Google translation: A semantic structure analysis

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Abstract

The inceptions of new technological aids, i.e. machine translation, that are at disposal of individual translators are becoming increasingly important to consolidate different strands in the domain of translation studies. To study the features of translated texts-including biblical, literary, and political-at the semantic level of processing, Google translation that is already functioning among a wide range of disciplines has been overarching such a sustained commitment to the task of translator in this study. Translation studies are therefore entangled with an array of interdisciplinary approaches to introduce the new areas of machine translation to theorists and specify the emerging algorithmic paths to computational linguists. The issues raised and developments outlined in this analytical study give a full rein to human involvement to provide remedial support to machine translation, particularly Google translation, and generate the impression of installing automated semantic level of processing of a variety of texts in line with the future wealth of ideas.

Keywords: Translation studies; Interdisciplinary approach; Machine translation; Google translation; Semantic level of processing.

1. Introduction

The main concepts and models of translation studies have been viewed from a variety of perspectives. At the outset, the implications of the term translation that is the focus of this study and is recurrently used should be specified in detail. Three distinct implications are in direct association with the concept of translation. The subject domain, product domain, and process domain of translation are all inextricably bound to this broad category. In this sense, there is an interactive relation between the translator and the text to facilitate the process for arriving at the final product. The translator inevitably interacts with the original text to decode source signals and then transmit those signals to target codes with resort to encoded sign systems. The translator goes through a continual process of decoding source signal and encoding target verbal representation to structure the final product in a consistent and efficient manner.

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1.1. The concept of translation

Interestingly, the identification of different categories of translation is essential at the early stages to remove the unexpected ambiguities and uncommon pitfalls. In this regard, an eminent structuralist Roman Jakobson in his seminal paper *On linguistic aspects of translation* has brought up three interrelated categories of translation to the surface. The common type has been typically known as ‘intra-lingual’ translation, which hinges upon “rewording” or “rephrasing” an expression in the same language. As it is obvious, it primarily functions on the basis of the underlying structures and principles of a language to reframe the given utterance in a polished style at the expense of clarity and elaboration of the content. The “translation proper” which is virtually an offshoot of the second category of translation has been coined as ‘inter-lingual’ translation. This type of translation basically deals with the interplay between source language and target language. It actually involves an interdisciplinary approach to minimize the distance between the two languages through mutual correspondence between concepts and verbal modes of representation. The transmuted type which has been typically labelled as’ inter-semiotic’ translation relies on non-verbal channels of communication rather than verbal sign systems.

1.2. Theoretical frameworks of translation

An overall framework of translation studies developed by Holmes (2000) renders all the involving factors in a holistic way. Regarding such a framework, two distinctive branches of “pure” and “applied” are well representative of the constituent elements of each category. Under the heading of “pure” translation studies, theoretical and descriptive models are put forth. Descriptive translation is virtually germane to product, function, and process of abstract conceptualization. Considering the product, diachronic and synchronic approaches are dominant in relation to large-scale studies. The functionally-oriented works also rely on the socio-cultural contexts and pragmatic ascriptions. The psychological reality of a trait through close scrutiny of the psyche of the translator with the application of certain number of introspective and retrospective techniques is quite prevalent in this abstraction. Additionally, along the precise explanation of the theoretical branch, “general” and “partial” underpinnings are at the service of “pure” mode of representation. On the same token, partial theoretical studies are under the restriction of a series of variables, including medium, area, rank, text type, time, and problem of equivalence or universals.

Furthermore, the second branch of “applied” framework is delineated thoroughly to draw a unified whole. Under such circumstances, three interwoven elements of translator training, translation aids, and translation criticism require great amount of attention. In line with the domain of training, the fundamental requirements of the pedagogical setting should be met. The exigencies of the instructional contexts are generally contingent on the establishment of teaching methodologies, testing procedures, and curriculum design. The next related concern is the provision of necessary means of expanding lexical and structural knowledge which are the prerequisites of the process of translation. Such rudimentary assets may range from dictionaries, encyclopedias to a host of other instrumental aids. Lastly, evaluation of the translated work in terms of comprehensibility and fluidity is mostly conducted at the review stage.

1.3. Main approaches to translation studies

Since the 1970s the developments as recounted by Munday (2001) are illustrative of contradictory vantage points toward the translation studies. The rise of descriptive approach in the late 1970s and 1980s originally stems from the comparative literature and Russian Formalism. In consequence, a set of articulated interpretive principles became the battle cry for the establishment of what Russian Formalists dubbed a “science” of translation. Bresseler (2007) states that from a literary standpoint “their approach was dynamic and organic not dogmatic which never looked very staid”. Interestingly, Schklovsky put forth the defining feature of “de-familiarization” as a “sphere of new perception” to force the interpreter to penetrate into the underlying layers of meaning to decipher the intended meaning of the creator (cited in Bresseler, 2007). Therefore, an interpretive approach remarkably facilitates the process of descriptive mode of translation. Under the influence of Nida in the 1960s, the translation studies shifted toward the receiver of the text. Similarly, Newmark’s conceptualization in terms of communicative and semantic aspects as an impetus drives the translation studies forward. In the mid 1970s, Nord’s textual-linguistic approach with reference to certain number of properties such as word order, text organization, and thematic development set a considerable amount of evidential support. Later on, discourse-based approaches in the 1990s in relation to the works of prominent figures-naming Baker, Hatim, and Mason- and above all the influence of Hallidayan model of
language and discourse are virtually central to the communicative act of translation that has been embedded within a socio-cultural context. The incorporation of new trends such as the Manipulation School ultimately inaugurated the new movements in association with the cultural studies in the late 1990s. As a last resort, an “integrated approach” of linguistic and cultural analysis has expanded largely in recent years. Finally, yet importantly, the current trend toward bridging the gap between theory and practice is the final objective of translation studies.

1.4. Interdisciplinary approach to translation: The role of changing technologies

What remains in this modern era is to have a clear understanding of the status of machine translation as a computerized system responsible for the production of the target output with or without human intervention. It is of primary importance to have a cursory look at the historical development of this medium of translation. Such a historical representation then takes us behind the scene and mirrors the alternations and achievements in this sub-field of computational linguistics. The tracks of the machine translation as a vehicle of text transmission can be followed in the mid 17th century. The minimization of the boundary between the computerized systems and the written manuscripts and the maximization of the well-ordered and densely-packed pieces of information as a final output of the computer programs without the human assistance is the optimal purpose behind designing and developing the recently revised programs. Hutchins (1995) clearly specifies the central core of machine translation through the delineation of the automatic process of full and high quality drafts of translation. According to him, the possible ways of improving the rapidly improved systems of machine translation are heavily dependent on the development of intricate methodological models and the imposition of certain restrictions on the final draft. Such systems are operationally defined within a single direction (unidirectional) or two-way directions (bidirectional) and they are at the service of two particular languages (bilingual systems) or more than two languages (multilingual systems).

1.5. Standardization of the mechanical process of translation

In the overall representation of the system design, three effective types of direct approach, inter-lingual approach, and transfer approach each with its own distinctive merits and demerits are part of the inherent characteristics of the process of translation. What is the recurrent theme of machine translation is to devise such a program that the message of the linguistic input can be get and a final draft, which is nearly a reduplication of the contextual, and linguistic embodiment of the authentic rendition can be produced. The utility of mechanical dictionaries is of paramount significance as a probable remedy to surmount the linguistic difficulties. Concurrently, the implementation of statistical and rule-governed systems as guiding principles to propel the mechanical devices forward should be taken into account. At this stage, such turning points that are established as baseline are recurrently subject to further modifications and revisions. On the one hand, the surface level of understanding of the text occurs at the propositional meaning. In such a case, the literal meaning which is the by product of lexical, syntactic, and semantic relationships is perceived functionally to set the ground for the rise of subsequent stages. The realization of the illocutionary meaning which is inherently in connection with the intended meaning of speaker in terms of the realization of pragmatic ascription of the context of an utterance cannot be easily achieved.

1.6. The future orientation: Cooperation at the semantic level of processing

At the semantic level, the vehicle of machine translation should be designed in a way that the primary ideas or concepts of the input are traced through the transmitted conceptual representation of the output. In other terms, meanings, which are ideas or concepts, should be constantly transferred from the original text to the linguistic forms of target codes and to the mind of the receiver of the translated version of the authentic rendition respectively. It should be noted that the mental images associated with words are fraught with idiosyncratic characteristic features. But as a monumental task, what remains is the transmission of the original meaning of the input to the target output. The main process that is involved at the semantic level is word-sense disambiguation (Ide & Veronis, 1998) which resides on the felicitous choice when a word can have more than one meaning. In the face with such dilemma, a “universal encyclopedia” as a unified substitution with regard to Inductive Logic Programming (ILP) should be applied. Related to the semantic transfer systems, Quasi-Logical Form (QLF) on the basis of certain number of parameters is relatively influential. Some discrepancies that are intrinsically manifested in the meaning representations (logical forms) as a result of different grammatical structures are being eliminated. The identified
divergences may range from thematic representations, structural incongruities, lexical gaps, head switching, lexicalized patterns, categorical varieties, collocational differences, multi-lexeme, and idiomatic dichotomies that are all frequently occurred in QLF transfer based on the given representations (Trujillo, 1999).

2. Methodology

It is of primary importance to narrow down the area of investigation to one of the most widely used search engine, that is, Google and to concentrate on the accessible tool of language, that is, Google translation. Under such circumstances, it is obvious that a huge amount of inserted texts of different genres, biblical, literary, and political, etc. can be transmitted to any specified target signal within a minimum amount of time and energy. Certainly, such a user-friendly program is desirable for all language users around the world, which prepares the way for providing them with the opportunity to have access to a wide range of possible tools of language. But what is taken for granted by all language users is the validation of such a devising program with the high quality and consistent results; while, in reality, such desire is just an objective fallacy that force the language users to make sense out of the first draft of Google translation through re-ordering and re-structuring the target production with the appropriate syntactic and semantic equivalences. From the practical viewpoint, the users should inevitably become cognizant of a certain number of deficiencies of the final draft of such machine translation engine. One of the inherent drawbacks of the final draft is related to the void of grammatical rules on the basis of the statistical analyses and the algorithmic representations. In other terms, its algorithms are not based on the conventional rule-based analyses to generate the grammatical structures instead they are functioning on the basis of the statistical semantics in Weavers’ (1955) term and Firth’s (1957) distributional hypothesis. Generally, the processing of linguistic meaning is dependent on the frequency of co-occurrence of individual words or expressions and the order of recurrence as guiding principles of word-sense disambiguation. On the basis of large corpora or text samples, the application of statistical semantics can be called into question.

2.1. Data collection procedure and analysis

What is subject to many controversies is the investigation of the techniques to enrich the English-Persian translation at the semantic level of processing. The technique that is used in this study is the analytical process of back translation or “round-trip translation”. Comparison of a back translation (Persian – English) to the source text (English) is made to ensure that the gist of meaning is being maintained. Such a quality check has been deeply rooted in the translation studies of various text types. As an instance, translation of literary works requires a sophisticated knowledge of semantics, syntax, idioms, collocations, and figures of speech to capture the intended meanings of literary works and to recode the transmitted signals while the overarching tone and style of writing is being kept. In this sense, translation of literary texts cannot be easily achieved unless it is regarded as a literary pursuit in its own right, which is embellished with the artistry devices. An eclectic spirit tries to clinch the fundamental properties and luminous characteristics of the semantic transfer of the units from the source language to the target language. Eventually, rigorous and critical analyses run through the subsequent processes to distinguish the central abiding concerns from the trivialities. On the same token, the cryptic remarks are being indicated to unravel the ambiguities and uncertainties at the vanguard of word-sense disambiguation.

3. Results and discussion

From the beginning, a biblical text taken from Matthew 5 is subject to close scrutiny from the dimension of semantic level. Next, three separate literary texts are given to prepare the way for deciphering the denotative and implicational meanings. Last but not least, an excerpt taken from the Profile of Courage by John F. Kennedy adds a rich flavour to the existing bulk of corpora. Now, each is considered in detail to remove the conundrums of the underlying purpose of this study.

3.1. Biblical Text (Matthew )

1. “Seeing the crowds, he went upon the mountain, and when he sat down his disciplines came to him.”
An unbiased perspective reveals that the scrambled output should be re-ordered to enable the reader to make sense out of the raw translation. While, one of the key words in this sentence (discipline) is erroneously translated. Such a word-for-word translation (transposition), as opposed to sense-for-sense translation (free), which goes back to Cicero (First Century BC), is totally overarching such a sustained commitment to the task of a translator. The result of back translation that is the other concern of this study refers to the comparison of the round trip translation with the original text. Such a far-fetched equivalence reveals that the quality of translation is called into question.

Regarding the diachronic approach toward the interdisciplinary study of Google translation, the sustainable development of changing practices in the final product of translation is revealing. The process of data collection initiated in 2010 in this study. To show the progress over time, the changes that are likely to support ‘good’ practices of Google translation once implemented and disseminated are not fixed during this time. Sustaining the development of changing in translation at the semantic level of processing particularly with regard to the dynamic and evolving
concept of good practice in translation has to be seen in the recent version of this extraction. Instead, the applicants are to think of change in translation practice as ongoing process to ensure the quality assurance systems.

2. “And he opened his mouth and taught them, saying:”

Google Translation (English-Persian)
و او دهان باز کرد و آموخته و به آنها گفت:

Correct Translation
آن گاه دهان خود را گشوده، ایشان را تعلیم داد و گفت:"

(Persian-English)
He opened his mouth and taught them said:

(English-Persian)
او دهان باز کرد و آنها را آموزش داد و گفت:

(Persian-English)
He opened his mouth and thought them said:

(English-Persian)
او دهان باز کرد و آنها را آموزش داد و گفت:

(Extracted from Google Translate July 10, 2010)

3. “Blessed are the poor in spirit, for theirs is the kingdom of heaven.”

Google Translation (English-Persian)
خوشای حال فقیر در روح و روان برای ایشان است پادشاهی از بهشت است.

Correct Translation
خوشای حال مسکینان در روح زیرا ملکوت آسمان از آن ایشان است.

(Persian-English)
Blessed are the poor in spirit, for he is the kingdom of heaven.

(English-Persian)
خوشای حال فقیر در روح و روان، برای او پادشاهی از بهشت است.

(Extracted from Google Translate July 10, 2010)

It should be noted that sometimes even misinterpretation of subsidiary elements may result in misapplication of semantic mapping. The possessive marker due to the error of processing of logical program results in misunderstanding.

4. “Blessed are those who mourn, for they shall be comforted.”
Syntactic and semantic relations are intrinsically interwoven together to mark the grammatical and lexical functions of words. Part of speech tagging-noun, verb, adjective, etc. - is the result of annotative function of corpus studies. One of the obvious syntactic deficiencies is the paucity of grammatical assignments to certain individual items. Subject-verb agreement, passive/active voice, past/present markers are not present at the literal translation of the target language. While, the translation of formulaic expressions, such as “Blessed are…..” are constantly kept at the initial position of the target output. Interestingly, the verb tense of the second part “shall” which is indicative of the future tense is avowedly marked by its appropriate equivalence in the Persian language.

5. “Blessed are the meek, for they shall inherit the earth.”

Google Translation (English-Persian)
خوشبا حال کسانی که سوگواری، برای آنا خواهد آرامش.

Correct Translation
خوشبا حال مانندی که سوگواری، برای آنا خواهد یافت.

(Persian-English)
Blessed are those who mourn, for they will be relaxed.

(English-Persian)
خوشبا حال کسانی که سوگواری، برای آنا خواهد یافت.

(Persian-English)
Blessed are those who mourn, for they will be relaxed.

(Extracted from Google Translate July 10, 2010)

The equivalent words are appropriately chosen at the surface level. However, the ordering of words is problematic. Such a weak quality in translation suffers from the inadequacy of accurate structural account on the one hand and the inappropriate codification of certain elements on the other hand. Contrary to our expectation, the marker of the future tense is erroneously substituted by the verb “should” in this line. More importantly, the fidelity and fluency as two significant criteria of the process of translation should be kept in the final output. Related to the
fluidity of the style of the target language, the language users ostensibly face with a number of incongruities and deviations. The translation of propositional phrases also suffers from certain number of demerits.

6. “Blessed are those who hunger and thirst for righteousness, for they shall be satisfied.”

Google Translation (English-Persian)
خدامات، برای آنان خواهد بود راضی است.

Correct Translation
خوشای حال کسانی که با گرسنگی و تشنجگی برای عدالت ، برای آنها خواهد بود راضی است.

(Persian-English)
Blessed are those who hunger and thirst for justice, for they will be is satisfied.

(English-Persian)
خدامات، برای آنان خواهد بود راضی است.

(Extracted from Google Translate July 10, 2010)

Developing lexicon from an existing Persian translation is part of the standardization of this process. The substitution of words with their lexical entries apparently takes place at the initial process of transposition. At this stage, it is possible to make such a claim that in line with Newmark’s (1981) line of reasoning, “the literal word-for-word translation is not only the best, it is the only valid method of translation” (cited in Munday, 2001, p. 44). Meanwhile, it should be noted that the efficiency of the process of translation could be maximized in the face with literal meaning of the text that above all calls for the literal translation. However, the problem arises in the case of those context-embedded lexical expressions that create some ambiguities. The cognitive loadings on the part of human and machine should be definitely maximized to increase the possibilities of rendering the free (sense-for-sense) translation with resort to word-sense disambiguation at the deep level of processing.

7. “Blessed are the merciful, for they shall obtain mercy.”

Google Translation (English-Persian)
خدامات، برای آنان خواهد رحمت بدست آورند.

Correct Translation
خوشای حال رحمان است ، برای آنها خواهد رحمت بدست اورده.

(Persian-English)
Blessed are the Merciful, for they shall obtain mercy.

(English-Persian)
خدامات، برای آنان خواهد رحمت بدست اورده.

(Extracted from Google Translate July 10, 2010)

8. “Blessed are the pure in heart, for they shall see God.”

Google Translation (English-Persian)
خدامات، برای آنان هرگز خدا را ببینید.

Correct Translation
خوشای حال خالص در قلب ، برای آنها خواهد رحمت.

(Persian-English)
Blessed are the pure in heart, for they shall see God.
Blessed are pure in heart, for they never see God.

Blessed are the pure hearts, God never see them.

The impression that the receiver may have is the false negative voice of the second part, which may lead to misconception.

9. “Blessed are the peacemakers, for they shall be called sons of God.”

Blessed now Peacemakers, for they will be called the Son of God.

10. “Blessed are those who are persecuted for righteousness’ sake, for theirs is the kingdom of heaven.”

Blessed are those persecuted for justice because, for them is the kingdom of heaven.
11. “Blessed are you when men revile you and persecute you and utter all kinds of evil against you falsely on my account.”

Google Translation (English-Persian)

خوش‌باشید و شادی عظیم نمایید که اجر شما در آسمان عظیم است زیرا همیشه طور بر انتیبای قبیل از شما جفا می‌رسانند.

Correct Translation

خوش‌باشید و شادی عظیم نمایید که اجر شما در آسمان عظیم است زیرا همیشه طور بر انتیبای قبیل از شما جفا می‌رسانند.

(Persian-English)
Blessed are you when men revile you and hurt you and your absolute all kinds of evil lies against you on my account.

(Extracted from Google Translate July 10, 2010)

12. “Rejoice and be glad, for your reward is great in heaven, for so men persecuted the prophets who were before you.”

Google Translation (English-Persian)

شاد و خوش‌حال، پاداش شما در آسمان بزرگ است، بنابراین برای مردان مورد آزار و اذیت پیامبران بودند که قبل از شما خواهد شد.

Correct Translation

خوش‌باشید و شادی عظیم نمایید که اجر شما در آسمان عظیم است زیرا همیشه طور بر انتیبای قبیل از شما جفا می‌رسانند.

(Persian-English)
Cheerful and happy, your reward is great in heaven, for so men persecuted the prophets who were before you.

(Extracted from Google Translate July 10, 2010)

13. “You are the salt of the earth: but if salt has lost its taste, how shall its saltiness be restored? It is no longer good for anything except to be thrown out and trodden under foot by men.”

Google Translation (English-Persian)

شما نمک زمین؛ اما اگر نمک مزه خود را از دست داده اسّت، چگونه یاد می‌کنید؟ این اسّت که دیگر خوب برای هر

Correct Translation

شما نمک زمین هستید؛ لیکن اما اگر نمک فاسد گردید به کدامیک چیز باید نمک شود. دیگر مصرفی ندارد، جز آن‌که به پای‌ها و پاپان شود.
You salt the earth: but if salt has lost its taste, how should it return to its saltness? This is another good for anything except to be thrown out and trodden under foot by men.

The word “saltness” which is not commonly used in the standardized version is to some extent challenging. There is no equivalence for this word. But the result of the second part may radically change such a fruitful experience to a disconcerting one. The purpose of the process of standardization is to give an account that is free of stylistic idiosyncrasies and that is greatly consistent. But the violations of the nonsense expressions in the second part are not ignorable.

14. “You are the light of the world. A city set on a hill can not be hid.”

You light is in the world. City set on a hill cannot be hid.

Light your world. City set on a hill cannot be covered.

3.2. Literary Text

Once upon a midnight dreary, while I pondered, weak and weary
Over many a quaint and curious volume of forgotten lore-
While I nodded, nearly napping, suddenly there came a tapping.

Google Translation (English-Persian)

روزی از نیمه شب دلمتگ کننده، در حالی که من بمب، ضعیف و خسته بودم، از بیاب و جالب، و جنگ کمک‌گذاری از اسطوره‌های فراموش شده، بیش از بسیاری از همکاران وجود داشت. در حالی که من راه‌نامه‌ها را می‌خوانستم و نظریه‌های نوآوری، تجربه‌های جدیدی را یادگار نگه داشته‌ام.
Day from midnight dreary, while I bomb, weak and tired
Over many quaint and curious volume of forgotten legends,
While I nodded, nearly have a nap, suddenly there was exploitation.

As of someone gently rapping, rapping at my chamber door.
“‘Tis some visitor,” I muttered, “tapping at my chamber door-
“Only this and nothing more”.

Some say the world will end in fire,
Some say in ice.
From what I taste like
With those who favor fire holds.

But if it had to perish twice,
I think I know enough I hate
To say that for destruction ice
Is also great
And would suffice.

The one remains, the many change and pass,
The lights of heaven forever shine, the earth’s shadows fly.
Life is like a dome of many colored glass,
Taints the white radiance of eternity.

*Google Translation

از آنچه من از میل مزه
من با کسایی که به نفع آتش نگه دارد.

Correct Translation

آنچه من از اشتیاق چشیده ام،
با آن کسانی که فرخوان جهان را در آتش می‌بینند.

(Persian-English)
From what I taste like
With those who favor fire holds.

But if it had to perish twice,
I think I know enough I hate
To say that for destruction ice
Is also great
And would suffice.

(by Robert Frost)

The one remains, the many change and pass,
The lights of heaven forever shine, the earth’s shadows fly.
Life is like a dome of many colored glass,
Taints the white radiance of eternity.

(by John Keats)
3.3. Political Text

It is when the politician loves neither the public good nor himself, or when his love for himself is limited and is satisfied by the trappings of office, that the public interest is badly served.

And it is when his regard for himself is so high that his own self-respect demands that he follow the path of courage and conscience that all benefit. It is then that his belief in the rightness of his own course enables him to say with John C. Calhoun:

(Persian-English)

And when your attention is high enough for self-respect that he demands the courage and conscience to follow the way that all can enjoy. After that his belief in the rightness of his own course allows her to say John C. Calhoun:
“I never know what South Carolina thinks of a measurer. I never consult her. I act to the best of my judgment and according to my conscience. If she approves, well and good. If she does not and wishes anyone to take my place, I am ready to vacate. We are even.”

4. Conclusion

Considering the corpus linguistics, three separate types of annotative, abstract, and analytical functions can be derived. Following the functions of corpus studies, it should be de-emphasized that the application of a scheme is exclusively achieved on the basis of annotation. The other rule-learning operations are basically originated from the function of abstraction and the ultimate generalizations that are the result of analytical function. Obviously, the practice of setting up particular cognitive models in the form of logical programs to simulate the nature of computational procedures that occur in the human brain is the ultimate purpose of the systematic design of computational modelling. At the primary stage of semantic representation for computer programs, three distinct categories of operational, denotation, and axiomatic that are inevitably given a pivotal role to assign linguistic meaning to the individual binary codes require further examination. In the interim, the rough correspondence between the source language and the target language is not sufficient to complement the process of machine translation.

Dostert (1957) gives a hint to the factual semantic and syntactic reasoning. The possibility of existence of more than one equivalent in the target language is undeniable. The discrimination of word order between linguistic units of input and output may be a disconcerting experience without resort to the manipulation of algorithmic modelling. Though, it should be made clear that the accurate structuring of the syntactic units of the output which requires the recognition of grammatical function of a given input should be given a priority for approaching the problems of semantic transference. What is the recurring theme through the historical development of machine translation is the inability of such logical programs to carry out harder and more time-consuming part of solving the knotty semantics problems of the source text embedded in the particular context. Hence, the success of machine translation is relied on the natural processing and understanding of language. Though it should be known that even human with the application of the hermeneutic principles may inadvertently make a flaw and then unable to arrive at the intended meaning of the text.

In conclusion, the semantic level of processing is not only dependent on the rough correspondence between the source language and the target language but also on the systematic analysis of the context-embedded lexical expressions. Obviously, the stylistic idiosyncrasies and lexical gaps that are manifested in the given literary texts may cause certain discrepancies at the semantic level, which complicates the results of the machine translation; however, with the application of ‘semantic’ and ‘communicative’ translation, the situation may be totally reversed. In line with Newmark’s (1981) approach:
Communicative translation attempts to produce on its readers an effect as close as possible to that obtained on the readers of the original. Semantic translation attempts to render, as closely as the semantic and syntactic structures of the second language allow, the exact contextual meaning of the original. (Newmark, 1981, p. 38; cited in Munday, P.44)

In accordance with the semantic structure analysis and word-sense disambiguation, the contextual determination of the sense of a word lies at the center of this approach rather than a fully drawn comprehensive list of equivalences between source language and target language especially with reference to deep structures of the linguistic input (Nida, 1964, 1969; Taber, 1969; all cited in Munday, 2001). Accordingly, Google translation as an asset at the disposal of translators is thus available ‘at the touch of a button’ for language users worldwide, while it suffers from a number of disadvantages as well. It may give an impression of a reliable and automatic processing but the human involvement at the post-editing phase should be inevitably given a pivotal role to unscramble the target product. With reference to the diachronic process of data collection, a sustainable development in translation practices via Google is functional to lie in the plethora of innovations that influence greatly the constant changes. Thus, the report of changing practices in Google translation over this period reflects an inherently dynamic and evolving process dependent on time and context. Looked at in this light, sustainability in enhancing development requires a series of procedures to bring the final results. It is important to note that the progress over time at the semantic level of processing leads to cooperation rather than fragmentation to involve issues that are about approximating to value judgments of each individual translator.

5. References


Appendix A
Biblical Text: Taken from Bible: Matthew 5

1. “Seeing the crowds, he went upon the mountain, and when he sat down his disciplines came to him.”
2. “And he opened his mouth and taught them, saying:”
3. “Blessed are the poor in spirit, for theirs is the kingdom of heaven.”
4. “Blessed are those who mourn, for they shall be comforted.”
5. “Blessed are the meek, for they shall inherit the earth.”
6. “Blessed are those who hunger and thirst for righteousness, for they shall be satisfied.”
7. “Blessed are the pure in heart. For they shall see God.”
8. “Blessed are the merciful, for they shall obtain mercy.”
9. “Blessed are the peacemakers, for they shall be called sons of God.”
10. “Blessed are those who are persecuted for righteousness’ sake, for theirs is the kingdom of heaven.”
11. “Blessed are you when men revile you and persecute you and utter all kinds of evil against you falsely on my account.”
12. “Rejoice and be glad, for your reward is great in heaven, for so men persecuted the prophets who were before you.”
13. “You are the salt of the earth: but if salt has lost its taste, how shall its saltiness be restored? It is no longer good for anything except to be thrown out and trodden under foot by men.”
14. “You are the light of the world. A city set on a hill can not be hid.”

Appendix B
Literary Text

Once upon a midnight dreary, while I pondered, weak and weary. Over many a quaint and curious volume of forgotten lore- While I nodded, nearly napping, suddenly there came a tapping. As of some one gently rapping, rapping at my chamber door. “’Tis some visitor,” I muttered, “tapping at my chamber door-Only this and nothing more”. (Excerpt from “Raven” by Edgar Allan Poe)

Fire and Ice
Some say the world will end in fire, Some say in ice. From what I’ve tasted of desire I hold with those who favour fire. But if it had to perish twice, I think I know enough I hate To say that for destruction ice Is also great And would suffice. (By Robert Frost)
The one remains, the many change and pass,
The lights of heaven forever shine, the earth’s shadows fly.
Life is like a dome of many coloured glass,
Taints the white radiance of eternity.
(By John Keats)

Appendix C
Political Text

It is when the politician loves neither the public good nor himself, or when his love for himself is limited and is satisfied by the trappings of office, that the public interest is badly served. And it is when his regard for himself is so high that his own self-respect demands he follow the path of courage and conscience that all benefit. It is then that his belief in the rightness of his own course enables him to say with John. C. Calhoun:

“...I never know what South Carolina thinks of a measurer. I never consult her. I act to the best of my judgment and according to my conscience. If she approves, well and good. If she does not and wishes anyone to take my place, I am ready to vacate. We are even.”
(Excerpt from John F. Kennedy’s Profiles in Courage)