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The Role Transformation of English Major Teachers in Translation Teaching in the Digital Intelligence Era

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Abstract: The rapid advancement of generative AI technologies is reshaping the translation industry ecosystem, exerting a disruptive influence on translation pedagogy in university English programs. This paper explores the professional challenges and transformative imperatives faced by teachers in translation teaching within this context. Research indicates that teachers must evolve from traditional knowledge authorities into multifaceted roles: learning designers, technology collaborators, ethical reasoning facilitators, and lifelong learners. Further, the article proposes professional development pathways for achieving this role transformation at the level of teachers' intrinsic motivation. This aims to provide reference for translation teaching reform under the new liberal arts initiative.

Keywords: Digital Intelligence Era; Translation Teaching; Teacher's Role Transformation

1. Introduction

In the digital intelligence era, generative AI and neural machine translation technologies have advanced rapidly, profoundly impacting the translation industry. These innovations significantly enhance the efficiency of basic text translation while reducing costs, leading to a marked decline in demand for repetitive, standardized translation services. This shift intensifies industry competition and drives down prices. In 2022, OpenAI's ChatGPT marked a significant leap in artificial intelligence, advancing from weak AI to strong AI. Its exceptional capabilities in natural language processing, conversational context understanding, and sequential task execution revolutionized translation practices[4](Zhu. 2024). AI has taken over the repetitive tasks in "translation," shifting the core value of talent toward critical thinking, cultural insight, and creative problem-solving abilities. This trend redefines the competency requirements for translation professionals. Merely possessing language conversion skills is no longer sufficient; the market increasingly favors high-caliber, multidisciplinary talents.

Traditional translation pedagogy centers on "language equivalence" and teacher-led instruction, emphasizing mechanical training in isolated language skills. This paradigm struggles to cultivate the human-machine collaboration, technological application, and innovative thinking urgently needed in the AI era, resulting in a severe disconnect between talent development and industry demands.

Therefore, pedagogical reform is imperative, with the core driver being the successful transformation of teachers. Facing the paradigm shift brought by the digital-intelligence era, the role of teachers must undergo profound, systematic, and multidimensional reshaping—far beyond mere tool integration or technical tweaks. This transformation is pivotal to successfully meeting contemporary challenges and cultivating strategic translation professionals who meet future demands. It demands that teachers fundamentally transcend their traditional role as "knowledge disseminators," actively transitioning into course designers, technology integrators, practice facilitators, and catalysts for innovative thinking. Only through this comprehensive role evolution can a new teaching ecosystem be established—one centered on students, grounded in human-machine collaboration, and focused on cultivating higher-order competencies. This ensures translation teaching retains its irreplaceable value and vitality in the era of intelligence.

2. Drivers for Teacher's Role Reconstruction in Translation Teaching

With the advent of the digital-intelligence era, translation teaching faces unprecedented challenges and opportunities. The foundations underpinning traditional teaching models are

shifting, making the transformation of teachers' roles in translation teaching not merely an option but an inevitability. This restructuring is not unfounded; it stems from profound and urgent motivations.

2.1 The Dissolution of Knowledge Authority

In traditional translation teaching, teachers have typically served as the ultimate authority on linguistic conversion rules, techniques, and correct answers, playing a central role in knowledge transmission and grading. However, the rise of AI has completely overturned this paradigm. Some scholars are currently exploring how to incorporate generative artificial intelligence into teaching[3](Zhang, Hong. 2023). Machine translation systems now surpass human novice translators in speed, consistency, and terminological accuracy when handling large volumes of standardized, repetitive, and informational texts. Students can obtain a draft translation that is "usable" or even "good" in most cases with a simple click.

This means that if teachers continue to focus solely on imparting specific "how-to-translate" techniques or explaining the "best" way to render a particular phrase, their value diminishes dramatically. Students can easily obtain alternative solutions from technological tools, thereby relentlessly eroding the teacher's status as a "knowledge authority." This erosion compels teachers to redefine their role: no longer the sole monopolizers of knowledge, they must transform into "navigators" and "collaborators" between students and vast information resources and intelligent tools. Their core responsibility shifts from "imparting known knowledge" to "exploring the unknown"—guiding students in critically evaluating, selecting, modifying, and enhancing machine-generated translations, while cultivating their judgment, decision-making, and management skills within human-machine collaborative environments.

2.2 Elevation of Teaching Objectives

If the dissolution of knowledge authority represents an external "shock," then the elevation of teaching objectives embodies an internal "pull" driven by evolving industry demands. This requires a leap from the "operational level" to the "strategic level." The goal is no longer merely to produce "translators" capable of delivering accurate translations, but to shape "language service managers and designers" who can master and integrate technological resources. This necessitates a curriculum focus encompassing: Technical Proficiency; Critical Thinking; Intercultural Strategic Communication; Project Management & Ethical Reasoning.

This fundamental elevation of objectives dictates that teachers clinging to outdated teaching models will produce graduates unable to meet future market demands. Consequently, teachersare compelled to fundamentally reconstruct their pedagogical philosophies and practices. The continuous advancement of artificial intelligence translation has disrupted existing teaching and learning models. While enhancing classroom engagement and student interest, it has also driven the renewal of teaching approaches and learning methods[1](Chen. 2017).

2.3 Expansion of Teaching Content

The elevated teaching objectives directly trigger a third driving force: a revolutionary expansion of teaching content. Traditional translation curricula have centered on bilingual conversion skills, with core content including text analysis, translation techniques, and contrastive linguistics. In the AI era, however, the scope of "what to teach" must be significantly broadened to fully integrate technological literacy, new professional skills, and ethical reflection into the core curriculum.

Technological application becomes the new foundation. Teaching content must systematically integrate Translation Memory (TM), Terminology Databases, Machine Translation Post-editing (MTPE), Localization Tool Operation, and even a basic understanding of prompt engineering for Large Language Models. The use of technical tools should no longer be an isolated "elective course" but rather a "new foundational course" closely integrated with all translation practices.

The core of classroom exercises should transition from "translating from scratch" to "post-editing and optimizing AI outputs." This requires teachers to design novel teaching scenarios and projects, enabling students to master comprehensive skills—assessing machine translation quality, making rapid decisions (direct adoption, light editing, or complete rewriting), and enhancing final delivery efficiency—while navigating real

project workflows. Additionally, students should be guided to identify common error types in both human and machine translations and learn corresponding revision techniques, thereby developing their problem-solving skills[2](Wang et al. 2024:95).

Teaching content must extend into technological ethics, guiding students to explore meta-questions such as the limitations of machine translation, biases in cultural representation, intellectual property attribution, and translators' social responsibilities within human-machine symbiosis ecosystems. These topics transcend pure skill training, focusing on cultivating industry leaders with humanistic care and critical thinking.

The "dissolution of knowledge authority" brought by AI technology serves as the direct trigger for this reconstruction. The "elevation of teaching objectives" driven by industry evolution defines its intrinsic direction, while the resulting "expansion of teaching content" constitutes the concrete practice that must be implemented. These three intertwined forces collectively form a complete picture of the systematic, strategic restructuring required for teachers' roles in translation teaching. Resisting change means falling behind the times, while proactive transformation nurtures new growth amid challenges, re-anchoring the core value of translation teaching in the era of intelligence.

3. The Four-Dimensional Shift in Teacher's Role Transformation

The wave of AI technology does not aim to replace teachers but urgently demands a profound evolution of their role. The traditional "philosopher on the podium" model feels constrained in the AI era. The functional positioning of translation teachers must expand toward more interactive, design-oriented, and forward-looking dimensions. This systemic reshaping can be distilled into four core shifts that collectively outline the multidimensional portrait of future teachers in translation pedagogy.

3.1 From Knowledge Transmitter to Learning Designer and Facilitator

Under the traditional model, the core function of teachers was to impart established translation knowledge, techniques, and "correct" answers to students, with their authority built upon information asymmetry. However, when machines can provide massive volumes of efficient initial translations, the value of this unidirectional knowledge transfer diminishes dramatically.

The new role demands that teachers shift their focus from "lecturing" to "designing." Their core competency is no longer the mere transfer of their own knowledge, but rather the creation of learning contexts and tasks that stimulate students' higher-order thinking and practical skills. This means teachers must meticulously design a series of authentic, complex, and uncertain project-based learning (PBL) processes. For instance, instead of simply assigning a text for translation, teachers simulate a real localization project: students must form teams, select appropriate machine translation engines, establish terminology management and quality control processes, perform post-editing (PE) on AI outputs, and ultimately deliver a localized product meeting client requirements.

In this process, the teacher's role evolves into that of a facilitator. They no longer provide standard answers but instead guide students to independently explore solutions, evaluate the strengths and weaknesses of different technical approaches, and make informed decisions in complex human-machine collaborative environments through questioning, organizing workshops, and providing resources. The key indicator of success shifts from "how much knowledge students have memorized" to "whether students can effectively manage a complete language service process and solve real problems that arise within it."

3.2 From "Skill Trainer" to "Technical Collaborator and Enabler"

Historically, teachers served as coaches for students' translation skills, repeatedly drilling their "zero-to-one" coding conversion abilities. However, as machines now handle "zero-to-one" draft generation, human core value lies in the "one-to-one-hundred" stages: optimization, polishing, and cross-cultural adaptation.

Therefore, teachersmust first undergo technological enlightenment themselves, becoming exemplars who embrace rather than reject technology. They should proficiently operate mainstream computer-assisted translation (CAT) and machine translation (MT) platforms while understanding the

fundamentals of large language models (LLMs) and mastering prompt engineering techniques. In the classroom, teachers should personally demonstrate how to effectively "dialogue" with AI: crafting prompts for superior drafts, iteratively refining outputs, and embedding AI into diverse workflows to boost efficiency.

More importantly, teachers must become students' "empowerers." Their teaching goal is to instill a "technology collaborator" mindset: technology is not an adversary, but a partner to be managed, harnessed, and collaborated with. Courses should include comparative evaluations of multiple tool outputs, human-machine interaction strategies, and analyses of technological limitations. Teachers must empower students to not only know how to use tools but also understand why they choose specific tools and when to trust or question them. This cultivates a new generation of translation professionals capable of flexibly deploying technological resources to solve complex problems.

3.3 From "Answer Providers" to "Ethical Reasoning Facilitators"

AI's emergence has thrust previously marginalized ethical and social issues into the forefront. Machine translation systems may reinforce or amplify societal biases, gender discrimination, and cultural stereotypes embedded in training data; their algorithmic black boxes risk privacy breaches and intellectual property disputes; and their pursuit of "fluency" often erases cultural specificity, constituting a form of deep cultural erosion.

Faced with these challenges, teachers must not be absent. Their role must evolve into shaping students' ethical awareness and critical thinking. Teaching priorities should shift from providing "correct answers" to language problems toward organizing students to critically examine technological outputs and guiding them to explore the ethical dilemmas underlying technological applications.

Teachers must cultivate safe spaces for critical inquiry in the classroom. Through case studies, debates, and thematic discussions, they should prompt students to question: Is this machine translation culturally equitable? Where might its training data originate, and whose perspectives does it represent? What moral responsibilities do we bear when using these tools? What ethical guidelines should govern human-machine collaboration? Through this process, teachers cultivate students' humanistic care, social responsibility, and critical perspective, nurturing them into responsible professionals who not only "can translate" but also "know right from wrong."

3.4 From "Static Experts" to "Dynamic Lifelong Learners"

All these shifts hinge on a fundamental transformation in the teacher's own identity. In an era of rapid technological and sociocultural evolution, any static knowledge base becomes obsolete swiftly. A teacher who attempts to rely solely on past accumulated expertise as a permanent "expert" identity will be unable to meet future challenges.

Therefore, the ultimate dimension of transforming the teacher's role—and its most fundamental one—is to become a humble and proactive lifelong learner. This requires teachers to continuously track technological advancements, proactively learn new technologies and tools, and maintain dynamic awareness of industry frontiers; to reflect on and update teaching methodologies, constantly exploring pedagogical approaches and assessment systems suited to human-machine collaboration models; and to deeply engage in industry practice through school-enterprise partnerships and project-based learning, thereby maintaining sensitivity to real market demands and preventing disconnect between education and industry.

Teachers must view themselves as "learning partners" who explore uncharted territories alongside students. By demonstrating their own learning journeys, challenges encountered, and resolution strategies, teachers not only enhance their professional capabilities but also lead by example. This cultivates in students the most essential competitive edge in an era of uncertainty: the capacity and habit of lifelong learning. This dynamic, evolving teacher profile represents the most robust foundation for future education.

These four dimensions are interconnected and progressively layered, collectively forming a comprehensive framework for the evolution of the teacher's role. It charts a clear path from knowledge authority to learning partner, from skills coach to technology enabler, and from answer authority to ethical mentor. This transformation is both a challenge and an

inevitable choice for revitalizing translation teaching and cultivating talent to lead the future of the language services industry.

4. How to Establish a Professional Development System for Teacher's Role Transformation

The major step of transformation begins with the teachers themselves. Amidst the wave of change, teachers must become proactive "pioneers" rather than passive "endurers." This endogenous path requires teachers to achieve a dual leap in both internal mindset and external practice.

4.1 Paradigm Shift: From "Anxious Resistance" to "Proactive Co-Creation"

Faced with technological disruption, many teachers initially experience anxiety and discomfort over perceived job displacement. The key to overcoming this anxiety lies in fundamentally re-evaluating and firmly believing in their irreplaceable value in the AI era. This value no longer resides in monopolizing foundational knowledge, but in higher-order human intelligence that machines struggle to replicate: critical examination of technology, profound insight into cultural contexts, guided design of learning processes, and the ability to deliberate on complex ethical dilemmas. Teachers must proactively embrace technology as a powerful tool that liberates them from repetitive tasks, freeing them to engage in more creative pedagogical activities. This signifies a fundamental shift in identity: transitioning from being a "knowledge authority" in a specific field to becoming a "guide" and "co-creative partner" who helps students find their place and realize their value in a new world of human-machine symbiosis. This quiet "self-revolution" is the prerequisite for all action.

4.2 Practice Reflection-Evolving Through the Cycle of "Learning by Doing" and "Teaching Through Researching"

Conceptual shifts must be consolidated and deepened through sustained practice. Teachers should proactively seek opportunities to return to the "field of practice." This includes: actively participating in real-world translation or localization projects to experience firsthand the application and challenges of technological tools within workflows; closely monitoring industry trends to understand the latest shifts in market demands for talent. This continuous practical experience is the sole source for maintaining the "freshness" of teaching content. More importantly, teachers must treat their own teaching practices as research subjects, conducting "action research". For instance, after introducing a new technical tool in class, teachers can systematically collect student feedback, observe shifts in learning behaviors, analyze gains and losses in teaching effectiveness, and iteratively refine teaching design based on these insights. This "design-practice-observation-reflection-redesign" cycle transforms teachers from passive knowledge disseminators into active researchers and innovators of their own teaching methodologies. It is precisely through this spiral of "learning by doing" and "teaching through researching" that teachers accumulate genuine insights into human-machine collaborative teaching, ultimately achieving professional autonomy and breakthroughs.

In fact, within the context of the digital intelligence era, AI is not the terminator of translation teaching but a powerful catalyst in its evolutionary journey. The systematic reshaping of the teacher's role is not a passive response to technological disruption, but a strategic core for proactively leading translation teaching into a new era. This transformation serves as the pivotal link between rapid technological change and future talent development needs. It profoundly addresses the fundamental questions of the intelligent age: "Why teach?", "Who teaches?", and "How to teach?". By completing a four-dimensional shift—from knowledge authority to learning designer, from skill trainer to technology collaborator, from answer provider to ethical debater, and from static expert to lifelong learner—teachers anchor their value in domains machines cannot replace: critical thinking, cultural insight, emotional communication, and ethical judgment. Thus, the successful transformation of this role is central to whether translation teaching can revitalize itself and continue supplying society with high-end language service professionals. It ensures education remains fundamentally about human growth rather than mere skill training, enabling translation teaching not only to survive amid technological waves but to achieve value elevation and paradigm transcendence.

Looking ahead, the discussions initiated by this research open numerous avenues for deeper exploration. For instance, the transformation process of teacher identity demands thorough investigation. How does technological intervention influence teachers' understanding, confidence, and sense of value regarding their professional identity? This inevitably involves complex emotional experiences and cognitive restructuring. Uncovering the underlying mechanisms of struggle, adaptation, and eventual acceptance is crucial for designing more humanistic professional development support systems.

The emotional labor teachers undertake while assuming new roles in translation pedagogy must be acknowledged and examined. Guiding ethical discussions, supporting students navigating uncertainties in human-machine collaboration, managing diverse classroom interactions, and sustaining their own learning demands significant emotional investment. Identifying, measuring, and supporting this often "invisible" labor to prevent burnout is vital for preserving teachers' transformative enthusiasm and ensuring sustainability.

Future research should shift toward precise evaluations of the effectiveness of various teacher development programs and training models. Which training models (workshops, communities of practice, action research) prove most effective in facilitating role transformation across specific dimensions? What evaluation metrics should be established to measure the success of teacher transformation? Such actionable empirical research will provide scientific grounds for institutions and policymakers, propelling teacher development support systems from "experience-driven" to "evidence-driven" approaches. This ensures limited resource investments yield optimal transformation outcomes.

The transformation of teachers' roles in translation pedagogy represents a profound and necessary educational evolution. It responds not only to external technological environments but also manifests the essence of education in the new era. Future research and practice must jointly focus on the human element within this transformation. Only by deeply understanding and fully supporting teachers' inner paths can we truly unlock the full potential of translation teaching in the era of digital intelligence, cultivating a new generation of language professionals who can master technology, empower humanities, and shape the future.

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