

# Translating *Fo Guang Dictionary of Buddhism*: Building Online Collaborative Buddhist Translation Projects with Small Crowdsourcing Platforms



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*The following is a transcript of Venerable Miao Guang's presentation at the 7<sup>th</sup> Symposium of Humanistic Buddhism:*

## **Introduction**

Thank you very much, professors, ladies, and gentlemen. It's an honor to be here to share what the Center of International Affairs at the Fo Guang Shan Institute of Humanistic Buddhism is doing. We reach out internationally and broaden our horizons by participating in Fo Guang Shan's global development. In fact, I see myself as one of the outcomes of such a development as I was very blessed to be a witness of Fo Guang Shan's earliest development in Australia during the early 1990s.

As a second generation Chinese immigrant in Australia, my parents provided well for us to grow up and to receive an education in the Australian language and culture. Nevertheless, on the weekends, they also brought us to the local Fo Guang Shan temple—the Nan Tien Vihara, so that we can reconnect with our Chinese roots through continued learning of the Chinese language and participation in the Chinese religious experience inside Nan Tien Temple. Certainly, we were very happy to have that opportunity to also witness the development of Humanistic Buddhism in Australia.

As second generation Chinese immigrants, we too relied largely on translated information in terms of language, behavior, and social norms that were enforced onto us on two levels—in school and at home.

As a member of the BLIA Young Adults Division, I was also very fortunate to participate in the translation works of Fo Guang Shan, which became one of the most important means of dissemination of Buddhism—in particular, Chinese Buddhism or Humanistic Buddhism in a Western country.

In the past 30 years, what I have been doing is to attempt to build a translation team that can assist Fo Guang Shan in this process. To cut the story short, what I will talk about today is

building a collaborative Buddhist translation project using small crowdsourcing platforms. I hope to provide a future framework as to how teams (both professional and amateur translators) can continue to play a part in Buddhist translation, because I never received formal training in interpreting and translation, and have always hoped for some type of guidance and support in this aspect, so I could do this job well. In fact, I came across the task of Buddhist translation solely by accident.

I was at a children's camp in the temple, when a Venerable began to tell a Buddhist story. Half of us were confused because we did not understand much Chinese, so the Venerable turned to the oldest child in the group and put a microphone into her hand. This is how I began my journey in translation, which later developed in very interesting ways. Working alone and in the dark meant slow progress. But today, we are looking at how technology and this process of globalization allows us to build a more efficient network of collaboration.

By collaborative Buddhist translation projects, we are talking the next five years and how we are going to create a so-called “computer aided” or “semi-automated human translation” translation procedure using user-generated content. While we have the aid of computers and technology, the power of decision still remains in the hands of the human translator.

How are we able to provide fast but quality Buddhist translation? That is done with what we call a controlled crowdsource outflow. It means a platform that is not open to the general public. We still go through the selection process of a crowd that is out there on the Internet—people whom we may have never met or known in person. Anyone who shares the value of this Buddhist translation project, and is willing to help in any way, can become a part of the translation process.

It is not a project open to just anybody. With the aid of crowdsource technology, people can translate the entire Facebook into French in about four hours, but that does not ensure quality control.

So if we want to translate a very good piece of Buddhist text, then we have to make sure that is taken into consideration, and that it is done under the defined quality and expectation. Therefore, a crowd on the internet that has never met, has a common goal, a shared set of expectations, and a workflow. That is what we want to do, but this is also based on a community that shares a common passion and dedication to translating Buddhist projects. But this is easier said than done.

### Methods and Theories of Medieval Buddhist Translation

In the beginning, we weren't really sure how to go about it, so the best reference was to look at the medieval translation processes—therefore, taking into consideration the translation procedure adopted by Master Xuanzang.

There were three main translators sitting in the center: 1) the chief translator in the center (*yizhu* 譯主) who has multilingual and multi-interdisciplinary knowledge between Indian and Chinese Buddhism, as well as between Indian and the Chinese language; 2) a scribe on the right-hand side (*bishou* 筆受) who takes dictation from the chief translator; and 3) a text inspector on the left-hand side (*zhengyi*

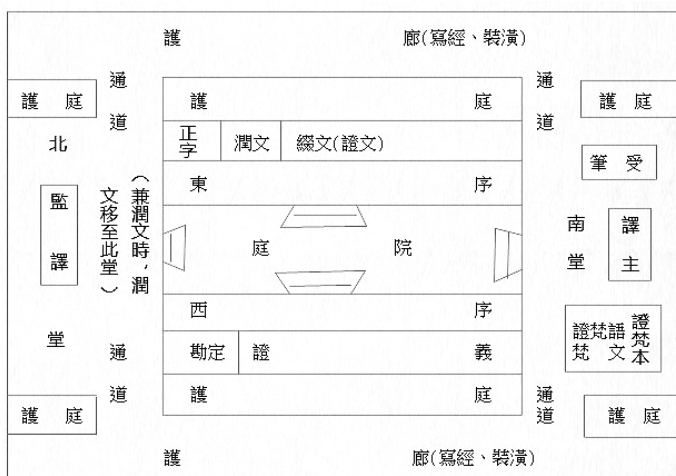


Fig. 1: Diagram from Venerable Master Hsing Yun's *Buddhism Series 5: History of Buddhism* (*Fojiao congshu wu: jiaoshi* 佛教叢書5: 教史).

證義) who authenticates that this is correctly translated from the Indian language.

To further fine-tune it, it is developed into an amazingly detailed process. Master Xuanzang managed a process with some 800 translators, and each member in this team knew what they needed to do.

*Figure 1* shows the main translator (*yizhu* 譯主), the presence of bilingual translators or assistants (*duyu* 度語), scribes (*bishou* 筆受), and those who clarify the meaning and the accuracy of the text.

What touches me the most are the positions of *fanbai* 梵唄 and *jianhu dashi* 監護大使. In the translation process, *fanbai* 梵唄 represents a return back to the religious experience. It is to chant the translation as if chanting the Truth. As the text is chanted, the meaning is confirmed not just through one's eyes, but also through one's ears and heart. This is important because we know that the hearing faculty is actually sharper than the visual faculty. It is the hearing faculty that allows the information to register in a deeper way.

Finally, the supervisory position (*jianhu dashi* 監護大使) may be an official who comes in to guard the court and to make sure that the team is well provided for, so that they can focus on the translation. Although not a translator, he plays a very important role in the entire project.

This is the guideline by which we set out to design the procedure and tasks of a modern day translation team. We have similar roles: multilingual members, experts in Chinese Buddhism, experts in Buddhism who are familiar with the Indic and Western languages, and experts in everything and nothing. We also have the tech savvy members—Google engineers. We also have someone strong in human resource management who does not have to translate but is there to offer support and resources.

### **Machine Translation and Crowdsourcing Translation: Pros and Cons**

As we build a collaborative online team, we must be aware that we have moved well into the 21<sup>st</sup> century. There is a large amount

of information and data that needs to be processed. The introduction of machine translation in the 1950s has transformed the process into basically one that involves “calculation.” We “calculate” grammatical, syntactical, terminological information—as well as idioms, phrases, and expressions—where the machine is able to search, compare, and improve existing information, which speeds up the process.

However, the challenge of machine translation lies in the fact that it’s only a direct substitution of equated set of symbols. When it comes to choosing the best translation, it cannot surpass the human translation process, which includes literary taste, knowledge of the Buddha’s teaching, and thorough thought. And that’s what makes our modern court humanistic.

Although machine translation is expected to replace human translation within the next ten years, we are confident that Buddhist text translation, even with the aid of machine translation, will not see that happening. We’ll be sure to ensure that the human mind and sentiment will play to their strength. How do we be literal? How do we be poetic? How do we retain the intention of the original translator who sets out to either maintain the accuracy or present the poetic sense of the translation? This is up to human beings.

In terms of our modern day crowdsource translation, we see a couple of advantages. First of all, we have diversity. In the past, we may have Chinese or monks from the Indian or Central East Asian regions. Today, we are looking at a global team: Americans, Europeans, Chinese, or polyglots who grew up in more than three to four countries. This diverse educational backgrounds and upbringing allows us to quickly bring information together to provide a more enriched resource to help create a translation for a 21<sup>st</sup> century readership.

Secondly, we have greater accessibility to information. Crowd technology has allowed us to look up words in the entire Buddhist canon just in a few seconds. Back in the 70s, it took a scholar seven years to catalogue an entire Buddhist canon, and that became

his entire academic achievement. We are comparing seconds to seven whole years, so we should certainly take advantage of that.

Thirdly, the multiplicity in Task Performance allows us to quickly confirm Chinese, Indian sources, modern day English, and classical English. It also allows us to confirm the accuracy in terms of canonical references that spans over 2,000 years of Buddhist textual history, so that we ensure resources and information are being used correctly.

Therefore, the large diversity of the experts just mentioned would come in handy. The advantages also include having multilingual support. It provides fast but quality solutions with shortened time and increased resources. Furthermore, we have better control of output and user-generated content—not to mention terminology, consistency, and human involvement.

Nevertheless, we also have the challenges. For example, when we introduced crowdsource technology, it took me two hours to accustom one of our most senior but very knowledgeable Buddhist scholars to the translation system. We need to be tech-savvy, but it is also necessary to think about helping senior scholars who are very used to printed information to overcome tech hurdles.

### **Creating Translation Tools for Translators**

In terms of creating a modern day translation court for the *Fo Guang Dictionary of Buddhism*, we are looking at a translation of a dictionary that has five aspects: 1) classical Chinese text; 2) vernacular Chinese; 3) language equivalents such as Sanskrit, Pali, Japanese, Mongolian, etc.; 4) the headword and its technical equivalent; and 5) canonical references.

First of all, we use terminology consistently by auto-replace of existing terminology. In other words, when translators see an entry, they no longer need to check the dictionary. The system immediately points out the translated terminology by hyperlinking it in blue. By clicking on the link, it provides the pinyin and definition, so that the

terms and information comes to translator, who no longer needs to reach out to the database. Instead, the database comes to the translator.

Secondly, in terms of the translation memory, we are using parallel corpuses to allow translators to see what has already been translated, and how they have been translated within the same text clusters.

Finally, we are also looking at using crowdsourcing technology to manage an open crowdsource. In other words, translators, copyeditors, editors, and proofreaders working on that same piece of information simultaneously. There is no need to wait, translators have immediate feedback to improve their translations.

In terms of our future, we are hoping to turn into translator behavior prediction. Integrated dictionary function allows users to look at a term, and compare it to the SAT Daizōkyō Text Database (which is the *Taishō Canon*), the *Princeton Dictionary of Buddhism*, and our newly developed NTI Reader (<https://ntireader.org/>). It also includes the links to the Pali and Google Ngram—where users can compare word usage, collocation, definition, and grammar in many senses.

The future of translation behavior prediction allows the retrieval of information even before the translator begins to think about what is needed to check. For example, in the Humanistic Buddhism Reader (<https://hbreader.org/>), the reader is able to translate by mousing over a text. This information comes via a pop-up function with cross references to other existing text, allowing users to think about alternate ways to translate the character in context.

To conclude: the future of Buddhist translation is the creation of a modern day translation court on a small crowdsource platform, which allows being able to manage 200 translators from different professions, both on and offline. It also includes the tools of translation memory, translator behavior prediction, and terminology standardization, which is very exciting. We look forward to this happening in the next three years, with the *Fo Guang Dictionary of Buddhism* Translation Project. Thank you!