Crowdsourcing translation under translational eco-environment of Web 2.0

Churan Su

Civil Aviation University of China, Tianjin City, China
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Abstract— *With the appearing of Web 2.0 concept, Internet users begin to learn, work, and jointly create information and culture on an online interactive platform. Translation industry also utilizes this platform, which creates crowdsourcing translation. With the help of this platform, crowdsourcing translation websites emerge and provide every translator with a chance to participate in article or book translation projects. The author of this paper adopts eco-translatology theory to study crowdsourcing translation and puts it under the new translational eco-environment of Web 2.0 to discuss its operation features.*

Keywords— *Web 2.0; crowdsourcing translation; eco-translatology; translational eco-environment.*

I. INTRODUCTION

The term Web 2.0 first showed up in 2004, referring to "the second generation of the World Wide Web" [1]. It has created more direct interactions between users, to let them obtain and produce things on their own initiatives. Being different from unilaterally accessing information from the software and website, Web 2.0 builds a user-to-user platform which produces more online communities and lets information sharing become easier than before [1].

The examples of direct user interactions include: 1. blogs allowing people to share their ideas, thoughts and daily lives, such as Twitter and Weibo; 2. online encyclopedias allowing people to add and edit terms and content, such as Wikipedia and Baidu baike; 3. social network sites allowing people to edit their personal profiles and interact with friends in online communities, such as Facebook and Qzone.

In Web 2.0 environment, users can participate in producing and spreading cultural phenomena. Everyone can get involved in creating and sharing of mass culture, and in turn mass culture is shaped by the public. However, the transmission principle of a cultural phenomenon under this circumstance is still unclear. The understanding and spreading of every culture phenomenon comprise a great number of online users, thus making the whole process full of uncertainty and instability.
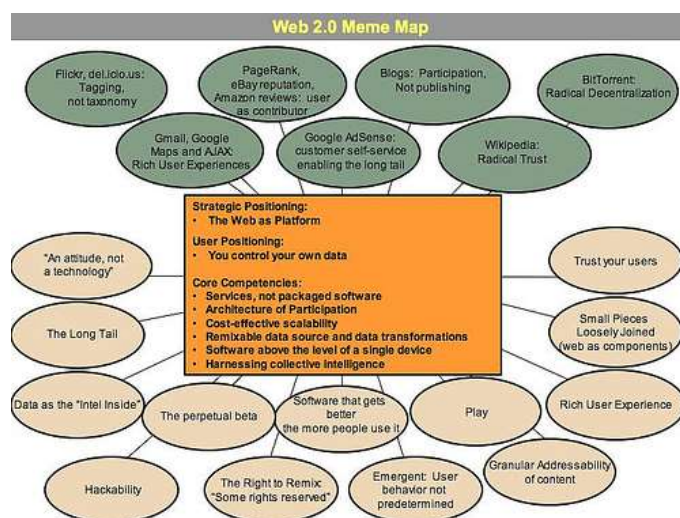

Fig.1: Web 2.0 Meme Map [2]

Web2.0 establishes an interactive platform for all users, which also inspires translators to conduct online translation projects on this platform. Figure 1 presents a meme map of Web 2.0, which is sketched by O'Reilly Media. Currently, an increasing number of clients choose to release translation projects on translation websites. The operators of websites integrate those projects information and then allow registrants to join those they are interested in. This kind of translation process is characterized by its openness and directness. Everyone could take part in a translation project

after registration and usually some tests. This is called crowdsourcing translation.

Crowdsourcing translation includes open translation groups, voluntary translators, and abundant complementary information. It embodies value of individual translators, and also represents wisdom of crowds [3]. With the new features of crowdsourcing translation under Web 2.0 circumstance appearing, it requires us to make an overview of this translation mode through a comprehensive and macroscopical way. Thus, we decide to introduce eco-translatology theory to this study.

In *Pragmatics as a Theory of Linguistic Adaption*, Verschueren mentioned that Darwin's evolutionary epistemology could be used not only to the natural world, but also to language study [4]. When Hu Gengshen applied it to eco-translatology, he defined translation as "a selection process of translators when they adapt to translational eco-environments and transfer texts (from one language to another)" [5]. Here the "translational eco-environment" influences translation and translators in all circumstances, so it is necessary to discuss the translational eco-environment of a translation process before we do the study.

II. TRANSLATIONAL ECO-ENVIRONMENT OF WEB 2.0

According to Hu Gengshen, a translational eco-environment refers to "the sum up of external conditions affecting the living and development of translation subjects" [5]. Here the "translation subjects" comprise all people involved in translation, including "source language authors, translators, readers, sponsors, patrons, publishers, marketers, editors, etc." which form a "translation community." Since translators usually take the central role of translation, basically they are affected most by the environment. The "external conditions" comprise "natural and economic condition, linguistic and cultural condition, social and political condition, etc." [5]. In this integration of external conditions, languages, communications, cultures, societies, authors and readers interact with each other. They all together restrict translators' moves and their selection of texts. Getting familiar with a translational eco-environment of a translation work provides us a clearer view of the task as well as the translation process. Economic condition is one of the factors triggering and restricting translation. In 2014, the Internet Society of China issued "A letter to 0.6 billion Internet users of China", announcing that China officially entered into Web 2.0 era. After decades of development, China had made great progress in network infrastructure and network applications. Business modes based on Internet boomed. The number of Internet users also soared, which making China own the biggest population of cyber users around the world [6]. An increasing number of Internet users participate in the creation of cyber content and culture. Translators join this creation too. With the change of production modes and establishment of

crowdsourcing platforms, translators are urged to step out of traditional translation groups and adopt interactive working procedures. The convenience and efficiency of crowdsourcing method just meets the requirements of modern economic development.

Open culture also contributes to the development of crowdsourcing translation. Under Web 2.0 circumstances, cultural phenomena are no longer controlled by mainstream media; all users can join the culture creation, so do translators. With the appearing of co-translation websites, people can post articles and literary writings in any languages they are interested in. The texts may cover all kinds of languages and cultures, and attract translators in different professional fields to join the projects. Thus, the initiating of a translation project does not only depend on market's orientation. This is particularly beneficial to minority languages, provided that registered translators log in and access those texts.

When discussing the social and political condition affecting crowdsourcing translation subjects, we have to focus on the current situation of traditional translation publishing industry. With readers' increasing demand of cross-culture communication, "conflicts" between traditional translation publishing industry and online crowdsourcing translation begin to show up. Reports said that Japanese crowdsourcing translation website Conyac had already obtained an investment of 600,000 USD from Yamada. Conyac provided professional language translation service. Although Conyac's service did not involve translation publishing industry, it indicated that crowdsourcing translation had been commercialized [7]. If crowdsourcing translation websites establish mature commercialized operating modes, undoubtedly they will win more support and investment in the future, which will bring great challenges to the traditional industry.

In Web 2.0 era, crowdsourcing translation subjects such as sponsors, translators, readers and publishers all adapt themselves to the new translational eco-environment in order to run translation projects smoothly.

For sponsors who operate crowdsourcing translation websites, they have to collect latest sources and sharing them to all members, thus attracting capable translators to the projects. Also, they are responsible for tracking each translation project by appointing project leaders for each one. Otherwise, some projects will probably be unfinished without supervision.

Translators of crowdsourcing translation in Web 2.0 benefit from advanced technical support. The cooperation could be established very fast through crowdsourcing translation websites. In order to complete tasks efficiently, translators have to keep pace with their partners under project manager's instruction, and adapt themselves to this Internet-based and cooperation-based translation process.

Readers' role in the translational eco-environment is also different from that in the past. Instead of accepting what

publishing firms choose to launch, they can have their own choices by posting literary writings on those websites and ask voluntary translators to help.

For publishers, they are not restricted to traditional way of translators' recruitment. Crowdsourcing translation websites create a network of professional and amateur translators. Through the network they can get in touch with translator groups, rather than contact individuals respectively.

Just like organisms in a natural ecosystem interact with each other, a translational eco-environment also contains the same interactions. Translators, project leaders, website sponsors, readers et al. interact with each other and constitute a harmonious system. They are all connected by "chains"; the translational ecosystem will be affected no matter which part of them is "broken".

III. CROWDSOURCING TRANSLATION AND MACHINE TRANSLATION

For its high efficiency and good quality, crowdsourcing translation is widely used by companies to deal with materials with large number of words. This is very similar to another translation mode – Machine Translation (MT).

Both crowdsourcing translation and MT "can cope with high volume, perform at high speed, and reduce the translation cost. [8]" However, compared to crowdsourcing translation, MT is an older technology which started in 1930s, while crowdsourcing is a new translation mode develops through Web 2.0. Second, MT requires less human resource than crowdsourcing during the translation, but the latter is able to deal with complex texts or meet special demands from the clients. Third, translation quality of MT is relatively easy to control by retrieving system in large scale, but quality control of crowdsourcing is difficult due to the variety of translators. Although crowdsourcing and machine translation have many differences, researchers choose to combine them in some ways in order to make the most of online and offline resources. For example, for solving certain computational problems through computer-supported crowds, Hu Chang et al. conducted a crowdsourced monolingual translation experiment supported by machine translation. They had "two crowds of people who speak the source or the target language, respectively, with machine translation as the mediating device. [9]" By creating a general protocol to handle crowdsourced monolingual translation and analyzing three systems that implemented the protocol, they finally made improvement "in quality over both machine translation and monolingual editing of machine translation output. [9]"

From this we can conclude that crowdsourcing and machine translation are compatible with each other, so they should not be regarded as opponents. We are going to discuss the combination and application of them in next section.

IV. OPERATION OF CROWDSOURCING TRANSLATION PROJECTS UNDER WEB 2.0 TRANSLATIONAL ECO-ENVIRONMENT-- TAKING YEEYAN AND FIBEREAD AS EXAMPLES

This paper takes Yeeyan and Fiberead (Beijing) – two crowdsourcing translation websites as examples to discuss the operation of crowdsourcing projects in the new translational eco-environment.

Yeeyan was founded in 2006 by three Chinese engineers in Silicon Valley. Now it is the biggest translators' community and crowdsourcing translation platform in China [10]. Following the slogan – "Translate the world", registered translators of Yeeyan delivered 394,980 translated texts. Among them, there were 300 books in public domain which were translated and published by Gutenberg Project of Yeeyan [10].

Compared to Yeeyan, Fiberead (Beijing) is a young startup company. It was established in Beijing, China in 2013 with its focus on translation and digital publication of bestsellers in foreign markets/languages.

Nowadays, traditional translation publishing industry cannot satisfy readers' demands any longer; crowdsourcing translation fits the needs of readers and is welcomed by them due to its convenience and efficiency. With the rapid economic development and strong technical support, a Web 2.0 translational eco-environment has formed; an Internet-based crowdsourcing translation mode can be realized. The interdependence of them is fairly clear. Web 2.0 provides crowdsourcing with a technical platform and the latter can help extend an interactive network in return. Both Yeeyan and Fiberead are professional crowdsourcing translation communities; their translation procedures are basically the same; they are in the same translational eco-environment when the number of tasks finished by crowdsourcing is rocketing. However, the scopes of business and operating manners of Yeeyan and Fiberead are different. First, the Gutenberg Project of Yeeyan (here we only discuss Gutenberg project because it is the most well-known project of Yeeyan with the biggest number of participants) focuses on the translation of books in public domain. Those books are relatively old and the sponsor does not need to contact the authors. On the contrary, Fiberead usually recruits translators to work on bestsellers. Those are sent to them in electronic version by foreign authors who want their works enter Chines market. Since most group members are amateur translators, the payment will not be as great as that of full-time translators from specialized corporations. Second, when it comes the specific translation procedures, they two follow different steps (see Figure 2 and 3). Yeeyan first releases recruitment information; then it selects project members through translation tests; after translators finishes their assigned tasks the project leader arranges review and sends the final text for publication. Basically, Fiberead follows the same procedure when initiating translation projects, but it takes an additional

step before assigning individual tasks. Fiberead has an online management platform to assign tasks to each member of the translation project. Most importantly, they have dynamic online termbases which can be edited by everyone in a translation group. With the help of the termbase, translators can share and determine terms in all chapters of a book, thus making the whole text more coherent. During the operation of projects, reasonably assigning tasks, frequently communicating with other members and shortening publication period are very important. They are beneficial to develop trust between publishers and translators [11]. Therefore, the practice of Fiberead can be seen as perfect adaption to the translational eco-environment. The sponsor, group leader and translators maximize the productivity with the support of an interactive platform.
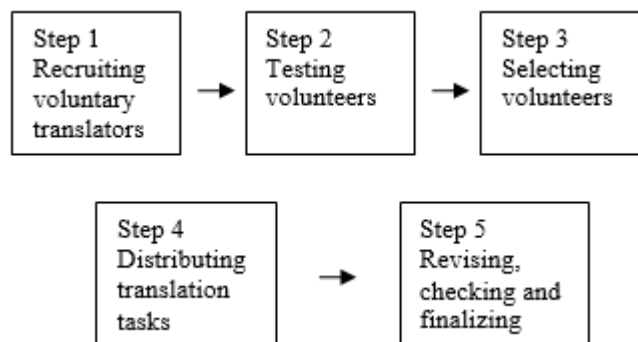
Fig. 2: Translation procedure of Yeeyan Gutenberg Project [12]
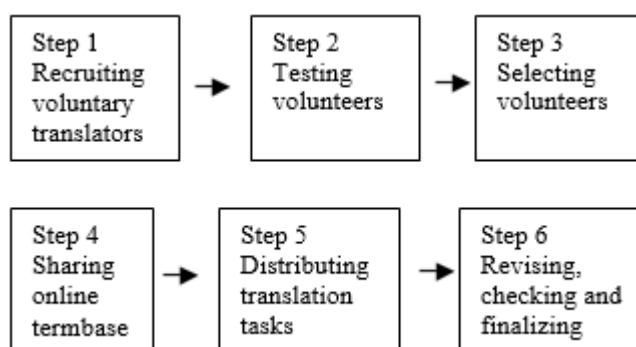
Fig. 3: Translation procedure of Fiberead

V. LIMITATIONS

From the above discussion it can be seen that sponsors, project managers, translators, readers et al. can coexist with each other in the new translational eco-environment. However, problems still exist among subjects of crowdsourcing translation.

First, the management of amateur translators needs to be enhanced. Crowdsourcing provides everyone with opportunities to join translation groups. Correspondingly, the supervision of all translators on the network platform becomes a problem. How to guarantee fixed time online for amateur translators? How to control the quality of texts among translators at different levels? How to keep them staying on the "chain" in this translational eco-environment? Those and similar questions need future consideration.

Second, connections between professionals need to be established and strengthened. An idea bank could be created based on professional translators' suggestions and thoughts, and it would contribute a lot to the improvement of fully automatic machine translation system.

Third, delay of payment for translating a book also causes complaints sometimes. Since translators deduct a percentage from a book's selling price, long publication periods of some books will cause delay of payment. With the enhancing of cooperation between crowdsourcing websites and translation publishing firms, this period will surely be shortened in the future.

Last but not least, infringement of copyright shall be eradicated in crowdsourcing field. Accusations of infringement have plagued crowdsourcing translation websites in some cases. Therefore, sponsors of the websites need to have professional legal advisers who can help them cope with infringement issues.

VI. CONCLUSION

Under Web 2.0 circumstance, translation industry enjoys a bigger platform, which also stands for a new translational eco-environment from the perspective of eco-translatology.

In this circumstance, crowdsourcing translation arises and confronts many challenges. It combines with machine translation more frequently, which makes all translation subjects have to adapt themselves to these changes.

Generally speaking, the current crowdsourcing translation still has some problems in running projects smoothly. It could develop better with translation community' efforts at enhancing management and cooperation, thus keeping a harmonious translational eco-environment.

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Churan Su, born in Yichang, Hubei, China on 20th December 1991. She obtained her Bachelor Degree of Arts in the School of Foreign Language of Northwestern Polytechnical University (NPU), Xi'an, China in 2014; Master Degree of Interpreting and Translation in the School of Foreign Language of NPU, Xi'an, China in 2017.

She is a TEACHING ASSISTANT of the College of Foreign Language of Civil Aviation University of China in Tianjin, China. She published "A Look at the Translation of Public Signs in the Scenic Spots of Yichang" (Wuhan, China: English Square, 2014) and "On Management of Translation Project from the Perspective of Eco-translatology" (Singapore: IJLLL, 2016). She was invited to attend the 5th International Symposium on Eco-translatology in June, 2015 and the 2nd International Conference on Culture, Languages and Literature in June 2016.