

A Reflection on the Practice of Auto-Translation and Self-Translation in the Twenty-First Century

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Abstract:

This paper explores, assesses and compares the two terms: Auto-Translation and Self-Translation. Automatic Translation shortened “Auto-Translation” deals with machines or software while Self-Translation represents the translator’s effort using his knowledge, intelligence, skills, tools and techniques in translating his text to another language. The world is today requires the controlled by technology, it implies that translation requiring knowledge of certain tools. A tool can be a computer or software that aids in the translation process. With the advancement of technology and demands by users, translators have moved into the high-technological stage using machines to translate languages with the backing of processes and technologies. Using comparative approach and comparative theory of translation to assess the practices, the writers discovered that machine language and Artificial Intelligence are experiencing esthetic and values issues which are the deficiencies of automation. In translation, the translator applies whatever is necessary such as instinct, knowledge and available resources to solve translation problems that are naturally in-built in humans.

Keywords: Human Translation, Computer-Aided Translation (CAT), Translation Memories (TM), Auto-Translation, Self-Translation.

Introduction

Several scholars and experts in from different fields have attempted to define the concept of translation. It is the product of the intervention of a mediator between the reader and the original author. According to (Catford 5) the idea added translation as “an activity of enormous importance in the modern world and it is a subject of interest not only to linguists, professionals, and amateur translators and language teachers but also to electronic engineers and mathematicians”. Globalisation has made it possible to integrate machines or software into translation to ease the task of a translator. It has been observed that accepting automated translations remains a debating issue, as texts translated by machine are efficiently corrected by human translators in most cases, (Gouette 17). Human capabilities are resilient in translation where a translator is capable of consulting other sources besides the knowledge s/he acquired while the machine is stagnant and restricted to only programmed data assigned to it. Machine Translation (henceforth, MT) accesses only assigned data, as it cannot go beyond the instructions of a programmer.

In general terms, technologies are collections of tools as it extends human capacities. It can be entities of both material and immaterial shaped by the application of mental and physical effort to achieve some values. In this context, technology refers to “tools and machines that may be used to solve real-world problems”. Also further that “machines and tools need not be material; virtual technology such as sophisticated software” helps in facilitating and automating the task of a translator and translation process just as Internet technology with its “universal access to information and instant communication between users has created physical and geographical liberty for translators that was inconceivable in the past”, (Olivia 12). Therefore, Information Technology (henceforth, IT) has fashioned a “screen culture” that replaces the “old culture” print. The distribution of printed documents and information on the Internet is being accessed and dispatched straight through digitalization; these digital documents are instantly available, opened and processed with flexibility. The result is that the status of information has changed becoming either temporary or permanent according to the need for a translator. IT is associated with some advances

that include speed, display and ease of navigation, convenience, and cost-effectiveness. With the above, we can say that the technological advantages assist automation.

Besides, Automation is related to the advent of computers allowing the automatic translation process to be possible. On the same lane, we should also remember in the history of the field the fact that there were scholarly speculations about the possibility of automating translation, (Gouette 27). With the above idea, (Douglas 14) suggested that “novice translators should also be strongly warned against trusting Google Translate (GT) to produce a submittable draft; machine translation is not well enough developed for that. Post editing is nearly *always* required”. This proves that the intervention of a human translator is of paramount importance. It is therefore advised that a translator should not depend fully on the output of GT without proofreading, editing, transformation and considering the structural and semantic aspects of the translation before finalizing it. Accordingly, human intervention to automation can reach 90% of accuracy level; you will not get a 99% accuracy level from any software you use. While humans alone hardly reach above 80%. Why do we say this? Does it mean the software cannot achieve results as expected? This is because humans disagree with each other too often, and technology is not sufficient without human intervention.

Nowadays, there are insufficient human translators due to the demand for translations because individuals and organizations do not recognize translation as a complex activity requiring a high level of skill. It is difficult for a translator to produce more than 2,000 words or 6 pages per day as a good translation process. Besides, human translation is expensive because the productivity of a human being is truthfully limited. The interchange has resulted in current technological progress in terms of translation tools in search of an inexpensive solution for translators. These tools are designed to take care of the translator's need for any available information and non-sequential access to extensive databases.

The practice of translation is done in different ways. It is Auto-Translation (Automatic) when it deals with machines (computer) or software. It is Self-Translation when it involves the activity of a human translator using his thoughts, experience, knowledge, style of his work to translate to another language. By Automatic shortened Auto, means it is capable of operating, transforming, or translating a text without external control or intervention of an individual or human being while by self means it is the act of using one's own experience of phenomena: perception, thoughts, or knowledge to operate or to translate his text. Usually, this kind of translation happens to bilingual authors.

Translating is an interactive process between human translator and computer as Computer-Aided Translation (CAT) incorporates manual editing stage into the software. The MT systems available today are not able to produce high-quality translations unaided, as their output must be edited by a human translator to correct inadequacies and improve the quality of the translation. In support of this point of view, Ramón, et al., (2004) add that “the intelligent use of machine translation should mean that our best human efforts are focused where they are most needed”. However, technology is not perfect, and translators must be very aware of those imperfections. Our research question goes thus:

Why is auto-translation being practiced while we have self-translation?

Contrast between Auto-Translation and Self-Translation

The concept of translation is extracted from the general idea, understanding of theoreticians in the field of translation. The main idea in translation is that a translator uses his knowledge of the two languages to bring out the scripted ideas written on papers, the projections and approaches that develop a country but are hidden because of the language they are in, (Yakasai 14).

The translation must have contact with the linguistic system of the source language as well as the target language. A transformation of text from one language into another can be achieved without variations other than those required by the Target-Language Grammar (TLG). If, given two utterances, one in English and another in French, there exist between them a precise correspondence of culture, structure, and significance, and the equivalence is achieved.

This is to say that the writer knows best of his logic, styles, culture and figurative language used in the original work, now s/he translates it into another language himself. The translation will be more vivid as opposed to another translator translating it. Popovič, (16) supports this by defining Self-translation as “the translation of an original work into another language by the author himself”. In addition to the above, Whyte, (2002) views it as the process whereby “the author of a literary text completed in one language

subsequently reproduces it in a second language.” The idea here is that the translator is dominant in both the ST and TT that include literary and non-literary texts. Popovič, (19) insists that self-translation “cannot be regarded as a variant of the original text but as a true translation”. Therefore, the indisputable point around self-translation is an argument of the notion of translating the original text into another language by the author (usually bilingual) himself as a translator.

According to Koller “the difference between translation and self-translation is a matter of authority”. As supports by (Hokenson et al., 20) that self-translators are “idiomatic bilingual writers who have two literary languages: they compose texts in both languages, and they translate their texts between those languages. Thus the bilingual text refers to the self-translated text, existing in two languages and usually in two physical versions, with overlapping content”. An example is the play writer Goldoni, (1707–1793) who wrote both in Italian and French, practicing self-translation. He says:

I nevertheless had an advantage in this regard over others: a mere translator would not have dared, even in the face of difficulty, to sidestep the literal sense; but I, as the author of my own work, was able to change words, the better to conform to the taste and customs of my nation, Goldoni, (13).

In support of this to identify the differences between two core types of self-translation, according to Petrucă, (2013) is that the first being successive translation, which takes place after the writer finishes his original work and afterward decides to translate it or “write it” in one or more language(s). The second is simultaneous translation, when “the author/self-translator writes both versions at the same time”.

Besides, prominence is laid on the consistency of output between auto-translation and self-translation, as (Jung 2) emphasizes that “the main difference between ordinary translators and self-translators [...] is the fact that self-translators can access their original intention and the original cultural context or literary intertext of their original work better than ordinary translators”. We consider some features for comparison which are:

Machine Translation versus Human Translation

According to (Goutte et al., 27) “everybody can clearly see the importance of a system that is capable of automatically translating texts from a source language into a target language”. Nowadays in translation, users can have access to MT to understand messages in other languages without learning foreign languages. Understanding these messages is central in confronting issues of companies and media. The process of combining human language and computers is referred to as computational linguistics. This can be achieved with the assistance of a computer programmer and a linguist to set programme software using language codes and parsing. It has relation to MT because it transforms text from one natural language to another. The MT is the most widely and known application on the internet as it:

Replaces words in one language for other words in another language by putting into considering the connotative and denotative meaning and equivalents in the target language like the translation of proverbs and idioms, (Ramón et al., 4).

On the other hand, Human translation is the first form of translation that involves the use of knowledge, experience, intelligence and brainwork of a translator to transform messages from one language to another. In the history of translation, it is the best translation ever. Due to reasons beyond doubt such as accuracy, originality, meaning, correspondence and/or equivalence and culture-oriented human translation cannot be compared with MT.

Computer-Aided Translation (CAT) versus Human-Aided Translation

On one hand, CAT is a “form of language translation in which a human translator uses computer software to support and facilitate the translation process”.¹ In support of the above, an expert in the field CAT adds that it is a complex process containing specific tools and adaptable technology to the needs of the human translator, who is involved in the whole process, (Olivia, 4). In different stages involving a computer, human translators assist in the translation process. Perfect translation cannot be achieved by computers without any human interference. In the translation process, “the computer system in the workplace that the translator can

¹ www.wikipedia.com/computer-aided-translation accessed 13/7/2017.

access records of different texts and tools that assist him in executing his task based on the need”.² It has been proven that CAT saves time and gives the translator the necessary instantaneous support and autonomy of manipulating texts through accessing a predictable range of current information.

On the other hand, Human-Aided Translation (HAT) is a type of translation achieved completely by a computer (automated) but there is a need for assistance by a human editor – (translator). This assistance has two phases: before and after editing. Before editing, a translator prepares the text for entry to the system. The computer specially programmed for translation transfers the text from one language to another. Then, the translator does the editing by correcting the structure, word order, syntactic structure and style of the target language message and usage.

Translation Software versus Translator

On one hand, software or translation technology advances with combination with modern communication requirements to substitute automatic translation using Information Technology (IT) gadgets. According to (Pradeep et al., 27) software is “a set of Computer programs, procedures and associated documents describing the programs and how they are to be used”. They added that this kind of translation has a limit. Translations are built on gigantic dictionaries and sophisticated linguistic rules that follow set rules by linguists and programmers.

On the other hand, a translator is a human being who is trained for converting or transforming texts from one language to another using competence and experience. In history translation, there is no comparison with any machine or automation to a human translator.

Online Bilingual Texts versus bilingual texts

On one hand, auto-translation has data normally comprising of a source text and its equivalent translation as transformed by human translators. As Olivia, (2004) stated “this document is stored electronically and is called a bi-text”. These categories of documents are stored by electronic means for accessibility to facilitate succeeding translations; through systematizing selected amounts of the process through ready solutions to stationary expressions. Due to the need for data gathering or archives and with the rise of the translation market, companies and international organizations increased their interest in the accumulation of texts or documents stored systematically that can be accessed in different languages for immediate consultation, (Gouette 17).

On the other hand, self-translation is always done by a bilingual translator that masters at least two languages, thereby writing the first in one language and translation in another, or writing both simultaneously at the same time.

Translation Memories (TM) versus Translators Archives

On one hand, Translation Memory (henceforth, TM) is a database where a translator stores recent translations for future re-use; it can be either in the same text or in other texts for retrieval for further usage³. It is recorded in bilingual pairs: a source language segment (usually a sentence) combined with an equivalent sentence in the target language segment.

According to (Gouette 12), translation memory is a “tool of MT which can be relatively small, automatic processing presumes the availability of an enormous amount of data”. When a translator searches for an identical record of the source language segment and it comes up, then TM archives will find the just translated segment and automatically recommend it for the current translation. The translator, therefore, is “free to accept it without change or edit it to fit the current context, or reject it altogether”, (Olivia 2).

On the other hand, translation archive eases the task of translator from starting all from scratch. Also, a translator finds the stored record of his previous translation that is relevant to the current task for reference to have an idea of how to go about with the present task.

² Electronic monolingual and bilingual dictionaries, glossaries, parallel texts, translated texts in a variety of source and target languages, and terminology databases.

³ www.translationdirectory.com/article92.htm

Categorically, a translator is more reliable than a machine as a translator can search for, refer to, find equivalent or correspondence of a text, identifies its connotative or denotative meanings and finally makes a meaningful and acceptable translation based on his or her experiences and competence in the languages. But an auto-translation involves a set programme in software or database that is only limited to the assigned knowledge by computational linguistics and programmers that it cannot translate beyond it.

Methodology

This research used qualitative and comparative approaches of translation to assess between auto-translation and self-translation. The comparison will help us in finding views of experts on Auto-translation and Self-translation thereby comparing both. Linguistic Theory is also applied to this research as grammar and language are considered in meaning.

Assessment Practices of Auto-Translation and Self-Translation

IT is inevitable nowadays, as the practice of translation in the twenty-first century is taking a new dimension. The Comparison of translations helps in assessing the impact of each translation as an entity. Automatic (Auto) translation, also known as MT is online applications services that use “Machine-Learning Technologies” to translate large amounts of text from and to any of their supported languages. Although the concepts of the technology and the interfaces to use it are relatively simple, the science and technologies behind them are extremely complex and bring together several leading-edge technologies such as machine learning, in particular deep learning, Artificial Intelligence (AI), big data, linguistics, computational linguistics, Cloud Computing (CC), and Web Application Programming Interfaces (APIs).⁴

On the other hand, self-translation has attracted critical attention especially at the beginning of this century. In the wake of intensive investigation into the field of non-authorial translation, self-translation has been recognized as a special branch of translation studies. Therefore, self-translation is a translation of a source text into a target text by the writer of the source text. It occurs in various writing situations. Self-Translation occurs when an author writes a work in more than one language. In achieving this “the author engages in an individual process by performing the act of self-translation him/herself”, (Scheiner 66). According to (Hokenson et al., 207), the bilingual writer moves “between different sign systems and audiences to create a text in two languages”. The works of bilingual authors and/or self-translators are most often studied in only one of the two languages, which means that an important dimension of these works is left unexplored. It is difficult to classify Self-Translation because one must consider whether both texts are translations or whether one text is the original and/or whether both are original literary works.

According to (House 25), there are three basic criteria to systematize the approaches that help to examine and account for quality assessment translation issues. According to him, i) we have the relationship between the original text and its translation; ii) the relationship between the original text (or features of it) and how it is perceived by the author, the translator and the recipient(s); and iii) the consequences which results in these relationships and how to distinguish a translation from other types of multilingual text production.

The authors reviewed some approaches to evaluating translations with a view to whether and how they can satisfy the three criteria formulated above. In the majority of the quality assessment procedures, there is a general idea on how good or bad translation is viewed compared to the original whether automatic or human. Other judgments are originality, intelligibility and informativeness of the translation as compared to original text and it should capture the tone, the idea and the style of the original text.

According to (Munday 295), self-translation is “in the area that are producing practical results in the form of new statistical tools for the translator and machine translation”. This is where GT tends to provide a result for online users that cannot understand a message in one language simply because one does not know that language. It can also give an insight into the TL users.

Additionally, (Douglas 38) explains that it is “an online Statistical Machine Translation (SMT) system whose reliability has improved to the point where some translators, in some language pairs, find it cost-effective to create the *first draft* with GT and then edit it into professional form”. As further explains by (Munday (289) that “the production of multiple TL versions (e.g. software localized for distribution

⁴ www.microsoft.com/automatic-translation-and-Microsoft-Translator accessed 13/7/2016.

worldwide in the local languages) modifies the ‘simple’ model of ST-TT transfer”. The perspective is applied to “internationalization”, which leads to the adaptation of accepted communication models. The author (131) adds that “software should fulfill the function of instructing the TT receiver in the same way as the ST does for the ST reader”. If human translators take too long, computer solutions can be explored.

The real House model of TQA is based on equivalence and language theories. It is measured to provide a means of analysis (Discourse Analysis) as well as cross-cultural issues of original and translated texts; a comparison of two texts and evaluation of their equality. The model is wide-ranging based on the pragmatic approach, Halliday’s systematic-functional linguistics and developed through the framework of Prague school of language and linguistics, register theory, stylistic and discourse analysis.

Thus, we can add that auto-translation is “an advantage over automatic evaluation scores in that they are cheaper than human evaluations and take less time. The main idea of most automatic evaluation scores is: the closer a machine translation is to a professional human translation, the better it is”, (Isele 13). Also, we observe that Auto-translation has a limit based on the programs of words in the machine while self-translation has no limit because the translator can consult experts, edits, modify and analyze before having a meaningful and coherent translation. On one hand, humans can depend lengthily on languages and world knowledge as their judgment of its quality tends to be more accurate than any automatic measure. On the other hand, human judgments are highly subjective and vary between judges on different situations, evaluations and times, (Gouette et al., 19). The correspondence with human judgment is mostly based on assessment and collections of auto and human translations that consider adequacy and fluency on a scale of 1-5. Adequacy designates the level at which contained information is in one or more translations under review while fluency measures exactly how grammatical and natural translations are structured.

According to (Danby 10) research on self-translation navigates these issues by considering self-translation, or auto-translation is a phenomenon that can be studied both in the literary and translation fields. The author concludes that each version of the text is valid, and should be included in the reader’s appreciation and interpretation of the work since they are both produced by the original author.

An instance of MT is Microsoft Translator and Google Translate (GT) which are auto-translation services from Microsoft as well as Google. The former has been in use for Microsoft groups for text translation and speech translation. It is also available as an Application Programming Interface (API) for users. These applications are available since 2006 to date. It includes Automatic Speech Recognition (ASR) that is executed using a Deep Neural Network (DNN) trained on analyzing incoming audio speech records for days.⁵ And the latter has taken over the activities for most users online as it provides services that include GT. GT is an auto-translation that uses the above technologies to translate texts into different languages of the world including major African languages like Hausa and Kiswahili. The latest technology is the camera translator introduced on smartphones after Voice Recognition (VR).

Some of the inefficiencies of Auto-Translation are increased dependency on modern tools like computers that have reduced the intelligence and creativity of translators. These affect the way translators use their brains or thoughts on the level of intelligence and creativity. Also, the systematic and formal rules are followed by Auto-Translation as it cannot concentrate on a context and solve the issue of ambiguity, denotative meanings and neither makes use of experience nor mental skills like that of a human translator even with AI machines. Accuracy is not offered by Auto-Translation consistently. You cannot get a draft or rough document of a text as auto-translation does only word-to-word translation without realizing the information given (its nature, manner and structure) which might have to be corrected manually later on by human intervention – (a translator). Auto-translation understands only binary numbers, digits, and codes assigned to it by programmers and not written texts as opposed to Translator.

Also, cultural authority is among the factors of Self-Translation which a self-translator has over a specific language in a multilingual society that may encourage a minority language to become a dominant language. English as a foreign language is internationally recognized due to its cultural authority of the language which may encourage self-translation from a national language. This is common in a situation where the author migrates to English speaking country. Another factor is perfect multilingualism in either direction with translation which a self-translator translates putting into consideration the original text as s/he understands his text more than any other translator regardless of market-related considerations.

⁵ Ibid, 13/7/2016.

Researches were made on the two independent variables: Auto-Translation and Self-Translation. They were identified from the researches using different key terms. From the empirical studies conducted, there is a human contribution in Automatic Translation as supported by (Winkler et al., 14) that “despite the large effort on machine translation approaches and despite their promising results, the quality of fully automatic translations is still poor when compared to manual translations”. This proved that the quality of the automatically translated text depends on the assessments that include the features of the system or MT when compared to the manually translated text.

According to a survey by (Trustpoint.one 2018) on automation, even though AI “acts much more like a human brain - learning and looking for the whole context of a particular translation” self-translator performs far better as he has a clear image of the original work as the author. In the same survey, AI is changing the technique of collecting, interpreting and analyzing data in the process of auto-translation in the global translation industry. It was gathered that “AI in form of Artificial Neural Networks (ANN) and Neural Machine Translation (NMT) are at the forefront of advancing translation technology”. It is currently the leading form of MT. It is proven by the survey that “instead of the previous models, NMT is in the process of building and training an ANN that continually improves upon itself with new data”. We can say that AI is a human-like machine achieved with different stages and advancements of technology. It is an imitation of nature but it still has some limits as it cannot act or behave completely like a human being. Human being has instinct and also values that assist him to differentiate things in different forms.

Research Findings

Some of the observations made during the assessment of practices of Auto-Translation and Self-Translation are:

- Esthetic and values are the deficiencies of automation machine language gadgets and AI are facing. In translation, the translator applies whatever is necessary - philosophy even linguistics to solve problems i.e. translation theory which is naturally built-in humans. While in machines even with the latest AI reasoning which acts like that of a human brain is impossible.
- The software designers and programmers are trained to consider the needs of other languages as they work with computational linguists to achieve desired results. There is lack of information when a translator is left in a void to find all the necessary data.
- In Auto-translation, post-editing by translators requires perseverance which takes a longer time than complete translation. It is required by translators with skills acquired over time and practice in actual operational conditions. While translators are becoming dependent on machines that can maintain quality control and consistent terminology.
- Auto-Translation faces a lot of issues when it comes to ambiguous words in translating text. The inefficiency can be a result of ambiguous abbreviations that are limited as programmed in translation software. While a Self-Translator cannot encounter ambiguity in translation as s/he is the author of the original work.
- Some features of development and expectations are on merging of MT and TM for enterprise dissemination systems, having the Internet as a major source, reuse of MT components for closely related languages and the improvements in quality evaluation, hybrid, and multi-engine system.

Recommendation

We need to evaluate the system on potential users (translators). We need to have quality control of accuracy, fidelity, the intelligibility of the software, readability and appropriate style. We need to consider the usage adaptability, extendibility to other languages and operating systems, compatibility of hardware and software and error level for post-editing. The translator needs a computer that has enough configuration, large compatibility for both Hard Disk (HD) in terms of memory and back-up hard disc, for the smooth running of translations. The memory of space for storing auto components should be considered by the translator for storing translated texts that are required for further translations.

Conclusion

Auto-Translation is a phenomenon that can be studied both in the literary and translation fields while Self-Translation is difficult to classify because one must consider whether both texts are original literary

works. The study gives insight into Self-Translation to the bilingual text and the uncertainties that arise during the translation process. It is difficult for one to define the original text, or how one values its translated counterpart while suggesting that both texts are equal when studied side by side and the link they establish between readers in mind.

In conclusion, we can say that self-translation is no doubt better than auto-translation. But there are some differences between the two terms: self-translation is done by human translators, like other professions; there are competent and incompetent ones. While Auto-translation or machine translation is most of the time has more or less comparable results, the human activity will be governed by whom you give the task to, their experience, their area of expertise, their availability, and their engagement. Other differences we have observed are time-consuming for self-translation and less time for auto-translation, self-translation is costlier while auto-translation is cheap in terms of price. Additionally, we have many types of translation, as in marketing texts as stated by Pearce, (2019) that involve “rewriting or changing the message or content completely to make it function for the novel audience; something that automation cannot yet execute”. In a nutshell, we rather need human mediation in all these situations.

And finally, we need to evaluate the automation of the machine in comparing the MT output and Human Translation (HT) versions by emphasizing the exact matches and close similarity of structures.

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Full meaning of Abbreviations used in the paper

AI	-	Artificial Intelligence
ANN	-	Artificial Neural Networks
API	-	Application Programming Interface
ASR	-	Automatic Speech Recognition
CAT	-	Computer Aided (assisted) Translation
CC	-	Cloud Computing
DNN	-	Deep Neural Network
HT	-	Human Translation
HD	-	Hard Disk
ICT	-	Information and Communication Technology
IT	-	Information Technology
MT	-	Machine Translation
NMT	-	Neural Machine Translation
SL	-	Source Language
TL	-	Target Language
TLG	-	Target Language Grammar
TM	-	Translation Memory