Research on the Ethics of Translation Technology in the Context of Artificial Intelligence

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Abstract: This paper explores the connotation of the ethics of translation technology in the context of artificial intelligence and its coping strategies. With the rapid development of artificial intelligence technology, especially the emergence of large-scale language models represented by ChatGPT, the translation industry is undergoing a shift from "human-computer collaboration" to "machine-dominated and human-assisted." This transformation not only reshapes translation practice but also gives rise to new ethical issues in translation. As an intersection of technological ethics and translation ethics, the ethics of translation technology focuses on the relationship between humans and translation technology, covering ethical norms in multiple aspects such as design, development, promotion, and application. The paper first analyzes the traditional definition of translation ethics and its expansion in the era of artificial intelligence. Traditional translation ethics focuses on the moral obligations of translators, while the ethics of translation technology involves more subjects, including technology developers, platforms, and users. Second, the paper reviews the main issues of the ethics of translation technology, such as data privacy, algorithmic bias, intellectual property rights protection, and translator career development, and proposes corresponding solutions, including improving laws and regulations, clarifying responsibility division, and enhancing translators' technical application capabilities. Finally, the paper emphasizes that although translation technology has improved efficiency, human translators remain the main players in translation activities and need to use technology in a legal and compliant manner to control it rather than rely on it.

Keywords: Artificial Intelligence; Ethics of translation technology; Data privacy; Algorithmic bias

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1. Introduction

In recent years, artificial intelligence technology has developed rapidly. In particular, the launch of ChatGPT in 2022 has brought about a qualitative leap in artificial intelligence technology. Most artificial intelligence technologies represented by ChatGPT adopt the transformer and mixture-of-experts architectures, use ultra-large-scale unlabeled text for pre-training, and are fine-tuned through human feedback reinforcement learning. They can support multi-turn dialogues and understand ultra-long texts. The generated dialogue language is fluent and logically coherent, and it has also shown excellent performance in the field of translation. The 2025 China Translation Industry Development Report points out that "the number of enterprises with artificial intelligence translation as their main business is growing at a doubling rate. Data from the State Administration for Market Regulation's Enterprise Registration Information Database shows that as of the end of 2024, there were 1,545 operating enterprises in China whose main business scope included 'machine translation' or 'artificial intelligence translation,' an increase of 706 compared to 2023" (67).

Against this backdrop, the professional landscape of translators has changed dramatically. The introduction

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of neural machine translation (NMT) and large-scale language models (LLM) has transformed translation from individual creation to a "human-computer collaboration" and even a "machine-dominated and human-assisted" algorithmic process. It can be said that the rapid development of artificial intelligence technology is reshaping the form of translation practice and forcing the academic community to re-examine the boundaries and connotations of translation ethics. Based on existing research findings, this paper focuses on two questions: First, what is the connotation of the ethics of translation technology? Second, how can the ethical issues of translation technology be resolved?

2. Translation Ethics and the Ethics of Translation Technology

Does the ethics of translation technology fall under the category of artificial intelligence technology ethics or under translation ethics? Existing research findings show different views on this matter.

(1) Translation ethics

Ethics is defined as "the moral principles arising from a system of values and beliefs and involving rights and obligations." Traditionally, ethics is divided into three parts: normative ethics, applied ethics, and meta-ethics. Normative ethics studies ethical reasoning and attempts to set norms or standards for behavior, answering questions such as what one ought to do, why certain actions are right while others are wrong, or why some people are virtuous while others are not. Applied ethics (or practical ethics) tries to apply normative ethical theories to practical issues and make ethical judgments related to everyday decision-making. Meta-ethics, on the other hand, stays in a more theoretical and abstract realm, studying the basis of ethical statements (Kaisa Koskinen, Nike K. Pokorn, 2021). Ethics in translation studies can be generally categorized as applied ethics.

The concept of translation ethics originated from a lecture titled "Translation and Language" given by French translation theorist Berman in 1984. Since then, more researchers, such as Pym and Chesterman, have begun to focus on the topic of translation ethics (Xiao Zhiqing, Han Xinyu, 2024). Translation ethics aims to guide and regulate the daily behavior of translation and interpreting professionals through norms. Since this kind of activity is usually conducted by practitioners rather than scholars, it can be categorized under deontological ethics. Deontological ethics is a type of ethics based on duties or rights, aiming to normatively guide what we ought to do, rather than what kind of people we should be or what kind of outcomes we should produce, and it insists that our lives should be bound by moral rules that should not be violated due to consequences. Andrew Chesterman, a distinguished scholar in the field of translation studies and former professor of the Department of Modern Languages at the University of Helsinki, believes that translation ethics involves four key areas: ethics of representation, ethics of service, ethics of communication, and norm-based ethics (Joseph Lambert, 2023). Ren Wen defines translation ethics as "the moral principles followed by the subjects of translation activities (mainly interpreters and translators, etc.) in translation activities (translation, interpreting, localization translation, machine-assisted human translation, human-computer interaction, AI translation, etc.)" (Xiao Zhiqing, Han Xinyu, 2024). Li Jun et al. believe that translation ethics are "the norms that should be followed by all participants in translation activities based on value orientations. It is oriented towards both translation behavior and the subjects of translation behavior" (2022).

With the advent of the artificial intelligence era, the number of participants in translation activities has increased, including both individuals and group organizations, and various machines and technologies are used and applied in the translation process. Translation ethics in the artificial intelligence era should not only cover the traditional ethical categories but also consider ethical factors between humans and machines, and humans and technology. The ethics of translation technology has thus emerged.

(2) The ethics of translation technology

The ethics of translation technology focuses on the issues of the relationship between humans and translation technology. Scholar Ren Wen defines the ethics of translation technology as "the moral principles of right and wrong behavior of the subjects of translation technology (including designers, developers, promoters, educators, and users of translation technology, etc.) in the process of translation technology (related) activities" (2019). Under this definition, the ethics of translation technology is further divided into subcategories such as the engineering ethics of translation technology, the business ethics of translation technology, the educational ethics of translation technology, and the application ethics of translation technology. Lu Yan believes that "the ethics of translation technology in the artificial intelligence era is to study the general ethical principles and behavioral norms that humans and intelligent machines should follow in the products, services, and applications of translation technology in the artificial intelligence era" (2024).

The definition of the ethics of translation technology by the above researchers is closer to traditional translation ethics, focusing more on the moral value orientations of humans with subjective initiative in translation activities. However, some scholars argue that "technology ethics covers research and discussions on data security, rights protection, human-machine relationships, sustainable development, and more deeply involves the complex relationships between humans and technology, society and individuals, and even humans and the environment. The ethics of translation technology is the projection of technology ethics in the field of translation, focusing on the relationship between translation technology and humans, and translation technology and the world, and it is the overlapping part of translation ethics and technology ethics" (Xiao Zhiqing, Han Xinyu, 2024). This view emphasizes the dominant position of technology ethics in the ethics of translation technology, which is supported by examples. For instance, the machine translation ethical requirements released and implemented by the China Translators Association in 2024 divide the life cycle of machine translation systems into four stages: design, development, promotion, and application. Throughout these four stages, ethical awareness should be maintained throughout, classifying the ethics of translation technology into design ethics, development ethics, promotion ethics, and application ethics. Design ethics requires attention to data security and privacy protection when designing machine translation systems, as well as fairness and non-discrimination, inclusiveness and diversity, accessibility and adaptability, and consideration of user interests and responsibilities, with sustainability and environmental friendliness. Development ethics includes algorithm ethics and data ethics. The former includes six aspects: algorithm safety, algorithm reliability, algorithm explainability, algorithm auditability, algorithm discrimination and bias, and algorithm responsibility and accountability. The latter includes six aspects: data privacy and protection, data source compliance, data quality reliability, data diversity and representativeness, data storage, use and transmission, and data sharing and openness. Promotion ethics emphasizes fair competition, truthful publicity, adherence to industry standards, protection of intellectual property rights, strengthening user education, and social responsibility and sustainability. Application ethics mainly includes five aspects: reasonable charging, informed consent, human-computer collaboration and responsibility definition, narrowing the data gap and technology gap, continuous improvement and user feedback (T/TAC 10—2024). Technology ethics is the general term for moral norms and value concepts that restrain and regulate technological behavior. Many of the above ethical requirements are essentially part of technology ethics.

(3) The connotation of the ethics of translation technology

The ethics of translation technology is not simply a linear subset of translation ethics or technology ethics, but rather an intersecting-derivative concept. First, the ethics of translation technology belongs to the category of technology ethics because technology ethics deals with the legitimacy issues of all technologies in design, development, promotion, and application, and translation technology is just one specific type of technology. Second, the ethics of translation technology is the intersection of technology ethics and translation ethics, and it is an extended subdomain of translation ethics in the technological era, which can regulate the behavior of multiple

subjects such as translators, technology developers, and platforms in translation practice activities based on translation technology. Only by correctly understanding the connotation of the ethics of translation technology can we clarify the subjects of the ethics of translation technology and ensure that the entire process of translation activities complies with ethical norms.

3. The Division of Rights and Responsibilities in the Ethics of Translation Technology

As mentioned above, translation ethics can be categorized under deontological ethics. In deontological thinking, moral obligations are absolute and non-negotiable in any given situation. Based on this philosophy, the field of translation studies has also established many profession-based ethical norms. However, moral obligations are not equivalent to laws. If individual practitioners do not accept or take a particular ethical norm seriously, how should the resulting consequences be dealt with? The author of this paper believes that, based on different stages of translation practice activities and different subjects involved, clarifying responsibilities and converting most ethical norm issues into legal issues can reduce the ethical responsibilities of translation practitioners.

(1) The division of the translation process and translation subjects

The Chinese Translators Association's 2016 requirements for translation services in written translation divide the translation process (referring to written translation here) into three stages: pre-translation processes and activities, the written translation process, and the post-delivery process. The pre-translation processes and activities include four aspects: inquiries and feasibility analysis, quotation, agreements between clients and written translation service providers, and handling of client information related to the project. The written translation process consists of six stages: translation, self-checking, bilingual proofreading, monolingual proofreading, copyediting, final verification, and delivery. The post-delivery process includes two aspects: client feedback and project closure management. Project management and system maintenance for written translation services run throughout the entire translation process.

The subjects of translation activities currently show a trend towards a multi-subject framework, with six main subjects: initiators, executors, gatekeepers, consumers, supporters, and regulators/ethics monitors. Initiators include individual or group clients as well as new types of platform demanders such as cross-border e-commerce platforms. Executors consist of human translators, machine translation systems, and human-computer collaborative teams. Gatekeepers include proofreading and quality control personnel, domain experts, and algorithmic review and feedback systems. Consumers are made up of target readers and audiences as well as secondary creators. Supporters mainly refer to providers of corpora and terminology and terminology platform providers. Regulators/ethics monitors include industry associations and standard setters as well as legal and ethical review institutions, such as copyright bureaus and ethics committees.

(2) Common ethical Issues in translation technology and solutions

According to current research findings from scholars, the main ethical issues in translation technology are as follows: user privacy, intellectual property rights protection, data-related issues (data privacy and misuse), responsibility issues, and translator career development. Since the ethics of translation technology is a subset of technology ethics, the issues arising in translation technology are also faced by technology ethics.

1) Protecting intellectual property and ensuring data security

Translation technology is mainly applied in the pre-translation and during-translation stages of the entire translation process, involving three main subjects: executors, supporters, and gatekeepers. Regarding data privacy issues, in addition to complying with relevant laws,designers and developers of translation technology must also legally collect, store, use, process, and transmit user data to protect data security and personal privacy. In the era

of artificial intelligence, the development of artificial intelligence translation systems requires a large amount of data for pre-training. During the processes of data collection, training, evaluation, and application, it is essential to ensure that the data sources are legal, the data quality is high, the coverage of fields is extensive, and the sample types are diverse. If a translation system needs to collect translators' translation texts as training materials, it must inform users in advance, obtain their consent, and get authorization from users. Otherwise, it is not allowed to privately obtain translators' translation texts in the background.

At present, artificial intelligence technology still has issues such as the algorithmic black box and algorithmic bias. The use of artificial intelligence technology in translation technology has also extended these problems to the field of translation practice. The algorithmic black box and algorithmic bias problems are often rooted in the intrinsic characteristics of large machine learning models (White Paper on Governance of Trustworthy Artificial Intelligence, 8). Algorithmic bias is an increasingly significant issue in the field of artificial intelligence. Due to the imbalance of training data, bias in feature selection, or imperfections in algorithm design, the system's output may be unfair. Systems using such artificial intelligence translation technology are prone to generating discrimination and bias in the translation process. In the development of translation system software, developers are required to "clearly define the responsibility attribution of algorithms and establish detailed accountability mechanisms to ensure that when problems arise with the algorithms, responsibilities can be clearly identified, the sources of problems can be traced, and necessary measures can be taken. In addition, developers should establish strict regulatory processes to ensure the legality and ethics of algorithms and take responsibility for any possible improper actions or outcomes" (T/TAC 10—2024).

2) Taking responsibility and promoting career development

With the development of technology, the translation process has also changed. It has evolved from purely human translation to machine translation, human-assisted machine translation, and now to machine-assisted human translation (i.e., machine translation + post-editing by translators). "As a result, the time and opportunities for translators to engage in translation have been greatly reduced, which is not conducive to the improvement of their skills. For translators (especially junior translators), the translation provided by machine translation may not be helpful for reference and may even have a negative impact (Li Jun et al., 2022). In addition, during the translation process, the use of machine translation, human-assisted machine translation, or machine-assisted human translation technologies can lead to flaws and errors in the translation that are not detected in the subsequent proofreading process, thereby triggering disputes over responsibility. Who is responsible for the errors, the machine or the human translator?

In response to the above issues, human translators, who have subjective initiative, should correctly recognize their dominant role in the translation process. Whether or not translation technology software is used in the translation process, human translators are the controllers of the entire translation process. Human translators decide when, where, and how to use translation technology software and should be responsible for any errors that occur in the translation results. Therefore, human translators should regard translation technology software as a tool to improve efficiency and provide convenience, rather than a means of survival. Human translators should have the ability to independently complete translation tasks of high quality without relying on external tools. Thus, when using translation technology tools to assist in the translation process, human translators should learn from the strengths of the software's translations and continuously improve their translation skills to remain invincible.

3) Improve legislation and clarify rights and responsibilities

Due to the diversity of the subjects involved in translation activities and the complexity of the translation process, a wide range of ethical issues arise from the use of translation technology. The fundamental solution lies in improving relevant laws and clarifying the rights and responsibilities of each party, rather than relying solely on

ethical constraints.

In addition to the industry-specific standards, regulations, policies, and guidance documents related to the translation industry issued by the Translators Association of China, the General Administration of Quality Supervision, Inspection and Quarantine, and the Standardization Administration of China, many existing national laws and regulations are also applicable to addressing ethical issues related to translation technology in the translation service industry. For example, the Civil Code regulates translation service contracts, intellectual property rights, and privacy rights. The Copyright Law clarifies the ownership of copyright in translated works, allowing translators to enjoy independent copyright without infringing on the original work's copyright. Although there is currently no specific "Translation Law," a regulatory system centered on national standards, industry norms, contract law, intellectual property law, and confidentiality systems has been established. In the future, as the translation industry becomes more specialized and internationalized, legislation in translation will be a crucial step in promoting high-quality development in the industry.

During the practice of translation technology, the initiators and executors of translation activities must fulfill the terms of the contract; the gatekeepers should monitor the quality of translations, the supporters should provide technical support and feedback, and the regulators should ensure that no ethical or legal disputes arise during the translation process. In the event of disputes, priority should be given to resolving them within the framework of laws and regulations, rather than relying on ethical constraints.

4. Conclusion

Science and technology are the primary productive forces. With the development of artificial intelligence technology, the field of translation technology will undoubtedly undergo greater changes, and new ethical issues will emerge in the field of translation technology. Although translation technology has greatly increased the speed and efficiency of translation and created an illusion of "translator invisibility," the fact that human translators are the main players in the translation process cannot be shaken. In translation practice under the background of artificial intelligence, human translators need to continuously improve their translation skills and technical application abilities, use translation technology in a legal and compliant manner, and become the masters of translation technology.

References

[1] 2025 China Translation Industry Development Report Project Team. 2025 China Translation Industry Development Report [R]. Beijing: China Translators Association. 2025-04-25.

[2] Xiao Zhiqing, Han Xinyu A Study on the Ethics of Translation Technology Application in the Age of Artificial Intelligence: Concepts, Issues and Countermeasures [J]. Nationalities Translation, 2024(6): 18-25.

[3] Kaisa Koskinen, Nike K. Pokorn The Routledge Handbook of Translation and Ethics [M]. Routledge, 2021: 1-12.

[4] Joseph Lambert Translation Ethics [M]. 2023: 31-41.

[5] Ren Wen The Challenges and Orientation of Machine Translation Ethics [J]. Shanghai Journal of Translators, 2019(5): 47.

[6] T/TAC 10—2024, Machine Translation Ethical Requirements [S].

[7] Lu Yan The Construction of Translation Technology Ethics in the Age of Artificial Intelligence [J]. Chinese Translators Journal, 2024(1): 117-125.

[8] T/TAC 1-2016, Requirements for Translation Services in Written Translation [S].

[9] Shanghai Association for the Development of Artificial Intelligence and Society. White Paper on Governance of Trustworthy Artificial Intelligence [R/OL]. (2025-01-12) [2025-08-07]. https://pdf.dfcfw.com/pdf/H3_AP202501141641916724_1.pdf?1736867923000.pdf.

[10]Li Jun, Du Siyu, Ma Wangyao, Tao Siqing A Study on Translation Ethics in the Age of Artificial Intelligence [J]. Science and Technology Brain Trust, 2022(11): 62-69.