Has translation gone online and collaborative?: An experience from Minna no Hon'yaku

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We have been running Minna no Hon'yaku (MNH: Translation of/by/for all), an open online translation hosting and translation-aid service, since April 2009, with use by NGOs specifically in mind. We subsequently started two sibling services, i.e. Ryugakusei Net @ MNH, a commercial "crowdtranslation" site, in March 2010, and Kotoba no Volunteer @ MNH, a project for collecting and making available expressions useful in disaster and post-disaster situations in different languages, in May 2011. This paper aims first to introduce basic features of these three systems and their state of usage, and second, to clarify the nature of activities being carried out using these systems and the relationships between the nature of activities and various factors that contribute to shaping the activities. While what is discussed is based mainly on the insights we have obtained from our experience designing, developing and running these systems, we attempt to situate the observation within a general framework discussion of online and/or collaborative translation.

1. Introduction

In accordance with the ongoing process of "globalisation", the new mode of or environment for translation has been under discussion for quite some time (Cronin, 2002), and online collaborative translation, "crowdtranslation" and user-generated translation (UGT) have become a hot topic (Désilet, 2010; Malcolm, 2010; OTT, 2009; Perrino, 2009; Prior, 2010).

In the practical arena, several successful cases of a new model of translation, such as Yeeyan[1] or the "crowdtranslation" of the Facebook interface,[2] have become widely known. Correlating at least partially with these trends, a number of open and/or online translation environments have become available, such as Google Translator Toolkit, [3] Traduwiki, [4] Wikitranslation, [5] TED, [6] Minna no Hon'yaku (MNH), [7] Lingotek, [8] and Omega-T.[9]

The multiplicity and diversity of online collaborative translation services, projects and systems indicate that the nature of the activities being carried out as well as the factors that lead to the success of these activities, and the system features useful for these activities, can be rather different from situation to situation (cf., DePalma & Kelly, 2008). This issue, however, has remained underaddressed, especially from the point of view of those who design, develop and manage systems and/or services.

Our team has been developing and running Minna no Hon'yaku (MNH: translation of/for/by all), [10] a translation hosting site with rich translation-aid functions that enable translators to efficiently manage the translation process, including reference lookup and intra-site communication tools such as message exchange and a bulletin board. MNH was made public on April 2009, shortly before the public launch of Google Translator Toolkit. Since then, we have made public two sibling sites: Ryugakusei Network @ MNH (MNH for the foreign student network: RNMNH) in March 2010, and Kotoba no Volunteer @ MNH (MNH for language volunteers: KVMNH) in May 2011.

Against this backdrop and on the basis of our own experiences, this paper first introduces basic features of the three systems we developed and their state of usage, and then examines and clarifies the nature of the activities being carried out using these systems and the relationship between the nature of these activities and the various factors that contribute to shaping them. The status of the systems and the activities being carried out on these systems are then examined in relation to the general concepts of online collaborative translation, "crowdtranslation" and UGT.

2. MNH and the two sibling MNH systems

We describe here the basic features of MNH, its two sibling systems, and their current status. Details of MNH and its technical components, which provide the common basis for all three systems, are described in Utiyama, et. al. (2009), Abekawa & Kageura (2007), Abekawa et al. (2010) and Takeuchi et al. (2007). Some data cannot be disclosed, so parts of the descriptions deliberately remain general.

2.1. The main MNH site

2.1.1. Basic characteristics and functions

The main MNH site was initially developed to assist NGOs whose work includes translating in-house or other documents and volunteer translators involved in translating online news and articles. Though we had a few specific Japanese NGOs in mind, MNH was and is intended to be used by a wide range of users all over the world.

Figure 1: The English Language Version of MNH Portal Toppage

MNH consists of three parts: (1) the MNH translation document portal (Figure 1); (2) the MNH translator platform (Figure 2); and (3) the translation-aid editor QRedit (Figure 3). Anybody can register at MNH anonymously, translate documents, and publish translations via the MNH portal, if copyright permits (translations that are not published are stored on the user's private page). In relation to the issue of copyright, MNH promotes the CreativeCommons license. Registered users can issue open translation requests to other users as well.

The translator platform provides a series of functions which enable users to carry out translation efficiently and work collaboratively, as well as improve their translation competence (Utiyama et al., 2009; Abekawa et al., 2010). These functions include, among others: (1) registration of user-defined reference resources such as terminologies and parallel texts; (2) definition of groups and projects, within which users can share documents, user-registered reference resources, translation tasks and communications; (3) communication by means of message exchange and a bulletin board; and (4) comparative display of different translation versions.

Figure 2: A user space on the MNH translator platform, showing the list of translated documents

Translation itself is carried out on and facilitated by the integrated translation-aid editor QRedit, which was specifically developed for and is

provided on the MNH translator platform. It is a two-pane translation editor and has the following features (Abekawa & Kageura, 2007): (1) lookup of high-quality reference resources provided by MNH and of user defined resources, lookup of parallel texts of the user's choice, and seamless connection to online resources including Wikipedia and Google web and dictionary search; and (2) an easy-to-use and effective interface which enables translators to focus on translating. Users can choose synchronous or asynchronous scrolling of SL and TL texts; the basic unit of synchronisation is the paragraph.

2.1.2. Current status and usage

As of August 2011 (MNH was made public in April 2009), the status and usage of MNH is as follows:

(1) The system can deal with English-Japanese, Japanese-English, English-Chinese, Chinese-English, and English-Catalan language pairs. Japanese, Chinese, English and Catalan interfaces are available, the first three of which were provided by our team, and the last by the voluntary work of Dr. Bartolome Mesa of Universitat Autonoma de Barcelona. A Japanese-German dictionary (Apel, 2011) will be incorporated soon, together with a German interface.

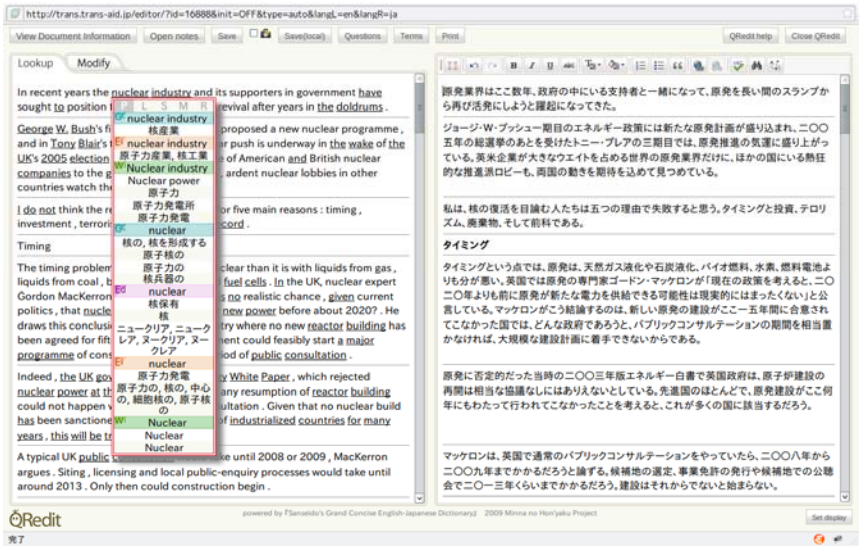

Figure 3: The translation-aid editor Qredit, with source language text in the left-hand pane, target language text in the right-hand pane, and dictionary lookup displayed in the small pulldown window in the left-hand pane.

(2) Over 7,500 documents have been translated using the system, of which about 3,000 have been published via the MNH portal. Most translations are English-to-Japanese, with Japanese-to-English coming second.[11] News articles, reports, press releases, articles in online journals, and Wikipedia articles are among the most frequently translated materials. Translation requests are rarely made.

(3) The number of registered users is over 1,700. Active users include some prominent NGOs, such as Amnesty International Japan, Democracy Now! Japan and the Japan Breastfeeding Support Network, while scores of personal users are translating a variety of texts on a regular basis.

(4) Three book translation projects (one already published by a commercial publisher, two to be published)[12] have been completed, with two other projects ongoing, to the best of our knowledge.

(5) A joint project by the Centre for Translation Studies, the University of Leeds and Kobe University of Foreign Studies used MNH (Clark, 2011); several Japanese universities are preparing to use MNH in their translation education programmes.

The typical patterns of usage of MNH are personal use and group- or project-based use. Figures 4(a) and 4(b) illustrate the basic configuration of these two usage patterns, respectively.

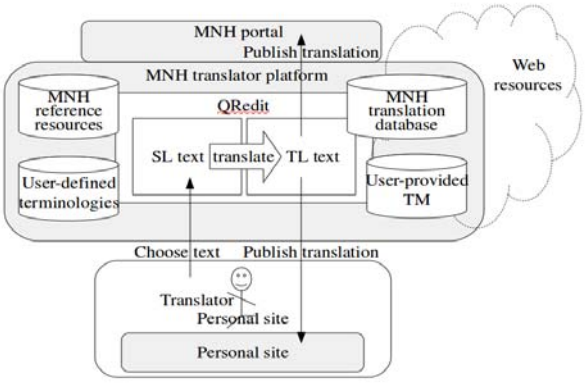

Figure 4(a): Basic configuration of the personal use of MNH

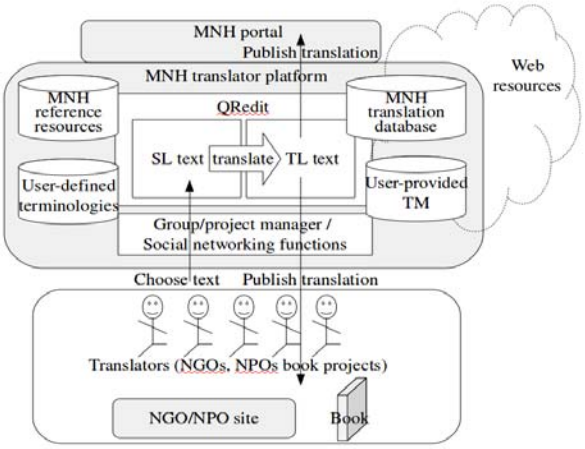

Figure 4(b): Basic configuration of the group-based or project-based use of MNH

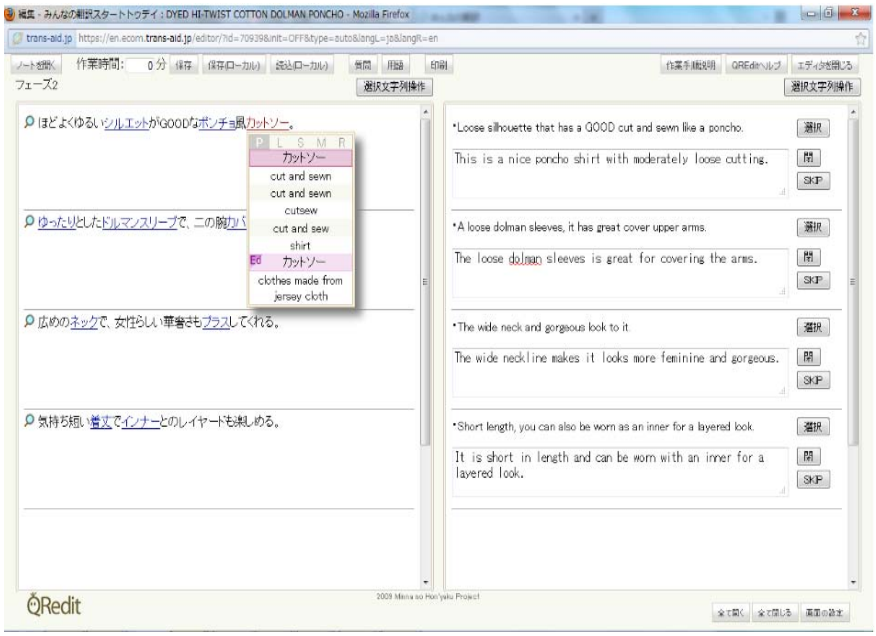

Figure 5: The extended version of QRedit used in RNMNH

2.2. Ryugakusei Network @ MNH (RNMNH)

2.2.1. Basic characteristics and functions

Ryugakusei Network @ MNH (henceforth RNMNH) is a spin-off from MNH, run by a venture firm, Baobab, Inc. It is a commercial site aimed at collectively translating documents provided by clients, focusing mainly on Japanese as the source language and English, Chinese and Korean as the target languages. RNMNH charges clients a minimum of 3.5 yen per Japanese character, depending on the type of the text, while the average Japanese translation company charges 15 to 20 yen per character.

Translations are done by foreign students in Japan; in order to register at RNMNH, they must pass a proficiency test which is evaluated by professional translators. Students are paid 1.1 to 1.6 yen per character, depending on the level of quality.

RNMNH consists of a translator platform and QRedit. The core functions of the RNMNH translator platform and QRedit are the same as those of MNH. The differences are: (1) RNMNH has a translation text delivery function, as the system provides translators with texts to be translated; (2) it provides richer social networking and community-making functions including connection to Facebook and Twitter; (3) the unit of

syncronisation in scrolling the source language and target language text is set to the sentence by QRedit; and (4) “draft translations” made by a high-quality phrase-based statistical machine translation (SMT) developed by NICT (Finch & Sumita, 2008) are provided on QRedit, which translators can use as a base translation (Figure 5).

2.2.2. Current status and usage

As of August 2011, the status and usage of RNMNH is as follows:

(1) 10,740,000 Japanese characters have been translated from Japanese to English, 3,900,000 from Japanese to Chinese, 2,760,000 from Japanese to Korean, and 1,000,000 from Chinese to Japanese using the system. 400 Japanese characters roughly correspond to 200 English words (JTF, 2005). RNMNH took only three months from the start of service to achieve translation of a million Japanese characters per month for Japanese-to-English translation, while the well-known Japanese social translation site myGengo took 16 months to achieve the same level.[13]

(2) A total of 489 translators are registered at RNMNH (221 Japanese-to-English, 98 Japanese-to-Chinese, 162 Japanese-to-Korean, and 8 Chinese-to-Japanese).

(3) Over 80 percent of the applicants passed the proficiency test for Japanese-to-Chinese and Japanese-to-Korean, 55 percent for Japanese-to-English, and 30 percent for Chinese-to-Japanese translation.

(4) Analysis of translators' log-in times indicates that on average they earn 1,200 yen per hour, with the lowerst earnings 600 yen per hour and the highest earnings 2,100 yen per hour.[14]

(5) Among the most successful translation projects carried out so far are multilingualisation of online shopping sites for health products and clothing. The main texts consisted of descriptions of commercial items. These were characterised by a high rate of repetition of similar expressions, such as “keep away from children”, which contributed not only to the efficiency of recycling translations but also to improving the performance of SMT through adaptation.

Figure 6 illustrates the basic pattern of use of RNMNH.

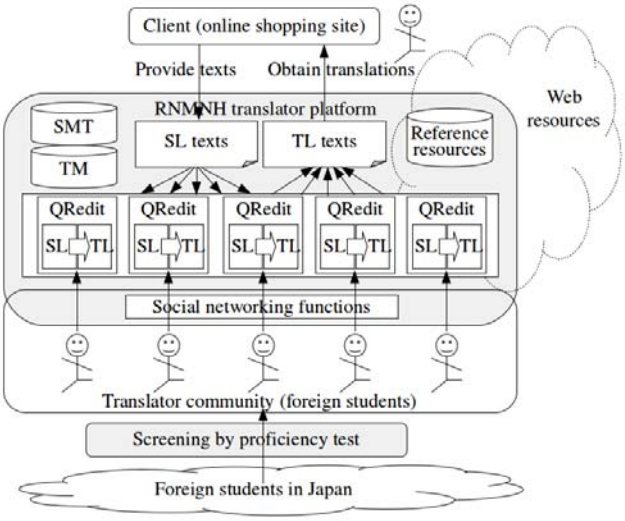

Figure 6: The basic pattern of use of RNMNH.

2.3. Kotobano Volunteer @ MNH (KVMNH)

2.3.1. Basic characteristics and functions

Kotoba no Volunteer @ MNH (KVMNH) is another spin-off project from MNH, started in May 2011. It is designed to accumulate and share expressions useful in disaster and post-disaster situations in multiple languages. The project was started following the Great East Japan Earthquake in March 2011based on the recognition that people were frustrated at not being able to provide useful information, due to the language barrier. While there are useful phrase books and pamphlets for that purpose, the range of expressions contained in them is limited. The objective of KVMNH is therefore to collect as many useful expressions as possible in a bottom-up manner from members of the public by means of crowdsourcing. Unlike the move reported by Munro (2010), which focuses

on immediate response to the Haiti quake, KVMNH aims at preparing for future disasters.

KVMNH assumes, and aims for, the simultaneous collection of translations in many languages. The languages currently covered are Japanese, Korean, English, Simplified Chinese, Malay, Dutch, Brazilian Portuguese, Portuguese, Russian, Thai, Arabic, Tagalog, Danish, Vietnamese, German, Traditional Chinese, Spanish, French, Hindi, Bahasa Indonesia, and Italian.

Unlike MNH and RNMNH, KVMNH does not have a separate portal, translator platform or translation-aid editor. The characteristic features of KVMNH are: (1) it emphasises the translation request function to collect as many useful phrases as possible, because the consolidation of the range of expressions to be translated by users is an important aspect of the project; (2) it also gives importance to social networking functions, including connection to Facebook and Twitter; (3) the translation editor provides lookup of possible translation equivalents in many language pairs by connecting to external multilingual resources (Figure 7);[15] and (4) the expressions or texts on KVMNH are covered by a CreativeCommons Attribution licence.[16]

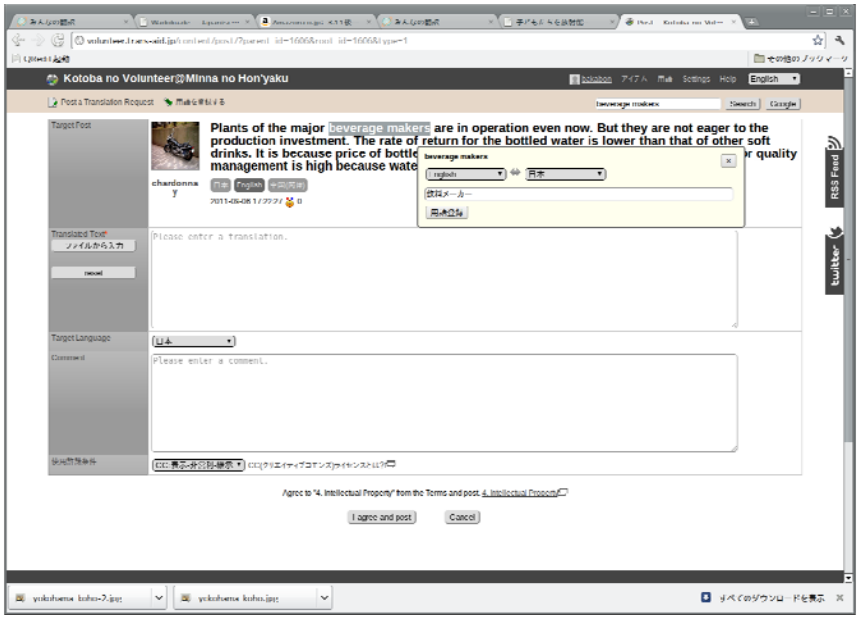

Figure 7: The translation editor embedded in KVMNH, with a popup showing the Japanese translation of the specified part of the English text.

2.3.2. Current status and usage

As of August 2011, the status and usage of KVMNH is as follows:

(1) The number of translation requests to date is 197, all in Japanese, of which 146 have been translated into Korean, 127 into English, 100 into Simplified Chinese, and 60 into Malay, Dutch, Brazilian Portuguese, Portuguese, Russian, Thai, Arabic, Tagalog, Danish, Vietnamese, German, Traditional Chinese, Spanish, French, Hindi, Bahasa Indonesia, and Italian. The 60 translations in 17 languages are basic expressions provided by the system as an incentive to trigger contributions to KVMNH.

(2) The number of registered users is 17.

This project is still in an embryonic stage. Figure 8 illustrates the basic usage pattern of KVMNH.

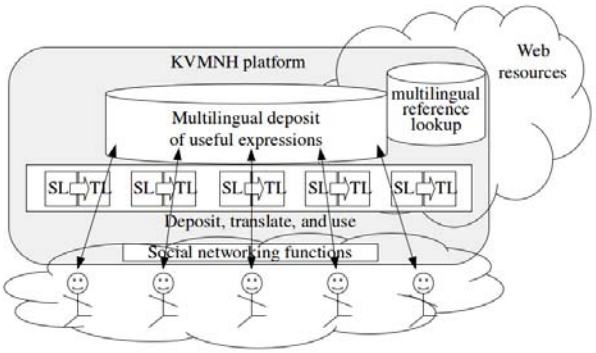

Figure 8: The basic pattern of use of KVMNH

3. The nature of “translation” activities and related elements

While these three systems are broadly referred to as online platforms for collaborative translation, the nature of activities being carried out using these systems as well as the role and status of the systems are very different. In this section, we will critically analyse these differences on the basis of observations of the typical usage patterns of these systems illustrated in Figures 4, 6 and 8. There is some intentional overlap between the descriptions in this section and those in the previous section for the sake of clarity. In the discussion below, the descriptions of MNH and RNMNH are based both on observations of actual use as well as on reflections about the strategic definitions of the systems, while the descriptions of KVMNH are based mostly on the strategic definition of the system, as a sufficient amount of data on actual use has not yet been accumulated at the time of writing.

3.1. Human elements and human factors

3.1.1. Players involved

Players taking part in these systems as well as their dispositions are different, as can be seen from Figures 4, 6 and 8. In MNH, the main players are those who translate, including both professional and non-professional translators. They may work individually, or they may work as volunteers for NGOs. In either case, it is translators who decide what to translate on MNH (recall that the use of the translation request function is negligible). MNH also has readers of the MNH portal site. The system itself (and the management team behind it) remain hidden behind the scenes, unless trouble occurs in the system.

In RNMNH, the main players are clients who provide texts and money. The system itself plays an active role in RNMNH: (1) the system management team chooses translators among applicants at the screening stage; and (2) the system decides and delivers a unit of texts to the translator upon the translator's request. The task of translators on RNMNH is limited to the translation of provided texts. There are no readers.

The configuration of players in KVMNH is very different from the other two systems. KVMNH does not consolidate translators as an independent player. Rather, it assumes a single type of player, who can be broadly labeled as participants in the KVMNH project. Participants are the ones who take the initiative in every respect, i.e., in contributing important expressions to KVMNH, in translating expressions, and in using them.

3.1.2. The nature and motivation of translators

In MNH, translators translate documents of their own choice; their goal is to disseminate information, and as part of this mission, they translate. This is typically the case with NGOs, whose mission in most cases is not translation itself. This does not necessarily mean that those involved in translation on MNH are not inherently "translators" as such; translators actively using MNH include professional translators or competent linguists working voluntarily for NGOs, though there are also people without translation training or experience. Typical translators on MNH can best be characterised as people who have already been translating, are translating and would be translating anyway, with or without MNH.

As translators working on RNMNH are foreign students whose main motivation is to gain income by working part-time, most have no experience of translation, although they are screened for language proficiency. Thus, the kind of people RNMNH mobilises are those who would not have been doing translation were it not for RNMNH.

KVMNH expects lay participants rather than translators, who are interested in multilingual communication and are committed to the stated aim of KVMNH. No control is imposed upon the qualification or background of participants.

3.1.3. Translator groups or communities

While there are groups of translators collaborating on MNH, using the group or project functions, they did not come together as a result of MNH, but already existed as groups before they started using MNH. The rounded rectangle surrounding a group of translators in Figure 4(b) illustrates this situation. Group use by NGOs is a typical case, in which the group members are limited to those already belonging to the NGOs, because the mission of most NGOs is not translation per se but other activities such as working for human rights or engaging in solidarity actions.

In contrast, translators who register at RNMNH basically have not known each other before joining RNMNH; thus, a new community is created via RNMNH. The rounded rectangle surrounding the community of translators that overlaps with the RNMNH platform in Figure 6 illustrates this situation.

The status of the community on KVMNH is similar to that of RNMNH, except that the community on KVMNH is intended to be open to everyone, and participants are expected to take part not only in translation but also in consolidating the range of expressions collectively.

Table 1 summarises the characteristics of the human elements examined so far.

Table 1: Players and characteristics of translators and translator community

	MNH	RNMNH	KVMNH
Players	translators, readers of MNH portal	clients, RNMNH, translators	participants as contributor, translator and user
Translators	volunteer, individual or working for NGOs, can be professional	foreign students	anybody
Motivation of translators	to disseminate information	part time job	for public good and common use
Groups or community	outside MNH	on RNMNH, closed	on KVMNH, open

3.2. Units of translation

Let us first introduce the following terms (note that they are defined here for the sake of the discussion in this section, and that the definitions do not necessarily reflect general usage):

- mission unit (MU): a set of documents to be translated in a mission. It can be finite and concrete, or open-ended.

- independent document unit (IDU): a block of text that constitutes a socio-physically independent unit. A book or an article is a typical example of an IDU. An IDU can be a mission unit, or can constitute a part of a mission unit; a mission unit can be a part of an IDU, though this is perhaps less common.

- coherent textual unit (CTU): a block of text that has a coherent unit of discourse. In the case of a book, chapters or sections or a shorter meaningful span of paragraphs can be a CTU. In the case of an article, the article itself as well as its sections, subsections, etc. can be a CTU.

- translation unit (TU): the minimum chunk of text that a translator bases his or her “rhythm” tackling translation. Most typically it is a paragraph, but it can be a sentence.

3.2.1. The nature of MUs

In MNH, a typical MU is a set of documents which NGOs deal with or which are relevant to individual translator's topic of interest. In the case of a book translation project, the mission unit is the book to be translated. In any case, it is the translators who define the MU. As different translators or groups of translators define their own MUs, multiple MUs coexist on MNH, over which MNH has no control.

In RNMNH, a typical MU is the texts contained in a particular shopping site or a meaningful subset of the site provided by a client. The MU consists of a finite amount of texts. When translation projects with more than one client are running in parallel, multiple MUs exist in parallel on RNMNH. Unlike MNH, it is RNMNH, not translators, which manages these MUs; translators are essentially indifferent to MUs.

KVMNH defines the nature of the MU as a range of expressions useful in disaster and post-disaster situations, but the actual set of texts that is to constitute the MU in concrete depends on participants. KVMNH has by definition only one mission and a corresponding MU, which it hopes to build up in a bottom-up manner by crowdsourcing.

Table 2: Characteristics related to the units of translation

	MNH	RNMNH	KVMNH
Mission Unit	a set of articles or a book	a set of texts on the site	a set of useful expressions
Who defines MU?	translators	clients	KVMNH and participants
Number of MU	many, uncontrolled	many, controlled	one
IDU	an article or a book	NA	NA
Who defines IDU?	translators	NA	NA
CTU	an article, a chapter, a section, etc.	a description a commercial item	NA
Who defines CTU?	translators	RNMNH	NA
Level of coherency	tight	loose	NA
TU	a paragraph	a sentence	any expressions
Who defines TU?	MNH	RNMNH	participants

3.2.2. The nature and disposition of IDUs, CTUs and TUs

On MNH, translators typically translate such texts as news or journal articles, press releases, NGO reports, and Wikipedia articles, which constitute both IDUs and CTUs simultaneously. In the case of a book translation, the book itself constitutes both an MU and an IDU, while chapters, sections, subsections and other coherent subsets of the book constitute CTUs. While MNH does not provide any mechanism to impose restrictions on the definition and management of these units, QRedit is optimised for texts consisting of a few to a score of paragraphs. So the de facto basic unit of manipulation by MNH is a CTU. As most translators we consulted, both professional and volunteer, regarded the paragraph as a basic TU, MNH QRedit sets paragraphs as TUs; it displays a ruler between paragraphs and synchronises the scrolling of SL and TL texts at the paragraph level.

On RNMNH, typical MUs dealt with by RNMNH, i.e., online shopping sites, are characterised by lack of units corresponding to IDUs. The CTU is the description of each commercial item on the site, though the textual coherency is in general looser than the kinds of documents typically translated on MNH. In the translation process, RNMNH automatically defines the unit of texts to be delivered for each translator. A typical unit of delivery consists of descriptions of one to five items, depending on the length of the descriptions.[17] The TU is set to a sentence by RNMNH QRedit. The imposition of TUs on QRedit is stricter in RNMNH than in MNH.

A standard unit registered to KVMNH are independent expressions or sentences, corresponding to the stated mission of KVMNH, i.e., accumulating useful multilingual expressions. Thus KVMNH does not deal with IDUs or CTUs. As the units to be registered are defined by participants, however, texts consisting of a paragraph or two are also registered to KVMNH. As a system mechanism, KVMNH treats any text in the same manner as individual sentences or short expressions.

Table 2 summarises the nature of textual units treated by translators using the three systems.

3.3. Quality control and support environments

3.3.1. Quality requirements and control

In MNH, it is translators or groups of translators who are in charge of setting quality requirements and controlling translation quality. Quality requirements may depend on the nature of texts. For instance, an in-depth

report by a human rights NGO needs to be translated to a professional level of quality, while a press release prioritises timeliness, precision of essential information and impact. As a system, MNH does not provide any direct mechanism to control the quality of translations, although it does provide a series of support mechanisms that contribute to the improvement of translations and of translators' ability.

RNMNH is different from MNH in two respects. First, the quality requirement is set by clients. The quality requirement is not fixed and is still evolving, for several reasons: (1) RNMNH's main competitions are MT-based web-translation services from Japanese to English, Korean and Chinese, so the baseline requirement was from the beginning very low; (2) many clients, however, began to realise that low-quality translation harms their reputation; but (3) they still try to reduce cost. Currently, the minimum requirement among most clients is “not perfect but comfortable enough for readers”. Second, RNMNH is in charge of quality control, as it is RNMNH which contracts with clients. RNMNH controls the quality of translations in two stages, i.e., by screening translators and by providing (monetary) incentives to translators.

As the expressions collected via KVMNH are intended for use in disaster and post-disaster situations, a lack of precision could have serious consequences. Quality requirements should thus be set tightly. Nevertheless, KVMNH relies upon participants as a whole for maintaining quality. This is based on the premise that the basic conditions for the wisdom of the crowd (Surowiecki, 2004) to work properly are satisfied in the case of KVMNH: the range of expressions to be dealt with are potentially necessary for anybody and in most cases participants can evaluate the quality of expressions for their own languages independently.

3.3.2. Support environments

Corresponding to the differences that we have discussed so far, the effective elements in support mechanisms and environments to promote translation activities and to control or improve translation quality also differ in the three systems.

For translators using MNH, the core and straightforward translation-aid functions including access to reference resources are the most important elements. In addition, two elements are worth noting. Firstly, especially for NGOs, translation memory (TM) consisting of past translations of their own documents is of utmost importance. Secondly, the contrastive display of different versions of translations which highlights differences has turned out to be useful especially for self-training of inexperienced translators (Abekawa et al., 2010). The types of support effective on MNH are those

which enable translators to improve translation efficiency and quality as well as translators' competence.

As for RNMNH, although translation-aid functions including MT draft translation play an important role, indirect, environmental support features proved to be essential to maintain and improve the overall quality of translation. This corresponds to the fact that translators on RNMNH do not have a strong independent motivation for translation and are indifferent to MUs, so they have little loyalty to the cause. In relation to the textual units, these environmental supports consist of several small points: (1) to deliver units of text small enough for translators to feel comfortable dealing with in a short amount of time; (2) to enable translators to skip sentences that are considered as too difficult to translate; (3) to provide a link to the original page so that the translators can check the contextual background. In relation to human factors, environmental supports are designed: (1) to promote the identity of a member of the community through social networking functions; and (2) to nurture healthy rivalry by acknowledging the most productive translators every month. We would perhaps be able to say that the types of support useful in RNMNH are to improve collective efficiency and the overall quality of products, rather than to improve individual translations and the ability of individual translators.

We have not yet consolidated important elements of the support environment for KVMNH.

Table 3: Quality control and support environments

	MNH	RNMNH	KVMNH
Quality requirement	can be high	comfortable enough for readers	can be tight
Who decides the quality requirement?	translators	clients	participants (collectively)
Who is in charge of quality control?	translators	RNMNH	participants (collectively)
Effective support features	direct, TM and contrastive display of versions	indirect, choice of textual units and promoting community	NA
Translation quality	varies, professional/publishable on the high-end	comparable to existing Japanese TSP	NA
Effect on quality	reduction in translation time, general improvement of translations	help maintain the overall quality	NA

3.3.3. Translation efficiency and quality

The actual quality of translations made using MNH varies, and is hard to grasp. However, the quality on the high end is clear: It is comparable to the professional level, as is indicated by the fact that books translated using MNH have been published as paper-bound books as commercial products, and also by the fact that the system is used by Amnesty International Japan and Democracy Now! Japan, where professional translators are working voluntarily together with non-professional translators. In relative terms, an initial experiment showed that using MNH led to a reduction in translation time, which in turn resulted in a slight improvement in the quality of draft translations (Utiyama, et. al., 2009).

The preliminary evaluation by professional translators of the quality of translations made on RNMNH also showed that the overall quality is comparable to the translations provided by an established translation company, although the details of the methods of evaluation and detailed figures cannot be reported here for reasons of confidentiality. Unlike MNH, the relative improvement in the translation quality cannot be evaluated, as we cannot ask translators working on RNMNH to do translations in a different environment.

We have carried out no quality assessment of translations for KVMNH so far.

Table 3 summarises the differences related to quality control and requirements.

4. Different life with common technologies

Having described the basic features of the three systems and clarified the characteristics of activities being carried out on these systems, it is time to examine and evaluate the position of these systems within a broader and more general framework set by the concepts of online collaborative translation, crowdtranslation and UGT.

From the various features and characteristics of the activities and the status of systems summarised in Tables 1 to 3, the positions of the three systems in relation to translators are clear: MNH and KVMNH are translator- or participant-driven, while RNMNH is client- and system-driven.

4.1. MNH and online collaborative translation

The translation activities on MNH are carried out online, and, in the case of translations by NGOs, they are often collaborative, so they can be described as online collaborative translations. The collaborative aspect, however, is independent of translation being carried out online, as the collaboration existed prior to the introduction of MNH. As such, MNH did not work as a driving force for opening a new arena or mode of online collaborative translation. Rather, MNH is best described as an integrated online tool and environment for existing translators (the creation of such a system was in fact our original intention).

Due to the fact that major users of MNH are those continuously involved in translation activities, the diachronic dimension becomes important in MNH. This is reflected, for instance, in the support elements highly valued by translators; both TM and the self-training of translators are more effective over the long-term. While we can reasonably calculate that MNH has been a moderate success, the ultimate success or failure of MNH depends on the extent to which it can support the continuous activities of translators or groups of translators working on a voluntary basis.

4.2. RNMNH and crowdtranslation

RNMNH is better described as a framework for clients to fulfil their translation needs at lower cost. For that purpose, it relies on foreign students who are native speakers of the target language. The types of texts dealt with are those which have not been translated, except by MT. So RNMNH has opened a new opportunity for and area of translation from the business point of view. In terms of the mode of translation, it can be described as crowdtranslation, if the meaning of the term is stretched a little, as is quite often the case.[18] In a sense, while in MNH the system is a tool and translators are the major players, in RNMNH, the system is the main player and translators are dependent players. That the useful support features for RNMNH are concerned with the present activities and community is correlated with this characteristic of RNMNH.

Although we have not discussed this so far, an essential merit of RNMNH—which was also one of our original intentions—is that it has so far materialised a win-win model for clients and translators. Clients are happy with the cost-performance of RNMNH; foreign students, many of whom are living in rural areas, where opportunities to obtain part-time jobs are often scarce, are happy to be able to work online and earn more than they would working at shops or restaurants. In addition, the project has so far not encroached on the traditional area of translation covered by professional translators. What is yet to be seen in relation to this issue is to what extent this win-win situation is based on a particular social situation, and to what extent the win-win situation can be attributed to the RNMNH model. If RNMNH can suggest a general business model of translation which always results in a win-win situation for all the actors involved, it will make a real contribution to the practice of crowdtranslation in a wider sense.

4.3. KVMNH, crowdsourcing and UGT

While both MNH and KVMNH are translator- or participant-oriented, their status is completely different. KVMNH is first and foremost a mission oriented site, or a project, with translation-support tools. KVMNH can be described as an orthodox case of aiming at crowdsourcing, in the sense that both the problems and the solutions are to be consolidated collectively by participants, under an abstract mission statement provided by KVMNH.[19] It has an interesting status in relation to UGT. In standard cases of successful UGT such as Facebook translation, the users who contributed the translations are users of Facebook, i.e. users were already there prior to the translation project being carried out. On the other hand, if we look at the

case of KVMNH from the UGT point of view, what is to be used is exactly that is to be contributed to KVMNH by users. Although the basic definition of KVMNH is rather simple, if the site takes off, perhaps we will be able to learn more about whether there can be something essentially new in crowdtranslation and UGT online.

5. Conclusions

This paper has examined the nature and status of online translation activities carried out on the three systems we developed and manage. In the process, we examined interrelated factors and elements, i.e., types of texts, players, the role of the system and how they depend on each other, consolidating the activities in these three systems in relation to the translation referred to under the broad banners of online collaborative translation, crowdtranslation, and/or UGT.

A few years ago, Alain Désilet stated that “Massive Online Collaboration is revolutionizing the way in which content is produced and consumed worldwide, and this is bound to also have a large impact on the way in which content is translated” (Désilet, 2007). But is this really the case? The observations above suggest that the reality on the ground is not quite as dramatic, although this may simply be a reflection of the modest achievements of the three systems discussed in this paper; a greater impact on the way in which content is translated may have been demonstrated if other systems had been the target of discussion.

Even so, it is our hope that the above discussion still provides useful information for those who are trying to understand the current state of play at the grassroots in the area of online collaborative translation, crowdtranslation, or UGT, as well as for those who are designing and developing a system or are planning to launch a translation enterprise or a translation project.

Acknowledgements

The work reported here is partly supported by the Japan Society for the Promotion of Sciences (JSPS) grant-in-aid (A) 21240021 "Developing an integrated translation-aid site which provides comprehensive reference sources for translators". The first author would like to thank Professor Anthony Hartley, Centre for Translation Studies, University of Leeds, for useful discussions about the topic reported here.

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1 http://en.yeeyan.com/

2 http://blog.facebook.com/blog.php?post=20734392130

3 http://translate.google.com/toolkit/

4 http://traduwiki.org/

5 http://www.wikitranslation.org/

6 http://www.ted.com

7 http://trans-aid.jp

8 http://www.lingotek.com

9 http://www.omegat.org/

10 The team consists of the Library and Information Science Course, Graduate School of Education, University of Tokyo, Japan, the Language Translation Group, National Institute of Information and Communication Technology, Japan, and the Research and Development Center for Informatics of Association, National Institute of Informatics, Japan. Dr. Bartrome Mesa of the Autonomous University of Barcelona, Spain, and Dr. Ulrich Apel of the University of Tubingen, Germany, kindly assisted our team by extending the language pairs dealt with by the project.

11 Note that Yeeyan, widely held to be one of the most successful community translation sites, had nearly 30,000 translations published on the site at the end of 2009. Taking into account the difference between the Chinese-speaking and Japanese-speaking populations, it can be said that MNH is doing reasonably well.

12 The one already published is Caldicott, H. and Eisendrath, C. *War in Heaven*, NY: New Press, 2006. The other two books to be published are: Blum, W. *Killing Hope: US Military and CIA Interventions since World War II*, NY: Common Courage Press, 1995 and Scahill, J. *Blackwater: The Rise of the World's Most Powerful Mercenary Army*, NY: Nation Books.

13 http://mygengo.com/

14 Incidentally, this amounts to a maximum of about 1,300 (calculated at 1.6 yen per word, which is close to the reality for productive translators) to 1,900 (calculated at 1.1 yen)

Japanese characters being translated per hour and a minimum of about 375 (calculated at 1.6 yen per hour) to 545 (calculated at 1.1 yen per hour, which is close to the reality for non-productive translators) Japanese words per hour.

[15] At present, KVNMN uses Google Translate through api, but the choice of the resource is currently under review.

[16] Incidentally, NICT, the main body in charge of KVMNH, has a plan to use the data to improve its own speech and text MT services VoiceTra and TexTra, originally intended for facilitating travel conversations (NICT, 2011).

[17] At the early stage, RNMNH provided translators with randomly chosen sentences, based on the belief that preferentially providing frequently repeated sentences, such as "keep away from children", would greatly improve the efficiency of translation and MT as well which would optimise the translation of the mission unit. This turned out to be totally wrong, and we changed our system so that the provided texts maintain the unit of description of individual commercial items.

[18] If we stick to the original definition of crowdsourcing that was set out by Jeff Howe as "the application of open source principles to fields outside of software" (http://crowdsourcing.typepad.com/), crowds are supposed to contribute not only to the solutions but also to the definition of problems. This strict definition does not hold for RNMNH.

[19] http://volunteer.trans-aid.jp/content/help/first/