

# Technological Empowerment: The New Trend to Promote Undergraduate Translation Teaching in Applied Universities

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**Abstract.** In the context of AI, innovative translation teaching model “translation+technology” is the new trend to meet the needs of the language service industry. In the current context of the increasing marginalization trend of humanities, the concept of new liberal arts should be vigorously advocated, actively seeking changes by breaking majoring barriers and integrating new technologies into liberal arts education. The undergraduate translation teaching in applied universities should be based on *Teaching Guidelines for Undergraduate Translation Major* and the actual situations, and make efforts in the construction of translation technology lab, cross-school collaborative education, teacher teams construction, curriculum system and evaluation system to optimize the existing training model of undergraduate translation major and improve the teaching quality.

## 1. Introduction

Translation, as an ancient occupation, has existed for thousand years since ancient times. Nowadays, AI is changing human life, and also changing the translation industry. The translation industry in the information age is expanding into a language service industry, covering various forms such as translation services, localization services, technical writing, and multilingual information consultation. In today's society, the explosion of knowledge and the massive growth of information and data have not only led to a surge in demand for language services, but also posed new challenges to the translation profession. Massive information processing is an important feature of translation jobs in the professional era, and technological empowered information literacy is a new important requirement of the language service market for professional translators in the new era. As a result, translators not only need to understand linguistic translation, but also need to be familiar with translation technology to meet the demand for innovative, versatile and professional translators in the language service market. This means that the traditional translation teaching model that only focuses on language skills training is no longer suitable for market demand. In the *Teaching Guidelines for Undergraduate Translation Major* (hereinafter referred to as the *Teaching Guidelines*), "Translation Technology" was listed as the core course, with 2 credits and 32 class sessions<sup>[1]</sup>. The Declaration on the Construction of New Liberal Arts required that the construction of new liberal arts should closely follow the new trend of technological revolution and industrial transformation, and actively promote the deep integration of modern information technologies such as artificial intelligence and big data with liberal

arts majors<sup>[2]</sup>. This requires us to meet the market demand for language services, attach importance to the teaching of "translation technology", reform the traditional model of translation teaching and empower translation teaching with technology.

## 2. Literature Review

In this chapter, reviews on the related studies are conducted to analyze the current research status quo at home and abroad, and explore the renewal of translation teaching model with technological empowerment in applied undergraduate universities.

### 2.1 The related studies in China

How to cultivate translation major undergraduates with technological empowerment? The related studies in China have never been stopped. Wang Shaoshuang<sup>[3]</sup> pointed out that translation technology teaching should be connected with language service industry, upgrade training goals, and achieve the training from technical training to information literacy. Wang Huashu and Zhang Chengzhi<sup>[4]</sup> introduced the concept of "search quotient" into the professional translation, pointing out that search quotient was an important component of professional translators' abilities, and then elaborated on the basic composition of translators' search ability. Based on the undergraduate translation teaching at Beijing Language and Culture University, Han Lintao and Liu Heping, explored the translation teaching model of "translation+technology" from different perspectives such as training objectives, fit points, training contents and methods<sup>[5]</sup>, which was a beneficial exploration of undergraduate translating teaching model in the era of

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technological empowerment, providing specific cases for the reform and major construction in the context of the new liberal arts. In Zhang Chengzhi's opinion, searching ability had not received sufficient attention in the existing translation curriculum systems, so he published a book with the theme "search", *A Coursebook on Translation Search*<sup>[6]</sup>. This book included three main themes: the connotations and significance of search quotient, the five modules of search quotient, and the combination of search quotient and information technology. Based on the main problems and essential characteristics of current translation education, Wang Huashu and Liu Shijie<sup>[7]</sup> explored the potential pathways to integrate intelligent technology and translation education in terms of teaching environment, teaching practice, teaching resources, teaching evaluation, as well as teaching management. And their paper also looked into the prospects of smart translation education in virtualization, connectivity, interactivity and ecology so as to promote the innovation and development of translation education in the new era.

## 2.2 The related international studies

By reviewing SSCI journals in translation studies in the past 5 years, the new international research trends can be outlined. Celia Rico explained how ePortfolios could be used in translation technology courses to achieve learner-centered scenarios<sup>[8]</sup>. The PACTE group introduced that they were carrying out an research project "Establishing Competence Levels in the Acquisition of Translation Competence in Written Translation"<sup>[9]</sup>. Cécile Frérot et al. pointed out that ergonomics had become a new paradigm in applied translation studies, and ergonomic factors had been proven to have impacts on translators' working methods at the physical, organizational, and cognitive levels<sup>[10]</sup>. In Carme Mangiron's paper, the localized teaching of video game translation was analyzed, translation capacities and curriculum designs were focused on, the required tasks for students were described, and the teaching resources and tools used to provide collaborative learning experience for distance education students were especially emphasized<sup>[11]</sup>. Ralph Krüger's research aimed to illustrate the translation technology teaching based on Python's Jupyter notebook, especially the teaching potential in machine translation<sup>[12]</sup>. With the assistance of NVivo 11.0, four hundred and twenty-nine job ads were collected from the two largest and most popular job search portals in China and a model of translation curriculum renewal was proposed by Xiangdong Li<sup>[13]</sup>. The results suggested that, while prior experience is underscored by employers, a specialized degree in translation, certified status and high-level education are not sought by employers, and the most in-demand competences are linguistic competence in working languages, psycho-physiological competence, interpersonal competence, extra-linguistic knowledge, and instrumental competence.

To sum up, the related studies in China focus on information literacy training and try to construct a

dynamic translation teaching evaluation model, aiming to enhance students' competitive abilities in the job-hunting market. And the related international studies focus on interdisciplinary studies such as the perspective of ergonomics and cognitive science. That is to say, attaching importance to technological empowerment, advocating for the teaching and application of translation technology, and being familiar with the demands of language service industry are the new trends in the era of information technology.

## 3. Technological Empowerment Strategies for Undergraduate Translation Teaching in Applied Universities

Cai Jigang<sup>[14]</sup> pointed out that artificial intelligence had led to the birth of machine translation for various purposes, which would not only result in large-scale compression of the enrollment for translation majors and even the foreign language majors, but also required fundamental reform of the original translation majors in terms of training specifications and training purposes. In the current context of the increasing marginalization trends of humanities, the concept of new liberal arts should be vigorously advocated, actively seeking changes by break major barriers and integrating new technologies into liberal arts education. In this context, the undergraduate translation teaching in applied universities should actively seek changes, empower technology, and reform the teaching mode. In Jeremy Mundy's applied translation map, technological empowered translation teaching involved two aspects: translator training and translation aids<sup>[15]</sup>. Translator training includes three aspects: teaching methods, methods of assessment, and curriculum design, and translation aids include software, collaboration and reference. Among them, software includes machine translation and CAT tools, collaboration includes online forums, crowd-sourcing and expert informants, and reference includes term bases, glossary dictionaries, online searches, and parallel corpora. Based on the research status quo and "Teaching Guidelines", this article proposes several reform strategies for undergraduate translation teaching mode in applied universities.

### 3.1 Attaching importance to the construction of translation technology lab

In undergraduate translation teaching model with technological empowerment, translation technology teaching can not be absent. As we all know, translation technology teaching is different from the teaching of traditional language skills and translation skills. Firstly, it is necessary to build a good teaching environment, which cannot be separated from hardware facilities of translation technology labs, translation technology teaching platforms, popular computer-aided translation tools, and translation technology teaching case resources. Taking the CAT as an example, it is very expensive and

often costs hundreds of thousands. universities in underdeveloped areas are often reluctant to invest, let alone deploy various popular CAT systems to provide sufficient slots to meet the needs of students in related majors throughout the whole universities. Therefore, it is necessary to clarify the construction needs and orientation, set the construction scales based on the funding budgets, select the corresponding translation technology software to complete the system construction, and pay attention to maintenance management<sup>[16]</sup>. The construction of translation technology software and hardware is the material guarantee for conducting translation technology teaching, and in applied universities, building translation technology labs should be based on the actual teaching and research needs, taking economic fund and security into considerations.

### **3.2 Building distinguished translation technology teachers' Teams**

Distinguished translation teachers need to do well in both theory and practice. Wang Huashu and Li Ying pointed out that the problems of translation teaching was on translation teachers<sup>[17]</sup>. In the context of the technological turn in translation studies<sup>[18]</sup>, teachers in translation major, especially young teachers, should actively embrace technology, participate in different training, and create a teaching and academic community of translation technology. In addition, it is necessary to flexibly utilize market resources, and introduce industry experts. These industry experts can bring the latest development trends, cases, and practical experience of the industry into translation technology classes, achieving the integration between teaching and market. However, the current teachers' title promotion policy in China just focuses on teaching and academic achievements, and translation practice is not recognized. Therefore, it is necessary to reform this policy, and add translation practice to translation teachers' promotion. At the same time, the undergraduate translation teaching with technological empowerment should strengthen the cooperation with the schools of computer sciences. The schools of foreign languages can negotiate with the schools of computer sciences to establish a translation technology course clusters. In addition to the basic contents of search, terminology, memory and machine translation, the optional courses such as post-translation editing, technical writing, translator programming, web design, python, corpus, localization technology and translation project management can also be offered for students to select.

### **3.3 Constructing the market-oriented technological empowerment curriculum system**

As a fundamental work, the construction of the market-oriented curriculum system includes elements such as teaching objectives, curriculum designs, teaching contents and teaching case resources. For applied universities, each one has different advantages or disadvantages, and different employment goals, naturally

resulting in different teaching objectives. Specifically speaking, applied universities should be based on Teaching Guidelines and highlight their distinguishing characteristics such as industry or university characteristics. As far as the curriculum and teaching contents are concerned, it is not enough to just have one translation technology course, and in addition to the basic knowledge of search, terminology, memory and machine translation, the optional courses such as post-translation editing, technical writing, corpus, localization technology and translation project management can also be selected to learn according to the actual needs. For teaching case resources, the reference can be made to the construction of translation technology teaching case resources, which was proposed by Cui Qiliang<sup>[19]</sup>. The following four specific principles need to be followed: the principle of objectivity, timeliness, authenticity, and applicability. And multiple channels can be used to obtain cases and jointly build and share teaching cases.

### **3.4 Promoting the formative and final evaluation system**

The Teaching Guidelines pointed out that evaluation should be aimed at students' learning... evaluation should focus on combining formative and final evaluation. In the evaluation contents in translation technology teaching, it should be guided by the principle of students' professional development to examine their practical application ability of translation technology. The test genre should be oriented towards professionalization, minimizing literary translation and increasing the translation of non-literary materials. The teachers should actively strengthen communication and consultation with the different leaders from departments, schools and the office of Teaching Management to improve the evaluation system that combines formative and final evaluation, and so as to improve the teaching quality of translation technology courses.

## **4. Conclusion**

With the rapid development of information technology, information literacy based on translation technology has become one of the essential qualities for professional translators. In order to improve the employment quality, applied universities should actively adapt to the new trend of the times and construct the undergraduate translation teaching model with technological empowerment, and make strenuous efforts to do actions in the construction of translation technology lab, cross-school collaborative education, teachers construction, curriculum system and evaluation system to optimize the existing training mode of undergraduate translation major and improve the training quality based on *Teaching Guidelines for Undergraduate Translation Major* and the actual situations.

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