

Korobova Kateryna*Senior Lecturer at the Department of Linguistics and Translation**Borys Grinchenko Kyiv Metropolitan University, Kyiv, Ukraine*E-mail: k.korobova@kubg.edu.uaORCID ID: <https://orcid.org/0009-0005-8266-0276>**AI in the translation classroom: tool or threat?
A review of current research and pedagogical implications**

The fast growth of artificial intelligence (AI) translation tools, such as neural machine translation (NMT) systems, such as DeepL, and large language models (LLMs) like ChatGPT, has clearly changed how translation is taught and learned at the university level within philology programs. This article looks at recent studies and theories from 2024 to 2025 to better understand how AI tools are being used in translation classes today, what practical and analytical skills students are developing in this new context, what challenges teachers face while teaching translation in the AI era, and how they can gradually adapt their classes or courses to use CATs more effectively in order to prepare skilled and flexible translators for the modern job market. Research based on various studies that use different methods, such as mixed-methods, quasi-experimental, and systematic reviews, shows that AI tools really help students work faster and make better translated drafts that can later undergo further human correction and revision. These tools also let learners take more control of their studies, get better access to learning materials, parallel texts, and examples of ready-made translations for analysis, and quickly find specific information connected with different realia, terminology, and cultural nuances, etc. At the same time, there are always issues with understanding different cultures in depth, adapting meanings for the target audience, being accurate in practical situations, and choosing the right way to speak in different contexts, which always show that human judgment is still needed and cannot be replaced by AI tools. The article suggests using a human-centered approach to teaching translation with AI, where such tools are seen as things to study and think about critically, not just quick ways to get finished translations without human revision. Concrete classroom strategies, such as post-editing tasks, comparing human and AI translations, teaching basic AI literacy, and discussing ethical aspects, are suggested as ways to use AI's strengths while also improving the skills needed for modern professional translators.

Keywords: artificial intelligence, translation pedagogy, teaching methods, machine translation, neural machine translation, post-editing, AI literacy, translation education, human-centered AI.

Introduction. There's a question that quietly worries many translation teachers right now: if a student can use DeepL or ChatGPT to get a smooth, grammatically correct translation in just a few seconds, what is really being taught – and why? The big arrival of AI translation tools has not just given translators a new tool to use; it has shaken up the basic ideas on which translation teaching is based. For teachers, this brings both a need to act now and a chance that can't be put off.

The translation industry has changed quickly in the last ten years. Technological progress in AI, big data, and deep learning has completely changed the way translations are made and used (Al-Batineh & Al Tenaijy, 2024, as cited in Alshihri et al., 2025). Neural machine translation, which replaced older translation methods that used rules and statistics, can now create translations that look almost like work done by a skilled translator when you read them at first glance. Tools such as DeepL, Google Translate, and GPT-4 have gone from being new and interesting tools for professionals to everyday tools that students use regularly – and this change has arrived in classrooms, even if teachers didn't expect it.

Philology translation programs are influenced by two main factors: the changing needs of the professional translation industry and the growing trends in higher education teaching methodology (Sawyer, Austermühl & Raído, 2019, as cited in Alshihri et al., 2025). Both sides now agree on one important need: translation graduates can't afford to ignore AI literacy anymore. It's a must now. A curriculum that doesn't include teaching these tools isn't keeping students away from distractions – it's actually not making them ready for the job they are being taught for.

Formulation of the problem. The aim. Even though the issue is urgent, there isn't much research on how AI tools should be properly used in translation classes – not just whether they are being used at all – and what's available is fragmented across different fields and disciplines that mostly focus on education in Western

countries (Nguyen Thi Nhu Ngoc et al., 2025). This article aims to bring together the latest research, figure out the important pedagogical implications, and suggest a clear plan for including AI in translation education.

The main point being made here is that AI translation tools are not some kind of magic solution, and they aren't a big threat that will change everything. They are strong but limited tools, and using them in teaching translation needs the same skills that good translation itself demands: thoughtful decision-making, cultural awareness, and critical thinking. The real question isn't whether we should use AI in the translation classroom, but how we can use it in a way that really helps students learn and master the important skills of the field, instead of just making the work easier without them having to understand the basics of it, and to pass the discipline for the credit.

Methods and Materials. This article is structured as a narrative literature review, focusing on peer-reviewed empirical studies, systematic reviews, and practitioner reflections that were published between 2024 and 2025. To find sources, we used academic databases such as Google Scholar, SpringerLink, Wiley Online Library, and Taylor & Francis Online. We searched for terms such as «AI translation pedagogy», «machine translation classroom», «neural machine translation education», «AI literacy translation», and «post-editing teaching». We focused on studies that used mixed-methods, quasi-experimental, or systematic review approaches because these types of research provide the strongest and most reliable methodological evidence, especially in a field that is still developing.

The review centers on translation education at the university level and is based on studies and expert commentaries as its main source material, along with additional accounts from practitioners and two books that discuss translation pedagogy.

The study was structured around four main topics: 1. What do recent studies show about how students and teachers are using AI translation tools right now? 2. What learning advantages do these tools provide? 3. Where do AI tools keep failing, and what does that mean for teaching methods? 4. What methods and classroom approaches does the research suggest for teaching with AI translation tools? These questions are covered in the Research Results and Discussion sections that come next.

The main part. Student and Teacher Use of AI Translation Tools. A recent survey shows that many students are using AI translation tools frequently, in various ways, and mostly on their own. Klímová (2025) asked 99 Czech and international university students about the tools they use and found that Google Translate was the most popular choice. DeepL and ChatGPT were the next most used. Students mainly used these tools to help with reading comprehension, checking grammar, and getting help with writing. The study also found that students who used AI tools felt more motivated and did better in their studies. However, the author suggests being careful about taking these results too seriously because the group of students studied was small and similar in many ways.

At the advanced learner level, Zhang and Doherty (2025) studied AI literacy among novice translation students at the University of New South Wales. They found that while students could use terms like «deep learning», «neural network», and «artificial intelligence» smoothly, they didn't really understand what these technologies do or how they connect to the AI tools they were already using. This difference between using AI tools confidently and truly understanding them is one of the most important discoveries in recent educational research: students are using these tools every day, but they don't have the skills to check, fix, or really think about what the tools produce.

From the teacher's perspective, Nguyen Thi Nhu Ngoc et al. (2025) did a detailed review of the advantages and challenges of using AI tools in higher education for translation teaching. They found that teachers mostly see AI as useful for updating courses, giving instant feedback, and making sure the teaching methods match what is happening in industry practices today. Teachers also said they use AI to come up with new teaching methods – like creating simulation-based activities and comparative exercises – instead of just seeing it as a tool students might use to cheat, and trying to stop that.

Documented Learning Benefits. In various types of studies, AI translation tools have proven to provide real learning advantages when used with a purpose. The biggest clear benefit is that it speeds up the writing process: Bouguesmia (2020) and Tavares et al. (2023) found that students who used NMT tools liked being able to write their first drafts more quickly, which gave them more time for revision and critical reflection (Nguyen Thi Nhu Ngoc et al., 2025). Since revising and post-editing translations are among the most important competencies for professional translators – they are rarely practiced enough in traditional classroom settings, where most of the time is spent on creating the initial version – and this change is a real pedagogical gain.

Empirical studies by Duan, Gao, and Zhang in 2025 show that using NMT helps improve translation results. They conducted a quasi-experimental study where they compared two groups – one that used NMT and another that learned translation the traditional way. The study used the Multidimensional Quality Metrics (MQM) framework to evaluate the results and discovered that groups using NMT showed clear improvements in

translation accuracy and correctness. The authors see this as evidence of the value of including AI tools in the design of translation courses, but they also warn that using these tools must be guided by structured teaching methods to get the full benefits.

The engagement dimension has also attracted attention. A study published in *Education and Information Technologies* (2025) looked at how Master's students interacted with feedback from ChatGPT during tasks where they revised their translations. The study found that students put in a lot of mental effort when they revised their work, even though they found the AI feedback generally easy to understand – a trend the authors call mentally challenging in a helpful way, which matches how deep-learning methods build skills.

An equity aspect also comes up in the research. AI tools, especially the free ones that can be used on mobile devices, have the power to level the playing field for students who don't have much money or access to regular classroom facilities (Le & Dao, 2019; Yanti & Meka, 2019, as cited in Nguyen Thi Nhu Ngoc et al., 2025). In educational environments that are not part of the Western world or lack proper resources, making advanced language tools accessible is more important than just being easy to use.

Persistent Limitations and Failure Modes. The same studies that show the advantages of AI tools also clearly explain their drawbacks. The biggest problems keep happening because of differences in culture, practical meanings, common sayings, and how emotions are expressed. Al-Zayed et al. (2025) investigated how EFL translator students perceive ChatGPT and Google Translate when doing literary translation work. They discovered that both novice and advanced students noticed big problems with the AI tools in understanding and expressing the language and culture of the original literary texts. Importantly, students were more skeptical of Google Translate compared to ChatGPT. This result shows how quickly AI tools are becoming better at different tasks, and how fast any old evaluation of AI translation quality can become outdated.

Structural limits in AI feedback have also been reported. The 2025 *Education and Information Technologies* study on feedback from ChatGPT in translation revisions found that students' interactions with AI-generated comments involved many connected factors, including their thinking, feelings, and actions. Students occasionally turned down helpful advice and went along with suggestions that weren't very good, showing that even though AI can provide quick and lots of feedback, it can't replace the experienced judgment of a real teacher.

Zhang and Doherty (2025) point out a problem related to AI literacy that goes beyond the classroom. They say that specialized training in AI translation is mostly offered to postgraduate students or advanced undergraduates, so most translation learners have to use these tools on their own without any proper instruction. This means the difference between how confident students are in using AI tools and their ability to think critically about what the AI produces is widening rather than narrowing.

Research methods used in this field also have their own drawbacks. Nguyen Thi Nhu Ngoc et al. (2025) point out that most current reviews mainly focus on studies written in English, which might leave out important research from educational settings in non-Western countries. In these places, AI translation tools might work or be used in different ways. The literature often highlights the importance of research that follows people over time, compares different cultures, and considers the specific situations in which they live.

Approbation of research results. Toward a Human-Centered Framework. The latest evidence shows that the right way to deal with AI in translation classes isn't to worry about it or just ignore it, but to make a thoughtful change in how we teach translation. The best framework we have right now is human-centered artificial intelligence (HCAI), which has been discussed in the context of teaching translation by Rodríguez (2025) and is based on the theories developed by Ben Shneiderman. HCAI changes the traditional «human-in-the-loop» approach by focusing on Intelligence Amplification (IA): humans are still the main ones making decisions, and AI tools help them out instead of acting on their own. In translation teaching, this means the teacher's main role changes from fixing obvious language mistakes – something AI is getting better at – to helping students develop important skills that machines can't do, like understanding different cultures, making good style choices, thinking about right and wrong in translation, and being creative with how they express ideas.

This change affects the way translation classes are planned and structured. Instead of seeing AI results as something to stop or ignore, good teaching methods use AI-generated translations as things to carefully examine and analytically think about. When students are asked to figure out exactly why a machine translation fails – like naming the cultural idea it missed, the tone it got wrong, or the idiom it translated too literally – they are doing exactly the kind of analytical thinking that real translators need to do. The AI's output isn't the end of the task, but the beginning.

A helpful framework is provided by the Springer Nature study on generative AI in university translation practices (2025). This study suggests a three-dimensional approach for support within institutions and for teachers. The dimensions include pedagogical support, which involves classroom strategies and educational materials; governance, which focuses on clear guidelines for the effects and ethical use of AI; and operational

support, which deals with updating the curriculum to improve AI literacy. This framework works well with the HCAI model and gives a useful way to plan at the program level.

The AI Literacy Imperative. One of the most clear things from the 2024–2025 research is that students are feeling more confident using AI translation tools than they actually know how to use them. Zhang and Doherty's (2025) study shows that beginners in translation often use AI-related terms without fully understanding what they mean, which suggests there's a big gap in how translation programs are structured. AI literacy, which means knowing about AI, using it, judging its effects, and understanding the right way to use it, should be a main part of translation education, not just an extra skill related to digital tools.

This affects the way AI is introduced into the classroom. Allowing or even encouraging the use of AI tools without teaching students how these tools work, where they tend to make mistakes, and which professional and ethical standards apply to their use can lead to graduates who rely on these tools without being able to properly understand or assess them. A teacher who knows the strengths and weaknesses of today's AI tools can create better activities that clearly show where AI falls short. This is better than making activities that either let people use AI without thinking or ignore AI completely.

Practical Classroom Strategies. The literature shows that there are several clear teaching methods that can be used when teaching translation with the help of AI. Post-editing tasks, where students are given a translation made by an AI and asked to improve it, are similar to what professionals do today, called machine translation post-editing (MTPE). These tasks ask students to think carefully and critically about the language in a way that creating a first draft usually doesn't require. Research by Bakhov et al. (2024) showed that students became more reflective after using AI-based feedback (as cited in Nguyen Thi Nhu Ngoc et al., 2025). This suggests that structured post-editing exercises can help develop the critical thinking skills needed for professional translators.

Comparing translation tasks – giving the same text to both students and AI tools, then talking about the results in class – leads to meaningful discussions based on real examples. Al-Zayed et al. (2025) propose that holding small contests comparing human translation with AI-assisted translation can teach students how to use these tools more effectively, and also show where human judgment is important and AI can't replace it. Error analysis exercises help students find and classify mistakes in AI translations by using frameworks such as Multidimensional Quality Metrics (MQM). This process improves their ability to analyze analytically and understand the different aspects of translation quality.

In the end, whenever AI tools are used in a translation class, it's important to have clear talks about the professional and ethical sides. This includes discussing when it's okay to use AI help, how to properly tell others that AI was used, and what responsibilities a translator has when sharing work that was done by AI. These are real questions that professionals face in their careers, and the classroom is the best place to start learning how to handle them.

Conclusions. This review looked at recent studies about using AI translation tools in higher education for translation teaching, to see what the research shows and what questions are still unanswered. Some clear results show up in many studies, so teachers should think carefully about how to respond to them.

Nowadays, AI translation tools are commonly used by students in their studies, even if teachers haven't intentionally included them in their lessons. The main issue for translation programs is not whether to use these tools, but how to use them in a way that improves, rather than decreases, the skills needed to become a professional translator.

Second, AI tools can really help with learning – they can speed up writing, help with editing, encourage analytical and critical thinking, and make learning more accessible – but only if they're used intentionally as part of well-planned teaching activities. These benefits don't happen on their own; they rely on how the learning activity is planned and how much support students get in thinking critically.

Third, AI tools consistently struggle with the very aspects that make a good translation skillful: understanding cultural context and nuances, being sensitive to how language is used in different situations, knowing common expressions and phrases, and using the right level of formality. These failure modes aren't just temporary bugs that can be fixed in the next update; they show that there are basic limits to what can be done with statistical pattern-matching across large collections of text, unless there's cultural understanding or contextual awareness involved. Teachers can turn these limits into useful tools for teaching.

Fourth, the AI literacy gap – the growing difference between students' confidence in using tools and their understanding of how those tools actually work – is one of the most urgent and overlooked challenges in translation education. To close this gap, we need to treat AI literacy as an important part of the curriculum, not just a minor skill.

Future studies in this area could get better results by using long-term research approaches, including more diverse groups from different cultures, and by carefully examining the experiences of educational systems

across countries all over the world. As AI abilities keep getting better – and they'll improve quickly – the teaching methods talked about in this article will need to be checked and updated often. What is unlikely to change is the basic idea: that the purpose of translation education is not to create skilled users of translation tools, but to develop thoughtful, culturally aware professionals who can make fine, thoughtful decisions that no algorithm can yet do.

Declaration on the Use of Artificial Intelligence. Disclosure of the Delegation of Tasks to Generative AI.

The authors declare the use of generative AI in the research process and in the preparation of this manuscript. In accordance with the GAIDeT taxonomy (2025), the tasks listed below were delegated to generative AI tools under full human supervision:

- Generating ideas
- Searching for and organizing the literature
- Selecting research methods
- Proofreading and editing

Generative AI tool used: Claude Sonnet 5.

The authors bear full responsibility for the final manuscript.

Generative AI tools are not listed as authors and bear no responsibility for the final results.

Declaration submitted by: Kateryna Petrivna Korobova

Additional note: Claude Sonnet 5 was also used to format the references in accordance with the APA international style for scientific publications.

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ШІ на заняттях з перекладу: інструмент чи загроза?

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Стрімкий розвиток інструментів перекладу на основі штучного інтелекту (ШІ), таких як системи нейронного машинного перекладу (NMT), наприклад DeepL, та великі мовні моделі (LLM) на кшталт ChatGPT, безперечно, змінив підходи до викладання та вивчення перекладу на університетському рівні в рамках філологічних програм. У цій статті розглядаються останні дослідження та теорії за період із 2024 по 2025 р., щоб краще зрозуміти, як інструменти ШІ використовуються сьогодні на заняттях із перекладу, які практичні та аналітичні навички студенти розвивають у цьому новому контексті, з якими викликами стикаються викладачі під час викладання перекладу в епоху ШІ та як вони можуть поступово адаптувати свої заняття або курси для більш ефективного використання САТ-систем, щоб підготувати кваліфікованих і гнучких перекладачів для сучасного ринку праці. Дослідження, засновані на різних методах, таких як змішані методи, квазіекспериментальні та систематичні огляди, показують, що інструменти ШІ дійсно допомагають студентам працювати швидше та створювати кращі чернетки перекладів, які згодом можуть пройти подальшу корекцію та редагування людиною. Ці інструменти також дають змогу студентам краще контролювати своє навчання, отримувати кращий доступ до навчальних матеріалів, паралельних текстів та прикладів готових перекладів для аналізу, а також швидко знаходити конкретну інформацію, пов'язану з різними реаліями, термінологією та культурними нюансами тощо. Водночас завжди існують проблеми з глибоким розумінням різних культур, адаптацією значень для цільової аудиторії, точністю в практичних ситуаціях та вибором правильного способу висловлювання в різних контекстах, що завжди свідчить про те, що людське судження все ще потрібне і не може бути замінено інструментами ШІ. У статті пропонується використовувати орієнтований на людину підхід до викладання перекладу з використанням ШІ, де такі інструменти розглядаються як об'єкти для вивчення та критичного осмислення, а не лише як швидкі способи отримання готових перекладів без людської ревізії. Конкретні стратегії для аудиторії, такі як завдання з постредагування, порівняння перекладів, виконаних людиною та ШІ, викладання базової грамотності у сфері ШІ та обговорення етичних аспектів, пропонуються як способи використання сильних боків ШІ, одночасно вдосконалюючи навички, необхідні сучасним професійним перекладачам.

Ключові слова: штучний інтелект, педагогіка перекладу, методи викладання, машинний переклад, нейронний машинний переклад, постредагування, грамотність у сфері ШІ, освіта у сфері перекладу, ШІ, орієнтований на людину.



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