

Research on the Digital Transformation of Translation Teaching in Universities under the Background of New Liberal Arts

Yan Liu^{1,*}

¹School of Foreign Languages, Yancheng Teachers University, Yancheng, China

*Correspondence: School of Foreign Languages, Yancheng Teachers University, Yancheng, China

Received: September 10, 2026 Accepted: September 22, 2026 Published: September 24, 2026

doi:10.5296/ije.v18i3.24110

URL: <https://doi.org/10.5296/ije.v18i3.24110>

Abstract

Against the dual backdrop of the ongoing deepening of New Liberal Arts and the rapid iteration of generative AI, university translation teaching is facing an urgent need for paradigm reconstruction. The industry is in dire need of universities to break through traditional barriers and cultivate interdisciplinary foreign language talents who possess advanced translation skills, profound humanistic literacy, keen digital awareness, and critical innovative thinking. Consequently, digital transformation has emerged as the core driving force in reshaping the translation education ecosystem. In light of the practical bottlenecks currently faced by translation education in the integration of digital intelligence, this study proposes three strategies to improve the quality of university translation teaching: developing smart translation courses, refining diversified evaluation mechanisms, and deepening the integration of industry and education. The aim is to provide feasible implementation paths for enhancing the quality and efficiency of translation education in the new era.

Keywords: New Liberal Arts, translation teaching in universities, the digital transformation, generative AI, smart translation course

1. Introduction

The concept of New Liberal Arts originated from the teaching practices at Hiram College in the United States. In 2017, Hiram College integrated information technology into humanities courses by consolidating 29 majors. In China, the construction of New Liberal Arts was initiated in 2018, when the Department of Higher Education under the Ministry of Education explicitly coined the term within the “Four New” initiative. Following the official launch of the “Six Excellence and One Top-notch” Plan 2.0 in May 2019, the development of New Liberal Arts has attracted widespread social attention. It aims to drive the innovative development of traditional liberal arts through disciplinary restructuring and the integration of sciences and humanities. Its core connotation emphasizes strategic, innovative, integrative, and developmental approaches. The construction pathways include major reorganization, curriculum enhancement, and collaborative education. Covering both humanities and social sciences, it is characterized by the promotion of multidisciplinary integration.

As an emerging field, Digital Humanities provides new opportunities for the development of humanities disciplines in higher education. Proposed as a new educational paradigm relative to traditional liberal arts, New Liberal Arts aims to respond to the new demands of talent cultivation in the digital era. Its core lies in the integration of sciences and humanities, the connection of the past and the present, and the convergence of Chinese and Western cultures. Empowered by technologies such as big data and artificial intelligence, it reconstructs the knowledge system and research methodologies of liberal arts. New Liberal Arts not only emphasizes internal disciplinary integration but also focuses on aligning with national strategies and social needs. It incorporates value guidance throughout the entire talent cultivation process, aiming to cultivate interdisciplinary talents with a profound humanistic foundation, scientific spirit, digital literacy, and innovative capabilities. In practice, it promotes the reconstruction of curriculum systems and encourages problem-oriented, interdisciplinary project-based learning. This provides intellectual support for the inheritance and innovation of traditional culture, as well as the enhancement of international communication capabilities, serving as the core pathway for the high-quality development of liberal arts education in the new era.

It is evident that artificial intelligence is reshaping the educational ecosystem in higher education. Against this backdrop, traditional translation teaching models in universities still face issues such as a scarcity of teaching resources and monotonous teaching methods, failing to meet the requirements of New Liberal Arts education. The iteration of information technology has injected new momentum into the innovation of university translation teaching models. Relying on smart teaching environments, the teaching field can break free from the constraints of physical time and space. This not only greatly expands corpus reserves but also optimizes teaching effectiveness through multi-dimensional content presentation, catering to the personalized needs of learners.

In light of the rapid digital evolution in translation education, and against the backdrop of AI reshaping the educational landscape, this study is grounded in the core philosophy of the New Liberal Arts initiative—which emphasizes interdisciplinary integration, the connection

between past and present, and the fusion of Chinese and Western perspectives. Focusing on long-standing challenges in university translation teaching, such as scarce resources, monotonous pedagogical methods, one-dimensional evaluation, and the disconnect between academia and industry, this research employs a mixed-methods approach combining literature review, surveys, and design-based research. By diagnosing the current situation through questionnaires and interviews, and drawing on pioneering experiences in New Liberal Arts development both domestically and internationally, the study constructs and iteratively validates a triadic teaching model comprising smart translation curriculum development, diversified assessment mechanisms, and deep industry-education integration.

Furthermore, a quasi-experimental design is utilized to empirically verify the model's effectiveness in enhancing students' translation competence, digital literacy, and learning engagement. Ultimately, this research aims to establish a suitable implementation pathway and support mechanism for AI-empowered translation teaching, providing both theoretical underpinnings and practical solutions to improve the quality and efficiency of translation education in the new era.

2. Literature Review

Relevant international research has focused on the impact of digital technologies on higher education, the construction of smart teaching environments, the application of digital technologies, and the cultivation of translators' digital literacy. Songkram Noawanit et al. (2026, p.1) believe that effective knowledge management enhances teachers' ability to adapt digital pedagogies, share expertise, and sustain innovation practices. Mai Thi Ha(2024,p.8887) points out that perceived usefulness of digital transformation and perceived ease of use of digital transformation, and perceived self-efficacy in using digital transformation have a positive influence on the intention to use digital transformation of University teachers. Abdullah Mustafa Ahmed(2024, p.1463) indicates that the proposed digital maturity model includes seven dimensions: leadership, planning and management, quality assurance, scientific research, digital teaching and learning, community service, equipment and technological infrastructure, and technological culture. Majdi Hassan Shakir et al.(2024) point out that providing advanced technical infrastructure and improving the quality of services can positively influence the digital transformation of private universities. Zappatore M(2022) claims that a computer-supported skills lab approach is aimed at enhancing traditional courses on Computer-Assisted Translation (CAT) so that student competences and soft skills are enhanced. Pym A(2013) emphasizes that in the era of machine translation, translation competence is no longer confined to traditional language conversion skills; it also encompasses the ability to select and evaluate technological output.

Domestic researches in this field has primarily focused on the digital implementation paths of university translation courses, technology-empowered translation teaching, and the cultivation of translation competence. Yuan Xiaoyi and Xie Fei(2026, p.41) point out that "against the backdrop of widespread AI application, the translator's role is shifting from producer to evaluator and organizer, and translation competence is evolving from equivalence

generation to the analysis of and decision-making regarding language resources. In the Postproduction era, translation teaching must cultivate learners' understanding of translational possibilities and their capacity for responsible decision-making." Liu Song (2026, p.89) posits that national translation competence in the AI era encompasses "bilingual conversion, the interpretation of Chinese discourse, human-machine collaborative translation, corpus and terminology management, cross-cultural communication, and capabilities in technological ethics and quality assessment." Li Guanghua and Lin Huizhen (2025) emphasize the importance and feasible pathways for building digital translation teaching resource platforms. Cheng Peili (2025, p.94) provides an in-depth analysis of the value, challenges, and practical pathways for reforming university translation teaching in the AI era. She argues that "universities should embrace the concept of welcoming technology and collaborative empowerment, and accelerate translation teaching reforms by creating intelligent teaching environments, implementing interactive teaching reforms, expediting the development of teaching resources, optimizing assessment mechanisms, and promoting scientific evaluation."

Li Xiyang, Peng Lihua, and Jin Hui (2024, p.43) have constructed a technology-empowered human-machine collaborative translation teaching model. He Yuting and Ren Zhiyi (2023, p.40) advocate that translation courses should be "student-centered, guided by the new requirements for translators' knowledge, competence, and literacy, supported by inexhaustible, continuously generated, and domain-specific corpus resources, and driven by market demands. By integrating these elements with student academic and career-related projects, educators can facilitate inquiry-based, collaborative, and project-based learning, thereby enhancing students' IT application skills, bilingual conversion abilities, critical thinking, and innovation." Guo Xiaoli (2023, p.10) suggests achieving the digital and intelligent transformation of university translation courses through "the integration of disciplines and digital-intelligent structural development, the digital-intelligent reconstruction of curriculum systems, digital-intelligent innovation in classroom teaching, the improvement of digital-intelligent evaluation systems, collaborative digital-intelligent social services, and the digital-intelligent development of teaching faculty."

In summary, while scholars both at home and abroad have conducted extensive research on the digitalization of university translation courses, the digital pathways must be dynamically adjusted in response to technological advancements and the further implementation of the New Liberal Arts initiative. This study proposes enhancing the quality of university translation teaching from three perspectives: building smart translation courses, refining diversified evaluation mechanisms, and deepening the integration of industry and education. The aim is to provide practical and feasible implementation pathways for improving the quality and efficiency of translation education in the new era.

3. Construction Paths

3.1 Developing Smart Translation Courses

Currently, digital transformation is profoundly reshaping the ecological landscape of the translation industry, serving as a core engine for the development of translation disciplines. This urgently requires translation practitioners to possess not only language conversion proficiency but also data awareness, a scientific foundation, and a pioneering spirit. However, the current translation teaching system in universities still lags behind when facing the waves of smart technologies, globalization, and diversification. Particularly within the macro context of New Liberal Arts construction, traditional talent cultivation models are facing a structural imbalance between supply and demand, resulting in a significant mismatch between talent output and social and economic development. The current absorption of digital technologies in translation education remains largely superficial, failing to achieve deep coupling between technology and teaching. Existing teaching models face multiple bottlenecks, such as monotonous practical training scenarios, a scarcity of digital teaching resources, and homogenized evaluation mechanisms, all of which limit educational effectiveness. It is imperative to rely on digital technologies to reshape the educational ecosystem, break down geographical barriers, and fully unleash the endogenous driving force of translation education innovation through intelligent means. Smart courses, integrating cutting-edge information technologies like generative AI and big data, can provide strong support for this digital transformation. Based on online learning platforms, AI tools, smart classrooms, and necessary teaching resources, these courses carry out in-depth blended learning designs and continuous optimization iterations.

Educational digital transformation is reflected in the leap from online textbooks to deep smart production driven by endogenous technology. Compared to the mechanical, one-way piling up of resources in traditional digital courses, smart courses utilize AI and knowledge graph technologies to internalize intelligent elements as the genes of the curriculum. This transformation builds an interconnected and interdependent ecosystem of teacher-machine-student, breaking the dilemma of single-mode teaching and shifting towards personalized, precise evolution based on full-sample process data. Its core lies in replacing the static transmission of knowledge with dynamic creation, marking a shift in the digital process from revitalizing existing resources to creating incremental value. In this process, teachers transform into designers of learning activities. By building cognitive scaffolds and creating diversified immersive fields, they not only awaken students' endogenous motivation but also achieve targeted reshaping of their core competencies.

Chinese scholars Xu Xiaofei et al. (2025, p5) believe that “smart education refers to a systematic educational paradigm that takes serving the cultivation of innovative talents, supporting collaborative research, and promoting educational equity as its core objectives. Relying on a new generation of information technologies, including artificial intelligence, big data, and the metaverse, it deeply integrates the entire processes of teaching (curriculum design and classroom interaction), research (project collaboration and achievement transformation), management (teaching evaluation and resource allocation), and services

(lifelong learning and international exchange) . The core of smart education lies in the individualized and efficient nurturing of individuals empowered by artificial intelligence technology.” Therefore, it is obvious that smart translation courses at least be empowered with AI technology, tailored to each student’s needs, demonstrating Human-Computer Interaction (HCI) for Open and Collaborative and Whole-Process and All-Element Teaching Evaluation.

Specifically speaking, first of all, the content design of smart translation courses should reflect interdisciplinary and cross-cultural characteristics to meet the needs of cultivating interdisciplinary translation talents. The construction goals should be fundamentally rooted in serving local development, highlighting practicality, innovation, and intelligence, while showcasing local economic and cultural features (e.g., New Energy & Translation; Low-Carbon & Translation). Cultivating interdisciplinary talents also requires smart courses to cover cross-disciplinary knowledge, breaking through existing language-only domains and integrating knowledge from economics, history, biology, and other fields to expand the knowledge base and enhance the professional capabilities of translation talents. Thus, smart translation courses are not simply translation knowledge & digital technology, but digital courses based on interdisciplinary knowledge construction, integrating high-quality multidisciplinary curriculum resources, and systematically embedding AI agents.

Furthermore, the scope of smart translation course design should follow the principle of combining the old and the new, with priority given to practical application. The key to building a translation curriculum system under the background of New Liberal Arts lies in eliminating the alienation phenomenon where technological application and translation practice are separate. In practical teaching, teachers should adhere to the problem-oriented principle, guiding students to use digital tools such as web retrieval and corpus analysis to solve real-world problems. This not only improves translation efficiency but also hones their information retrieval literacy and critical thinking. It is worth noting that not all translation courses are suitable for conversion into smart courses. For example, courses like An Introduction to Translation and Translation History, which focus on imparting translation knowledge, have a core of philosophical speculation and value construction rather than mere information transmission. “Unlike traditional translation pedagogy, digital English translation teaching integrates digital information technology with translation curriculum resources, emphasizing the cultivation of students’ ability to perform translation using digital tools. In this paradigm, the teacher is no longer the protagonist imparting knowledge but rather acts as a facilitator and supervisor of learning. Students, in turn, are no longer passive recipients of knowledge; they are the principal agents of their learning. Guided by the teacher, they learn to utilize various digital information technologies to conduct translation practice, acquire relevant translation knowledge, and explore the translation process.”(Wng Meng, 2020, p69) Without any doubt, although smart courses excel at personalized push and efficiency improvement through data mining, they are difficult to simulate deep debates on translation standards between teachers and students. Nor can they replace the immersive experience of abstract theories like deconstructionism and functional equivalence. The critical thinking generated spontaneously in theoretical classrooms, logical deduction based on close reading,

and value guidance full of humanistic warmth are precisely the biggest differences between human translators and AI. Forcibly replacing all theoretical courses with algorithm-driven smart forms can easily lead to the trap of technological rationality domination, reducing translation teaching to technical drills which lack a humanistic foundation. This would dissolve the ontological significance of theoretical courses in shaping students' cross-cultural cognitive schemas and critical thinking. Therefore, universities must retain characteristic traditional translation theory courses while also building practice-oriented technical courses.

While consolidating the foundational courses of the translation major, universities urgently need to expand curriculum boundaries and add cutting-edge modules such as translation technology, natural language processing, and machine translation. By systematically reconstructing the professional knowledge graph and organically embedding digital-intelligent elements into the entire teaching process, this aims to break down disciplinary barriers and guide students to build an interdisciplinary thinking paradigm. This not only helps improve students' digital sensitivity and practical abilities but also effectively activates their independent inquiry awareness and innovative potential. Technical courses should be rooted in vivid industry scenarios, strengthening multidimensional coupling with professional courses such as business, technology, and practical translation. This joint effort will forge students' rigorous scientific thinking, proficient digital practical abilities, and solid professional foundation, ultimately outputting the interdisciplinary innovative talents urgently needed by the modern translation market.

“A major challenge in the innovation of translation curricula lies in enhancing the practicality and purposefulness of learning, with a focused emphasis on actual learning outcomes. Consequently, innovative translation courses must take into account the new requirements for translation competence brought about by machine translation, internet-based transformations, and the evolving translation industry.” (He Yuting and Ren Zhiyi, 2023, p41) It is obvious that to achieve optimal allocation of curriculum resources, the construction of smart translation courses must keenly capture the pulse of industrial changes, dynamically optimize the translation professional curriculum system, add digital curriculum units that meet the demands of deep integration of industry, academia, and research, and prioritize courses urgently needed for local economic and cultural development. Currently, the focus of smart translation course construction in universities should be placed on two aspects: the construction of smart teaching platforms and the integration of inter-university digital curriculum resources. For example, building intelligent technology simulation translation projects can help students cultivate teamwork awareness and project management logic, significantly enhancing their adaptability and competence to the new industry models in the digital-intelligent era. Additionally, improving the inter-university digital resource sharing mechanism is essential to create a multi-party collaborative resource ecosystem of co-construction, co-creation, and co-sharing.

3.2 Refining Diversified Evaluation Mechanisms

The construction of New Liberal Arts and the digital transformation of university courses have driven the innovation of curriculum evaluation systems. Guided by digitalization and

the OBE (Outcome-Based Education) concept, this innovation shifts from a singular to a diversified approach, and from summative to formative assessment. Digital technologies have profoundly transformed translation teaching. As Chinese scholars Yuan Xiaoyi and Xie Fei (2026, p.43) aptly point out, “if translation teaching still aims to improve trainees’ ability to produce target texts, the resulting competence structure will be mismatched with the realities of the current translation environment. Teaching objectives should no longer be simplistically defined as the ability to independently produce acceptable translations, but should instead focus on cultivating learners’ judgment in complex linguistic environments. Thus, translation teaching must inevitably respond to the evolution of translation technologies. Translators are shifting from creators of equivalent target texts to editors of fragmented and modular language resources generated by digital technologies like Large Language Models (LLMs). Consequently, course assessments should place greater emphasis on students’ ability to utilize digital technologies to process translations, rather than merely adhering to the traditional criteria of faithfulness, expressiveness, and elegance.”

Therefore, universities must first explicitly incorporate the cultivation of digital awareness and the enhancement of digital technology skills into their translation talent cultivation plans and syllabi. Core digital literacies, such as translation technology application, cross-lingual information retrieval, and database processing, should be included in the assessment scope. Furthermore, aligning with the core tenets of New Liberal Arts, the focus of evaluation should shift from single skills to comprehensive qualities, with a particular emphasis on students’ integrated development in critical thinking, systematic cognition, innovative practice, and their foundation in literature, history, and philosophy. Second, universities should leverage digital tools to digitize assessment methods. By utilizing AI-powered translation teaching software (such as OIA AI and YiCAT), educators can analyze and track students’ translation abilities, thereby creating a comprehensive digital competence profile for each student.

It is worth noting that there are some universal standards for judging translator competence and translation quality in the digital era, such as Julian House’s functional-pragmatic principles, Katharina Reiss’s text-type evaluation principles, and Malcolm Williams’s argumentation theory model. In light of this, translation course evaluations should be defined by existing translation standards, assessing whether students can proficiently use digital technologies for translation. Regardless of the theoretical framework adopted, evaluation methods should never be singular. Rather, they must encompass both qualitative and quantitative approaches, as well as phased and hierarchical structures. Therefore, teachers can use scenario-based simulations for pre-class preparation, gathering learning feedback through human-machine and teacher-student mutual evaluations. During class, a collaborative group learning model can be adopted, guiding students to translate via digital platforms while AI agents track classroom dynamics in real time. Post-class, digital evaluation models can be utilized to grade students, and big data tools can be employed for quantitative and qualitative analysis. This helps build a multi-dimensional evaluation system covering evaluation subjects, observation dimensions, implementation cycles, and assessment scopes. Relying on digital means to dynamically visualize assessment data can provide precise, evidence-based

objective foundations and a real-time feedback loop for translation teaching decisions.

Undeniably, modern educational evaluation no longer solely debates who replaces whom, but rather focuses on the integration of learning and assessment. In OBE teaching practices, universities should frequently adopt modular evaluation methods, breaking down a single final exam into multiple phased summative assessments (e.g., tests after each chapter). This retains the criterion-referenced attributes of summative assessment while incorporating the timely feedback function of formative assessment. Moreover, the evaluators should not be limited to teachers; diverse forms such as human-machine mutual evaluation, teacher-student mutual evaluation, peer-to-peer evaluation, and industry peer evaluation should be adopted.

3.3 Deepening the Integration of Industry and Education

To deepen the integration of industry and education in university translation programs, the key lies in breaking down the barriers between campuses and industries, and building a collaborative educational ecosystem that is competence-oriented and project-driven. Against the backdrop of digital transformation, this integration should transcend the traditional model of internship bases and move towards the goal of data symbiosis and standard interoperability. On the one hand, universities cannot ignore the impact of digital technologies on translation majors, nor can they cultivate talents in isolation. Instead, they must proactively align with market changes, continuously track the latest industry developments, and invite experts and scholars in the translation field to deliver online lectures and interviews to share their latest research and practical experience, thereby broadening students' horizons and knowledge base.

“Translation teaching in the AI era is characterized by the virtualization of teachers, ubiquitous learning, three-dimensional textbooks, intelligent environments, and holographic scenarios.” (Wang, 2021, p. 86) This necessitates the construction of smart teaching environments. While the use of technological platforms can provide practical opportunities for translation students, teachers still need to rely on data-driven mechanisms to comprehensively capture students' translation behavior trajectories. By structurally integrating error distribution characteristics, teacher-student interaction records, peer review traces, and algorithmic scoring results, educators can build a multi-dimensional, dynamic electronic portfolio for translation learning, achieving full-cycle tracking of the learning process. Currently, electronic records of students' in-class learning behaviors have attracted the attention of university teachers. However, due to a lack of coordinated linkage with practical bases such as enterprises, it is difficult to grasp students' learning conditions during off-campus practices. Therefore, universities should collaborate with enterprises to build characteristic multilingual corpora and terminology knowledge graphs (e.g., specialized subject corpora, translation terminology corpora, and industry technology corpora), introduce authentic translation cases, create case scenarios, and simulate translation practice projects.

On the one hand, universities should partner with enterprises to build regional platforms, enabling students to access industry-level data assets while still on campus. Simultaneously, cloud-based collaborative translation platforms can be utilized to achieve full-cycle, accompanying guidance from enterprise mentors throughout the students' translation process.

This integrated model of data-driven & scenario-immersive not only solves the pain point of teaching corpora lagging behind industry practices but also achieves objectification and visualization of the evaluation system by introducing industry quality standards (such as MQM). On the other hand, universities should establish Language Service Industry Colleges to build a trinity digital cultivation process of teaching-practical training-production. By co-building with enterprises, they can achieve the dual implementation of teaching scenarios and work scenarios, ultimately realizing a seamless connection between talent cultivation specifications and the demands of the language service industry.

In the digital era, enterprise mentors in translation programs are no longer traditional external lecturers; they are a key force in driving the transformation of talent cultivation from knowledge transmission to competence output. Therefore, enterprise mentors need to be involved in the entire talent cultivation process from the very beginning of formulating the cultivation plan, rather than simply delivering lectures. Through the digital practical training fields built via university-enterprise cooperation, industry and enterprise experts, acting as cooperative mentors, guide students to step out of their textbooks and examine the alignment between their own competencies and industry standards within real business workflows. This process not only strengthens students' project coordination and collaboration skills but also achieves a leap from experience-based education to data-driven decision-making by systematically collecting fine-grained data on their learning cognition, behavioral interactions, and psychological states. As the mainstay of university translation teaching, the construction of a dual-qualified teaching team should primarily focus on university teachers undertaking practical training in enterprises, supplemented by the hiring of enterprise mentors. Priority should be given to experts familiar with industry dynamics and young scholars, with the number and composition of personnel dynamically adjusted on a year-by-year basis.

4. Conclusion

Promoting the digital transformation of education has become a core issue in higher education reform in the new era. Facing the requirements of New Liberal Arts construction and the talent gap in the digital economy, translation education urgently needs to break down traditional barriers and cultivate innovative talents equipped with practical abilities, humanistic sentiments, and digital literacy. Taking digital-intelligent transformation as the driving force, a transformation system of technology empowerment and multi-party collaboration is constructed to provide a practical guide for universities exploring new pathways in talent cultivation. Although the deployment of virtual simulation environments and AI agents faces cost constraints and technical bottlenecks, and requires students to possess the ability to switch between virtual and physical scenarios, this is precisely the inevitable path for translation education to move towards modernization. Only by proactively embracing technological changes and overcoming the growing pains of their application can universities forge high-quality translation talents capable of handling complex social demands with ease.

Building upon this foundation, this study focuses on three core questions. First, how can

technologies such as generative AI and knowledge graphs be internalized from external tools into the endogenous genes of translation curricula? This aims to resolve the alienation where technology application and translation practice exist in silos, and to establish classification criteria for assessing the intelligent adaptability of translation courses. Second, how can a smart translation curriculum system be constructed that integrates interdisciplinary approaches, serves local characteristics, and embeds intelligent elements? This also involves exploring an ecosystem for the co-building, co-creation, and sharing of inter-university digital resources, as well as mechanisms for collaboratively building industry-level corpora and terminology knowledge graphs. Third, anchored in the Outcome-Based Education (OBE) philosophy and digital profiling technologies, how can process-based and summative assessments be organically integrated with human-machine, teacher-student, and peer evaluations? The goal is to achieve dynamic mapping of evaluation data and establish a closed-loop of evidence-based decision-making.

Future research will further focus on four pathways for deepening this work. First, employing quasi-experimental or design-based research methods to empirically validate the synergistic mechanisms and practical outcomes of the triadic model integrating smart curricula, diversified assessment, and industry-education integration. Second, exploring collaborative education mechanisms characterized by data symbiosis and standard interoperability in industry-education integration. Third, designing institutional frameworks and incentive mechanisms for building dual-qualified teaching teams, while clarifying the organizational forms for enterprise mentors' full participation in talent cultivation. Ultimately, examining risks in digital transformation, including cost constraints, data security, algorithmic bias, and technological ethics.

References

- Ahmed, A. M. (2024). Digital maturity of the Egyptian universities: Goal-oriented project planning model. *Studies in Higher Education*, 8, 1463–1485. <https://doi.org/10.1080/03075079.2023.2268633>
- Cheng, P. (2025). The value, challenge, and practical approach of translation teaching reform in colleges and universities in the era of artificial intelligence. *Journal of Hunan Institute of Engineering (Social Science Edition)*, 3, 94–101.
- Guo, X. (2023). A study on “digital intelligence” transformation in translation education under the background of new liberal arts. *The Theory and Practice of Innovation and Entrepreneurship*, 19, 10–14.
- He, Y., & Ren, Z. (2023). Innovative model of “digitization + cooperation + personalization” in translation teaching under the machine translation impact. *Journal of North China Institute of Aerospace Engineering*, 5, 40–42.
- Li, G., & Lin, H. (2025). Developing a digital resource platform for Korean–Chinese translation education. *Journal of Changchun Normal University*, 5, 162–165.

- Li, X., et al. (2024). Research on the construction of a technology-empowered human-machine collaborative translation teaching model. *Foreign Language World*, 3, 43–50.
- Liu, S. (2026). Cultivating national translation competence in the AI era: Connotation, composition, and pathways. *Foreign Language World*, 3, 89–96.
- Mai, T. H. (2024). Digital transformation of lecturers at universities in Hanoi. *Pakistan Journal of Life & Social Sciences*, 2, 8887–8894.
- Majdi, H. S., Kzir, M. H., & Ghazi, M. A. (2024). The impact of digital transformation on the educational environment of private universities. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 2, 238–241.
- Pym, A. (2013). Translation skill-sets in a machine-translation age. *Meta*, 58(3), 487–503. <https://doi.org/10.7202/1025047ar>
- Songkram, N., Shidiq, G. A., & Winarto. (2026). University lecturers' perceptions on digital transformation and knowledge management for teaching innovation. *Innovations in Education & Teaching International*. Advance online publication. <https://doi.org/10.1080/14703297.2026.2621251>
- Wang, M. (2020). Research on digital English translation teaching mode. *Journal of Shangqiu Vocational and Technical College*, 1, 68–71.
- Xu, X., Zhang, L., Zhang, C., & Shi, Y. (2025). New forms, new models, and new actions of smart education and smart MOOCs. *Chinese Journal of ICT in Education*, 12, 3–16.
- Yuan, X., & Xie, F. (2026). Translation pedagogy in postproduction era. *Foreign Language Learning Theory and Practice*, 2, 41–49.
- Zappatore, M. (2022). A design methodology for a computer-supported collaborative skills lab in technical translation teaching. *Journal of Information Technology Education: Research*, 21, 137–167. <https://doi.org/10.28945/4935>

Acknowledgments

This work is supported by the Jiangsu Provincial “14th Five-Year Plan” Education Science Planning Key Project (2024): Cultivating Digital Literacy for Translation Talents in Higher Education under the Background of Educational Digitalization: Connotation, Models, and Pathways(B-b/2024/01/138).

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Macrothink Institute.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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