Ethical Study on Problems and Development of the Online Crowdsourcing Translation Platform Yeeyan Based on Big Data

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Abstract. The emerging crowdsourcing translation industry, originating from the practice of enterprise crowdsourcing, driven by the urgent needs of the increasingly diversified translation market, effectively integrates the scattered translation resources and public wisdom. Online crowdsourcing translation platforms have exerted great social values and influences, which also have given rise to many problems. By using an online word frequency statistical analysis tool, this paper, taking Yeeyan, one of the earliest typical crowdsourcing translation platforms in China, as a case study, introduces the ethical issues of online crowdsourcing translation platforms through data analysis of key and high-frequency comments, and proposes some strategies for online crowdsourcing translation platforms.

Keywords: crowdsourcing translation · ethical analysis · Yeeyan website · developing strategies

1 Introduction

With the extensive use of network technology, the translation industry has also entered a new era. Crowdsourcing translation platform emerges accordingly and is becoming increasingly popular in the translation market with its unique advantages like wisdom sharing, higher efficiency, more contact between translators and readers. But at the same time, there are also some problems lurking in the acceptance of professional translators, the relationship between translators and initiators, and the quality of translation.

As a well-known and typical crowdsourcing translation platform, *Yeeyan* has centered on book translation in recent years, and has achieved certain success with its unique features. However, for the future development, there are still some related problems to be solved for further improvement.

This paper firstly introduces the crowdsourcing translation and its features. Then, taking *Yeeyan* as an example, it further discusses problems related from the ethical perspective. Finally, it proposes some development strategies for online crowdsourcing translation platform.

2   Literature Review

The word "crowdsourcing" was proposed by an American reporter Jeff·Howe in a computer magazine *Wired*. He remarked that "Technological advances in everything from product design software to digital video cameras are breaking down the cost barriers that once separated amateurs from professionals. Hobbyist, part-timers, and dabblers suddenly have a market for their efforts, as smart companies in industries as disparate as pharmaceutical and television discover ways to tap the latent talent of the crowd. The labor is not always free, but it costs much less than paying traditional employees. It is not outsourcing; it is crowdsourcing." [1] The emphasis on outsourcing is specialized division of labor, which targets at professional organizations and professionals, but the crowdsourcing targets at amateurs with different social backgrounds. The advantages of the crowdsourcing lie in those of low cost, mobilization of potential production resources, high production efficiency, satisfaction of the individual users' needs.

In the era of information interconnection, digitalization has expanded the connotation and extension of translation. "Translation is living through a period of revolutionary upheaval. The effects of digital technology and the internet on translation are continuous, widespread and profound. From automatic online translation services to the rise of crowdsourced translation and the proliferation of translation apps for smartphones, the translation revolution is everywhere. [2] There is no doubt that the combination of information science, artificial intelligence and translation has had a profound impact on language, society and culture.

Crowdsourcing is a form of online collaborative translation (OCT), which is the latest, the most extensive and the fastest growing translation mode in the digital era. It is a new translation model under the development of information and technology, which is the application of crowdsourcing in translation industry. The translation tasks that used to be done by professional translators are now performed by amateurs. The crowdsourcing model applied to translation is one of the impacts of new technologies on translation, in which large-scale volunteer translation is realized, increasingly supported by CAT tools, software or online communities or platforms.

Crowdsourcing translation is becoming more and more popular both at home and abroad. Since late 2007, Facebook's website has been rapidly translated into multiple languages of its members using the web-based translation platform developed by Facebook. "As is the case with the Facebook's translation, a crowdsourcing translation model is typically evaluated based on user votes whereby the translations with the most votes are considered to display the best quality." [3] Sobol studied the feasibility and effectiveness of crowdsourcing translation with reference to professional translation and found out that crowdsourcing, as a new translation model in the past 20 years, has high efficiency and low cost and solves the historical problem of time-consuming translation. Some crowdsourcing translation platforms allow translators to edit existing translations, reflecting on the open nature of the process. In emergency situations, the efficiency benefits of crowdsourcing are even more pronounced. [4] In China, according to Lu Yan, outsourcing of tasks that used to be performed by full-time translators to volunteer translators on the Internet has led to what we call crowdsourcing, featuring community translation and CT3 of community translation + collaborative technology + crowdsourcing [5].

Online crowdsourcing translation may help to promote the overseas dissemination of literature and culture for its capability of huge information dissemination by taking into account the reading habits of readers as a new and important supplementary form of Chinese culture going abroad. [6] Hence, "using the crowdsourcing translation model, we can realize the counter trend of spreading traditional Chinese culture, and bring a large number of classic Chinese writings and other cultural products to the world at the fastest speed, providing a new path for the construction of a strong cultural nation" [7].

3 Ethical Analysis of Online Crowdsourcing Translation Platforms

As an online collaborative translation model, crowdsourcing translation has greatly influenced many aspects of translation. In crowdsourcing translation, all the processes can be achieved by using comprehensive multiple technologies. In crowdsourcing translation platforms, translators, editors, project managers and so on can cooperate remotely in allocating the translation projects. Compared with traditional translation, this translation model has many features, but it also faces ethical problems.

3.1 Values of Online Crowdsourcing Translation Platforms

ONline crowdsourcing translation platforms make use of wisdom of crowds which refers to a certain number of individuals perform better in cooperation and competition than the sum of every individual. In *Wisdom of Crowd*, James Surowieck proposed four features of collective wisdom "diversity of opinions, independence, decentralization and aggregation." [8] In crowdsourcing translation platforms, translators have diverse social backgrounds and are guided by different purposes. Web2. 0 network translation platform provides a stage for translators to compete with each other. From a horizontal perspective, an individual translator's work can be quickly found and recognized on network, forming his own competitive advantage in the translation community. In order to maintain or gain a favorable competitive position, other translators are also forced to improve translation quality. From a vertical perspective, one's excellent translation ability in the translation interaction may make the other's translation rhythm temporarily out of sync. Therefore, in order to maintain the cooperative relationship, it is necessary to improve the translation ability of the other person. Group translation has formed a competitive atmosphere for individual translators to catch up with each other, and both the individual translation ability and the group translation ability can be improved simultaneously. Also, the translators in the crowdsourcing translation participate in translation spontaneously out of their personal preferences, which maximizes the wisdom of the network translator group.

In crowdsourcing translation platform, the whole translation processes can be supervised. Each translator can take part in every process from the release of the article to its publication. The website publishes tasks, and translators can choose the parts they are interested in to translate. Under each translation task, the publication time of the translation, the number of page views, the number of comments, and the number of mistakes picked out by readers can been released. The translators can see the number of fans, the number of followers, the total number of translated translations, and the history of the

translator's exchanges with others online in the translation forum. There is a competitive relationship between various translators. Excellent translations can quickly emerge and attract more attention. After the release of translated works, interactive questions and comments will be received, which would in turn give the translators great spiritual supports, so that they can invest more enthusiasm and energy in the translation.

In crowdsourcing translation, the creation and translation can be carried out simultaneously, so that the readers can read the translation directly to check out its accuracy and contact with translators and editors at any time. It not only blurs the line between experts and amateur translators, but also blurs the line between translation service providers and translation consumers. The original time and information gap between translators, initiators and readers has been filled up. In the open translation process, readers can also have the chances to modify the translated content. The translators in the crowdsourcing translation platform here can be a combination of roles as translators, readers and editors.

In traditional translation publication, the author of the original book who wants to publish his work in Chinese market, he not only has to bear the high agency fees and sales share, but also faces long copyright introduction time, translation time and publication time for at least one year. Translators are interested in the original work and have a good command of foreign language, but have no opportunity to translate it. Publishers cannot find suitable translators. Readers want to read a good book but cannot find a Chinese translation. Compared with traditional publications, crowdsourcing translation meets the need that has been overlooked in traditional publications. The author of the original book hands over the book to an online crowdsourcing platform. Then translators can sign up for "trial translations" to participate in the translation project and receive a share of the revenue. Thus, publishers can find suitable translators through trial translations. In addition, the platform speeds up the translation process, making it possible for translated books to be released more quickly.

3.2 Relevant Ethical Problems of Crowdsourcing Translation Platforms

According to *the Encyclopedia Britannica*, ethics is defined as "the discipline concerned with what is morally good and bad and morally right and wrong", which is also applied to any system or theory of moral values or principles. Ethics may be interpreted from philosophical perspective as utilitarianism, contractual norms, or moralism, which constitute moral values, standards or principles to evaluate or guide people or their behaviors.

The emergence of crowdsourcing translation platforms makes ethical problems of translation more complicated. "From ethical and legal perspective, for users, the major problems are about content legality, copyright, and arbitrary withdrawal; For translation platforms, there are mainly issues such as labor exploitation and unclear ways of defending rights." [9] The ethical problems mentioned here are more or less related to legal rights or interests. "There are two main problems of crowdsourcing translation, including the lack of trust between publishers and translators, and the control of translation quality." [10] Balanced relationship between translators, publishers or patrons has been altered without strict constraints. The translators selected by the network only need to sign letters of commitment before starting their translation work, and the publishers do not need to pay any fees, so there is almost no legal or financial constraint between the two sides. Because the translators involved in crowdsourcing translation come from

different fields, with different foreign language levels and translation styles, and the translation process is always operated by the network community itself, it is hard to stabilize the quality of translation at the same level.

From the above, we can conclude that there are three main ethical issues: first, it is difficult to guarantee translation quality. Second, copyrights cannot be protected properly. Third, there are no binding constraints among translators, platforms, authors and readers, so it is easy to break the moral ecology in the relationship among all subjects.

The first and foremost problem is translation quality. Based on Internet, crowdsourcing translation projects are mostly carried out online, translators can perform their duties under the supervision of the responsible editors, and a translation and publication agreement is signed before the translation project begins. However, due to the existence of multiple translators, but without access to a unified translation terminology database, the translators do not give their clients professional advice in a timely manner in the face of such problems, leaving a lot of terminology unification work for the evaluation process after the first draft, which is not in line with the general translation process and norms. In addition, as most project translators are translation enthusiasts with different professional backgrounds, their motivation for participating in translation is mostly interest-driven, and some translators may even accept translation projects beyond their ability.

Copyright issues are always heatedly debated. As a new type of business model, crowdsourcing translation inherits and promotes the characteristics of timeliness in the information age. The latest works, articles and media news are translated. The incomparable advantage of crowdsourcing translation lies in the immediacy. However, this inevitably involves the issue of intellectual property rights, because the translation of anything must first obtain the consent or authorization of the other party, which naturally delays the transmission of information. Because it takes time to obtain authorization, and sometimes it is relatively long, this invisibly causes the embarrassing situation of delayed information dissemination, and loses the timeliness. Therefore, the actual situation is that most of the translations of media information, film and television works and even online literature has not obtained the authorization of the original owner, causing many infringement problems and even serious consequences.

Another question is about the relationship between translators and platforms. On the one hand, there is labor exploitation of translators by the platforms. Most crowdsourcing translation platforms have the problems of over working, underpaid or under-remunerated. Generally, it takes translators several months to finish a book, but the translated book is not always published, which means they are not necessarily paid for the finished translation. If the book is published in the form of an e-book, the translator's share of the profit is very small, making it even more difficult to reach the cash-out marker brick. On the other hand, the way in which the translator defends his rights is unclear. Infringement exists in crowdsourcing translation platforms, but it is very difficult to defend its rights.

4 A Case Study of Yeeyan

IN China, *Yeeyan* is one of the earliest and most typical crowdsourcing translation platforms. Established in 2006, *Yeeyan* is a community translation platform based on Web2.0

network services, publishing 457,672 translated works with 693,135 online users as of May 31, 2021. Its goal is to discover and translate the essence of Internet articles and books under the concept of sharing and collective collaboration, building it into an influential translation community.

4.1 The Operating Model

There are seven different sections in *Yeeyan*, including home page, books, video, collaboration, business, instant translation, translation learning zone with different functions. In home page, it is mainly about *Yeeyan* Gutenberg Project, long-term, multilingual, open collaborative translation projects which aim to translate works in major languages other than English, including German, Japanese, French, Spanish and other minor languages in an era of knowledge explosion, focusing on digital publication to shorten publishing period to promote the sharing and production of knowledge. People can choose to read books that have been published, or they can become translators in recruitment programs. According to its labels, whether languages or genres, everyone can select what they are interested in. In specific section for books, all the book translation programs which are recruiting translators, being translated and completed are included. In video section, readers can watch different kinds of short videos. When watching videos, they can also choose to correct the improper subtitles or add Chinese or English subtitles. Collaboration section has three parts: "1) Create a new collaboration, when you submit a long text and the content will be divided into smaller chunks; 2) Join a collaboration, you can select any paragraph to enter into the translation and the content will be saved automatically; 3) Live chat room, translators can communicate with each other online in real time." [11] Section of Business and Instant Translation is provided for those who want to cooperate with *Yeeyan*. In Translation Learning Zone, users can learn all translations here and see comments of each translation. If they enjoy the translation, they can give thumbs up. Also, when they find something incorrect, they can write down their own opinions and improvements.

4.2 Ethical Problems Related to Yeeyan

In recent year, *Yeeyan* focuses on the digital publication of books, which takes only four months from translation to publication. The development of *Yeeyan* is flourishing, but inherent in this boom are the seeds of many ethical problems, upon which we should think carefully.

1) **Relationship between translators and initiators**

"As translation enters the Internet era, it has achieved a level of efficiency, speed, open source, sharing, interaction and decentralization that traditional translation industry cannot match, and the digital transformation of the translation industry has caused a series of cultural, economic and social networks to be rewoven, leading to a change in the ethical thinking of the industry." [12] It has been argued that the crowdsourcing model goes against the normal ethics of the translation profession. This is mainly because the translators in the crowdsourcing are translation enthusiasts who do not aim to make

Fig. 1. Key comments on Gutenberg Project

financial gain, and never obey the employment-employee relationship with the initiators. "This, to some extent, constitutes an exploitative relationship between the initiator and the translator, and changes the relationship between the 'sponsor' and the 'translator' in traditional translation, which goes against the normal ethics of translation, which is one of the reasons why the crowdsourcing model has been questioned by the public". [13] Fig. 1 is about the main comments on Gutenberg Project from 2015 to 2021.

Putting all sentences related to Gutenberg Project into an online word frequency statistical analysis tool, this figure can be made. According to the words most frequently mentioned, people are most concerned about three questions: how to take part in the project? How to connect with the director? How much they can get after translation? From the three questions, first, translators do not know much about the details of the translation project. Then, they cannot contact with the directors, many of them do not know whether they can get paid or how much they can get? These all indicate that the relationship between translators and initiators is not closely tied. Initiators rely on translators to finish translation project without providing full guidance or support.

2) **Translation Quality**

The quality of crowdsourcing translation has been criticized by professionals. Most of the participants in crowdsourcing translation are motivated by their love for the virtual community and their own values. Though there is no shortage of high-quality translations, there exist poor translations due to the varying quality of crowdsourcing translators and the lack of effective supervision and management mechanisms. The perfunctory translations and even bad translations seriously restrict the further development of crowdsourcing translation. Furthermore, the initiators usually divide texts into smaller parts and distribute them, which makes it difficult to ensure the consistency of translation and terminology of the different translators' versions. As each volunteer only translates a certain part of the original texts without contextual reference, he may not be able to grasp the original texts as the whole, and misinterpretation or misunderstanding of the original text is inevitable, thus affecting the overall quality of the translation. In addition,

Table 1. The statistics of high-frequency comments and suggestions in Yeeyan from 2018–2021

Words	Frequency	Word class	Ratio (%)
translate	148	Verb	1.57%
think	77	Verb	0.82%
should	71	Verb	0.75%
understand	53	Verb	0.56%
believe	32	Verb	0.34%
need	32	Verb	0.34%
translate into	31	Verb	0.33%
know	30	Verb	0.32%
pay attention to	28	Verb	0.30%
thanks	26	Verb	0.28%
translated version	77	Noun	0.82%
problem	73	Noun	0.77%
meaning	66	Noun	0.70%
original text	55	Noun	0.58%
some	33	Noun	0.35%
suggestion	32	Noun	0.34%
easy	22	Adjective	0.23%
correct	21	Adjective	0.22%
fluent	17	Adjective	0.18%
important	17	Adjective	0.18%
suitable	15	Adjective	0.16%

there are also many shortcomings in the standardization of the translation, which can be shown in the following table.

Table 1 is about the statistics of high-frequency comments and suggestions in *Yeeyan* from 2018–2021. Putting all sentences in learning zone into an online word frequency statistical analysis tool, this table can be exported. The first column is about the words users may use to express their comments, the second column is the number of times each word appeared, the third column is the word class of each word, and the fourth column is about the ratio of each word accounts for. From the most frequent words of suggestions like "think", "should", "need", "pay attention to", it can be inferred that readers are not satisfied with the translation in terms of understanding and meaning. The frequency of commendatory words of comments like "correct", "fluent", "suitable" are not as high as those of suggestions.

5 Developing Strategies for Online Crowdsourcing Translation Platforms

In last chapter, we have talked about some challenges of *Yeeyan*. In fact, that's also the challenges of many crowdsourcing translation platforms. In the future, how can crowdsourcing translation platform developed better? There some solutions to meet market requirements.

In Andrew Chester's *Proposal for Hieronymic Oath*, he retells his translation ethic models and says that ethic of representation corresponds to faithful translation, ethic of service to being loyal to the clients, ethic of communication to communicating across linguistic or cultural boundaries, norm-based ethics to behaving as one is expected to behave in accordance with norms. And in light of the fact that "these four models are incompatible in several respects, and have different ranges of application" [14], he puts forward the fifth model, ethics of commitment, which binds practitioners to the values of the practice. Based on these five translation ethics models, measures such as translators and platforms to improve translation quality, maintain the trust relationship between subjects and so on are proposed.

5.1 Improving a Technology-Driven and Humanity-Oriented Management Platform

"Crowdsourcing translation will integrate translation context change, translation evaluation and translator management, with translator management at the center, creating a new way of organizing translations in terms of both translation technology processes and translation management, which also constitutes the direction of future practice." [15] The first is the construction and improvement of the technology platform. The crowdsourcing network translation platform relies on cloud computing technology to improve data analysis capabilities, integrate technology, data and other resources, and achieve the scale and globalization of the language services industry. In addition to providing easy-to-use tools, the technology platform will also play a role in process control, data collection and quality control, providing an operational management system for key processes such as text distribution, translator selection and translation review. For example, the running speed of the website makes its users lose patience. Also, platforms should update their pages continuously. In *Yeeyan*'s translation learning zone, the latest content of "weekly hot topics" is still in 2019.

In addition, it is important for online crowdsourcing translation platforms to maintain and increase the enthusiasm of crowdsourcing translators. Platforms need to strengthen ethical awareness which comes from the translators' self-discipline and self-improvement. Although crowdsourcing translators only share information on a voluntary basis, they should complete their translation tasks with a strong sense of social responsibility and professional ethics for themselves, publishers and readers; At the same time, platforms should not only strive to provide a strong technical platform for volunteer translators, but also answer their questions in time and recognize their performance with payments. The combination of technology and humanity will certainly be the main theme of future online crowdsourcing translation platforms.

5.2   Setting Up a Grading System for Translation Quality

It is generally accepted that without the involvement of professionals, it is difficult to guarantee a high standard and quality of translation in online crowdsourcing translation. The crux of the matter is that crowdsourcing translation is a new business model, and the hierarchy of demands for quality is not uniform. Content is objective to some extent. Do emails, everyday conversations and even celebrity tweets always require high-quality translations? As a result, dynamism, adaptability and content priority have become the norm rather than the exception. Translations are often driven by the needs of different clients, from which the corresponding expected norms can be established. That is, the client's intended purpose for the translation, as well as other factors, can ultimately help determine what is an appropriate translation. In this context, it is imperative for platforms to establish a dynamic mechanism for assessing quality models. In trade publications, the fact is that the quality of a translation can be given way to other considerations, as clients are willing to accept lower quality translations, among which access to content and timeliness are more important. The selection of translators certainly plays a fundamental role in the introduction of a quality rating system. Platforms can set parameters for different levels of filtering, such as the need for translators with several years of translation experience. In a paid model, it can offer different types of translators, from generalist to semi-professional to professional translators. The performance of the participants can be done by insiders or community managers, or multiple-choice questions can be inserted randomly during the crowdsourcing task to assess the potential reliability of the participants. And this can provide new opportunities for professional translators. "The quality management of terminology, project management and revision required for crowdsourcing translation may also provide opportunities for professional translators or translation agencies." [16].

5.3   Raising Copyright Awareness

Raising awareness of copyright among crowdsourcing participants and managers is the most fundamental prerequisite for avoiding copyright infringement. In this regard, *Yeeyan* has already raised its awareness in this regard. For example, when uploading translations, it follows the requirements of the original website and, when necessary, communicates with the author of a published book or article to obtain the author's consent or sign a written document or contract. For platforms, a more reliable response, of course, is for the crowdsourcing manager to negotiate and cooperate with foreign websites or media outlets to obtain long-term authorization, which would solve all the limitations of media distribution and thus speed up the effectiveness of the translation. Copyright is a legal issue and project managers and translators must comply with the relevant copyright laws and regulations to avoid unnecessary disputes. This is a matter of basic common sense.

Under current copyright rules, the translation and dissemination of a work requires the authorization or consent of the original copyright holder. This makes it difficult to exploit the advantages of rapid distribution inherent in online crowdsourcing, since few translators are able to obtain authorization. The right to translate is the right to transform a work from one language into another, and is an important right of copyright. The crux

of the matter, however, is that the granting of a right to translate from one language does not mean that the copyright holder also grants a right to translate from other languages. For example, the transfer of the right to translate from French does not mean that the right to translate from Chinese is also transferred to others. Thus, platforms should work together to address the issue of empowerment of multiple translators.

6   Conclusion

The rise of crowdsourcing translation, like other technologies, has the nature of a double-edged sword. On the one hand, with the group wisdom and unique translation processes, it promotes the prosperity of translation market, encouraging more people to participate in translation activities. On the other hand, facing the ethnic problems, how to guide its healthy and sustainable development is a more important task for this research field in the future.

This paper is of great practical significance to reveal the ethical problems of crowdsourcing translation platforms and propose development strategies. However, it is far from enough to guide the way for all platforms. *Yeeyan* represents a typical crowdsourcing translation platform. As a large crowdsourcing translation platform in China, it has formed its own operating model in recent years, however, how to get out of the current dilemma, expand its market share and enhance its market position, are actually the challenges faced by all crowdsourcing translation platforms, and there is still a long way to go.

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