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Providing multilingual logistics communication in COVID-19 disaster relief

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Abstract: Translation is an important means of enabling access to information in an emergency response. Increasingly, volunteer translators have been using social media platforms to self-organize and carry out urgent translation tasks that effectively complement official disaster relief efforts. However, the role of crowdsourced translations and the capacity of volunteer translators in reducing the impact of disasters remain underestimated and therefore understudied. Based on semi-structured interviews with five volunteer translators and online observation of their translation practices, this study investigates the role of a volunteer-driven crowdsourced translation effort in facilitating the donation and procurement of medical supplies between Wuhan and the world. By addressing the real challenges of urgent crisis communication in Wuhan in the early stages of the pandemic, this study draws attention to the need to integrate information and communication technologies with multilingual resources for disaster relief. In addition, it calls for the inclusion of multilingual logistics in national emergency preparation, response and recovery plans.

Keywords: multilingual crisis communication, volunteer translator, emergency translation, crowdsourced translation, disaster relief communication, COVID-19 crisis communication

1 Shifting multilingual communication needs in Wuhan

When the COVID-19 pandemic first struck on the cusp of the Lunar New Year, Wuhan, a metropolis of 11 million permanent residents in central China's Hubei

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Province, was the first place on Earth to have to deal with this public health crisis. The immediate crisis response stage presented many urgent and diversified communication needs, such as the procurement of medical materials, medical consultations, airport quarantine inspections, or community services for Wuhan's 12,000 foreign residents. In response to these multiple and highly linguistically diverse communication needs, various kinds of online volunteer translation communities were set up on social media platforms to overcome language barriers in China's rescue and relief operations. As residents of Wuhan, the main battlefield of the fight against the virus in China, we were able to witness the contribution of volunteer translators to the disaster relief efforts between Wuhan and the world first hand.

After COVID-19 broke out in Wuhan, rapidly rising numbers of infected cases put the local health care system under tremendous stress and medical supplies quickly ran out. On the 24th of January 2020, the day after Wuhan was locked down, 18 hospitals in Wuhan released announcements asking for donations of medical supplies through social media (Voice of Hubei 2020). The shortage of medical supplies was a significant weakness in the prevention and control of the epidemic, as it severely restricted the treatment of patients and threatened the safety of medical staff. At that time, the daily output of medical materials in China was far from meeting the daily demand, so it was vital to seek foreign donations and open up international procurement channels. In response, an unprecedented cross-border rescue mission began. By March 2020, 77 countries and 12 international organizations had donated emergency medical supplies, including masks, protective suites, goggles, and ventilators through diplomatic channels (State Council Information Office of the P. R. China 2020). Donations of medical materials were also made by local governments, enterprises, non-governmental organizations and individuals from 84 countries (State Council Information Office of the P. R. China 2020). However, many of these international donation and procurement activities were hindered by language and cultural barriers (see Chen 2020, this issue for an analysis of the strategic use of classical Chinese poetry in counter-acting antagonism and building intercultural understanding between three East Asian countries).

Although often overlooked, international donation and procurement are multilingual communicative practices, which involves information transfer between the language(s) of donor countries/regions and the language(s) of recipient countries/regions. When China experienced a severe shortage of medical supplies, international donations came from more than 70 countries, involving not only commonly used languages of international or regional communication, but also

“smaller” and less commonly taught languages.¹ Information regarding donated materials needed to flow between Chinese and these different languages, which led to dramatically increased translation needs.

Secondly, translation needs also arose from the different quality standards of Chinese and foreign medical products. Because the International Organization for Standardization has not developed a universal international standard for the quality of many medical products, each country formulates its own technical standards or production guidelines according to its actual needs. In the early days of the crisis, many medical materials donated or procured from abroad did not meet the Chinese quality standards and thus could not be used in hospitals, resulting in a waste of human and material resources. Against this background, translation played a key role in helping front-line medical staff and emergency response workers understand the quality standards of foreign medical products so as to accurately judge the application scenarios of donated and procured materials and quickly put them into disaster relief.

From mid-March 2020 onwards, the overall situation of medical supplies in Wuhan was greatly improved through the joint efforts of all parties. At the same time, the global epicenter of the pandemic gradually moved from China, first to Iran and Europe, and later to engulf the whole world. Many affected countries and regions count on receiving the vast majority of their medical supplies from China. In response to both domestic and overseas demands of medical supplies, medical manufacturers in China quickly resumed production and expanded capacity to the maximum. Accordingly, China has shifted from being a recipient and importer of medical materials in the early stage of the pandemic to a donor and exporter. As of the 31st of May 2020, local governments, enterprises, non-governmental organizations and individuals in China had donated medical materials to more than 150 countries and regions, and international organizations through various channels (State Council Information Office of the P. R. China 2020). Under these new circumstances, the function of volunteer translators was accordingly changed from “cross-lingual mediator” to “sourcers” of medical materials, who connected recipients from overseas affected areas with Chinese medical manufacturers and suppliers. They translated the help-seeking information of overseas affected communities into Chinese, published it on social media, sourced the required medical materials through their online networks, and then provided feedback to help-seekers abroad in their languages.

1 In China’s foreign language education, ‘less commonly taught languages’ refers to all languages other than the national language, Chinese, and seven major foreign languages, namely Arabic, English, French, German, Japanese, Russian, and Spanish.

2 The volunteer translators

The WeChat group “疫区翻译服务义工小组 [volunteer translation services for epidemic areas] is one of several online volunteer translation communities established to address the urgent needs of multilingual translation for the international donation and procurement of medical materials in Wuhan. This WeChat group combined over 250 college teachers and students, frontline responders, medical staff, procurement agents, overseas donors, and foundation officers in Wuhan and across the world in joint efforts to assist medical material donation and procurement. Between January and February 2020, the most severe period of China’s COVID-19 epidemic, volunteer translators in this WeChat group provided translation services in nine languages, namely English, French, Japanese, Korean, Portuguese, Russian, Spanish, Thai, and Vietnamese.

As English speakers, we joined this WeChat group on 28 January 2020, immediately after the recruitment information for volunteer translators was released on WeChat. After three months of online participation we identified five multilingual volunteer translators who have actively participated in urgent translation tasks in the WeChat group as our research participants for qualitative in-depth interviews in order to understand how they mobilized their multilingual competences and social resources to join the fight against COVID-19 (see Table 1).

Wu Yue, volunteer translator of English, works as a university English teacher in Wuhan. In her spare time, she often does volunteer translation and interpretation (T&I) services for non-profit mental health activities at home and abroad. Through volunteering, she has developed multiple social networks in the fields of T&I and public health. During the COVID-19 pandemic, she organized and

Table 1: Overview of research participants.

Pseudonym	Language for translation	Age	Education (major)	Work experience
Wu Yue	English	33	BA (English) MTI	12 years’ experience in an English-focused teaching role
Liu Hui	Japanese	45	BA (Japanese)	10 years’ experience in a non-language-focused business role
Chen Xi	Korean	29	BA (Korean) MBA	6 years’ experience in a non-language-focused management role
Shi Le	Portuguese	25	BA (Portuguese)	3 years’ experience in an English/Portuguese-focused operating role
Zhu Qiang	Spanish	25	BA (Spanish)	3 years’ experience in a Spanish-focused teaching role

participated in several online volunteer translation communities, becoming an important facilitator for international cooperation of non-governmental organizations in COVID-19 prevention and control. Between January and May 2020, when mental health problems became an increasing concern in China's epidemic areas, Wu Yue cooperated with four domestic and foreign psychological institutions in translating and interpreting international psychological articles, lectures, and conferences. When the epidemic situation in China was under control, she cooperated with a university of Chinese medicine in translation of traditional Chinese medicine therapies for the treatment of COVID-19, hoping to help victims abroad.

After studying in Japan, **Liu Hui** had worked in a non-language-focused role in the international department of a Chinese bank for 10 years. Before the pandemic, she had quit her job and became a full-time housewife. After joining the WeChat group, Liu Hui used her Japanese skills and professional knowledge in international business to assist international donation and procurement. Later, she made the acquaintance of material suppliers in the WeChat group and organized several non-governmental cross-provincial material donation operations to Wuhan.

Chen Xi holds a bachelor's degree in the Korean language and a master's degree in business administration. After university, she worked in a non-language focused management role in a foreign trade company for six years. When medical materials were in short supply in Wuhan, she participated in the Chinese translation of medical supplies donated from South Korea. When most new COVID-19 cases in Mainland China were imported from abroad, she also participated in the volunteer translation service for airport quarantine inspection in her city.

Shi Le holds a bachelor's degree in Portuguese. After graduation, she worked in an operation position in an Internet company, whose work involves both English and Portuguese. **Zhu Qiang** holds a bachelor's degree in Spanish and works as a teacher of Spanish in a language school. Both of them graduated from universities of foreign languages and studied in the target language countries during their university years. They provided medical material-related translation services in their specialized language.

All our research participants have cross-cultural experiences and overseas social networks. Even though all hold a university degree in a foreign language, none of them are professional translators, and none have crisis-related translation training. They all obtained the recruitment information for volunteer translators through WeChat and spontaneously joined the online volunteer translation community under study. These five research participants may represent many more volunteer translators who were motivated to join volunteer translation because of a shared sense of social responsibility and have formed an important joint force in China's response to the COVID-19 pandemic with their multilingual repertoires, social resources, intercultural communicative competence and humanitarian

spirit. In the following, we will discuss the problems and challenges the volunteers faced in the practice of multilingual volunteer translation.

3 Crowdsourced translation as disaster relief tool

In any disaster or crisis involving multilingual populations, access to translated information needs to be seen not only as a human right (Greenwood et al. 2017), but as a means of disaster prevention and relief that can increase individual and community-level resilience (see Piller, Li, and Zhang 2020, this issue). In recent years, crowdsourced translation has been increasingly used to solve urgent and complex multilingual crisis communication problems during public emergencies (Brabham et al. 2014; Hester et al. 2010; Munro 2010; Sutherland 2013). Compared with traditional translation modes, crowdsourced translation is carried out collaboratively by an online community of volunteer translators and has obvious advantages in assisting disaster relief efforts, such as cost-effectiveness, high efficiency, international networks, no restrictions of time and space, and mobilization of a significant amount of potential human resources. In the early stage of the epidemic, materials donated to Wuhan from home and abroad through official channels were not distributed in time due to the shortage of management and logistics personnel, complex approval procedures and quality standard issues, which delayed relief work and provoked much public criticism. Many donors at home and abroad turned to non-governmental channels to carry out donation efforts through online volunteer translation communities. In the WeChat group under study, crowdsourced translation facilitated direct contact between the donors and recipients of medical supplies, which accelerated the distribution and use of medical materials. In a typical process of crowdsourced translation, the crowdsourcer first broadcast an open call for immediate translation within the WeChat group, then volunteer translators of the required language in the group would spontaneously respond to the call and provide translated information. The crowdsourcer would collect the translated information from the crowd and use the crowd to filter and refine the information. Finally, the crowdsourced information would be translated by the crowdsourcer into decision-making and on-the-ground disaster relief efforts. Wu Yue and Liu Hui both emphasized the strength of crowdsourced translation as a grassroots approach to facilitate international donation and procurement.

Wu Yue:我觉得民间的速度好像更快一些, 比起政府一级级(审批)下来, 我自己的感觉。

Liu Hui:对,因为它可能就省略了很多审批啊这种程序,就更加便捷、直接地把东西送到(需要的)人手里。

[Wu Yue: I think the grassroots efforts are more efficient, compared with the top-down approach that requires governmental (approval) formalities. My impression.

Liu Hui: Yes, because it (the grassroots approach) may omit many approval procedures, so materials can be more conveniently and directly delivered to people (in need).]

Volunteer translators are not just linguistic and cultural “mediators” (O’Brien and Federici 2019) in multilingual crisis communication who participate in disaster relief indirectly through translation services. They can be “actors” and “crowd-sourcers” of on-the-ground disaster relief efforts. Liu Hui described to us her experience of organizing material donations to Wuhan. Liu Hui’s friends worked at a mobile cabin hospital and a quarantine point in Wuhan. As a type of social capital (Bourdieu 1986), social networks enabled Liu Hui to obtain information about the shortage of materials in her friends’ work units. When Liu Hui released this information about help needed to the WeChat group under study, her identity was changed from a Japanese-Chinese volunteer translator to a crowdsourcer of relief efforts. Crowdsourcing brought together various parties involved in international donation and procurement in the same online community. Soon, a supplier in the crowd responded and donated aid materials for the two units. Through participation in volunteer translation practices, Liu Hui extended her social networks and was able to assist in solving an urgent on-the-ground disaster relief problem.

Liu Hui:我在这个群里面结识了有物资的人,就是在这个翻译群里面认识的,并且他们也确实捐赠了物资给我们XX方舱医院。我觉得特别好,这个(志愿者)工作不仅仅是一个简单的翻译工作,并且它(的功能)得到了延展,我觉得很有用。

[Liu Hui: I got acquaintance with material suppliers in this WeChat group, and they did make material donation to XX mobile cabin hospital. I think it’s fantastic. This (volunteer) work is not only simply a translation service. It (its function) has been extended. I think it’s very useful.]

In the face of challenges such as a lack of professional translators, scattered multilingual human resources and limited mobility of personnel during the COVID-19 pandemic, crowdsourced translation, by leveraging the collective intelligence of online communities, assisted in countering the threat of the current public health emergency. Though most volunteer translators undertaking crowdsourced translation tasks in public emergencies are “amateur” and “nonprofessional,” volunteer translators in China self-organized and carried out urgent translation and relief tasks that directly or indirectly complemented official

disaster relief efforts. Despite the tremendous contributions volunteer translators have made to disaster relief operations in Wuhan and the world, grassroots volunteer translation practices in China have encountered deep structural problems which will be discussed in the following section.

4 Structural problems in volunteer translation practices

4.1 Imbalanced multilingual competences of volunteer translators

Wuhan is an important education base in China, with 89 universities and 1.2 million students. However, the foreign language education capacity of Wuhan is very inconsistent with the city's comprehensive strengths in science and education. At present, only seven foreign language programs are offered in Wuhan, namely English, French, German, Japanese, Korean, Russian, and Spanish. Due to English-centric education policies similar to those of many other non-Anglophone countries (Piller and Cho 2013), English plays a dominant role in foreign language education in Wuhan. In comparison, the education scale of the other six foreign languages is rather small. The imbalanced multilingual teaching capacity of Wuhan could not meet the multilingual crisis communication needs of the city during the pandemic. Though China boasts its national language competence in 101 foreign languages (Zhang In preparation; Zhao 2016), human resources in less commonly taught languages are primarily distributed in first-tier cities such as Beijing, Shanghai and Guangzhou that have foreign language universities or border areas inhabited by ethnic minorities. Like many other volunteer translators of these languages, when Chen Xi and Zhu Qiang learned that Wuhan does not have sufficient foreign language human resources they joined the online volunteer translation community to support emergency multilingual services there. Despite the fact that the utilization of social media can help to reach a broad audience and mobilize human resources across a large geographic area, a critical shortage of volunteer translators of less commonly taught languages such as Italian and Polish can still be observed in the WeChat group under study.

The shortage of volunteer translators of these languages has also posed a serious threat to the quality of crisis translation, which could jeopardize emergency response and relief efforts. Shi Le, volunteer translator of Portuguese, described translation practices in less commonly taught languages as working in a “black box [黑盒].” In crowdsourced translation, the crowdsourcer relies on the

crowd to filter and refine the translated information. Due to their small number, volunteer translators in the less commonly taught languages could not find other group members who speak the same required language to review their translated information when performing the immediate task of crisis translation.

Shi Le: 我觉得“小语种”的(志愿者)完成了(翻译任务)之后真的需要有人去审核(翻译的信息)。像英语(翻译)出了问题,大家就可以一眼看出来,还好。但是“小语种”(翻译)它是个“黑盒”。你翻错了,可能会造成一些不好的后果,那可能没人知道。

[Shi Le: I think that “small language” volunteers really need someone to review (their translated information) after they have finished (a translation task). In comparison, if there is a problem with an English (translation), we (other English translators) can point it out at a glance. It's fine. But translation in “small languages” is a “black box.” If you make a mistake, it may cause some bad consequences, which may not be known.]

4.2 Absence of government management

China's emergency language services over the period of the COVID-19 pandemic are not yet “conscious actions,” because language services for emergency response have not been included in any emergency plan or law (Li et al. 2020, this issue). Due to the absence of top-down planning in emergency language services, a series of management problems were exposed in volunteer translation practices. One of the problems is the lack of governmental support and guidance for volunteer translation practices. The inconsistency of medical product standards at home and abroad is a great challenge to the pandemic prevention and relief work. Our research participants confirmed that the difficulty of translation tasks lies not in translation itself, but in judging the application scenarios of medical products. They believe that the government should build a docking platform for domestic and foreign standards of medical resources and provide relevant information in multiple languages to translators in the first place.

Chen Xi: 像我个人而言,我是觉得前期一开始进群的那头两三天,我个人是比较懵的。但是,其实那时候武汉和湖北的情况已经发展得比较严重了,(当时)是物资比较紧缺的状态。所以,如果说国家能够早一点动用官方的力量出台一些标准文件,比如说关于口罩、防护服,还有各国的这个(医疗物资)采购的一些标准文件……如果把这个早一点做下来分发给我们的话,我们可以更及时地帮他们完成下面(医疗物质翻译)的细节部分,但是标准的制定是民间力量不能达到的地方。

[Chen Xi: As far as I am concerned, I was quite confused in the first two or three days when I joined the group. But, at that time, the situation in Wuhan and Hubei had become very serious, which was in severe short supply of materials. Therefore, if the state can use the power of the government to issue relevant standard documents earlier, for example, standard

documents about masks and protective suites, as well as standard documents on the procurement (of medical materials) in foreign countries...If the government could have done this and provide relevant information to us earlier, we can help them complete the following translation work (of medical materials) in a more timely manner, but the formulation of standards is something that can't be achieved by civil forces.]

Another problem related to the lack of organization and supervision mechanism in volunteer translation practices. Due to the absence of an effective mechanism to organize the division of labor, volunteers may repeatedly do the same translation work, resulting in a waste of human resources. In addition, many volunteer translators showed concerns about the lack of membership management within the online volunteer translation community. They call for enhancing the cooperation between the government and civil forces in developing an effective mechanism for best practices in volunteer translation.

Chen Xi: 突发事件中的志愿服务我觉得是有两个方面需要注意的。第一是,虽然是有民间组织(从事志愿工作),但是应该要有政府的一定的配合和支援的...我们有时候也不知道我们这么做政府是不是支持,比如说有时候有些(医疗物资的)进出口啊、捐赠啊会不会踩到一些法律的灰色地带或者红线,其实我们是有这个担忧的.....就是,希望说政府这边可以更好地来引导...如果他们内部本来已经有了一个比较明晰的分工和体系的话,那么相对来说我们的工作重复'也不会那么多.....然后,第二个就是,志愿者服务其实是有一定风险的。在(志愿服务)过程中,也需要把控一下成员的身份。就是,比如说后期口罩变成了稀缺物资,炒到五六块一个的情况下,也担心说会不会有人利用这一民间组织变相牟利...总体来说这个(信息的)透明度还是有待加强的。

[Chen Xi: I think attention is needed in two aspects of volunteer services in public emergencies. First, although non-governmental organizations (are engaged in voluntary work), there should be some cooperation and support from the government...Sometimes, we don't know whether the government supports us or not. For example, we don't know whether some importing and exporting activities or donations (of medical materials) will step into the grey area or cross the red line of some laws. In fact, we have this worry... That is, we hope the government can play a better guiding role. If there were a clear division of labor and organizational mechanism within them, then relatively speaking, our work would not be so repetitive...Second, in fact, volunteer services may have certain risks. In the process of (volunteering), it is also necessary to check the identity of group members. That is, for example, in the later stage, when masks became scarce goods, and they were touted at five or six yuan. We were also worried that this grassroots organization would be used by someone to make profits. Generally speaking, (information) transparency needs to be improved.]

5 Conclusion

Providing multilingual logistics communication is a key aspect of public emergency responses. Language barriers may affect the international circulation of

epidemic prevention materials, thus hampering emergency rescue operations in the affected communities. Therefore, it is necessary to include multilingual logistics in national emergency preparation, response and recovery plans. Multilingual logistics is a novel area that needs urgent attention not only from sociolinguists and translation researchers but also decision makers of all levels in the post-COVID 19 era.

In the ongoing COVID-19 pandemic, volunteer translators in China, by undertaking urgent and context-specific translation tasks, facilitated international donations and the procurement of medical materials between Wuhan and the world. In the context of a crisis, volunteer translators need to be seen not just as “mediators” in multilingual crisis communication, but people with multilingual and social resources who can be potential “initiators” and “crowdsourcers” of on-the-ground rescue efforts. Crowdsourcing, by leveraging information and innovations in communication technology, may provide solutions for fully mobilizing multilingual resources and translating collective intelligence into on-the-ground disaster relief efforts.

In order to address the challenges and tensions in volunteer translation practices, policy makers need to abandon English monolingual ideologies and develop “national emergency language competence” strategies (Li et al. 2020, this issue) that meet the language needs of linguistically diverse populations at local, national and global levels. In order to develop national emergency language competence, foreign language education policies need to decenter English as the language of international communication and give due importance to the training and reserve of human resources in less commonly taught languages. In the future, as the leader of crisis management, the government should formulate an effective emergency language service system and mechanism to guide the organization and operation of volunteer translation practices, so as to form a joint force to fight against public emergencies.

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