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Karaban Viacheslav

Doctor of Philological Sciences, professor, professor at the department of theory and practice of translation from English, Taras Shevchenko National University of Kyiv;

e-mail: v.karaban@knu.ua; ORCID: 0000-0002-4229-2641;

GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=NBIUOhwAAAAJ>;

RESEARCH GATE: https://www.researchgate.net/profile/Viacheslav_Karaban

Karaban Anna

PhD in Philology, associate professor, associate professor at the department of English philology and intercultural communication, Taras Shevchenko National University of Kyiv; e-mail: a.karaban@knu.ua;

ORCID:0000-0002-1101-4227; GOOGLE SCHOLAR: <https://scholar.google.com.ua/citations?user=upUgr-EAAAAJ&hl>;

RESEARCH GATE: <https://www.researchgate.net/profile/Anna-Karaban>

AI ERA CLASSROOM BEYOND POST-EDITING: CUSTOM GPTs IN TRANSLATOR TRAINING

The article addresses the current pedagogical dissonance in translator training, where Large Language Models (LLMs) are either banned or students are confined to the remedial task of post-editing of LLM output, neglecting the critical up- and downstream decisions. We propose a structured integration of custom GPTs for translation teaching into the curriculum, reframing AI from a generic tool into a suite of specialized assistants for the pre-production, production, and post-production phases of the translation workflow. This approach makes the translator's decision-making process transparent, teachable, and assessable, shifting the focus to strategic thinking.

We situate this design in current work on LLM-assisted translation, post-editing, automated evaluation, and AI literacy, and recommend human oversight to limit hallucinations and biases. Methodologically, the paper offers a narrative synthesis of pedagogical, professional, and ethical arguments for the adoption of the custom GPTs and formalizes their role/function action plan. The paper presents a framework and a small proof-of-concept custom GPT suite spanning sense resolution, synonym precision, challenge identification, term extraction, explainable translation, and quality assurance. Early use indicates the following benefits: metacognitive lift via explicit alternatives, rationales, and confidence; efficiency without opacity, as assistants recommend while students decide.

By embedding these role-based GPTs, educators can foster essential competencies like AI literacy and prompt engineering, while students gain agency and a deeper understanding of the translation process. The teacher-machine-student triad recenters agency and accountability in translator training. This approach promotes the development of crucial, future-proof skills and positions technology as a tool that augments and enhances human capabilities within a human-centered AI (HCAI) paradigm and provides an actionable path for educators to move beyond the post-editing bottleneck, transforming AI from a forbidden shortcut into a structured apprenticeship in translator thinking for an AI-integrated industry.

Key words: *AI in translation, AI literacy, custom GPT, human-centered AI, translation pedagogy, translator training, post-editing.*

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1. INTRODUCTION

University translator training is stuck in cognitive dissonance. Students lean on large language models ad-hoc – just copy-pasting prompts, harvesting outputs, and only dimly sensing why the result sounds right (or wrong). Professors, meanwhile, oscillate between denial, i.e. banning AI in class as if prohibition could rewind AI's assault on the profession and depression – by reducing AI in translation to the most joyless form of post-editing, where every sentence is a triage ward and none of the upstream causes are addressed. This misunderstanding of the role of AI in translator training keeps treating the *after* as the curriculum while ignoring the *before* that makes the *after* a nightmare.

Pedagogically, resorting to custom GPTs turns AI from a black box into a studio: students practice decisions, not copy-paste, thereby restoring the dignity of the pre-production stage, where most downstream errors are born, and elevating post-production beyond error-hunting to audience-aware rewriting and reusable style assets.

Custom GPTs, built quickly, often in under an hour by uploading relevant texts, glossaries, or datasets, using tools like OpenAI's ChatGPT Builder, can be highly effective for university-level language translation courses. They are expedient to create because the process typically involves simple steps: naming the GPT, providing behavioral instructions, uploading relevant knowledge files (e.g., glossaries or sample texts), and testing with sample prompts. Based on educational resources and best practices, we present several practical custom GPTs tailored for teaching translation skills and knowledge. They focus on interactive practice, feedback, and contextual understanding, which are crucial for university students dealing with complex texts in literature, technical fields, or professional contexts.

These custom GPTs are selected for their high utility in addressing common challenges in translation education, such as personalization and ethical integration, while adapting to diverse languages and contexts and being straightforward to create and deploy. They can be shared via links for classroom use, and educators should emphasize human oversight to mitigate risks like biases, ensuring AI complements rather than replaces critical thinking.

Custom GPTs are powerful tools for enhancing translation education at the university level, offering personalized, interactive experiences that blend theory (e.g., concepts like equivalence, skopos, and cultural adaptation) with practice (e.g., hands-on translation and feedback). We think that custom GPTs can reconcile the translation classroom's dissonance. They preserve student agency and convert AI from a forbidden shortcut into a structured apprenticeship in translator thinking. The rest of the paper situates this approach in translator training approaches and course integration that any program would be able to adopt with minimal preparation.

The goal of this article is to advocate for, and provide a practical framework for, creating and using custom GPTs in university translator training for both educators and students. To realize this goal the article follows through on the following tasks: synthesizes the pedagogical, professional, and ethical rationale for adoption; formalizes a role- and function-based model as the design backbone for custom GPTs; demonstrates the design and operation of several exemplar GPTs; and provides implementation suggestions from instructions, sample prompts, rubrics, and classroom workflows for labs and homework.

2. TEACHABLE AI IN TRANSLATOR TRAINING

The object of this article is university translator-training practice from the curricular sequences and classroom activities through which novice translators plan, produce, and review translations and how these practices can accommodate AI assistance.

The subject is the creation and use of custom, task-specific AI assistants (custom GPTs) for that setting, developed on a role- and function-based model and delivered with explanatory materials.

The theoretical foundations combine translator-competence pedagogy, professional workflow logic, instructional design, and ethical principles for AI-assisted learning, together with human-computer interaction insights for prompt and interaction design.

Materials and methods are conceptual and design-oriented: a narrative synthesis of the pedagogical, professional, and ethical rationale for adopting custom GPTs; formalization of a role/function model that organizes assistance across pre-production, production, and post-production; specification and demonstration of several exemplars; and development of implementation artefacts.

2.1 The Case for Task-Bound Custom GPTs in Translator Education

Recent research on LLMs and machine translation underscores both promise and risk. Surveys and evaluation studies report that LLMs can deliver competitive translation [8] and post-editing performance in certain conditions, while also exhibiting brittleness (hallucinations, register drift, inadequate discourse coherence) without careful prompt design, interaction protocols, and human oversight [1]. This article argues for a reset: stop debating whether to utilize the LLMs, considering all the risks and design how. We propose a suite of custom GPTs, role-bound and guardrailed, that live inside the existing translator's workflow rather than outside it. Instead of a single, shapeless chatbot, students meet specialists where parameters are locked, prompts are scaffolded and transparent, and every intervention leaves a trail - edits, and rationales, etc.

In translation education specifically, Jiménez-Crespo [6] argues for moving beyond "black-box" usage

toward transparent, pedagogy-first integrations that teach students to plan tasks, reason about evidence, and externalize decisions rather than merely “ask the model.”

To ground this in ESCO’s translator competences, we tie each custom GPT to explicit ESCO skills rather than vague AI abilities. The *pre-production* GPTs operationalize translator competencies like analysing text before translation, comprehending the material to be translated, and employing translation techniques by turning them into checklisted actions with sources and risk notes; the *production* GPTs ensure consistency of terminology, register, and related skills; and the *post-production* GPTs can review translations as a structured, audience-aware QA cycle.

A growing body of research explores how AI can be leveraged not just as tools for translation but as active participants in the pedagogical process, particularly in the realms of automated assessment and feedback. This shift is prompting a move towards a more human-centered AI (HCAI) paradigm in education, where the focus is on augmenting, rather than replacing, the unique skills of the human translator.

The most immediate and tangible impact of AI in translation education is its potential to enhance efficiency [8] and provide rich learning resources. For instructors, AI tools can significantly reduce the burden of creating materials and preparing lessons, offering access to a vast and diverse corpus for translation exercises [12]. For students, tools like ChatGPT can accelerate the translation process by providing instant vocabulary, grammar, and drafting support, which frees up valuable time for the more crucial tasks of revision, post-editing, and critical reflection [13]. This efficiency, coupled with the potential for personalized learning and immediate feedback, has been shown to boost student motivation and confidence [10; 13].

A significant area of investigation has been the use of LLMs to automate the assessment of translation quality. Researchers are moving beyond traditional metrics to explore an “LLM-as-a-judge” approach, where models directly evaluate student work. Studies show that LLMs can achieve high levels of agreement with human experts, with some GPT-based models being identified as state-of-the-art evaluators of translation quality [11]. Raunak, V., Sharaf, A., Wang, Y., Awadalla, H. H., and Menezes, A. [14] demonstrated GPT-4’s proficiency in automatic post-editing, suggesting its potential as a preliminary evaluation tool. This capability is being developed into sophisticated pipelines that can generate constructive, specific feedback that shows a high degree of overlap with that of expert instructors [5].

The capacity for automated assessment naturally leads to the use of LLMs for providing feedback, a cornerstone of translator education that is traditionally labor-intensive for professors. However, the transition to AI-generated feedback is not seamless. While students recognize the potential of tools like ChatGPT,

their reception is often mixed, with persistent concerns about quality, reliability, and a lack of the trusted, nuanced connection they feel with human teachers [15]. Research into how trainee translators interact with these tools reveals varied patterns of engagement, indicating that simply providing the technology is insufficient; pedagogical guidance is necessary to help students use it effectively and critically [2; 4]. This underscores a crucial point: while AI can offer instant feedback, its current limitations in areas like logical reasoning and its tendency to produce generic or overly corrective responses mean it cannot fully replicate the tailored, indirect guidance of an experienced educator [15].

These technological advancements and their attendant challenges are forcing a pedagogical transformation in translator training. The role of the language professional is evolving from a pure text producer to that of a critical post-editor, a manager of AI output, and a technologically literate expert. Consequently, curricula must adapt to include new competencies such as AI literacy, prompt engineering, and the ethical considerations surrounding generative models [3; 15]. Jiménez-Crespo [6] advocates for a realignment around a human-centered AI (HCAI) framework, which prioritizes the “added value” of human translators - skills like creativity, cultural attunement, and deep contextual understanding that machines currently lack. This approach positions technology as a tool to augment human capabilities, empowering trainees to maintain agency and control over their work in an increasingly automated environment. Wittkowsky and Krüger [18] provide a concrete roadmap for this shift, proposing a comprehensive, domain-specific AI Literacy framework that moves beyond basic MT skills. Their framework calls for educating students in the technical foundations, domain-specific performance, interaction, implementation, and ethical aspects of AI systems. Central to this is the cultivation of prompt engineering skills, which they identify as the critical “steering instrument” that allows professionals to maintain control and elicit high-quality output from LLMs. This approach, which turns students into experts in language-oriented AI, directly supports the HCAI goal of augmenting human capabilities while empowering trainees to retain agency and control over their work in an increasingly automated environment [6; 18].

Despite the great promise of AI, significant challenges remain. The risk of models producing “hallucinated” or factually incorrect edits is a serious concern that requires vigilance from users [14]. Furthermore, ethical issues related to data privacy, potential biases encoded in AI feedback, and the danger of students becoming over-reliant on technology are paramount [5; 12]. In conclusion, the literature shows that while LLMs offer powerful new tools for translator training, their successful implementation hinges on a critical and human-centric approach. The goal is not

simply to adopt the technology, but to adapt it within a pedagogical framework that prepares students to be discerning, empowered, and ultimately irreplaceable professionals in the age of AI.

What remains unresolved is how to: embed these practices as assessable competencies rather than ad-hoc band-aids; convert generic chat use into role-based, competency-aligned tasks; ensure fair assessment that accounts for both quality and effort.

2.2. Framework and Design Principles

This section operationalizes the goal of the article by specifying a standards-aligned framework and an implementable suite of custom, task-specific AI assistants for university translator training. The framework maps the professional workflow into three stages — pre-production, production, post-production — and binds each stage to clear functional roles. Every assistant is built on the same engineering principles: conservative, locked parameters for reproducibility and transparent, scaffolded prompts. In the rapidly evolving landscape of higher education, custom Generative Pre-trained Transformers (GPTs) – tailored AI models built on platforms like OpenAI's GPT – offer transformative potential for language translation education. These tools, which can be fine-tuned for specific tasks such as multilingual analysis or scholarly synthesis, extend beyond generic chatbots like ChatGPT to provide specialized support. As of 2025, with advancements in AI integration, universities are increasingly adopting custom GPTs to bridge theoretical depth and practical proficiency in translation education. This not only democratizes access to complex linguistic resources but also fosters innovative pedagogies that prepare students for an AI-augmented profession. Below, we present the key benefits of these tools and strategies for their seamless integration into teaching translation theory and practice.

2.2.1 Pre-production Assistants: Preparing Decisions Before They Become Errors

2.2.1.1 Custom GPT “Ukrainian-English Translation Challenge Identifier-Solver”, a tailored version of OpenAI's ChatGPT [7], can accurately spot various challenges (difficulties) in Ukrainian-English translation, describe and explain them before translating the source sentence or text. It warns off possible pitfalls before translating, sees difficulties in source sentences, suggests strategies for tricky translation elements, and more. Below is the description of how it approaches identifying and solving translation challenges, especially in Ukrainian-English translation. First it scans the Ukrainian source text for areas that often resist direct, word-for-word translation, including lexical gaps (words or concepts that don't exist in English – e.g., «криниця» vs. well; «гостина» vs. hospitality feast), cultural references (idioms, sayings, customs, historical allusions – «моя хата скраю» doesn't literally mean “my house is on the edge”), polysemy and ambiguity (Ukrainian words

that can mean multiple things depending on context – «ключ» = “key,” “spring,” or “clue”), aspectual verbs (e.g., the Ukrainian verb pairs писати/написати does not map neatly onto English tenses), stylistic register (Ukrainian can be more formal, poetic, or diminutive-heavy than English), and syntax differences (e.g., word order in Ukrainian is freer; English requires stricter sequencing).

Then follows the challenge analysis, and for each tricky spot, it asks the following: What is the literal meaning?; What is the intended meaning in context?; What would be natural English without losing nuance?; Do I need a translation note (if the cultural detail is crucial)? For solving the challenge, it applies strategies such as equivalence (finding an English idiom that matches in spirit – зарубати на носі → “keep it in mind”), descriptive translation (when no exact word exists (криниця → “a traditional well for drawing water”), neutralization (tone down cultural specifics if they distract (борщ may just stay borshch with a note), compensation (if a diminutive cannot be replicated, adding warmth elsewhere in the sentence), and structural adjustment (reordering phrases to fit English flow).

The process of testing the solution includes checking whether the English sounds natural, preserves the original's meaning, tone, and intent, and an English reader would understand without losing cultural depth. Further, a short Ukrainian excerpt is analyzed for demonstration to show the process: *Учень 11 класу фізико-математичного ліцею КНУ імені Тараса Шевченка Остап Гіщак здобув перемогу на міжнародній математичній олімпіаді в Німеччині. Про це повідомляє навчальний заклад. Українська команда посіла перше місце у командному заліку. Золоту медаль в індивідуальному заліку отримав учень київського ліцею Остап Гіщак, який набрав максимальну кількість балів.* The analysis is broken down step by step and challenges are solved accordingly. The first step is translation challenge identifying: 1) Учень 11 класу – literally “pupil of the 11th grade.” In English, “11th-grade student” or “high school senior” (depending on equivalence); «фізико-математичний ліцей» – “physico-mathematical lyceum.” Problem: «ліцей» ≠ “lyceum” in English (too formal/archaic – a better rendering: “specialized physics and mathematics high school.”; КНУ імені Тараса Шевченка – “Taras Shevchenko National University of Kyiv.” (But here it refers to an affiliated lyceum, not the university itself → must avoid confusion); «здобув перемогу» – literally “won a victory,” but in English more natural: “won” or “took first place”; «командний залік/індивідуальний залік» – direct translation “team standings/individual standings” (but in English contest contexts: “team competition” and “individual competition” are smoother); «набір максимальної кількості балів» – literally “scored the maximum number of points” (this needs smoothing: “achieved a perfect score”).

The second step is the proposed translation: 2) *Ostap Hishchak, an 11th-grade student of the specialized physics and mathematics high school affiliated with Taras Shevchenko National University of Kyiv, won first place at the International Mathematical Olympiad in Germany, the school reported. The Ukrainian team took first place in the team competition. In the individual competition, Ostap Hishchak of Kyiv's physics and mathematics high school won the gold medal, achieving a perfect score.*

The third step is checking whether the above choices work: 3) Replacing «ліцей» with “specialized high school” to match Western understanding; using “achieved a perfect score” instead of literal “scored the maximum number of points” for idiomatic English; differentiating between team competition and individual competition rather than stiff “standings; smoothing «здобув перемогу» → “won first place.” The result is a faithful translation, natural in English, that keeps the prestige of the achievement without sounding awkward.

This custom GPT also gives a reminder-summary checklist of common challenges in Ukrainian-English translation for keeping it handy for users: education terms («ліцей», «гімназія», «технікум» → usually not literal (“lyceum”); prefer “specialized high school,” “college,” etc., depending on context; verb aspect (perfective vs. imperfective («писати» / «написати») for choosing tense/aspect naturally in English); idioms/sayings not to be translated word-for-word but find equivalents («зарубати на носі» → “keep it in mind”); diminutives («будиночок», «мамочка» → often add warmth through phrasing, not by shrinking the noun); cultural references (holidays, foods, traditions → decide if to keep (with a note) or adapt (e.g., «борщ» → “borshch [traditional beet soup]”); formal names and institutions (universities, ministries, official bodies → check accepted English equivalents); register and tone (Ukrainian often more formal; adjust to natural English style (especially in journalism, dialogue, etc.); polysemy (Always check context for words with multiple meanings («ключ» = key/spring/clue); numerals and measures (Convert if needed (e.g., кілометри → kilometers, but sometimes miles if targeting U.S. readers), adding a golden rule at the end (Aim for clarity, naturalness, and cultural precision, not word-for-word accuracy).

2.2.1.2 Custom GPT “Precise Synonym Selection”, a tailored version of OpenAI’s ChatGPT [7], helps translators choose precise Ukrainian-English synonyms with nuance. As an example for the illustration of how this tool works, we chose the polysemantic Ukrainian word «ключ». First, possible meanings are identified by mapping the main semantic fields the word can cover in Ukrainian: «ключ» → (a) «key» (object for a lock), (b) «clue/solution», (c) «spring» (natural water source), (d) metaphorical «key» as «crucial/central.» After that analyzed are the word’s immediate context in terms of sentence grammar and collocations («ключ

від дверей» → lock key; «ключ до розгадки» → clue/solution, etc.) and textual characteristics (domain and register, e.g. legal, literary, colloquial, technical), as well as pragmatic function (is it explanatory, figurative, literal?). If the context is missing or genuinely ambiguous, the tool asks the user a short clarifying question instead of guessing.

The next step is candidate synonym testing in which the synonym selection tool tests each possible English equivalent for collocability (does it “fit” with nearby words?), register match (formal/neutral/informal), frequency and naturalness in real English, and false friend risk (e.g., «фабрика» → «factory,» not «fabric»). Further, in a compact presentation, options are given, presented in two compact tables: neutral/technical lane (register and collocation fit) and literary/expressive lane (effect and stylistic note). This allows a translator to pick quickly, depending on whether the target text is, say, a technical manual or a novel. Then, for highlighting and justifying the recommendation, the top recommendation is given in bold, shading it in the table and providing a 2–3 sentence rationale (why it fits the context, why it is idiomatic in English, and why alternatives might feel off (too archaic, too literal, too casual, etc.).

Now, we will walk through the sense resolution and synonym choice process step by step with the source Ukrainian sentence «Що робити, коли машину розгойдало на великій швидкості?» and the target brief is a natural, idiomatic English rendering with context = everyday driving safety advice. The key focus for sense disambiguation is the Ukrainian «розгойдало.» The possible senses are: physical swaying/rocking motion (side-to-side, like a car buffeted by wind); figurative “losing stability” or “skidding”, and, given the context (машину ... на великій швидкості), it is physical instability of the car at high speed. Out of twelve possible options, “the car started to sway” (common in driving context) and “the car was tossed around” (register and collocation fit - vivid and dynamic) were chosen. From this, the recommendation (Best choice: the car started to sway) is chosen with the following rationale: this collocates naturally with car in driving safety contexts, matches register (neutral, everyday advice), avoids overstating the problem (not full “loss of control,” just swaying), and clear for both lay readers and technical contexts, which results into the final rendering: “What should you do if your car starts to sway at high speed?”

The assistant turns synonymy into visible decisions. Students learn to argue for a choice (collocation + register + effect) instead of defaulting to the safest generic. Instructors can grade the reasoning and not just the final sentence, comparing the recommendation with viable alternatives. Because outputs can be exported as brief phrase notes, each assignment incrementally builds a course phrasebank and style sheet, promoting continuity across projects.

2.2.1.3 Custom GPT “Ukrainian-English Sense Resolver”

(UA→EN ambiguity resolver with precision and friendly professionalism), a tailored version of OpenAI’s ChatGPT [7]. Resolving sense in ambiguous Ukrainian words is really the core of getting translations into English right. The ambiguity of words in the source language is one of the causes of mistakes in English translation, so it seemed appropriate to create a custom GPT that would help students identify such words, know their ambiguity and make the correct translation, taking into account the context of the ambiguous word. It can resolve ambiguous Ukrainian words that often have multiple possible English equivalents because of polysemy (one word, many related meanings), e.g., «ключ» → “key” (door key, piano key, solution, spring of water); homographs (same spelling, different meaning depending on stress), e.g., «замок» → “castle” (záмок) vs. “lock” (zamók), context-dependent idioms, e.g., «дати раду» → literally “give advice,” but actually means “to cope/handle,” register or domain-specific usage, e.g., «виріб» in everyday speech = “product,” but in a factory = “manufactured item.” Its decision workflow includes grammatical analysis (e.g. case, number, aspect, agreement, etc.: «ключі» in «ключі від квартири» → “keys” (to an apartment), not “solutions”, collocations and governing prepositions («замок із піску» must be “sandcastle,” not “lock of sand”); semantic compatibility (check if the sense fits the surrounding nouns/verbs – «Він вирішив задачу» = “He solved the problem” (task, not math exercise if general context); discourse and topic domain (science/tech vs. everyday life – «мережа» = “network” (IT/telecom) vs. “chain” (retail stores) vs. “net” (fishing); register and tone (formal/informal, figurative/literal - тягнути час in a football match → “to waste time,” not “drag time”); cross-check with English idiomaticity (preferring natural phrasing over literal – «Він склав іспит» → “He passed the exam,” not “He made/composed the exam.”).

The following is an example in action: (source: «Вона загубила ключ у саду» – «ключ» candidates: “key (object),” “spring (of water),” “clue/solution”; morphology: masculine, inanimate, collocation: «загубила» (“lost”) selects for portable objects; semantic fit: “spring” cannot be lost; “clue” doesn’t fit «у саду»; final: She lost her key in the garden.

Its output structure is as follows: 1) When asked to resolve an ambiguous word, it gives you the final choice (EN) + one-line gloss, full sentence translation, alternatives with trade-offs, rationale (context clues used), confidence score (0–100), and optional alignment (UA↔EN word mapping for the key item).

To demonstrate this whole process on a short Ukrainian sentence of your choice, the following are the steps applied in practice: 1) the ambiguous word «ключ» (скрипковий, замковий, гайковий, зграя птахів); 2) the sentence for demonstration: «Коли над собою я бачу Відлітаючий ключ журавлів, То

небо стає мені ближчим, У серці звучить дивний спів».; the key ambiguous word is «ключ» whose literal meanings of are “key” (lock, piano, solution, code), “spring” (of water), and “flock, wedge formation” (specialized poetic/folk sense: migratory birds in a V-shape). Here, «ключ журавлів» is a set phrase in Ukrainian poetry/folklore meaning the wedge-shaped flight formation of cranes (or other migratory birds). The final choice for ключ is “wedge (formation of cranes)” glossed as “a V-shaped flock of migratory birds flying together.” The full translation is “*When above me I see / A departing wedge of cranes, / The sky feels nearer to me, / And a strange song resounds in my heart.*” The following step is the analysis of alternatives: 1) “flock of cranes” - simpler, correct zoologically, but loses the imagery of shape; 2) “V-shaped flight of cranes” - very clear, but more scientific than poetic; 3) “flight of cranes in a wedge” - preserves imagery, slightly wordier. The rationale includes: 1) Collocation: «ключ журавлів» is a conventional phrase in Ukrainian nature/folk poetry; 2) Verb: «відлітаючий» (“departing”) cues migration imagery, not physical objects; 3) Semantic fit: only “flock/wedge formation” can logically be seen above, other senses (spring, lock, solution) don’t fit; 4) Register: The poem is lyrical → prefer an image-rich rendering (“wedge of cranes”) over neutral “flock.” The confidence level is 95% – very strong because of idiomatic usage in Ukrainian poetic tradition (would only drop if the user wanted strictly zoological prose instead of literary imagery). The final step is alignment: «ключ журавлів» → wedge of cranes; «небо стає мені ближчим» → the sky feels nearer to me; «дивний спів» → strange song (kept slightly mysterious, as in source). It makes reasoning visible and trains controllable choices.

2.2.2 Pre-production and Production Assistant: Preparing Decisions and Avoiding Errors

Custom GPT “Term Extractor and Translator Eng-UA”, a tailored version of OpenAI’s ChatGPT [7], begins the process of term extraction and translation from English into Ukrainian with text domain recognition from the user text or domain hint to identify the subject area (e.g., medicine/endocrinology), informing which Ukrainian terminology standards and conventions should be followed. During the text preprocessing, the text is normalized to lowercase and punctuation is removed where not relevant. Then, acronyms and their expansions are detected (e.g., *DM* → *diabetes mellitus*), and the text is segmented into candidate term units: single words, noun phrases, multi-word expressions, followed by term candidate extraction using linguistic patterns (e.g., adjective + noun, noun + noun) to detect possible terms, excluding generic academic phrases (“our findings indicate”, “among others”) and prioritizing domain-specific nouns and collocations (e.g., *gene therapy*, *nanotechnology*).

During normalization and filtering, candidate terms are reduced to canonical forms (singular nouns,

consistent spelling, expanded acronyms), duplicates are merged (e.g., *DM* and *diabetes mellitus*), and only domain-relevant technical terms are kept, discarding generic ones. After that, for frequency and confidence scoring, a count is done of how often each candidate appears in the text, and a confidence level is assigned based on domain relevance, term structure, and clarity of meaning. Next, extracted English terms are translated into Ukrainian by matching against standard Ukrainian medical and technical terminology. If multiple variants exist (e.g., *medical nutrition therapy* → *лікувальне харчування/дієтотерапія*), they are provided. Approximate or less standardized translations are marked with “≈”. Calques and Russified forms are avoided, sticking to accepted Ukrainian professional vocabulary. Finally, for a term glossary construction, a minimal glossary table is formed by default with the columns “Term (EN), Translation (UK), Frequency, Confidence.” If the user requests, extended versions are produced with part of speech, type, definition, and usage example.

2.2.3 Post-production Assistants: Explaining Translation and Correcting Decisions Made

2.2.3.1 Custom GPT “Explainable Ukrainian-English and English-Ukrainian Translator”, a tailored version of OpenAI’s ChatGPT [7], keeps explanations of translations done structured, transparent, and concise. First, it auto-detects the SL and translation direction (UA→EN or EN→UA), notes the desired explanation level (brief (default) or detailed), and clocks domain/tone (formal email, legal, casual chat, marketing, etc.). Then the tool reads the ST carefully, segments by sentences/clauses, flags idioms, culture-bound items, named entities, numbers, dates, units, and any potential ambiguity, and drafts a clear, natural translation, producing a neutral, idiomatic draft prioritizing meaning and tone over word-for-word structure and keeping consistent terminology if terms repeat. After that go word/phrase aligning (gloss), key source chunks mapping → target equivalents (term-by-term), including brief notes (e.g., aspect, case, articles, prepositions), alternatives offering with register/nuance, the provision of 1–3 viable variants labeled for register (formal, neutral, casual), region (US/UK), or tone (direct, polite, emphatic), and subtle differences are noted (literal vs idiomatic, stronger/weaker connotation).

For explaining the final choices, concise rationale is given for why the selected wording best fits context regarding frequency/collocation, idiomaticity, tone matching, grammar shifts (aspect/tense/voice), and any necessary paraphrase, idioms, tone, grammar notes and bullet notes on idioms/proverbs and their nearest natural equivalents, false friends of the translator and avoided calques, as well as grammar specifics (Ukrainian cases/aspect → English articles/tense/prepositions and English phrasal verbs → Ukrainian verbal nouns/aspect). Quality-control checks include names and

transliteration (e.g., Kyiv, Holodomor), numbers/dates/units/currencies (format and conversions if relevant), capitalization and punctuation (“ ” vs « », dashes, commas), formatting (preserved line breaks/spacing if requested), and terminology consistency across the text.

Concerning uncertainties and targeted questions (only if needed), any ambiguous items with the best guess and alternatives are listed, focused follow-ups are asked (e.g., “Is this ‘bank’ financial or riverbank?”). If unanswered, the working assumption is stated. The translation explanation is presented in a fixed, auditable structure in seven sections: final translation, word/phrase alignment (gloss), alternatives with register/nuance, explanation of translation choices, notes on idioms, tone, grammar, quality control checks, and uncertainties/questions (if any). Iteration is actuated on request, if a different register/region/term base is preferred, and revision is done with the out structure kept, as well as terms may be verified on request on specific items.

2.2.3.2 Custom GPT “Ukrainian-English and English-Ukrainian Translation Quality Assistant”

a tailored version of OpenAI’s ChatGPT [7], can be used to assure the quality of translations into English - especially from Ukrainian, but it applies to other source languages, too. The inputs checked first of all are audience and purpose: who will read this (general public, experts, legal, marketing and what for?), as well as English variety (US, UK, or “international” English), tone targets (neutral, formal, journalistic, persuasive, friendly, etc.), constraints (word/character limits, SEO keywords, brand voice, legal/regulatory requirements), references (glossaries, style guides, previously approved phrasing, official names - e.g., “Kyiv,” “Odesa,” “Verkhovna Rada”). After that, the source text and draft translation are scanned, skimming the entire source to understand the message, structure, risks (numbers, dates, titles), flagging ambiguous segments, culture-bound items, idioms, and any potentially sensitive claims, also building a quick entity list (people, organizations, places, programs, laws, and acronyms). Then follows the adequacy alignment: comparing each target sentence with the source to ensure no meaning lost or added, resegmenting where needed (combine or split sentences) to reflect natural English logic, and preserving scope, modality, and polarity (“may,” “must,” “not”), especially in legal or policy text.

The following is done for the structural and flow rebuild of English translations: reordering for English discourse norms (theme → new info), cause → effect, context → statement, adding connective tissue for coherence (however, therefore, meanwhile, in addition), and ensuring paragraph unity and logical transitions, including the fix list and heading hierarchies. The micro-editing of morphology and syntax embraces articles and determiners (a/an/the/zero article - a common issue in translations from Ukrainian), prepositions and

collocations (eg., in/at/on; responsible for, interested in, comply with, etc.), tense/aspect (mapping Ukrainian aspect to natural English (present perfect vs past simple), agreement and countability (data – plural/singular per style, advice (uncountable), criteria (plural), clause balance and punctuation (comma splices, run-ons, parallelism, and modifier placement).

In checking lexical choices and idiomaticity, calques are replaced with idiomatic English (*"take participation"* → take part, *actual information* → current/latest information, *"in the framework of"* → as part of/under, *"from the side of"* → by/from), register-appropriate synonyms are chosen (plain vs technical; phrasal verbs vs Latinate), and wordiness and repetition are eliminated (preferring concrete verbs over nominalizations). Tone and readability tuning includes target tone matching (e.g., move from bureaucratic to crisp journalistic), sentence length balancing; varying rhythm, and simplifying where possible without losing nuance. Active voice is preferred unless passive is contextually required (legal, unknown actor, etc.).

Cultural and locale adaptation concerns spelling (US organize vs UK organize), dates (10 September 2025 (UK/intl) / September 10, 2025 (US), and ambiguity removal (10.09.2025 ambiguities, numbers (converting «1,5 млн» → 1.5 million), thin spaces to commas for thousands, currency and units (₴, UAH, USD; adding conversions only if brief requires), quotation & punctuation style (US vs UK rules; replacing « » / „ “ with " "). For preserving consistency in terminology, names, and titles, official English names are used on first mention, then a consistent short form (Verkhovna Rada of Ukraine (the Verkhovna Rada), Security Service of Ukraine (SBU), Armed Forces of Ukraine (AFU), place names transliteration (Kyiv, Odesa, Kharkiv, Lviv, Dnipro; no "the Ukraine"), government bodies (Ukraine's Ministry of Health / the Ministry of Health of Ukraine) – picking one pattern and applying consistently.

To check facts and integrity, verified are figures, names, titles, law/article numbers against the source by querying anything unclear, and ensure that citations and quotes are accurately carried over, as well as marking any uncertainty visibly. Observing formatting and deliverable hygiene, structure (headings, lists, tables, captions) is kept or rebuilt, and metadata (alt text, link titles, footnotes, references) is maintained. Also, medium constraints (subtitles – line length/reading speed), slide decks (scannability), web – SEO-friendly headings) are respected. Applied also is a multi-pass QA layer: content QA (paragraph-by-paragraph source vs target reconciliation), mechanical QA (spelling, grammar, punctuation, numbers, non-breaking spaces – No. 5, § 12), terminology QA (glossary terms, capitalization, hyphenation, acronyms), read-aloud pass (catching clunky rhythms and hidden ambiguities), and the final cold read (as if the tool were the end reader). The final step is versioning and annotation (for delivery): clean copy (ready to publish), tracked changes (every

edit visible), commented rationale for non-obvious changes (tone shifts, cultural adaptations), and optional alternatives for high-impact lines (faithful/polished/creative).

Below are given sample Ukrainian-English translation fixes (as a sort of mini cheat-sheet): «На сьогодні»→As of today/Currently, «Здійснювати контроль за»→Monitor/Oversee (not *control over* in many contexts), «Проводити роботи»→Carry out work/Perform maintenance, «Як на мене»→In my view/Personally, I think (context-dependent), Order & laws: Order No. 123 of 2025; Article 5, Section 2, Institutions and 'the': the Armed Forces of Ukraine, the Cabinet of Ministers, but Ukraine's Ministry of Finance (no "the" before "Ukraine's...").

3. CONCLUSION

This article set out to resolve the problem stemming from the exponential uptake of AI in translation: the curriculums have been flooded with post-editing while neglecting the upstream decisions that make post-editing not just boring but unnecessarily difficult. The proposed answer is not a single, shapeless chatbot but a role- and function-based suite of custom AI assistants embedded at specific points of the translator's workflow that make translator decisions visible, auditable, and teachable. The proposed assistants restore dignity to pre-production (briefing, ambiguity resolution, terminology strategy), add guardrails in production (register control, consistency, risk flags), and elevate post-production (audience-aware review, feedback synthesis, possible asset building). The assistants externalize expert reasoning (rationales, alternatives, confidence) and therefore support metacognition: students can justify choices, compare viable options, and reflect on trade-offs. The approach is intentionally lightweight for the instructor workload: assistants run with locked parameters, transparent prompts, and a non-overwrite ethos (they recommend, students decide). There is front-loaded design work (setting prompts, rubrics, and export formats) but back-loaded savings: less time spent inventing materials, more time coaching higher-order decisions.

By restructuring traditional teacher-student dynamics into a "teacher-machine-student" triad, custom GPTs encourage self-directed practice. Students use them for autonomous drills or group activities, like peer-reviewing AI-assisted translations, which enhances collaborative skills essential for professional teamwork. This shift also expands accessibility, making advanced resources available to diverse learners, including those in under-resourced languages. These benefits collectively elevate translation education from rote memorization to dynamic, AI-enhanced proficiency.

The examples presented here are deliberately few as a proof of concept to demonstrate feasibility, shared design principles, and instructional value. In future work, the same blueprint can be expanded

into a full competence grid: a stage-by-stage matrix (pre-production/production/post-production based ESCO or specific program outcomes) populated with assistants targeted at specific competencies (e.g., discourse structuring, cohesion devices, text typology, domain terminology stewardship, document design, client-briefing and risk management). A parallel grid for instructors is equally feasible from assistants for rubric calibration, feedback synthesis to rapid exercise generation with controlled difficulty. A professional grid can mirror workplace standards by wrapping assistants around existing CAT/TMS workflows via interoperable artefact exports, adding pre-translation checks, risk registers, and audience checks that go with jobs. In short, the architecture scales horizontally into more roles and vertically into deeper specialization without changing the core idea: AI translation not as a competitor but as an augmented human-curated translation. Likewise, translation scholars can benefit from research-oriented custom GPTs to facilitate exploration of translation theories by cross-referencing scholarly articles and generating comparative analyses,

although a framework for such assistants would be as challenging as establishing a general translation theory.

Custom GPTs herald a renaissance in university translation education, offering innovative pathways to mastery. By thoughtfully implementing them into translation theory and practice, educators can prepare not just translators, but adaptable, ethically astute professionals ready for a globalized, AI-infused world.

The research perspectives include evaluation of short- and long-term impacts of such AI integration into the university translation teaching process on students' translation competencies and receptiveness of AI use methodology, learning outcomes, institutional translation education strategy, and further real-world piloting of custom GPTs in diverse translation-training environments. It is also necessary to continue introducing the corresponding changes in education program and syllabi design and encourage developing new translation-related custom GPTs and best practices for custom GPT use addressing students' workload and professional standards.

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Карабан В'ячеслав Іванович – доктор філологічних наук, професор кафедри теорії і практики перекладу з англійської мови Київського національного університету імені Тараса Шевченка; e-mail: v.karaban@knu.ua; ORCID: <https://orcid.org/0000-0002-4229-2641>; GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=NBIUOhwAAAAJ>; RESEARCH GATE: https://www.researchgate.net/profile/Viacheslav_Karaban

Карабан Анна В'ячеславівна – кандидат філологічних наук, доцент кафедри англійської філології та міжкультурної комунікації Київського національного університету імені Тараса Шевченка; e-mail: a.karaban@knu.ua; ORCID: <https://orcid.org/0000-0002-1101-4227>; GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=upUgr-EAAAAJ&hl>; RESEARCH GATE: <https://www.researchgate.net/profile/Anna-Karaban>

НЕ ПОСТРЕДАГУВАННЯМ ОДИМ: НАВЧАННЯ ПЕРЕКЛАДУ В ЕПОХУ ШІ ЧЕРЕЗ СПЕЦІАЛІЗОВАНІ GPT

У статті розглядається наявний педагогічний дисонанс у підготовці перекладачів, де великі мовні моделі (LLM) або забороняють, або ж змушують студентів виконувати лише виправлення помилок у згенерованих LLM текстах у процесі постредування, нехтуючи критично важливими рішеннями, що передують перекладу та слідує за ним. Ми пропонуємо структуровану інтеграцію спеціалізованих на перекладі GPT в навчання, переосмислюючи штучний інтелект не як універсальний інструмент, а як набір спеціалізованих помічників для передперекладацького, перекладацького та післяперекладацького етапів робочого процесу. Такий підхід робить прийняття рішень перекладачем прозорим, навчально-оздотним та оцінювальним, зміщуючи акцент на стратегічне мислення.

Ми розглядаємо таку розробку у контексті сучасних досліджень з перекладу за допомогою штучного інтелекту, постредування, автоматизованого оцінювання та ШІ-грамотності, а також рекомендуємо людський нагляд для обмеження галюцинацій та схильності у ШІ. У методологічному плані стаття пропонує послідовний синтез педагогічних, професійних та етичних аргументів на користь впровадження зазначених засобів навчання, а також формалізує їхню рольову та функціональну структуру. У статті представлено концептуальну модель та невеликий набір спеціалізованих на перекладі GPT, що охоплюють зняття неоднозначності слів, точність підбору синонімів, виявлення труднощів перекладу, видалення термінології та її переклад, а також переклад з його поясненням та забезпечення якості перекладу. Перші їх використання свідчить про такі переваги: метакогнітивний поштовх завдяки чітким альтернативам, розумне пояснення та обґрунтована впевненість у рішенні; його ефективність завдяки його чіткості, оскільки спеціалізовані на перекладі GPT рекомендують, а студенти приймають рішення.

Впроваджуючи зазначені рольові GPT, викладачі можуть розвивати у себе такі важливі компетенції, як ШІ-грамотність та промт-інжиніринг, тоді як студенти стають суб'єктами персоналізованого навчання та отримують глибше розуміння процесу перекладу. Така тріада «викладач-спеціалізований на перекладі GPT-студент» повертає центр уваги у підготовці перекладачів, активність у навчанні та відповідальність за нього тих, хто навчається. Запропонований підхід сприяє розвитку критично важливих та орієнтованих на майбутнє навичок перекладу, позиціонує технологію як інструмент, що доповнює та посилює людські можливості в рамках людиноцентричної парадигми ШІ, і надає викладачам правильний шлях уникнення вузького погляду на ШІ, де людина може виконувати лише функцію редактора машинного перекладу, перетворюючи ШІ із забороненого інструмента легкого отримання швидкого перекладу на структурований засіб навчання перекладацькому мисленню для готовності працювати в галузі, де вже задіяний штучний інтелект.

Ключові слова: людиноцентричний ШІ, педагогіка перекладу, підготовка перекладачів, постредування, ШІ в перекладі, ШІ-грамотність, спеціалізований на перекладі GPT.

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