

TRANSLATION IN TRANSITION:
THE FEASIBILITY AND EFFECTIVENESS OF CROWDSOURCED
TRANSLATION VERSUS PROFESSIONAL TRANSLATION

By

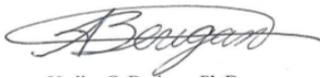
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Abstract:

Translation services are an essential part of successful human interaction in the modern world. While professional translators have served humanity for millennia, the world is rapidly evolving, and translation needs are evolving as well. Those who use translation services are seeking faster, more efficient, and less expensive means for meeting their translation needs. The demand for alternatives to professional translation services has led to the birth of crowdsourced translation. Crowdsourced translation is the process by which text is translated using the collective knowledge of a group of people. The group, or “crowd”, is most often accessed via the Internet. Because it employs the services of many individuals and the high-speed communications capabilities of the Internet, crowdsourcing is a fast, low-cost method of producing translations. Some professional translators question the feasibility of crowdsourced translation, while some of those involved in crowdsourced translation argue that crowdsourcing is superior because of its speed and cost-effectiveness. This paper investigates these claims and explores the strengths and weaknesses of each method in a variety of likely scenarios.

Introduction

According to Jost Zetsche, American Translators Association Certified Translator, “The recent emergence of crowdsourced translation à la Facebook or Twitter has exposed a raw nerve in the translation industry... Many within the translation industry have been highly critical of the linguistic quality of these endeavors. But despite the occasional linguistic hiccup, companies like Facebook and Twitter have created the "perfect" multilingual product”.

Despite his apparent endorsement of crowdsourcing as a legitimate contender in the world of translation, Zetsche’s “raw nerve” reference indicates the high level of discomfort experienced by many professional translators concerning this translation newcomer. The sudden materialization of crowdsourced translation has led to much anxiety for members of the well-established world of professional translation, and the emergence of this new form of translation has raised countless questions. These questions not only concern the feasibility and effectiveness of crowdsourced translation, but also the efficiency and expense of more traditional methods, particularly professional translation. Above all, every individual and institution that requires the use of translation services now has a stake in determining what crowdsourcing means for the future of translation.

Demographic changes within the United States coupled with accelerating globalization have greatly increased the need for translation services. The United States has been in rapid linguistic transition since the 1970s. Currently, more than 16% of the United States’ population is of Hispanic or Latino decent, and this percentage will continue growing at an exponential rate (Ennis, Ríos-Vargas and Albert 2). As a result,

access to accurate Spanish translation services, as well as translation services for languages spoken by other non-English speaking immigrants, has become an essential part of American life. This is especially true in the areas of law, medicine, and commerce. In addition, governments and businesses require fast, effective translation services for international business transactions, relief efforts, diplomacy, intelligence gathering and information sharing across a wide range of disciplines.

Professional translation has existed in one form or another for thousands of years. It is the traditional method used by any individual or entity that requires high quality, accurate translation services. Professional translators are highly trained and must obtain specific credentials as evidence of their competency. In addition, they must become technically proficient in the various disciplines in which their services may be required. As a result, professional translation is considered a very high-stakes job.

While professional translators have served humanity for millennia, the world is rapidly evolving, and translation needs are evolving as well. With the advent of the Internet and other forms of high-speed communication, everything moves more quickly than ever. Accordingly, those who use translation services are seeking faster, more efficient, and less expensive means for meeting their translation needs.

In a world in which computer applications seem able to handle many tasks that were once performed by highly skilled individuals, the idea of machine translation is very appealing. This is especially true because, theoretically, machine translations would be low-cost and could match the speed at which other digital interactions take place. Despite the desirability of this approach, no one has been able to develop a machine translation program that produces sufficiently accurate translations (Hutchins).

Crowdsourced translation, a relatively new phenomenon, offers an alternative to machine translation and is even considered a possible challenger to professional translation. Crowdsourced translation is the process by which text is translated by using the collective knowledge of a group of people (Language-translation-help). The group, or “crowd”, is most often accessed via the Internet. Because it employs the services of many individuals and the high-speed communications capabilities of the Internet, crowdsourcing is a fast, low-cost method of producing translations.

According to Zetsche, many professional translators are legitimately concerned about the quality of translations produced by crowdsourcing and how crowdsourcing may impact their careers. Considering the amount of training that professional translators require, it is reasonable to ask whether crowdsourced translation is feasible. If it is feasible, does this hold true in all translation situations? Will the advantages offered by crowdsourcing make professional translation unnecessary?

In order to examine these questions, this paper will explore the history of translation, its importance, and the comparative strengths, weaknesses and feasibility of employing credentialed professional translators versus using crowdsourcing as a method of translation.

Part I

The Importance of Translation

1. American Language in Transition

English has long been the predominant language spoken in the United States, even though an official language does not exist. When the United States Constitution was being written, “The framers of the Constitution consciously avoided declaring English the official language of the United States. This decision was most likely based on two considerations: to protect the freedom of individual choice of religion and language and to encourage immigrants to join the new enterprise” (Heath 1977). For at least one hundred years after the founding of the United States, a relatively tolerant attitude toward other languages prevailed. Various ethnic groups conducted affairs within their organizations and schools bilingually. State constitutions were either written bilingually, or provisions were made for the protection of native languages (Hakuta, 1986) (González, Vasquez and Mikkelson 38). English did progressively become the most used language in the country. Today, however, this is arguably no longer the case.

The Spanish-speaking population has consistently been growing at a rapid rate, as documented and recognized by the United States Census. According to the U.S. Census website, “The question on Hispanic origin was first introduced in the 1970 Census, and subsequently a version of the question has been included in every census since” (U.S. Census Bureau). Starting with the 1970 Census, the data collected about the Spanish-speaking population is indicative of the importance and necessity for Spanish translation services. According to the report *The Hispanic Population: 2010*, which was compiled

from data from the 2010 Census, “More than half of the growth in the total population of the United States between 2000 and 2010 was due to the increase in the Hispanic population” (Ennis, Ríos-Vargas and Albert 2). The report also states that:

Data from the 2010 Census provides insights to our ethnically diverse nation. According to the 2010 Census, 308.7 million people resided in the United States on April 1, 2010, of which 50.5 million (or 16 percent) were of Hispanic or Latino origin... The Hispanic population increased from 35.3 million in 2000 when this group made up 13 percent of the total population. The majority of the growth in the total population came from increases in those who reported their ethnicity as Hispanic or Latino. (Ennis, Ríos-Vargas and Albert 2)

This information makes it apparent that the use of the Spanish language has a statistically strong presence in the United States, and that it will continue increasing. Given this fact, the need for translation services will continue to grow just as quickly.

2. The Impact on Commerce

Many businesses are beginning to recognize the importance and necessity of accurate and high quality translation services. According to translation expert Luis Jorge:

In recent years the demand for Spanish translation services has increased an estimated 40%. This is due in part to the rise in the Hispanic population in the USA. English and Spanish are the two most prominently used languages in

America today. Though the dominant language is English, small businesses as well as large corporations throughout the US have started to acknowledge the huge number of Spanish speaking people areas.

Businesses have begun to catch on to the fact that to be successful in modern day America, pursuing commerce in both English and Spanish is essential.

Being able to communicate with the Spanish speaking population is an important consideration for many companies and they are beginning to acknowledge this. The fact that you can observe increasingly more business signs and advertisements including both, the English version as well as the Spanish translation is a significant reflection of this trend.

The more people a business is able to reach the more money it will make. Accordingly, many businesses now realize they must attain some level of Spanish language proficiency in order to reach customers who speak Spanish. This is especially the case since those customers comprise a steadily increasing percentage of the United States population. Making businesses accessible to those who speak Spanish offers the best opportunity to access that market. It also allows businesses a greater opportunity to interact with Spanish speakers on every level—as customers, employees, executives and shareholders.

The motivation for bilingual interaction in the business world, as with most matters related to commerce, is highly financially motivated. Jorge states that:

Irrespective of what business you are in or the size of your business, you are simply losing money when you focus your business on a single language. The only way you can grow your business and raise your bottom line is by catering to both English and Spanish speaking customers. However, if you are not a trained translator or you do not speak Spanish, then you will need to try to look for a professional Spanish translator in order to have your business materials converted to Spanish so you can truly reach this new demographic.

If a Spanish translation is not accurate, however, it may defeat the entire purpose of using a translation.

3. The Role of The American Translators Association

The American Translators Association (ATA) is an organization that offers highly qualified translators and translation services to individuals and businesses. The ATA provides important information about translation, including why it is so important and why its importance will continue growing at a rapid pace. Since 1959, the ATA has recognized the importance of high-quality professional translation. Their website describes the ATA as “...the largest professional association of translators and interpreters in the U.S. with over 11,000 members in more than 90 countries. The ATA's primary goals include fostering and supporting the professional development of translators and interpreters and promoting the translation and interpreting professions” (American Translators Association). Associations such as the ATA are an important

source for any kind of business that desires translation services. Individuals and businesses can contact the ATA and explain what they need translated. They then will be able to contract with a professional translator through the ATA.

4. The Risks of Improper Translation

Translating between two languages is a difficult job, and if it isn't done in an accurate and professional manner the strategy may backfire by sending a confusing, or even offensive message. Anyone who requires a translation for any purpose must be aware of the issues that can arise from using a person who is not educated about the translation process and the knowledge required to do it successfully.

Organizations such as the ATA attempt to educate people about the importance of translations and the most successful and appropriate ways to have them done. The ATA makes the case that companies are exposed to great risks when they use bilingual employees as their translators when those employees are not trained professionals. From "...ridiculous headlines to awkward or sloppy use of the local language, translation mistakes can be costly, embarrassing, and even disastrous" (American Translators Association).

5. Translation and the Law: Translators and Equal Access Requirements

Equal access is another important issue that hinges on translation. There have been many historic steps taken by Congress to provide equal access for non-English speakers to a wide variety of important rights guaranteed to all United States citizens. González, Vasquez and Mikkelson's book, *Fundamentals of Court Interpretation*, states

that “The Civil Rights Act of 1964 clearly had an enormous effect in advancing the rights of minorities; however, the Voting Rights Act did not have as immediately efficacious an outcome for language minorities” (38). Another decade would pass before Congress finally addressed the issue of language equality. González, Vasquez and Mikkelson continue to explain that:

It was not until the 1975 Amendments to the 1968 Voting Rights Act that language minorities were granted equal access to the right to vote. This legislation mandated the use of bilingual or multilingual ballots where there were large concentrations of language minorities. By passing this legislation, Congress affirmed the existence of inequality based on language, thus marking an important step in the history of political access to rights based on language remedies. (41)

In order for the government to meet this legal requirement, trained, skilled translators are essential. Without such translators, it would be impossible to produce an accurate bilingual or multilingual ballot required by law. After 1975, many other laws were either amended or passed that guaranteed equal access to United States citizens who do not speak English (González, Vasquez and Mikkelson, 41). These laws are an important step in achieving equality in the United States, but they cannot be successfully implemented without the involvement of skilled translators. As the Spanish-speaking population increases, the legal need for translation will continue to increase just as quickly.

6. Conclusion

High quality translation of Spanish to and from English has become an essential part of American society. Because of the rapid increase in the Spanish-speaking population, there has been an equally rapid increase in the demand for translation. In many different areas of American life, translation is essential to have the most successful society possible. In the economic world, businesses understand that the more people they can reach the more profit they can make. The best way to do this in the United States is to have a business be accessible to those who speak Spanish and English. In addition, the United States has enacted laws designed to assure that non-English speakers will have the same access to civil rights and civil institutions as English speakers. Successful implementation of these laws requires the services of skilled translators.

Part II

Crowdsourced Translation

1. What is Crowdsourcing?

Crowdsourced translation is one of the fastest growing and most controversial forms of translation. As defined by the online version of the Merriam-Webster Dictionary, crowdsourcing is “the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people and especially from the online community rather than from traditional employees or suppliers” (“Crowdsourcing” Merriam-Webster Dictionary). While many factors contribute to the evolution of translation methods, the Internet is arguably the single most important factor in the creation and rapidly growing use of crowdsourced translation. Facebook, Twitter, Wikipedia and many other popular websites now use crowdsourced translation to create pages that are accessible to users from all kinds of linguistic backgrounds. Given the global reach of the internet and public demand for faster, more accessible translation options, crowdsourced translation should continue increasing in popularity.

2. Issues with Machine Translation

A commonly held conception is that computers perform most tasks more easily and efficiently than human beings are capable of doing. Many jobs that used to be performed by humans are now done by computers because, as a rule, computers are exponentially more efficient. This general rule, however, does not apply to the world of translation. Machine translation has yet to achieve results that are of equal quality to

translations done by professional human translators. The article “Context-Dependent Phrasal Translation Lexicons for Statistical Machine Translation”, explores one of the main issues in machine translation, contextual information. The article explains:

Most current statistical machine translation (SMT) systems make very little use of contextual information to select a translation candidate for a given input language phrase. However, despite evidence that rich context features are useful in stand-alone translation disambiguation tasks, recent studies reported that incorporating context-rich approaches... surprisingly, did not yield the expected improvements in translation quality. (Carpuat and Dekai 1).

Context is key in yielding an accurate translation, and if a computer is not able to account for context when rendering a translation product it will not produce an acceptable, or even a coherent translation. Though machine translation continues to improve, there still continue to be many other basic issues that impede the production of accurate machine translations. The presentation entitled “Machine translation: problems and issues”, offers many reasons why, despite technological advances, machine translations are still unable to produce sufficiently accurate results, or even approach the accuracy of human translations. The article explains that computers struggle with many translation issues that the human brain is able to analyze and decipher. These issues include linguistic ambiguity, structural differences between the two languages, issues of gender, and adjustment for grammar and spelling mistakes in the source text (Hutchins). Although many systems have made great improvements in dealing with these issues, they

still do not have the accuracy that can be provided from a human being. Thus translation remains one task that is still easier and more efficient for humans to perform than it is for computers.

3. Amazon's Mechanical Turk and the Crowdsourcing Process

The modern world is fast-paced and largely run by computers. Using properly programmed computers for tasks previously performed by trained professionals is also almost always more cost-effective. For these reasons, people desperately want accurate machine translation. Given the reasons discussed above, this is not likely to become a reality any time soon. Crowdsourced translation, on the other hand, is arguably the answer to the growing demand for fast, efficient and relatively inexpensive translations.

There are many different ways in which crowdsourced translation is accomplished. Amazon's Mechanical Turk is one of the clearest examples of how crowdsourced translation has demonstrated some success. Several studies about crowdsourced translation reference Amazon's Mechanical Turk because its data about crowdsourcing is easy to understand and accessible. The article, "Creating Speech and Language Data With Amazon's Mechanical Turk", explains that:

Amazon's Mechanical Turk is "an online market place for work. Amazon's tag line for Mechanical Turk is artificial intelligence, and the name refers to a historical hoax from the 18th century where a chess-playing automaton appeared to be able to beat human opponents using a mechanism, but was, in fact, controlled by a person hiding inside the machine. *These hint at the primary focus*

of the web service, which is to get people to perform tasks that are simple for humans but difficult for computers. [emphasis added] (Callison-Burch and Dredze 2).

Amazon's Mechanical Turk is the most well-known example of how the crowdsourced translation process works:

In Mechanical Turk the basic unit of work...is called a Human Intelligence Task (HIT). Amazon's web service provides an easy way to pay people small amounts of money to perform HITs. Anyone with an Amazon account can either submit HITs or work on HITs that were submitted by others. Workers are referred to as "Turkers" and people designing the HITs are called "Requesters." Requesters set the amount that they will pay for each item that is completed. Payments are frequently as low as \$0.01. Turkers are free to select whichever HITs interest them, and to disregard HITs that they find uninteresting or which they deem pay too little (Callison-Burch and Dredze 2)

This process pulls information from a wide range of people with a combined knowledge that a single person could never possess. This also allows for continuous editing which compensates for the crowd not being a professional translator.

4. Why Crowdsourced Translations are Feasible

It is important to make the distinction between hiring a single, non-professional person for translation purposes and using a crowd of non-professionals. The collective knowledge of the crowd allows for a system of proofreading, fact checking and overall accuracy. Platforms such as Amazon's Mechanical Turk make this process simple and accessible. According to the article "Crowdsourcing Translation: Professional Quality from Non-Professionals":

The original dataset already has professionally-produced reference translations, which allows us to objectively and quantitatively compare the quality of professional and non-professional translations. Although many of the individual non-expert translators produce low quality, disfluent translations, we show that it is possible to get high quality translations in aggregate by soliciting multiple translations, redundantly editing them, and then selecting the best of the bunch. (Callison-Burch and Zaidan 1221-1222)

Because of the quantity of people involved in the process, this makes for an infinite and constant source of proofreading of the work done by the members of the crowd. This is why even though the majority of people involved in this process are not professionally trained translators, their collective work can be of professional quality.

There are also many additional benefits, including, "zero overhead for hiring workers...a large, low-cost labor force...easy micropayment system...short turnaround time, as tasks get completed in parallel by many individuals...[and] access to foreign markets with native speakers of many rare languages" (Callison-Burch and Zaidan 1221).

With the technology of the internet, crowdsourcing allows for a virtually infinite pool of knowledge that is highly accessible and efficient.

5. Crowdsourced Translation Following the 2011 Earthquake in Haiti

Crowdsourced translation has been an extremely helpful tool in emergency response situations. A good example is the 2011 earthquake in Haiti. As stated in the article “Crowdsourced translation for emergency response in Haiti: the global collaboration of local knowledge”:

The combined knowledge of the translators exceeded that of any one individual. [There are many] examples of where volunteers were struggling with particular translations and reached out [to] their colleagues. Individual lexical items were the most frequent items being queried, especially as the slang varied greatly from region to region. As part of this effort, the volunteers created spreadsheets of common slang words found across the regions using online collaborative software, while others made translation lists and even first-pass machine-translation tools. Researchers at Microsoft also began importing the messages to improve their machine translation services. (Munro 3)

It is arguable that without accessibility to crowdsourced translation, the emergency response in Haiti would have been considerably less effective. In an emergency, speed and accuracy are of great importance, and in the case of relief efforts

following the 2011 earthquake in Haiti, crowdsourced translation functioned with both speed and accuracy.

6. Conclusion

Crowdsourced translation is a very recent and continuously evolving phenomenon. It meets many of the criteria that are required to be successful in today's fast-paced, and technologically advanced world. It is more efficient and accurate than machine translation, and it does not require a trained professional to produce a quality product. It is a low cost process and is rapidly becoming a vital tool in a wide range of situations, including crisis management. Particularly because of its speed, flexibility and cost-effectiveness, crowdsourced translation should continue growing in popularity. It may also prove to be the best translation option in a wide variety of situations.

Part III

Professional Translation

1. The Origin and Evolution of Translation

Translation has had a very long and complex history that has roots in the distant past. Since its inception, it has also evolved very dramatically. In translator Marouane Zakhir's article, "The History of Translation", he notes that, "Researchers mention that writings on translation go back to the Romans. Eric Jacobson claims that translating is a Roman invention (see McGuire: 1980) (2). Cicero and Horace (first century BCE) were the first theorists who distinguished between word-for-word translation and sense-for-sense translation. Their comments on translation practice influenced the following generations of translation up to the twentieth century". Early translation was not, however, confined to Europe. "In China, it was the translation of Buddhist sutras that inaugurated a long discussion on translation practice from the first century CE" (Baker and Saldanha 7). Though it is hard to pinpoint exactly where translation originated, it is important to note that given archaeological evidence of widespread trade between distant regions as far back as the earliest human settlements, translation has been a necessity throughout much of human history.

Zakhir makes the additional point that "...the invention of printing techniques in the fifteenth century developed the field of translation and helped in the appearance of early theorists". The increased accessibility of written texts allowed for more opportunities to study and experiment with translation. Zakhir further explains that as

time passed, the study of translation theory continued growing. This ultimately resulted in establishing the standards necessary in order to construct a successful translation.

2. Qualifications for Professional Translators

It is important to make the distinction between professional translators and people who charge a fee for translation services. Merely being bilingual does not qualify someone as a professional translator. In order to qualify as a professional translator a person must be able to render a successful and accurate translation. In addition to being fully fluent in the languages involved, the skill of translation also requires training and education.

Professional translation services and agencies specify exactly what qualifies a person as a professional translator. Trans-Com is a translation services agency that provides high quality professional translations mainly to and from Russian, but also in a variety of other languages. Trans-Com specifically explains the skills required for professional translators:

The **professional translator** is a translator providing an exact transfer of information, including preservation of the style. The **professional translator** has, as a rule, a special linguistic education. He/she masters not only *foreign language*, but also the skills of translation. The **professional translator** has a wide lexicon. He/she has background *knowledge* on a theme because while translating it is often necessary to understand the content of a subject—whether it be technical translation, legal translation or translation of documents. (Trans-Com).

Without these skills, a translator will be unable to render a high quality, accurate translation.

Translation associations such as the America Translators Association (ATA) have specific requirements that must be met in order to prove that a person has the appropriate skills to be considered a professional. In order to take the ATA certification exam, a person first must meet at least one of the following criteria:

1. They may be “accredited or certified by a member association of the Fédération Internationale des Traducteurs”.
2. They may have “...an advanced degree or approved T&I degree/certificate”.
3. They may demonstrate “evidence of at least two year’s work as a translator or interpreter, which may include either of the following: Letters of reference from clients or supervisors showing two years’ work experience; or copies of records of business activity such as Schedule C tax forms, corporate tax returns, 1099s, invoices or work orders”.
4. Those who do not have bachelor’s degrees must provide the ATA with “Evidence of at least five years’ work as a translator or interpreter which may include either of the following: letters of reference from clients or supervisors showing two years’ work experience; or copies of records of business activity such as Schedule C tax forms, corporate tax returns, 1099s, invoices or work orders. (American Translators Association)

If a person is able to receive certification from the ATA, this credential proves that they meet very high translation standards and will be able to render high quality and accurate translations.

The skill and training of professional translators is well-recognized, as evidenced by the fact that translators are often contracted through organizations and companies such as the ATA and Trans-Com. According to the United States Department of Labor, the median pay for a translator in 2010 was \$20.82 per hour and \$43,300 per year. Become a Translator, a service for translation training notes that “Most languages translated from or to English can be charged between \$0.14 - \$0.30 cents per source word depending on their geographic location”.

3. Why is a Professional Necessary?

A professional translator is especially important when the required translation is related to a specialized topic. Because of this, many professional translators will decide to specialize in a specific field because they can focus on mastering a very specific vocabulary that ultimately may qualify them as an expert. Trusted Translations is one example of a company that provides the services of translators who have achieved expertise in a variety of specialized disciplines. On its website, the company describes itself as “...an internationally recognized leader in multilingual translation and interpretation services with over 10,000 expert linguists and over 5,000 satisfied clients”, and as “...the choice of Fortune 500 companies, top government agencies and non-profit organizations” (Trusted Translations). Its website explains the importance of translation specializations and how they are vital in a wide variety of fields that require translation services. “Each industry utilizes specific terminology and nomenclature critical to conducting its everyday activities. Whether it is legal, financial or software-related content, using the correct industry-specific terminology is vital to conveying the correct meaning in any translation” (Trusted Translations).

Translators who become experts in particular areas are able to provide the most accurate translations related to that subject. Such translators have an extensive specialized lexicon, and because they are familiar with the subject in general, they are also able to make better decisions concerning context, style, register, and other factors that are critical in accurately conveying meaning.

4. Types of Specializations.

The number of fields that require translation services continues to grow as the population of people in the United States who speak languages other than English increases. Within these many fields there are some specific areas where the use of a specialized professional translator is mandatory. In such instances a person's rights may be threatened or health endangered unless they have access to expert professional translation services.

Medical translation requires very specific knowledge and a particular skill set. According to the National Council on Interpreting in Health Care's, article, "Sight Translation and Written Translation: Guidelines for Healthcare Interpreters", translators and interpreters often come into contact with the following types of documents in health care settings:

1. Documents that provide general background to how an institution functions (e.g. HIPAA, patient manuals, patient bill of rights).
2. Documents with key information about the patient's condition that he or she may want to access later (e.g. patient education materials).

3. Documents that contain specific instructions for patient care (e.g. prescriptions, preparation for procedures, discharge instructions).
 4. Legal documents (e.g. financial agreements, consent forms, advance directives).
- (National Council on Interpreting in Health Care)

Documents such as these are often complicated even for native speakers of the language in which the documents originate. This means that medical translators must have special training not only in basic translation and medical translation, but also in the skills necessary to communicate complicated documents to people who often have no experience in the areas addressed by such documents. In some cases, accurate translation of medical documents may mean the difference between life and death.

Legal translation is another field in which specialization and extensive training is vital. According to *Fundamentals of Court Interpretation*:

The Constitution of the United States and its twenty-six amendments specifically provide guarantees to individuals who are criminally prosecuted by a state or federal government... The Fourteenth Amendment guarantees full constitutional protections to all citizens in the states, including the right to due process of law. (González, Vasquez and Mikkelson 99)

This means that if a person who is entering the legal system does not understand English, it is still Constitutionally required that they have the right to fully understand and assert all legal protections to which they are entitled. For verbal rights notifications, such as

Miranda rights, non-English speakers are entitled to an interpreter, and a translation is required for written documents.

Translation of law-related language takes on additional challenges because legal language "...is full of antiquated features. These include archaic morphology (further affiant sayeth not); the legal use of same, said, aforesaid, such and to wit; use of the subjunctive, especially in the passive (be it known); and words like herewith, thereunder, and whereto" (Tiersma). This sort of jargon is often unintelligible to even highly educated native English speakers. If a translator is not specifically educated in this terminology, they will not be able to provide a comprehensible translation. Without a comprehensible translation, violations of a non-English speaking subject's rights become inevitable.

5. Conclusion

Professional translation has become an integral part of life in the United States. The training that professional translators receive allows them to perform such work at the highest possible level of competency. In addition to medical and legal translation services, professional translators serve a critical role in business, government, and international relations. Ultimately, professional translators play a major role in the economic and political success of every nation.

Conclusion

Translation has become an essential service in the global community. Without translation services international trade would be but a small percentage of its current level, and multilingual and intercultural business enterprises would be almost non-existent. In the multilingual society that currently exists in the United States, translation services are also vital to enforcing the law and upholding individual rights under the Constitution and other federal and state statutes and court-made common law. As the non-English speaking population of the United States continues to grow and the Spanish speaking population surges, the roll of translation will grow along with it. Ultimately, for the United States to function at the highest possible level, or even at a more basic level, high quality accurate translation services are a necessity.

Both professional and crowdsourced translation have important roles in the world of translation. Crowdsourced translation features low cost, high speed, and a more accurate alternative to machine translation. Professional translation offers highly skilled and highly trained translators. Such professionals have an extensive knowledge set, specifically in the areas in which they specialize. This knowledge set typically goes well beyond fluent bilingualism and frequently includes detailed familiarity with highly specialized technical and cultural terminology and practice.

Currently, there is a lot of controversy and discussion concerning which of these methods is preferable. Those who favor the option of professional translation may argue that the “crowd” in crowdsourced translation does not have the proper cultural, technical, or linguistic training. Alternatively, those who favor crowdsourced translation may argue

that crowdsourcing is an equally effective and much less expensive way to approach translations. Research concerning professional translation and crowdsourced translation in various environments supports the assertion that *both* methods render accurate results *in the applications to which they are best suited*. Depending on the situation, one of these options will usually be more effective than the other.

Crowdsourced translation is the newest method of translation, made possible only by the technical advances of the past twenty years. This form of translation services could not exist without computers and the Internet. It effectively addresses certain issues inherent in other forms of translation, issues that have caused problems throughout the history of translation. One issue often encountered with professional translation is that it can take a long time to finish a product, especially if the source text is a large document. Crowdsourced translation, on the other hand, is a high-speed process. The volume of people working on a crowdsourced project means that the amount of time it takes to render a finished product is dramatically reduced. This is especially true in platforms such as Amazon's Mechanical Turk. Yet another advantage of crowdsourced translations is that, unlike professional translations, crowdsourced translations have a built-in editing function. This is because each person who contributes to the project is also able to check the other participants' work.

Crowdsourcing has also proven to be a feasible alternative to machine translation because of its speed. Accurate machine translation is a tool that is in high demand because it provides instant translations and would, if viable, dramatically cut the cost of translation services. That being said, software developers have not yet been able to devise programs that render sufficiently accurate translations for use in the professional world.

Crowdsourced translation addresses at least some of these problems because it is low cost, provides a product very quickly, and is sufficiently accurate for use in many settings.

Crowdsourced translation is an especially important tool in situations requiring an emergency response. This was demonstrated most recently in the case of Haiti's catastrophic 2010 earthquake. Thanks to crowdsourcing, aid workers in Haiti were able to rapidly gather important linguistic information about the regions in which they were working. Crowdsourced translations also made it easier to communicate with the people they were helping concerning medical and other relief-related matters.

Despite crowdsourced translation's many virtues, there are some translation situations where professional translation is necessary. These situations include translations containing highly technical terms, such as those encountered in various legal, medical, literary, and business situations. When it comes to such highly technical and specialized fields, a professional translator's in-depth knowledge of linguistic and cultural nuances and individualized terms of art, may make the difference between success and failure, freedom and incarceration, or even life and death. In order to be classified as a professional translator, aspiring professionals must satisfy an extensive list of requirements and acquire a detailed set of credentials. This process ensures that professional translators are qualified to competently perform their duties in high-stakes situations.

While crowdsourced translation may offer the best option in emergency medical situations in which there is no access to professional translators, professional medical translators would normally be the preferred option when they are available. These highly

trained professionals attain specific knowledge of healthcare that goes beyond mere vocabulary. This allows them to make translation decisions that will ensure the best and most clear communication between the parties involved. Individuals, or even crowds, who do not have this level of medical expertise are unable to comprehend the entire context of a medical situation regardless of their bilingual abilities. Cultural differences add yet another level of difficulty in the area of medical translations. This requires cultural expertise in addition to medical expertise on the part of a professional translator.

Legal language is so archaic and grammatically complicated (especially in English), that even highly educated native speakers are often unable to understand it. Finding equivalents in another language is a very challenging task because the register used in legal English is not comparable with the register used in many other languages. Bilingual legal glossaries can be hundreds of pages long. For some translators it takes years to master this vocabulary in the relevant languages. In legal translations, as in medical translations, cultural knowledge and skills attained by the professional translator play a critical role.

Very few people have in-depth knowledge of highly technical fields. Fewer still are able to compliment that knowledge with a high level of education concerning cultural differences. Only rigorously trained translation professions combine technical and cultural training with the highest level of bilingual or multilingual fluency. Despite its many virtues, crowdsourcing does not provide the knowledge or skills necessary in technical and cultural disciplines that are necessary for effective translations in many specialized situations. Yet crowdsourcing can be equally, if not more successful, in many

other translation situations. These include situations where the subject is not highly specialized, or where increasing speed and lowering cost are of paramount importance.

With so much focus on the notion of *translation*, it is sometimes possible to forget that the actual goal is *communication*. In determining the best method of translation in any given situation, perhaps the question should not be which method is better, but rather, given all the circumstances, which method will result in more accurate, effective communication. An additional question worthy of consideration is whether there might be situations in which crowdsourced translation and professional translation could be used together. Accordingly, both groups, as well as the general public, would benefit from exploring this question.

Possible ideas include crowdsourcing professional government translators for government translation projects or having professionals give presentations or provide instructional information to crowdsourcing platforms. Both of these ideas would provide more information and tools for each group of translators. The combination of the professional translator's extensive knowledge and training and the power and cost-effectiveness of the crowd could prove to be a potent tool in the world of translation.

Though the controversy about which of these translation processes is better will likely continue far into the future, it should be evident that each has its place in different translation situations. Each has its strong points that allow it to be a highly accurate and effective means by which a translation can be produced. These two approaches also have the potential to be used together, which could ultimately strengthen the entire field of translation.

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