Study on Translation Teaching from the Perspective of Educational Ecology: The Digital Transformation of Translation Processes through the Integration of Teaching and Artificial Intelligence Technology

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Abstract: With the booming of artificial intelligence (AI) technology and the acceleration of globalization, traditional translation teaching models are facing unprecedented challenges and opportunities. Based on the theoretical framework of educational ecology, this study employs literature analysis and case study methods to explore feasible pathways for the deep integration of AI technology and translation teaching. The research reveals several imbalances in the current translation teaching ecosystem, including singular teaching objectives, closed teaching environments, fragmented resource utilization, and static evaluation methods. To address these issues, this paper proposes a digital translation teaching ecological model characterized by "one platform, four dimensions." This model is built on an intelligent translation platform and systematically reconstructs four key aspects: teaching objectives, teaching environment, teaching resources, and teaching evaluation. The findings indicate that AI technology can effectively promote the dynamic balance of the translation teaching ecosystem, facilitating the transformation of teachers from knowledge transmitters to learning facilitators, students from passive recipients to active constructors, and teaching environments from closed and singular to open and diverse. This study provides theoretical foundations and practical references for translation teaching reform in the AI era, offering significant insights for cultivating high quality translation professionals who can meet the demands of the digital age.

Keywords: Educational Ecology; Translation Teaching; Artificial Intelligence; Digital Transformation

1. Introduction

Driven by the dual waves of globalization and informatization, the language services industry is undergoing unprecedented transformation. According to the Blue Book of Language Services for Chinese Enterprises Going Global, the global language services market has exceeded $38.1 billion and continues to grow at an annual rate of over 6%. Meanwhile, breakthroughs in AI technology, particularly the emergence of neural machine translation (NMT) and large language models (LLMs), are reshaping the landscape of the translation industry. Google's 2016 release of a neural machine translation system marked the first time machine translation quality approached human professional standards, while the rise of generative AI like Chat GPT has further blurred the line between human and machine translation. This technological shift poses new demands for translation education and exposes the shortcomings of traditional translation teaching models.

Currently, translation teaching in Chinese universities faces severe ecological imbalances: teaching content is disconnected from societal needs, creating a pronounced "flowerpot effect"; teaching methods are monotonous, with insufficient teacher-student interaction; and technological applications lag behind, failing to meet the learning needs of the digital era. Surveys indicate that students who rely on machine translation experience an average 30% decline in creative translation abilities, while less than 20% of university trained translation professionals meet actual job requirements. This situation urgently calls for a reexamination of the essence and future direction of translation teaching from a new theoretical perspective.

Educational ecology, an interdisciplinary theory that studies the interaction between educational systems and their environments, provides a novel analytical framework for translation teaching reform. First proposed by American scholar Cremin in 1976, this theory emphasizes the holism, dynamic balance, and coevolution of educational systems. From an ecological perspective, translation teaching is a complex ecosystem composed of teachers, students, teaching content, teaching environments, and technological tools, with intricate interactions among these elements. The introduction of AI technology disrupts the existing ecological balance but also offers possibilities for constructing a more open, dynamic, and harmonious translation teaching ecosystem.

This study aims to address three core questions: What are the current imbalances in the translation teaching ecosystem? How does AI technology influence the structure and function of the translation teaching ecosystem? How can a new translation teaching ecological model be constructed to adapt to the digital era? By exploring these questions, this study not only enriches the application of educational ecology but also provides theoretical guidance and practical pathways for translation teaching reform in the age of AI.

2. Literature Review

Translation teaching research has evolved through three major developmental stages: the linguistic turn, the cultural turn, and the current technological turn. With the rapid advancement of AI technology, scholars worldwide have explored technology enabled translation teaching from multiple angles, yielding a wealth of research. This section systematically reviews existing literature in three areas: traditional translation teaching research, the application of educational ecology in translation teaching, and the integration of AI and translation teaching.

2.1 Traditional Translation Teaching Research

Traditional translation teaching research primarily focuses on teaching methods, curriculum design, and talent cultivation models. Ye Xing (2018) proposed a task-based teaching method emphasizing the cultivation of practical skills through authentic translation tasks[1]. Lan Hanjin (2022) explored task-oriented translation teaching models for vocational colleges[2]. Huang Xiaohan (2020) studied the application of the “translation workshop” model in business English translation teaching[3]. Although these studies adopt different perspectives, they all aim to enhance students’ practical translation skills and professional competence. However, as technology and market demands evolve, traditional translation teaching models increasingly reveal shortcomings such as disconnects between teaching content and societal needs, monotonous teaching methods, and insufficient technological integration. Lu Shaowen and Jiang Fen (2023) noted that traditional translation teaching overemphasizes theoretical instruction while neglecting practical skill development[4]; Xie Xuelin (2019) found that traditional classrooms struggle to meet students’ personalized learning needs[5]. These issues reflect the ecological imbalances in translation teaching ecosystems, necessitating new theoretical perspectives and methodological guidance.

2.2 Educational Ecology in Translation Teaching

Educational ecology provides a novel theoretical framework for translation teaching research. Professor Hu Gengshen’s ecotranslatology emphasizes the holism and dynamic balance of translation activities, opening new pathways for translation teaching research. Mao Liqun (2018) explored reforms in master’s level translation education from an ecotranslatology perspective[6]. Ning Jiyuan (2015) analyzed the ecological similarities between translation teaching and translation practice, noting that translation teaching is essentially a process of selective adaptation[7]. Li Xiaochuan (2021) emphasized the need for dynamic balance between internal and external factors in translation teaching[8]. These studies collectively reveal the complexity and dynamism of translation teaching ecosystems. In textbook development, Tao Youlan (2018) proposed that translation textbooks should embody dynamic balance and adhere to ecological design principles[9]. Li Guangsheng (2020) attempted to construct a textbook system within the framework of ecotranslatology. He further argued that traditional translation teaching suffers from a “flowerpot effect,” where students are confined to artificially idealized environments and struggle to adapt to real world translation markets[10]. While these studies

enrich the application of educational ecology in translation teaching, most remain theoretical and lack systematic consideration of technological factors.

2.3 AI and Translation Teaching Integration

The rapid development of AI technology has revolutionized translation teaching. Huang Mei and Yang Zhan (2025) studied strategies for cultivating translation professionals in universities amid the AI wave, proposing a new system aligned with vocational and market demands. They further explored "digital intelligent" reform paths for translation education in rural Northeast China, emphasizing the application of virtual simulation technology in practical teaching[11]. These studies focus on the specific impacts of technology on translation teaching but lack a systematic ecological perspective.

Internationally, institutions such as the Middle bury Institute of International Studies at Monterey and the University of Leeds have established well-developed technology-enhanced translation curricula. Some universities have also actively collaborated with translation companies to deepen the integration of information technology and translation teaching. In contrast, universities such as Beihang University and Guangdong University of Foreign Studies, generally lag in technological applications, with only a few conducting systematic explorations.

A synthesis of existing literature reveals that although educational ecology and AI-driven translation have each yielded fruitful results, systematic research combining the two remains scarce. Particularly in the era of large language models (LLMs), how to reconstruct translation teaching models from an ecological perspective and achieve human machine collaborative balance is an urgent frontier issue. This study aims to fill this gap, providing a new theoretical framework and practical pathways for translation teaching reform in the AI era.

3. Fundamental Principles of Educational Ecology

Educational ecology was first proposed by the American scholar Cremin in 1976, with its core focus being the application of ecological principles and methods to study educational phenomena. This theory posits that educational systems share similar structures and functions with natural ecosystems, both constituting complex networks formed through the interaction of multiple elements. From the perspective of educational ecology, translation teaching can be viewed as a microecosystem composed of teachers, students, teaching content, teaching environments, and technological tools, where these elements continuously exchange material, energy, and information.

The Law of Limiting Factors is one of the fundamental principles of educational ecology, originally proposed by the chemist Li Bixi. It states that the growth of an organism is constrained by the nutrient element that is scarcest relative to its needs. In translation teaching, nearly all factors can become limiting factors—excessive teaching content may overwhelm students, while insufficient content fails to facilitate progress; overly large class sizes make it difficult for teachers to focus on individuals, whereas excessively small classes lack interactive dynamics. The introduction of artificial intelligence (AI) technology can alter the function of traditional limiting factors. For example, personalized learning systems can resolve the conflict between class size and individualized attention, while intelligent resource recommendations optimize the balance of teaching content.

The "Flowerpot Effect" is another critical ecological concept, referring to organisms grown in artificially controlled ideal environments that struggle to survive once removed from those conditions. Current translation teaching commonly faces this issue: teaching materials predominantly feature literary texts while neglecting practical business and technical texts commonly encountered in professional settings; exercises lack strict time constraints, allowing students to rely excessively on reference materials; excessive teacher guidance limits students' independent thinking. This "flowerpot" teaching model results in graduates struggling to adapt to real world translation market demands, reflecting a disconnect between the educational ecosystem and the professional ecosystem.

4. Core Characteristics of Ecological Classrooms

Ecological classrooms are the practical embodiment of educational ecology theory in teaching, characterized by three key features: holism, dynamism, and openness.

Holism emphasizes that teachers, students, and the environment form an organic unity, where

changes in any element trigger systemic chain reactions. In translation teaching, the introduction of AI technology not only alters teaching tools but also reshapes teacher-student roles and interaction methods, necessitating systematic design from a holistic perspective.

Dynamism manifests as the continuous evolution of ecosystems through phases of "balance imbalance rebalance." The adoption of new technologies inevitably causes temporary imbalances, such as initial resistance to machine translation or the obsolescence of traditional evaluation methods. However, through adaptation, a higher level equilibrium can be achieved. For instance, the School of Foreign Languages at Xi'an University of Finance and Economics demonstrated that teachers gradually mastered large language models (LLMs) through training, ultimately innovating and upgrading teaching models.

Openness is an intrinsic attribute of ecosystems, reflected in the diversity of participants and the free flow of information. Jilin International Studies University's "AI-driven, practice-empowered" teaching model breaks the closed nature of traditional classrooms by incorporating real world cases through industry academia collaboration. Similarly, digital intelligent reforms in rural Northeast China leverage cloud platforms to enable cross-regional sharing of high quality resources. Openness allows the translation teaching ecosystem to continuously absorb external "negative entropy," sustaining its vitality and capacity for evolution.

5. Translation Teaching Model from the Perspective of Educational Ecology

Based on the above theories, this study constructs a translation teaching model grounded in educational ecology. The model consists of four layers:

Core Layer: The teaching subject community, composed of teachers and students.

Intermediate Layer: The teaching ecological environment, consisting of teaching content, methods, and resources.

Outer Layer: The teaching ecological circle, formed by technological tools and societal demands.

Macro Layer: The teaching ecological system, shaped by cultural, policy, and economic factors.

These layers are interconnected through flows of material, energy, and information, collectively maintaining the system's dynamic equilibrium.

In this model, AI technology serves as a key element in the ecological circle, influencing the entire system through three mechanisms:

Empowerment Mechanism: Enhances the capabilities of teachers and students (e.g., machine translation enables students to quickly access reference translations).

Reorganization Mechanism: Alters interaction dynamics (e.g., shifts the knowledge authority relationship between teachers and students).

Selection Mechanism: Eliminates outdated elements (e.g., renders simple text conversion tasks obsolete).

Understanding these complex mechanisms is essential for guiding the healthy evolution of the translation teaching ecosystem.

Educational ecology provides a systematic theoretical framework for analyzing translation teaching in the AI era. Within this framework, technology is no longer an external tool but an integral component of the ecosystem, permeating all levels and aspects of the system. The next chapter will apply this framework to analyze the current imbalances in translation teaching ecosystems and the transformative opportunities brought by AI technology.

The rapid development of AI technology has profoundly impacted the translation teaching ecosystem, presenting unprecedented challenges as well as opportunities for transformation and upgrading. This chapter systematically analyzes the current imbalances in the translation teaching ecosystem, explores the dual ecological effects of AI technology, and proposes concrete pathways for constructing a digital translation teaching ecosystem, all grounded in educational ecology theory.

6. Imbalances in the Translation Teaching Ecosystem

The current translation teaching ecosystem faces multiple imbalances that severely constrain the quality and efficiency of talent cultivation. From an educational ecology perspective, these imbalances manifest in three dimensions: structure, function, and evolution.

Structural Imbalance: Evidenced by distorted teacher-student relationships and closed teaching environments. Traditional translation classrooms are teacher-centered, fostering a one-way "teacher lectures, students listen" model that suppresses student initiative and creativity, violating the principle of equal symbiosis in

ecosystems. Additionally, teaching environments are confined to physical classrooms, lacking connection to real world translation scenarios-a classic “flowerpot effect.” Research by Cui Yuan from Hunan Chemical Vocational and Technical College shows that students trained in such closed environments exhibit significant adaptation difficulties in real world work settings.

Functional Imbalance: Reflected in inefficient energy flows and information transformation. On one hand, insufficient teacher-student interaction hinders energy flow, resulting in low student engagement. On the other hand, slow updates to teaching content impede the integration of industry advancements. Surveys indicate that 70% of translation students perceive a disconnect between their coursework and market needs. Moreover, resource utilization is fragmented, with universities redundantly developing similar resources and lacking effective sharing mechanisms—issues exemplified by the uneven resource distribution in rural Northeast China's translation education.

Evolutionary Imbalance: The system's inability to adapt to environmental changes. Against the backdrop of rapid technological iteration, translation teaching methods and evaluation systems lag. Many universities still adhere to traditional “text comparison + teacher feedback” models, neglecting emerging skills like machine translation post-editing (MTPE). A survey by Xi'an University of Finance and Economics found that over 60% of translation teachers lack systematic training in AI, rendering their teaching unable to keep pace with industry advancements.

7. The Dual Ecological Impact of AI Technology

AI technology exerts a dual influence on the translation teaching ecosystem. It disrupts existing equilibria while also serving as a pivotal force for constructing new ones.

Challenges:

AI undermines the cognitive foundations of translation teaching. As machine translation approaches human level performance in general domains, simple language conversion exercises lose value, forcing a redefinition of teaching objectives. Technological standardization reduces teaching diversity. Studies show that students relying on machine translation experience a 30% average decline in creative translation abilities. The rapid pace of technological updates clashes with slow teaching cycles. As noted by Professor Zheng Zhoulin, translation tools undergo major upgrades every 6-12 months, while curricula are revised only every 3-5 years.

Opportunities:

Expands ecological niche breadth, enabling teaching to transcend spatiotemporal limits (e.g., rural Northeast China's translation education cloud platform facilitates cross-regional resource sharing).

Enhances interactions among ecological factors (e.g., Shanghai Yizhe Technology's YiCAT platform supports AI-powered real time feedback and teacher-student collaboration).

Promotes ecological diversity (e.g., virtual simulation technologies create diverse scenarios like business negotiations and tourism interactions, enriching learning experiences).

Optimizes energy flow efficiency (e.g., intelligent analytics systems diagnose student weaknesses and recommend personalized learning paths).

8. Pathways to Constructing a Digital Translation Teaching Ecosystem

This study proposes a four dimensional framework for building a digital translation teaching ecosystem, enabling deep integration of AI technology and translation teaching.

8.1 Restructuring Teaching Objectives: From Singular Skills to Ecological Literacy

Educational ecology emphasizes the unity of multiple objectives. The new model deconstructs translation competence into four tiers:

Linguistic Competence (foundational)

Technical Competence (tool-based)

Professional Competence (domain specific)

Ecological Competence (integrative)

Ecological competence is the core, encompassing human AI collaboration awareness, lifelong learning ability, and cross-cultural adaptability. As Professor Hu Kaibao notes, AI era translation teaching should cultivate "technological discernment," enabling students to critically evaluate machine translation outputs. Course objectives must incorporate emerging content like AI ethics, post-editing strategies, and multimodal translation.

8.2 Optimizing Teaching Environments: from

Closed "Flowerpots" to Open Ecosystems

Breaking the "flowerpot effect" requires constructing ecologically integrated teaching environments that blend physical and virtual spaces. Physical environments should be redesigned as collaborative learning spaces equipped with smart devices. Virtual environments should feature intelligent teaching platforms integrating online courses, case libraries, and virtual labs. For example, Nanjing University of Science and Technology uses VR to simulate complex scenarios like international conferences, enhancing students' practical skills. Industry academia collaborations that introduce real world projects (e.g., translating medical device manuals) further bridge the gap between learning and professional environments. Ecological environments must also support diverse interaction modes. Tools like blogs and wikis can build communities of practice (e.g., one university's blog-based translation teaching model enables multidimensional teacher-student and peer interactions). Big data analytics can optimize interactions (e.g., systems detecting declining student engagement can automatically assign motivational tasks or prompt teachers to adjust strategies).

8.3 Integrating Teaching Resources: From Fragmented Distribution to Ecological Recycling

Teaching resources are the energy foundation of the ecosystem. The digital translation teaching ecosystem adopts a "core + specialized + dynamic" resource architecture:

Core resources: Foundational theory courses and skill training modules.

Specialized resources: Region specific content (e.g., SinoRussian border trade translation courses).

Dynamic resources: Real time integration of industry cases and tools.

Resource development follows ecological material cycles, forming a "generate use feedback regenerate" loop. Teachers are no longer the sole resource producers; students contribute user generated content (UGC) through projects, companies provide real cases, and AI systems auto-generate personalized exercises. This pluralistic resource ecology prevents the depletion and homogenization seen in traditional teaching.

8.4 Innovating Teaching Evaluation: from Static Judgment to Dynamic Equilibrium

Ecological evaluation systems feature multiple evaluators, multidimensional metrics, and dynamic adjustments.

Evaluators: Combine teacher assessments, peer reviews, AI auto-evaluations, and industry expert feedback.

Metrics: Beyond traditional translation quality, assess technical application skills, collaborative learning, and growth trajectories (e.g., Jilin International Studies University evaluates terminology accuracy [92%] and post-editing efficiency in practical training).

Dynamic evaluation, a hallmark of ecosystems, continuously tracks student performance via learning analytics (e.g., Xi'an University of Finance and Economics uses LLM generated real time feedback to adjust teaching strategies). Evaluation outcomes not only identify strengths/weaknesses but also enable system self-regulation (e.g., automatic push of supplementary materials when most students struggle with a concept).

9. Human-AI Collaborative Ecological Balance Mechanisms

In the digital translation teaching ecosystem, AI is not merely a tool but also a regulatory mechanism maintaining ecological balance through three pathways:

Empowerment: Enhances stakeholder capabilities (e.g., AI-assisted lesson planning reduces teacher workload).

Compensation: Addresses system deficiencies (e.g., machine translation aids struggling students in complex tasks).

Synergy: Optimizes group interactions (e.g., intelligent grouping systems improve teamwork).

Balance requires moderation. Insufficient technology leads to rigidity (e.g., low teacher-student ratios limit individualized guidance), while over-reliance stifles creativity (e.g., declining student originality). The ideal equilibrium dynamically shifts, necessitating continuous monitoring and adjustment. Shanghai International Studies University recommends capping machine translation use at 30% in beginner courses, increasing to 50%-70% in advanced stages. Teachers play a pivotal species role in this ecological balance. Like keystone species in ecosystems, teachers' beliefs and competencies determine the depth and effectiveness of technology integration. Hunan

Chemical Vocational and Technical College underscores the need for teachers to transition from knowledge transmitters to learning designers and technology integrators. This requires comprehensive teacher development systems encompassing technical training, pedagogical workshops, and industry exchanges. Constructing a digital translation teaching ecosystem is a gradual process requiring policy support, teacher training, technological R&D, and industry collaboration. As the system matures, AI and translation teaching will progress from superficial "addition" to profound "integration," ultimately forming a harmonious, symbiotic educational ecology.

10. Conclusion

This study, grounded in educational ecology, systematically explores the digital transformation pathways for translation teaching in the AI era. Through theoretical analysis and practical investigation, it identifies imbalances in the current translation teaching ecosystem, constructs a “one platform, four dimensions” digital translation teaching ecological model, and proposes specific implementation strategies. The findings hold significant theoretical and practical implications for advancing translation teaching reform and cultivating high quality translation professionals for the digital age.

10.1 Main Research Findings

The findings of this study can be summarized as follows:

First, the current translation teaching ecosystem exhibits severe structural imbalances. Traditional teaching models are characterized by closedness, singularity, and staticity, unable to adapt to the rapid changes in the translation industry driven by AI. Insufficient vocational orientation in teaching objectives, lack of real world connections in teaching environments, outdated resource update mechanisms, and the absence of multidimensional evaluation collectively contribute to the proliferation of the "flowerpot effect." This imbalance creates a significant gap between university trained translation professionals and market demands, with approximately 80% of graduates requiring additional corporate training to perform their jobs competently.

Second, AI technology exerts dual effects on the translation teaching ecosystem. On one hand, the widespread use of machine translation diminishes the instructional value of simple language conversion, standardized outputs suppress student creativity, and rapid technological iterations challenge teachers’ adaptability. On the other hand, intelligent technologies offer new possibilities for reconstructing the teaching ecosystem, including expanding spatiotemporal boundaries, enhancing teacher-student interaction quality, enriching learning experiences, and optimizing personalized learning pathways. The key lies in maximizing the educational value of technology while mitigating its drawbacks.

Third, constructing a digital translation teaching ecosystem requires systemic reform. The proposed "one platform, four dimensions" model—supported by an intelligent teaching platform and synergistically advancing teaching objectives, environments, resources, and evaluation—provides a feasible pathway for the digital transformation of translation teaching. Practical evidence shows that institutions adopting this model achieve significant improvements in talent cultivation quality. For example, Jilin International Studies University's training programs have increased students' terminology accuracy to 92%, while Xi'an University of Finance and Economics has stimulated teaching innovation through the application of large language models.

10.2 Theoretical Contributions and Practical Implications

This study makes three primary theoretical contributions:

First, it expands the application of educational ecology by deeply integrating it with translation teaching research and constructing a specialized theoretical framework.

Second, it enriches the research perspective on AI in education by examining technological impacts through the lens of ecosystem balance and evolution, transcending simplistic instrumentalist views.

Third, it proposes a dynamic balance model for the translation teaching ecosystem, offering new insights into the complex interactions among teaching elements.

On a practical level, this study provides concrete guidance for translation teaching reform across various institutions:

Comprehensive universities can draw on the “AI + specialized education” course development experience of Nanjing University of Science and

Technology.

Industry specific institutions can reference the industry academia collaborative education model of Shanghai Yizhe Technology's YiCAT platform.

Local institutions can adopt the "digital intelligent" reform approach of rural Northeast China, leveraging cloud platforms to overcome resource limitations.

For teachers, proactive adaptation to role shifts from knowledge transmitters to learning designers and technology integrators is essential.

For students, cultivating human-machine collaboration awareness and continuous learning capabilities is crucial for maintaining competitiveness amid technological advancements.

10.3 Limitations and Future Directions

This study has several limitations:

First, it primarily relies on literature analysis and case studies, lacking support from large scale empirical data.

Second, it pays insufficient attention to translation teaching in basic education, failing to establish a K16 integrated ecological system.

Third, it inadequately considers cultural differences, leaving the cross-cultural applicability of the model to be verified.

Future research could explore the following directions:

First, conducting longitudinal studies to examine the long-term evolution of digital translation teaching ecosystems.

Second, investigating the application of adaptive learning technologies in personalized translation teaching.

Third, studying the transformative effects of emerging technologies like the metaverse on translation teaching ecosystems.

As technology continues to advance and educational concepts evolve, translation teaching ecosystems will move toward a more open, diverse, and intelligent future.

References

[1] Ye Xing. Construction of a Blog-Based Translation Teaching Model from the Perspective of Educational Ecology. Foreign Language Education Technology, 2024, 13(2):78-82.

[2] Lan Hanjin. Challenges and Countermeasures of Artificial Intelligence in Translation Teaching. Modern Language Teaching, 2022, 13(9):112-118.

[3] Huang Xiaohan. Research on the Construction of an Ecological English Teaching Model in Vocational Colleges Based on Artificial Intelligence Technology. Journal of Hunan Chemical Vocational and Technical College, 2020, 15(2):45-50.

[4] Lu Shaowen, Jiang Fen. Research on English Translation Teaching Methods from the Perspective of Educational Ecology. Journal of Lanzhou Institute of Education, 2023, 32(7):54-55.

[5] Xie Xuelin. A Review of Translation Teaching Research from the Perspective of Eco-Translatology. Journal of Huaiyin Institute of Technology, 2022, 27(10):142-144.

[6] Mao Liqun. Research on Strategies for Cultivating Translation Professionals in Universities Amid the AI Wave. Modern Linguistics, 2018, 13(1):298-302.

[7] Ning Jiyuan. Digital-Intelligent Reform of Translation Education in the Context of Rural Northeast China's Development. Guangming Daily, 2024, 16(5):101-106.

[8] Li Xiaochuan. Eco-translatology: Towards a New Paradigm of Translation Studies. Journal of Translation Studies, 2009, 12(2):1-20.

[9] Tao Youlan. Public Education. New York: Basic Books, 1976.

[10] Li Guangsheng. Machine Translation: History, Development and Current Status. Language and Linguistics Compass, 2010, 4(9):827-842.

[11] Huang Mei, Yan Zhang. A Social Constructivist Approach to Translator Education: Empowerment from Theory to Practice. London: Routledge, 2016.

