

Reconstruction of Teachers' Roles and Ability Reshaping in Translation Education in the Era of Artificial Intelligence: Centered on Translation Teaching

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Abstract. Against the backdrop of rapid advances in artificial intelligence, these technologies have exerted a profound impact on the translation education ecosystem. However, the issue of teachers' professional identity transformation has not been fully explored and lacks a unified interpretation. This article centers on translation teaching, explores the role transformation of teachers in the era of artificial intelligence, and proposes three transformation directions: 'ecological coordinator', 'human-machine collaboration facilitator', and 'reflective practice promoter'. Research indicates that a dynamic balance needs to be maintained between artificial intelligence and teaching responsibilities. Fundamental and repetitive tasks should mainly be undertaken by artificial intelligence, while teachers still hold irreplaceable authority in advanced fields involving complex cognition, deep cultural structures and value judgments. To adapt to this transformation, teachers must reshape their capabilities by mastering the skills of technology integration and tool application, developing cross-cultural communication and higher-order thinking abilities, and cultivating ecological adaptability. Future translation education is expected to move toward a new stage of 'human-machine symbiosis and ecological harmony', cultivating compound translation talents with both technical mastery and cultural awareness.

1 Introduction

The rapid development of artificial intelligence technology is profoundly reshaping the traditional translation education ecosystem. On the one hand, the significant improvements in efficiency and text quality made by artificial intelligence translation tools pose a real challenge to the traditional teaching model [1]. Cai Lijian pointed out that currently, artificial intelligence 'can only play an auxiliary role' in texts rich in cultural connotations [2]. On the other hand, artificial intelligence has also brought empowering opportunities to translation education. Its intelligent scoring and data analysis capabilities are becoming key tools for teaching innovation [3,4].

In this context, the role of translation educators urgently needs to shift from 'knowledge disseminators' to 'learning facilitators' and 'technical coordinators' [5,6]. This article aims

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to systematically explore the reconstruction of teachers' roles and the ways to reshape their capabilities in translation teaching in the era of artificial intelligence. The article analyzes the multi-dimensional evolution of teachers' identities, explains the dynamic relationship between human-machine responsibilities, and proposes a teacher development path that adapts to the future translation ecosystem.

2 The multi-dimensional reconstruction of the translator - teacher role in the era of artificial intelligence

As artificial intelligence is deeply integrated into the teaching process, the translator - teacher role is undergoing a systematic reconstruction, which is reflected in the transformation of three key dimensions.

2.1 From knowledge transmitter to ecosystem facilitator

Traditionally, the core responsibility of teachers lies in imparting language knowledge and translation skills. However, in the context of artificial intelligence, translation is regarded as a dynamic ecosystem involving the interaction of various elements such as translators, texts, technologies and cultures. This perspective also provides a theoretical basis for the overall design of translation teaching. Under this framework, the role of teachers goes beyond imparting knowledge and evolves into that of 'ecosystem facilitators'. Teachers can achieve this regulatory function by organizing human-machine translation comparison tasks in the classroom. Their task has evolved into maintaining a balance among humans, machines and the environment, which requires an overall perspective to examine the potential cultural homogenization risks brought about by technological tools and to cultivate cultural diversity through instructional design [7]. For instance, when choosing teaching materials, teachers must strike a balance between the highly efficient 'hard text' of artificial intelligence and the culturally rich 'soft text' to maintain the humanistic core of translation practice.

2.2 From 'technology user' to 'human-machine collaboration facilitator'

As artificial intelligence becomes an indispensable part of the translation production chain, teachers who are limited to tool operation or program guidance can no longer meet practical instructional demands of human-machine collaborative translation teaching. When encountering culturally loaded vocabulary, the effective application of artificial intelligence largely depends on the accuracy of human judgment [2]. Therefore, teachers must transform into 'promoters of human-machine collaboration', whose core task is to guide students to master the collaborative model of 'artificial intelligence pre-translation + human polishing', thereby enabling students to understand the logic of complementary advantages between humans and machines [8]. Teachers need to guide students in designing prompt instructions, assessing the shortcomings of machine translation, conducting post-editing and cultural adaptation, and cultivating students to become 'guides' in the process of human-machine collaboration, where artificial intelligence plays a significant role.

2.3 From 'evaluator' to 'guide of reflective practice'

The course can include different modules: practical courses mainly supported by artificial intelligence-assisted training, and teacher-led cultural analysis courses. The curriculum framework should clearly divide which basic training can be entrusted to artificial intelligence auxiliary tools, and which advanced goals require in-depth teacher-guided

seminars [1]. In addition, educators must recognize the hierarchical trend of the translation market - “basic services are driven by artificial intelligence, while high-end services are still people-centered” - and dynamically adjust the teaching focus to cultivate students’ differentiated core competitiveness for the future.

3 Dynamic analysis of the proportion of artificial intelligence and teachers in translation teaching

At different teaching stages, the division of responsibilities between teachers and artificial intelligence shows a dynamic complementary relationship, which requires a rational professional division of labor based on the complexity of tasks, cultural load levels and cognitive needs.

In basic and repetitive instructional stages, artificial intelligence takes on the main functions with its efficient and stable processing capabilities. Its voice recognition, automatic composition correction and data analysis functions can provide immediate feedback and personalized reports [9]. For ‘low-end and repetitive translation tasks’ such as technical documents, artificial intelligence can now generate usable drafts and gradually replace some of the functions of teachers in these fields [2]. This shift enables teachers to focus on more creative instructional designs and more in-depth guidance.

In high-end fields involving complex cognition, deep cultural structures and value judgments, the core role of teachers remains unshakable. In fields such as literary translation and cross-cultural communication, artificial intelligence has difficulty handling profound connotations such as aesthetic connotations, stylistic nuances, and cultural symbols [10]. The interpretation and creative transformation of such content rely on teachers’ cultural literacy and humanistic insight. Meanwhile, in cultivating students’ higher-order thinking, professional ethics and sensitivity to the language ecosystem, teachers play an irreplaceable role in guiding values, shaping professional ethics and developing cultural awareness [7,11].

Future translation teaching will adopt a tripartite collaboration model involving teachers, students and artificial intelligence. Educators will act as chief designers and quality gatekeepers, responsible for supervising the formulation of teaching objectives, the selection of teaching content, and the design of human-machine collaboration workflows. They will also conduct manual reviews and ethical supervision of the evaluations generated by artificial intelligence [6]. Artificial intelligence will mainly serve as an enabling tool, as an intelligent resource library and data analysis platform. It will provide a vast corpus, a dynamic training environment and learner progress tracking support [3]. This symbiotic relationship will enable teachers to control the direction and depth of teaching, while artificial intelligence will enhance the breadth and efficiency of teaching.

4 Pathways and strategies for redefining teachers’ competence

To adapt to the role reorganization and fulfill the new collaborative teaching responsibilities, the competency framework of translation teachers must be redefined around three core dimensions.

4.1 Technology integration and tool application capabilities

Teachers must develop into comprehensive practitioners proficient in cutting-edge technologies, actively learning the operation principles and application scope of intelligent tools such as large language models and translation knowledge network platforms [6]. More critically, they must possess the ability to design human – machine collaborative translation

projects and plan a comprehensive teaching workflow ranging from ‘translation diagnosis’ and ‘prompt engineering’ to ‘multi-round interactive modification’. This approach will guide students to learn how to effectively manage and optimize artificial intelligence through practical application [8].

4.2 Cross-cultural communication and the cultivation of higher-order thinking

As artificial intelligence processes the transformation of basic information, teachers must enhance their teaching focus. Teachers can enhance students’ analytical skills by designing critical analysis tasks that compare artificial intelligence with human translation. Guiding students to analyze the errors that artificial intelligence makes when translating terms or literary expressions with cultural connotations can hone their cross-cultural understanding and interpretive competence and critical thinking [10]. Meanwhile, teaching should incorporate discussions on translation ethics and technical ethics through classroom debates and case studies, enabling students to identify issues such as algorithmic bias [11].

4.3 Teaching design and ecological adaptability

The course can include different modules: practical courses mainly supported by artificial intelligence-assisted training, and teacher-led cultural analysis courses. The curriculum framework should clearly divide which basic training can be entrusted to artificial intelligence auxiliary tools, and which advanced goals require in-depth teacher-guided seminars [1]. In addition, educators must recognize the hierarchical trend of the translation market - ‘basic services are driven by artificial intelligence, while high-end services are still people-centered’ - and dynamically adjust the teaching focus to cultivate students’ differentiated core competitiveness for the future.

5 Conclusion

Artificial intelligence is promoting fundamental changes in the translation education ecosystem. The core feature of teacher role reshaping lies in the transformation from a traditional ‘lector’ to a multi-dimensional composite role. Educators are now ‘ecosystem coordinators’ and maintain balance in complex systems; they become ‘human-computer collaboration promoters’, whose core task is to design collaboration strategies and guide students to master new workflows; they are also ‘promoters of reflection practice’, through methods such as organizing reflection logs and peer reviews, and guide students to critically examine translation decisions. These three roles establish a key position for teachers in collaborative systems.

The dynamic balance between artificial intelligence and teachers in teaching follows the principle of ‘basic services are provided by artificial intelligence, and advanced services are provided by human expertise’. Artificial intelligence assumes the main responsibility for basic tasks such as phonetic training and grammar error correction, while teachers still have irreplaceable authority in advanced fields such as literary appreciation, cultural interpretation and ethical judgment. For example, teachers’ professional knowledge is crucial when analyzing the aesthetic significance of literary translation or examining the ethical choices in post-translation editing. Future teaching requires educators to strengthen teaching leadership in the fields of culture, ethics and innovation while taking advantage of the effectiveness of artificial intelligence.

The development of translation teachers must pay attention to two directions: in the short term, teachers’ comprehensive ability to understand, apply and evaluate artificial intelligence

tools should be improved through systematic training, so that they can have technical ability and project management ability; in the long term, translation education should develop towards a new stage of ‘human-computer symbiosis and ecological harmony’. Educators must design teaching from the perspective of dynamic translation, and organically integrate technical efficiency and humanistic depth in curriculum development. This approach will cultivate students into versatile professionals who can not only master intelligent tools, but also maintain cultural awareness and ethical responsibilities, thus contributing to the construction of a healthy, diverse and sustainable translation ecosystem.

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