

This option is useful if the person editing the translated text prefers to work with a text file in a text editor. It is also possible to check spelling when working with such a file, using the appropriate features of a text editor.

In general, in terms of translation quality assurance, a cloud-based translation memory system is better suited to cooperation between distributed teams of translators. By storing the linguistic resources (TM, TB, and bilingual MXLIFF) on one central server, translators can easily access the resources together and simultaneously. This allows already translated segments and created terms to be shared during the translation process. In addition, the workflow feature allows different project participants, such as transla-

tors, editors and proofreaders, to work on a document simultaneously, which can significantly reduce the turnaround time of a translation project.

### 3 ANALYSIS OF THE FEASIBILITY OF USING MEMSOURCE TO DEVELOP TRANSLATORS' SOFT SKILLS WITHIN A CLOUD-BASED ENVIRONMENT

In order to determine the feasibility of using Memsource in translator training as the main component of a cloud-based environment that can be used to form and develop soft skills, we asked students who had gained experience with this cloud-based automated translation system while studying "Information Technology in Translation Projects" (67 people) first to rate the usefulness of individual functions of the system on a 5-point system, and second to identify the



#	Type	Info	i
3	Spelling	Сингента	
6	Leading/trailing spaces		
	Spelling	Сингента	
8	Spelling	Сингента	
11	Multiple spaces		
	Spelling	Сингента	
13	Spelling	антирезистентні	
	Terminology	missing = Implement	
14	Terminology	missing = Implement	
17	Spelling	Сингента	
21	Not confirmed		

Figure 9: Checking spelling in Memsorce.

ID	#	Source (en)	Target (uk-ua)	
	1	<b>Changes in Water-Extractable Organic Carbon with Cover Crop Planting under Continuous Corn Silage Production</b>	<b>Зміна водо-екстрагованого органічного вуглецю при посадці покривних культур при безперервному виробництві кукурудзяного силосу</b>	75
	2	The conversion of natural wetland and prairie habitats to row crop agriculture lands has led to long-term reductions in organic carbon (DOC) in soil.	Перетворення природних водно-болотних та прерійних середовищ існування ряду сільськогосподарських земель призвело до довгострокового скорочення органічного вуглецю (DOC) у ґрунті.	75
	3	The availability of soil carbon is an essential component of soil health that influences soil microbial activity, nutrient availability, water holding capacity, and water filtration.	Наявність ґрунтового вуглецю є важливим компонентом здоров'я ґрунту, який впливає на активність ґрунтових мікробів, доступність поживних речовин, <u>водоутримуючу</u> здатність і фільтрацію води.	75
	4	Thus, practices to restore soil carbon and organic matter are being investigated globally to increase the sustainability of row crop agriculture.	Таким чином, практики відновлення ґрунтового вуглецю та органічної речовини досліджуються в усьому світі для підвищення стійкості сільського господарства.	75

Figure 10: Checking the correctness of the translation by comparing segments of the source and target texts.

soft skills that they were able to improve when carrying out translation projects using the Memsorce system.

The list of functions include: source text review during translation, display of full matches, display of fuzzy matches, integration with the MT system, merge/divide segments, use of repetitions, spell check on input, automated search for terms in the database, confirmation and saving of a segment, formal criteria check with error message, spell check of all translation units, export of target text, editing of source text, comments, automatic completion of the target segment based on MT translation results, copying a segment of source text into a segment of target text.

The results obtained (number of responses with a

score to each function) are presented in table 1.

The responses received indicate that the following Memsorce features received a 100% positive rating (a positive rating was taken to mean a score of 4 and 5):

- display of full matches (26+41),
- display of fuzzy matches (30+37),
- integration with the MT system (8+59),
- use of repetitions (23+44),
- spellcheck on input (11+56),
- automated search for terms in the database (26+41),
- confirmation and saving of a segment (18+49),

Table 1: Comparison of selected mobile language learning applications (paid).

Function	Evaluation	Evaluation	Evaluation	Evaluation	Evaluation
	1	2	3	4	5
Source text review during translation	0	0	4	18	45
Display of full matches	0	0	0	26	41
Display of fuzzy matches	0	0	0	30	37
Integration with the MT system	0	0	0	8	59
Editing of source text	3	6	7	48	3
Automatic completion of the target segment based on MT translation results	0	0	12	38	17
Copying a segment of source text into a segment of target text	0	0	17	35	15
Merge/divide segments	0	0	18	27	22
Use of repetitions	0	0	0	23	44
Spell check on input	0	0	0	11	56
Comments	5	7	35	9	11
Automated search for terms in the database	0	0	0	26	41
Confirmation and saving of a segment	0	0	0	18	49
Spell check of all translation units	0	0	0	13	54
Formal criteria check with error message	0	0	0	29	30
Export of target text	0	0	0	21	46

- spell check of all translation units (13+54),
- export of target text (21+46).

This high score for a significant number of functions indicates that the students have understood their benefits and usability, have mastered their skills and realised their effectiveness.

At the same time, several functions received a lower proportion of positive ratings, in particular:

- source text review during translation (94%),
- formal criteria check with error message (88%),
- automatic completion of the target segment based on MT translation results (82%),
- copying a segment of source text into a segment of target text (75%),
- merge/divide segments (73%).

This is, in our opinion, primarily because these functions are not quite typical in the translation process and the students have not fully understood their meaning and necessity.

The two functions that received the most varied evaluations were editing of the source text and comments. It is likely that some students did not appreciate their role in the translation process.

Overall, the vast majority of students who participated in the experiential learning, positively evaluating most features of the system, confirmed our assumption about the use of Memsourse as a core component of a cloud-based environment.

At the same time, students were also generally positive about the possibility to develop soft skills when performing translation projects in a cloud-based environment based on Memsourse. Table 2 presents a rating list of the skills highlighted by the students.

Table 2: List of soft skills developed in translation projects using Memsourse.

Skills/Abilities	Number of responses
Digital skills	67
Ability to work in a team	64
Communicative skills	55
Ability to self-control	38
Responsibility	32
Leadership skills	5

As shown in table 2, all students improved their digital skills. It should be noted that at the same time during the verbal communication with the participants of the experiment they stated their understanding of the importance of these skills for their future professional activities. Almost 100% indicated the ability to work in a team, because without this ability of each team member, the project would not be possible. About half of the students highlighted the capacity for self-control and responsibility, which encourages us to increase our focus on developing these personal qualities in the future. Quite a small number of participants in the experiment stated that they had improved their leadership skills. This is explained by the fact that the respective roles (administrator and

manager) were played by a small number of students, as it actually happens in real professional activity.

## 4 CONCLUSIONS

The use of Memsorce in the training of translators contributes to the development of a number of soft skills necessary for their future professional career, namely:

- the ability to work in a team, fulfilling a specific role assigned by the project administrator (manager, linguist) and to practise relevant skills,
- leadership skills (in the case of the role of project administrator or manager),
- the ability to communicate with others involved in the project, which passes through the Memsorce system and requires the development of digital skills,
- the ability to carry out self-monitoring of tasks within a translation project consisting of time management, meeting deadlines for a task or part of a task, checking the quality of one's own translation using the system functions, etc,
- the ability to make decisions at the level of their role (e.g. to allocate tasks),
- responsibility for their part of a translation project based on the awareness of the importance of their own contribution to the common cause,
- digital skills as part of the technological training of translators for professional activities in a new environment using information technologies.

The use of the Memsorce system as the main component for creating a cloud-based environment for training translators has shown that it can be used in the educational process due to a number of significant advantages, which include:

- accessibility through the offer of a demo and an academic programme,
- easy for students to master, especially in cases where they have already studied one of the desktop translation systems,
- the user-friendly interface, which greatly simplifies working with the system,
- a wide functional range, allowing prospective translators to practise the different roles of participants in a translation project with relevant skills and abilities,
- the prospect of applying the experience gained with the system to future professional activities.

The cloud-based environment built using the Memsorce platform ensures that prospective translators are systematically equipped with the tools and resources they need to carry out a full range of translation projects and, just as importantly, develop their soft skills.

The creation of a cloud-based environment will also optimise the structure and components of translation projects in the educational process of higher education institutions that train translators. This involves the justification, selection and enhancement of translation project tools, the basis of which will be cloud-based automated translation systems integrated with translation memory systems and systems for the creation and maintenance of educational and scientific terminology databases.

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