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Human & Machine Translation: Which Wins?

أترجمة البشرية & أترجمة الآلية : من أمتفوق ؟

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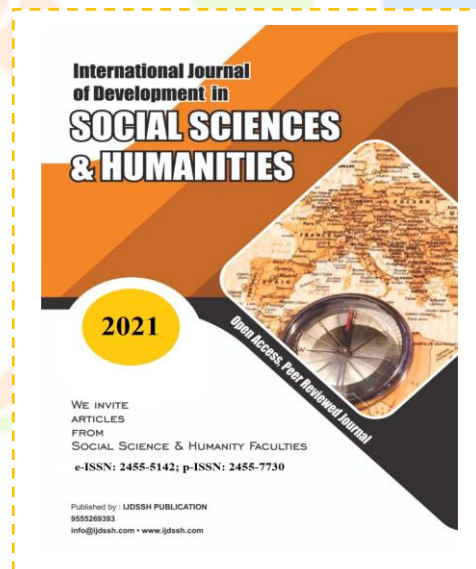
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ملخص البحث

طريقتان اساسيتان تستخدمان في مجال الترجمة ، وهي الترجمة الآلية والترجمة البشرية. ويبرز السؤال المهم هنا ، أ ؛ ومازال موضع جدل الباحثين طيلة العقود السابقة فيما لو امكن ان تحل الترجمة الآلية الألكترونية الحديثة بجميع تطبيقات ورة محل الترجمة البشرية الذكية التي لايمكن الاستغناء عنها قديما وحديثا.

غم من سلبيات الترجمة الآلية لكونها تمتاز بنقل الكلمات حرفيا من لغة الى أخرى متجاهلة بذلك المعاني المتعددة خدمات الأخرى الخاصة بالكلمات والعبارات في النصوص والسياقات المختلفة علاوة على الاختلافات اللغوية والثقافية ، الا أن البعض يرتأي بأنها ستحل محل الترجمة البشرية بجميع المجالات في المستقبل القريب. وبأية حال، فإن الهدف سي من البحث هو إثبات العكس من ذلك. حيث أن تجاهل العامل البشري في عملية الترجمة سيكلف كثيرا. كما يهدف الب إلى عرض ومناقشة أوجه الشبه والاختلاف بين الترجمة الآلية والترجمة البشرية وايجابيات وسلبيات كل منهما من مختلف وحديث مع تسليط الضوء على ترجمة الكوكل بشكل خاص.

ن اثبات فرضية البحث، يسعى الباحث الى اثبات تفوق الترجمة البشرية على الترجمة الآلية بالرغم من ايجابيات الأخيد متعددة، من خلال إجراء اختبار لمجموعة من طلبة الدراسات الأولية تخصص لغة إنكليزية وذلك بأعطاءهم بعض الج ، ترجمتها من الانكليزية الى العربية تارة باستخدام الكوكل وتارة اخرى باستخدام الترجمة البشرية. بعد ذلك يتم تحليل ار وتحديد سلبيات الترجمة الآلية وتقييم اداء الطلبة في ترجمة النصوص من الانكليزية الى العربية من النواحي اللغوية فية المتعددة الاتفة الذكر في ضوء نتائج الاختبار التي توصل اليها الباحث لإبراز دور الترجمة البشرية واثبات تفوقها ، مة الآلية ليس في مجال البحث العلمي فقط بل وفي مجال التواصل مع المجتمع الدولي أيضا.

ت المفتاحية : الترجمة الآلية ، الترجمة البشرية ، الأيجابيات ، السلبيات

ABSTRACT

Mainly, there are two types of translation methods used in the world of translation; Human Translation (HT) and Machine Translation (MT). The never ending debate between the two types during the world fast change and modern technology over the last decades, gives rise to the question of will the automatic translation or MT and its global tremendous applications, as the Internet is the main source of information, replaces the brilliant brainpower old-new HT.

Despite the fact that MT is on risk of being merely a literal substitution of words from one language into another regardless of any linguistic considerations. It provides unsatisfactory results by ignoring words multiple meanings, order, tones, cultures, special use of words and phrases, and other linguistic nuances in various texts and contexts. It's ungrammatical and unnatural, though many assume that in the near future, it prevails in all aspects of modern life.

However, the main objective of the paper is to prove HT prevalence; for removing HT from translating process costs a lot. Besides, it aims to identify and discuss the problems of translating, at the semantic, structural, cultural, contextual, and special use of language levels. Furthermore, the paper aims to show, but from a new perspective, the differences, and the merits and demerits of both HT and MT using Google Translate as one form of MT tools.

To prove the hypotheses of the study despite the importance of MT in the global world of modern technology, the researcher is providing an English-Arabic translating test to a selected sample of university students of English major. Then, the results of translated texts are examined and the quality of students' performance is evaluated in translating in terms of linguistic and cultural values to prove HT supremacy over MT as a reflection of its prominence and irreplaceable role, not only in translation studies but in global communication.

Key Words: *Machine Translation, Human Translation, Merits, Demerits*

INTRODUCTION

Over history, written and spoken translations have played a significant and valuable role in human communication, in providing access to important texts for different purposes. As a concept, translation is very long and complex, existed hundred years ago, but it emerged as an interdisciplinary field of Applied Linguistics as an academic discipline called *Translation Studies* during the second half of the twentieth century (Munday, 2001).

Basically, the two main types of translation; Human Translation (HT); the oldest way of translating depends on pure human intelligence to change the meaning of the source language text (SLT) into the target language text (TLT), and Machine Translation (MT); the use of a very large database and statistical models to translate a text from the SL into the TL (Ahrenberg, 2017). It is assumed that there is relatively differences, which will be discussed, between the two types in different aspects, though each has its own merits and demerits.

Moreover, it is doubtfully claimed that both HT and MT have one target when transferring the meaning of the SL into the TL. For translation is not merely transferring one but many aspects; as genre, purpose, culture and context. MT is often characterized by 'overcoming language barriers' by producing texts of less quality; it lacks the above aspects and violates TL norms, such as the multiplicity of words meaning, order, structure, and special use of language. While HT often provides texts that convey the SL linguistic features into TL and are adjusted to the TL culture and audience understanding. (O'Brien et al., 2014 cit. in Ahrenberg, 2017).

However, *Google Translate* (GT), as an automatic translation tool, has limitations in the sense that both languages SL and TL have their own linguistic features and functions. GT may be able to deliver better and more accurate results in some languages than others; it is not able to produce a transparent transfer of the original texts. This creates a problem in the intelligibility of the translated text which has negative impacts upon its readers (Pasaa, 2015).

However, the latest studies have assumed that MT now can produce translation similar to that of humans' (Wu et al., 2016 cit. in Ahrenberg, 2017). The assumption is adopted over the last development in MT practices when the tasks that could be done by both HT and MT are questioned. On the other hand, other studies have proposed that the quality of the translated tasks with MT is not as professional as HT unless in specific areas. Hence, MT creates another challenge for Translation Studies (Melby & Warner, 1995).

Though, the previous studies dealt with many problems in comparing HT to MT in English-Arabic translation, were relatively sufficient. The paper, therefore, tries to fulfill the gap in literature to what have conducted so far. It aims to identify the problematic areas in translating whether done by a human or a machine, i.e. GT, in particular, as one form of MT applications, at the levels of words and phrases multiple meanings, order, structure, context and culture.

Meanwhile and based on the common claim that MT is a substitute to HT, which is clearly untrue and almost impossible to achieve. The researcher adopts the idea, specifically to prove the opposite and reviews the valuable and irreplaceable role of HT and its supremacy over MT, regardless of the importance of the later in the world of today, as being more contextual, cultural, meaningful, precise and accurate.

Furthermore, the study also tries to investigate, from a new perspective, the merits and demerits of both types, HT and GT, by comparing and assessing the quality of TTs resulting. The researcher presents a test of some sentences need to be translated from English into Arabic by a randomly selected students at the university level, once themselves and second by using GT, as a sample of MT. Then, the results of the test are analyzed to examine the quality of TTs at both HT and MT to prove HT prevalence over the later.

MT AND TRANSLATION STUDIES

The idea of automatizing translation using a universal language globally communicated around 17th C., dates back to the first concrete MT proposals by the simultaneous notion of patents in 1933 to Petr Smirov- Troyanski, the Russian and Georges Artsrouni, the American Frenchman. Warren Weaver, further, is known to be the founder of research. The invention of 'electronic computer' including translation as its non-numeric application was suggested after the II World War by pioneers such as, Alan Turing but implemented by Weaver (1949) (Baker, 2001:140).

In fact, MT and Translation Studies (TS) as independent fields, have developed greatly since last decades. In the early phase of their existence, some linguists and academics investigated Translation Discipline by means of Formal Linguistics, as a base for automatizing translation, e.g. (Catford, 1965). Later, the cultural move of TS has greatly contributed to linguistically keep it apart from MT. Many researches have showed a wide interest in conducting empirical studies in the above fields, particularly in 1990s whose results proved to be uninfluential on MT applications (Baker, 1993 cit. in Ahrenberg, 2017).

Another challenge that obstacles MT and TS, is that they do not share the same grounds and terms. While the first concerns patterns or models, the second concerns notions such as, culture, equivalence, function etc. Nevertheless, both are interested in Translation Quality Assessment (TQA) projects i.e. the German Volume of *Machine Translation and Translation Theory* (Hauenschild & Heizmann) which encompasses MT that informed by HT researches (Koehn et al, 2015 cit. in Ahrenberg, 2017).

However, one of the meeting ground between ST and MT is the Error Analysis (EA) (O'Brian, 2012 cit. in Ahrenberg, 2017). In her study, (O'Brian, 2012) focused on errors types occurred in MTs produced by translation agencies participated in her study. Other categories were also occurred in some taxonomies of the study. In conclusion, she pointed the insufficiency and improperness of the TTs quality resulting when ignoring important features of successful translations i.e. text type; its function and user requirements. She recommended new evaluation models instead, as usability and readability evaluation, ratings of adequacy and fluency.

On the other hand, concerning MT, one of the advantages of the EA is that it verifies MTTs problems and texts users' expectations. It dispenses with constantly recalling human evaluators and employing automatic error classification instead by counting and classifying these errors. Such analysis is very useful for comparing MT to HT and verifying error types, categories and purposes of the TTs (Popovic & Burchardt', 2011 cit. in Ahrenberg, 2017).

HUMAN & MACHINE TRANSLATED TEXTS

For HT and MTs to be successful and more acceptable, they are measured at the *quality* level of TTs resulting to fulfil the condition of goodness or 'appropriateness' as defined by Mateo (2014) referring to Nord, (1997) to achieve the SLT communicative purpose within the TLT context. In TS, based on TQA standard of HT and MT final product comparison, a goodness of a TT is measured if it pragmatically functions. (Mateo et al., cit in Ahrenberg, 2017).

While judging the *Goodness* or *Unacceptability* of TTs of both HT and MT, the adequacy of their contexts should be compared to the language used. In addition, the comparison of HT to MT should focus on the features of the TTs in both types, and human and machine translators' abilities; what can a human translator do that MT system cannot. Moreover, the purpose of translation must also be fulfilled in the TTs to measure their acceptability or not.

One the other hand, evaluating MTTs based on a comparison system measuring their ratings. Metrics are developed to correlate their ratings with that of humans'. This direction of MT research has conducted by Papineni et al. (2002) and WMT workshops since 2006 up to date, which rely in measurement on the similarity of the TTs to their references (Ahrenberg, 2017).

HUMAN & MACHINE TRANSLATION

Human Translation: Overview

Translation has been recorded very long ago by historians and scholars in an era preceding the bible, at the initial stages of human interaction. After the occurrence of writing within language community, needs arose to communicate the meaning of SLTs with their equivalents in TLTs to meet the needs for emotional, trade, religious and survival purposes. In other words, Translation was motivated by different factors, as trading between different nations, translating religious texts, spiritual and academic quests of mystics, saints, and philosophers of the time.

In fact, HT shapes the earliest form of translation that depends on pure human intelligence to change the meaning of SLT into the TLT. The word 'translation' comes from Latin origin means to 'bring' or 'carry across' a text from one language to another. Another Ancient Greek reference to the word 'translation' is 'to speak across' or 'metaphrasis' as different from English 'metaphrase', means a 'literal' or 'word-for-word translation' as opposed to 'paraphrase', means 'a saying in other words', the key term for 'dynamic equivalence', while the first is a key term for 'formal equivalence'. In the sense that 'metaphrase' is relatively unrestricted when one word in a given language may has more than one meaning and similarly, a given meaning may be represented by more than one word. Yet, the terms 'metaphrase' and 'paraphrase' are the main extremes of translational approaches through history that give insights to where and when translating has been started and used along ages (<https://en.wikipedia.org/wiki/Translation>).

However, the origin of translation belong to the two earliest well-known literary translated works that included The Sumerian Epic of Gilgamesh (c. 2000 BCE) in Mesopotamia, which was translated into Southwest Asian languages, and the translated Indian documents into Chinese by Buddhist Monks around the second millennium BCE. The Ancient Greek literary works of Romans were also translated, then utilized in Rome by Cicero and Horace up to the development of newer practices in 17th century. Later, the knowledge and findings of Greek academics were widely studied by Arabic

scholars and in turn translated into Latin in the Middle Ages after the Greeks conquer (https://en.wikipedia.org/wiki/Translation#Near_East).

Thus Religion played an essential role in developing church translation by the Roman lawyer and writer Cicero and Saint Jerome who translated the Greek Septuagint gospel into Latin in the 4th century AD. During that time, Bible translation of religious texts by Jerome provided 'literal' 'word-for-word translation' to Latin readers. While Cicero, as an Attic orator in 46 BEC did not translate literally as 'w-f-w' but was seeking to keep the style and force of the original (Cicero 46 BEC/1960:364 cite in Baker, 2001). Hence, with the spread of Bible translation during Protestant Reformation, Christianity took two main streams, Roman Catholicism and Protestantism that affected the disparity of translating the two religious forms into Europeans concerning crucial concepts and paths of the bible (<https://www.kwintessential.co.uk>).

During the Industrial Revolution, with the rapid development of economy in Europe and the global advancements after the machinery invention, a huge number of faster and business texts are produced, time is invested by translation agencies and companies in foreign markets.

Following 18th century and onwards, translation services became available along with the wide widespread of the internet and its tremendous modern applications. Historical texts and international documents become easily interpreted and translated into all languages. Though, some of these services are practicing literal w-f-w translation, special companies are working along with professional translators to translate written and spoken texts into multiple languages concerning the relevance and target receivers cultures ([https://\(www.kwintessential.co.uk\)](https://(www.kwintessential.co.uk))).

Though, the constant debate of HT versus MT in the second millennium is still going on as the technological developments increasingly widen GT functions. Many analytical studies conducted to test GT accuracy program over time, have proved its shortages as being broken, limited, insensitive to culture and ignorant to text type function. Now, we have to shed some lights on the merits and demerits of both types to prove the HT supremacy over MT.

Merits and Demerits of HT

One merit of HT is that, the person who provides the translation, ensures that the SL meaning is being delivered as accurately and entirely in the TLT rather than simply translating words in isolation. In other words, a human translator is able to interpret the content of SLT context at the

linguistic level and beyond that and reproduce it in the TL one creating the same effect on TLT readers. Meanwhile, SL cultural aspects should also be interpreted well in the TLT.

Human translators often provide readers with grammatical correctness and understandability of the original texts they are working at. They can review their work conveying the same grammatical features in the TLTs. Moreover, they can interpret the creative use of language and figures of speech such as idioms, metaphors, proverbs, etc ..., providing their equivalents in the TLTs, unlike GT that can't understand the idiomatic differences between SLT and TLTs producing uncontextual w-f-w literal translation (<https://www.gatewayglobalization.com>).

Further, humans have a unique ability to interpret language in different contexts in real-life situations. They can understand emotions, feelings and non - verbal means of communications and culture of the SLTs and reproduce them in the same context of the TLTs which couldn't be done by machines. The more human translators are experienced and indulged in the two languages at hand the more creative their translation would be (Gubler, 2015).

On the other hand, a significant demerit in HT is that, professional human translators are not as quick as machine translators; the turnaround time is longer. It requires more time by humans to activate their cultural knowledge, grammatical correctness and special use of language in the TTs to ensure a highest level of accuracy. Thus private translators can't work for their own unless involving in translation firms, in a company with many other experienced translators. Though, sometimes, GT is used instead to provide a quick-service translation to convey the general meaning of the SLTs content at the expense of culture, grammar and accuracy.

Accuracy, hence, is the most required condition for the success of translation business. So, it is money consuming depending on the level of accuracy and translation type a translation agency does provide its users. Though HT is described as being more accurate than MT, it still suffers the limited number of the languages a human can translate and the uncertainty of obtaining 100% accurate translation (<https://www.gatewayglobalization.com>).

Machine Translation: Overview

Machine translation, or MT as defined by Wikipedia "is a sub-field of computational linguistics that investigates the use of software to translate a text or speech from one language to another". Accordingly, the software allows words mechanical replacement from one language into another. But that doesn't always produce correct translation as it fails to provide exact equivalents to words

and phrases for their multiple meanings in the TLTs, and their special use in language context (<https://en.wikipedia.org/wiki/Machine-Translation>).

The idea of mechanized translation has been investigated by many scholars along history. The first of which dates back to the Arabic cryptographer Al-Kindi, who, in 9th-century, has promoted new techniques for systematic language translation. Before that, in 1629 particularly, René Descartes has developed a universal language, whereby various equivalent ideas in different languages can share one symbol. Later, in early 1950s, the idea of achieving full automatic MT has been investigated by Yehoshua Bar-Hillel, with high quality translation.

In 1949, Warren Weaver has developed the issue of using digital computers in translating natural languages throughout blending information theory, code breaking lessons and natural languages principles he learned during the II World War allowing a machine to translate from one language into another. In addition, Georgetown-IBM experiment in 1954, was the most influential MT application as it gained the world's approval realizing that it would master the world in future and turn it into a business when much money could be obtained from this new field (<https://en.wikipedia.org/wiki/Machine-Translation>).

Later on, researches proved that MT still hasn't truly been mastered by producing sufficient quality of translated versions. They suffer from semantic ambiguity; when a word means more than one meaning. In addition, to translate accurately, the output of MTTs can't be obtained without human interference. Therefore, electronic resources such as dictionaries, glossaries, and terminology management systems are recommended to support human translators work.

Following Georgetown-IBM experiment and its brilliant global applications in MT, in 1968, SYSTRAN (one of the oldest MT companies) headed MT field in the US and began to translate manuals in (1978) and provided online translation services in 1988. After that, the interest in statistical models for MT became more popular especially after computers advent by providing cheapest translation services. Many other translational programs have developed and implemented by international companies that provide a variety of translational services and functions worldwide (<https://en.wikipedia.org/wiki/Machine-Translation>).

Merits and Demerits of MT

Any translation method has its own merits and demerits which makes it more recommended than others. Obviously, one of the most distinctive merits of MT is that it is cheap, if not free. It can

provide, as GT does, good translations within few minutes for businesses and global companies seeking low-cost prices for the large amount of content of their documents and translated material that do not needs human precision or copywriting but to translate the general meaning instead (<https://www.transifex.com>).

However, there are a variety of free MT apps to translate texts, images and spoken words. They form a source of attraction to firms of limited budget, i.e. the software available online, with GT as one of these apps, the most public one. In addition to other MT apps that are constantly invented and improved with advancement of modern technology, such as neural MT whose main function is to maximize the performance and functions of translating (Peng, 2018).

MT is also the quickest and easiest tool designed to speed up the rate of translated documents and provide its users with a content of highly qualitative output. It saves time poured in looking for meaning of words and phrases in other resources, i.e. dictionaries etc. When comparing the output rate of a professional HT around 2000 words a day, MT can generate thousands of words per a minute due to its literal word-for-word translation that doesn't take time into consideration (<https://omniglot.com>).

In addition, MTTs are readily accessible. Anyone who has a mobile phone or a computer can download any app or access a website easily. Moreover, using MT mean that one program can translate hundreds on texts into different languages that one professional translator could never achieve. Thus, MT has proven helpful in urgent situations.

On the other hand, one of the main disadvantages of MT is the inability to identify the context; its content clues and creative use of language, and the SLTs cultural references. The resulting TTs seem robotic, poor when multiplicity of implicit meanings a text has are misunderstood. For instance, specific and technical terms, and tone of voice to translation, are misinterpreted by MT regardless of the text correct grammatical structure due to its literal w-f-w when a machine can't depict the important words from unimportant for the translation (Peng, 2018).

The ambiguity of TTs is another challenge for MT. To (Robin, 2009), two given languages may have completely different structures which create grammatical errors in MT. Besides, not all SL words have their equivalent in the TL. Sometimes, we need to convey the meaning of SL word by using more than one word in the TL. Words, a group of words or whole sentence can also have more than one meaning in a language. Such a problem cannot be solved by MT.

Disadvantages of Machine Translation

If the content you want to translate is an internal resource, then a machine translation would work. Again, this will depend on whether the content needs 100% accuracy, or is acceptable with some rough edges. As a rule of thumb, if the content will be seen by your customers, then you shouldn't machine-translate it. Machine translations have poor accuracy as regards sentence construction and using correct words and meanings. Specific and technical terms are also difficult to translate. Often, machine translation looks more like source text than an actual sentence.

Due to their literal, word-for-word nature, machines don't have the ability to add context or tone of voice to translations. Words have no meaning to a machine and they can't differentiate the important from the unimportant. The end result resembles a robotic block of text that makes some sense but was written by someone with no understanding of the subject matter.

Using machine translations on all your content can be costly and not just in a monetary sense. Things like online legal documents or instruction manuals need to be 100% accurate. Mistakes here can cost huge sums of money or cause lasting damage to your company's reputation. As mentioned above, machine translations are always improving as technology gets better. But these aren't blanket improvements and a decent machine translation to one language may not be the case for another.

Testing will show the quality of translation for one language but is no indication of how well other languages will translate. Therefore, machine translations are frequently imprecise because they obtain the words from a dictionary and adhere to the conditional restrictions set by the designer. The rate in different kinds of errors can be checked out in the following chart and analysis table.

To Gubler (2015), the issue of *quality* of TLT is the most critical in MT. When a context of language is inefficiently being processed then misunderstood in computer software program with words multiple meanings each language has. Whereas, human translators can understand and interpret non-verbal language forms as emotions and thoughts in complex situations, i.e. MT cannot understand figures of speech context as metaphors, idioms etc, providing a w-f-w literal translation which makes little or no sense when translating into different languages (<https://www.inwhatlanguage.com>).

Hence, ignoring the cultural factors when translating, MT would be failure in conveying SL messages in the TLTs. Each culture has its own virtues and ethics, sometimes even vary within the

same culture that should be mastered enough in HT. Otherwise, if messages are understood thus communicated erroneously, serious problems are created in translating in foreign markets. Let alone if translation is produced by machines that lacks such cultural awareness. Therefore, a machine translator is incapable of being culturally sensitive to above factors (Gubler, 2015).

Problematic Areas in MT

Perhaps the most problematic areas posed in translating, whether done by human or a machine, concerning GT, are the special use of language, multiple word meanings, syntax, and context. These areas and the ambiguities consequently arise are discussed to test MT acceptability.

1. Special Use of Language

Melby (2005) states that producing a good and comprehensive translation is not a trivial matter, as translation is a very difficult process. To produce a good translation, a translator has to know intimately the two languages at hand considering special use of language, the trickiest in translation i.e. idioms, metaphors, and other fixed expressions forms. Consider the following:

- *Time flies like an arrow.*

The above example contains two figures of speech, a metaphor and a simile. Time does not fly in the literal sense; it is used metaphorically. The above translation can be very easy to translate for anyone who has sufficient knowledge of English. Based on this assumption, a human translator may translate the sentence in a way that conveys the meaning of the SL to TL readers adequately, as الوقت يمر بسرعة. A more sophisticated and literary translation would be instead: الوقت كالسيف أن لم تقطعه قطعا

Therefore, the literal direct translation of words as done by MT often produces inaccurate and improper translation. In fact, translating fixed expressions in a direct way, may appear odd and ambiguous to readers. Thus, the outcome of translating the sentence above by means of MT, as GT would be totally different and meaningless as الوقت يطير كالسهم *

2. Multiple Word Meanings

To Melby (2005), most words have multiple meanings. Therefore, a translation based on one-to-one substitution is rarely acceptable, whether translation is done by a human or a computer, for meaning cannot be neglected. Based on this assumption, most words have different meanings, depending on the way and the context of their uses. Take for example:

- She will *park* the car so we can walk to the *park*.

The word *park* has been used twice above. The first functions as a verb which means (to leave a driving vehicle in a particular place for some time), while the second functions as a noun which means (an area of a public land in town or a city where people go to walk and relax), thus, the HT is more likely to be *ستركن السيارة لكي تتمكن من المشي في المنتزه*

The machine analyzes the grammatical structure of a sentence to interpret the most likely meanings of the words. If a word has more than one definition, the computer displays the translated sentence along with each of the possibilities, and the operator chooses the most translation that makes sense. Thus, MT is not as accurate and meaningful as HT and the result of translation by GT is unacceptable * *أنها ستوقف السيارة حتى تتمكن من السير إلى الحديقة*

3. Syntax

Syntax is one of the most complicated area in translation. Translators should be aware of the syntactic structures and nuances of the two languages at hand to produce successful translation. For many syntactic problems occur in translating from English into Arabic. To Ghazala (2006), "different grammatical problems arise while translating a text of whatever kind from one language into another due to that both English and Arabic have different grammatical structures". The fact that the later has more complicated grammatical structure than the former, and each has different word-order and grammatical features. On one hand, most English tenses do not exist in Arabic and all English sentences are verbal (i.e. should include a main verb each). On the other hand, Arabic has both, verbal and nominal (i.e. no verbs at all) sentences.

Moreover, all English sentences usually start with a subject, followed by a verb, while Arabic are just the opposite, they start with a verb followed by a subject. Finally, the adjective precedes the

noun in English, while the noun precedes the adjective in Arabic (Ghazala, 2006). So, a professional translator has to consider the syntactic differences in translating. Consider the following example:

- He had been married twice and had three sons.

A human professional translator is more likely to translate it as **لقد تزوج مرتين وأنجب ثلاثة أبناء** Whereas GT would be as **كان قد تزوج مرتين ولديه ثلاثة أبناء ***

The above sentence is in past perfect tense which is not found in Arabic. For English sentence has only past, present and future. Therefore, the use of the word **كان** by GT is unnecessary in Arabic, because the form of the word **تزوج** already refers to the past tense.

4. Context

To Melby (2005), it is extremely important for a translator to be sensitive to the context of both SL and TL, and the intended audience of the TLTs. To him, meaning is not an abstract object separate from people and culture. He argues that in order to be sensitive to the TL audience, a translator must use a suitable level of language suits TLT receivers and conveys the contextual features of the SLTs. Being insensitive to TL context and audience may result in boredom. A translator has also to convey the same SLT effect into TLT readers. For TLTs are culture specific, as all universal languages, having their own components related to their own culture rather than others. As such a translator has to convey as similar, if not exactly the same, cultural equivalents of the SLT concepts and values in TLTs to be accepted by their readers, as shown:

- Ove is fifty-nine. He owns a Saab.

A professional HT is more likely to be: **أوف في التاسعة والخمسين ، ويمتلك سيارة من نوع ساب**

Whereas, Google translation is more likely to be: **أوف هو تسعة وخمسين. يمتلك صعب ***

To conclude, a professional HT can be sensitive to special use of language, multiple word meanings, syntactical differences, grammatical features, and context, while GT cannot be sensitive to the above features.

METHOD

Test Description and Analysis of Results

To prove the hypothesis of the paper, a test is made to determine GT pitfalls as compared to HT in terms of the *quality* of TTs. 50 randomly selected students of English major at the university level are submitted to a test of some sentences to be translated from English into Arabic, once by themselves and second by GT. After analyzing students' performance in both ways, it is shown that they produce better translation than using GT. For the incapability of the later to translate at levels such as, fixed phrases, multiple word meanings, different grammatical structures, and context of language use. Take for instance:

- He lives *from hand to mouth*.

The analysis of translating the above sentence which consists of an idiomatic expression demonstrated that almost 90% of students have translated the sentence correctly themselves using various dictionaries of idiomatic expressions as *يحيا حياة الكفاف*, while the rest have failed. Meanwhile by using GT, they produced improper thus unacceptable translation as *هو يعيش من اليد الى الفم* (Baker, 1992). (See Figure 1)

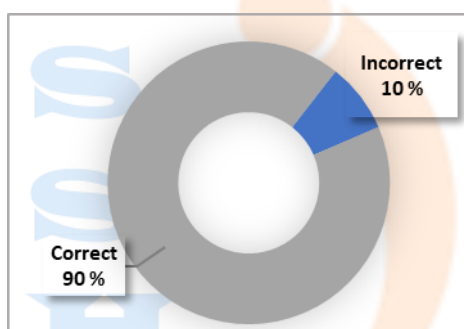


Figure 1

Consider the meaning of the word 'close' in the next pair of sentences, which has different parts of speech thus multiple meanings. In sentence (a), it is a verb and an adjective in (b). The analysis of translating the word 'close' in sentence (a) and (b) by students themselves demonstrated that almost 80% of them have translated it correctly as *ينتهي* in (a) and *النهائي* in (b), while the rest have failed. Meanwhile, they produced literal thus inaccurate translation for the same word as *يغلق* in sentence (a) and *المغلق* in sentence (b) by GT. For MT, as GT, does not provide the accurate meaning of the word

'close' in each sentence because of its lexical and functional variety in different grammatical structures. (Passa, 2015). (See Figure 2)

a. The application for an MA program in Arts *closes* next week.

التقديم لبرنامج الماجستير في الآداب يغلق الأسبوع المقبل. (GT)

ينتهي التقديم لبرنامج الماجستير في الآداب الأسبوع المقبل. (HT)

b. The *closing* date of submitting the reports would be next week.

الموعد المغلق لتقديم التقارير سيكون الأسبوع المقبل. (GT)

سيكون الموعد النهائي لتسليم التقارير الأسبوع المقبل. (HT)

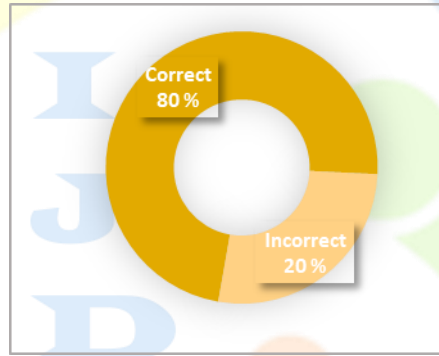


Figure 2

However, the next sentence has an ambiguous structure that yields two interpretations. This creates problems whether by HT or MT unless being identified by the context.

-William saw Sarah using binoculars. (GT) ويليام رأى سارة تستخدم المنظار

a. William used binoculars to see Sarah. (HT) استخدم وليام المنظار ليرى سارة

b. William saw Sarah who was using binoculars. (HT) وليام رأى سارة مستخدمة المنظار

The analysis of translating the above sentence demonstrated that almost 70% of students have translated it correctly, while 30% of them have failed translated correctly being cautious in translating different grammatical structures considering word multiple meanings. The structural

ambiguity can be challenging for the translation machine because it fails to choose the exact meaning among many other implied meanings (Passa, 2015). (See Figure 3)

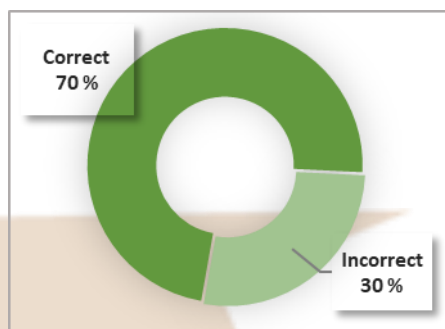


Figure 3

The last sentence contains an aspect a translator must consider, the context and reader's level:

Charles Dickens wrote *Great Expectation* in 1861

تشارلز ديكنز كتب توقعات عظيمة في عام 1861 (Google Translate)

1861 امال عظيمة في عام كتب تشالز ديكنز رواية (HT)

The analysis of translating the above sentence demonstrated that 75% of students have themselves translated it correctly being aware of the novel context and readership level, while they produced sufficient translation for the same sentence by GT. (See Figure 4)

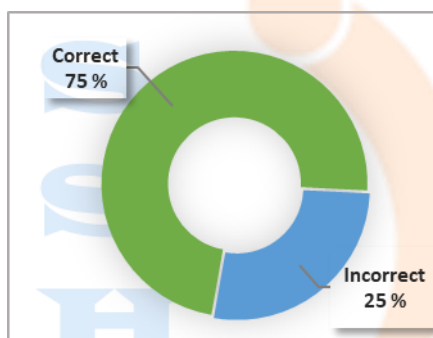


Figure 4

After translating the above sentences in Google Translate, the researcher reached at that MT cannot be sensitive to the special use of language, words with multiple meanings, different grammatical structures, context and readers' levels. Unlike MT, human translators can be cautious to all these aspects when translating. As a result, HT prevails over MT tremendously, and therefore, it can never replace it anymore.

CONCLUSION

After elaborating on the historical background of HT and MT, and their merits and demerits, the researcher proved that the former prevails over the later in different aspects. Since machines cannot translate the special use of language properly, they cannot see beyond words level, they cannot be sensitive to the different grammatical structures between the SL and TL. They ignore the cultural aspects of TL translated texts and the context of language use. Finally, they cannot be sensitive to TL readers' levels. Therefore, MT can never replace HT anyway.

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