

APPRAISAL OF MACHINE TRANSLATION OF AN ECONOMIC TEXT FROM ENGLISH LANGUAGE TO IGBO LANGUAGE

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Abstract

It is estimated that computers translate as many as 600 billion words a day across the various machine translation portals. This is necessitated by the rapid and high demand of information globally in all sectors. This study seeks to appraise the effectiveness of machine translation in Igbo language to figure out its effective use and the impact of this in the economic activities of Igbo tribe. To illustrate an economic text culled from (Businessnew.com.ng2016/06/17fbn) will be translated from English to Igbo language. Given the result obtained, this paper suggests an urgent need to increase the scale of research for the development of translation technology for efficient and optimized translation operation which will result in bringing Igbo business men at the same level with other global key players.

Keywords: machine translation, economic text, technology, business

Introduction

In modern time, we are experiencing a state of unprecedented connectivity, thanks to technology. Consequently, people access more information than has ever been available in the history of mankind due to increasing use of digital sources of information. This information explosion poses a great challenge to the Igbo man whose mainstay is in economic sector in that he needs to assimilate, digest, determine and communicate the information that is relevant to customers from different language set up. Language remains a barrier in communication for all business translation. Technological advancement has occasioned the automatising of translation from one language to the other. Traditional translation that most of our Igbo men engage in cannot scale the needs of the modern enterprises without leveraging technology in a substantial and competent way. Machine translation guarantees speed, accuracy and efficiency.

Igbo people have a reputation globally as resilient, dogged businessmen who build viable small to medium size enterprise. These enterprises will only be sustained by making shrewd business decisions based on the information at their disposal. Given that a good number of them are indifferent to technological evolution in information acquisition, is a big challenge that may throw them off business. There is a need for speedy translation of information from one language to another so as to facilitate communication in the Igbo dialect for better comprehension and involvement of those in rural areas. It is against this background that this paper sets out to appraise the level of development of machine translation in Igbo language so as to recommend solutions to problems of information dissemination facing Igbo man for successful business transactions.

Susan Bassinet McGuire (1980:14) defines translation as “rendering of a source language (SL) text to a target language (TL) text, so as to ensure that:

- a. the surface meaning will be approximately similar and
- b. the surface structure of SL will be preserved as closely as possible, but not so closely that the TL will be seriously distorted”.

For Delisle Jean (1989:53), “translation can be defined as the operation by which the relevant signification of linguistic signs is determined through reference to a meaning as formulated in a message, which is then fully reconstructed in the signs of another language”. Nida and Taber (1969:16) opines that “translation consist of reproducing in the receptor language the closet natural equivalent of the source language, first in terms of meaning and second in terms of style”.

From the above definitions above, translation involves transference of a text in source language into a target language with the aim of preserving the authors message. Machine translation (MT) on the other hand refers to fully automated software translation of a text from the source language into the target language without human intervention. MT tools are used to translate voluminous information involving millions of words that could not possibly be translated in the traditional way. The undisputed strength of MT is the speed of the translation process.

The Concept Of Machine Translation Wikipedia(en.wikipedia.org/wiki/machine_translation) defines machine translation as a sub-field of computational linguistic that investigates the use of software to translate texts or speeches from one language to another. It is an automated translation process where computer software is used to render text from source language to the target language without human involvement. Machine translation is a modern discipline that date back to 1950’s whose success and very existence is predicted on the existence of modern computer hardware. The quest for information motivated researchers to find a way of translating voluminous documents rapidly. In 1947, an American mathematician with Rockefeller Foundation, Warren Weaver, spurred by the breakthrough recorded in the successful use of computer to break codes during World War II, attempted rendering information from one language into another using logic, cryptography, frequencies of letter combination and linguistic patterns. Other researchers equally engaged in this project. Notably are researchers in Georgetown University in collaboration with IBM, who succeeded in translating a few dozen of phrases from Russian language to English language. This breakthrough led to funding of MT project by American government.

After appraisal of this project by Automatic Language Processing Advisory Committee (ALPAC) in 1964, it was revealed that the quality of MT is imperfect, expensive and can never replace human translator. This led to the defunding of the project by American government and further research on MT was in comatose as of that time. Though it seemed that the report on MT project was perceived as a failed endeavor, yet one point is clear; MT can translate documents grossly, what Bedard (1992) called «la prétraduction» (pretranslation). He stated that MT does for human translator what is difficult for translator by translating documents grossly. Then, the human translator edits to render the accurate meaning of the original text in the target language. Given this situation, researchers in the modern times concentrated on translational tools that aid human translators to translate large quantity of information rapidly.

These days, organizations are being forced to do more with less, companies are desperately trying to handle huge amount of content in an era where striking budgets and instant gratification cause tremendous pressure. Using standard human translator to meet this demand is cost prohibited and time consuming, that is why MT is indispensable in any business operations. Automatic translation helps to rapidly provide the gross information that customers across the globe need in their different dialects.

Igbo tribe as business oriented people should utilize this opportunity to reach their numerous customers both international and local for maximum output.

Reflection on English Language and Igbo Language

Language is the channel through which we communicate. It defines human existence and functions to permeate every aspect of human life (Agwu 2016). In economic development, effective communication is crucial in synthesizing thoughts, ideas, knowledge and building lasting relationship between the foreign players and local players. This development will only take place when the language of the communication is understood and spoken by everyone involved.

Ijioma and Ezeafulukwe (2015) advice that there is a need for a translator to possess a good command of his working languages. So we are presenting a brief comparison of Igbo and English Languages. Since the eighteen century, English language has increasingly dominated all intentional means of communication. It is the language of North America, Australia and the United Kingdom. In Asian and African countries, it is mainly used as an official language. English language has proved to be one of the most adaptable language of the world due to the following factors: its survival and expansion in virtually all the domains, ready receptiveness of elements from other languages to fill what is lacking in itself (especially French and Latin) and its ability to describe, represent and communicate human thoughts and ideas which is probably unequalled of all languages especially in the field of science and technology, (Akwanya 2014).

Comparison between English language and Igbo language in Nigeria shows that there is a big gap between the two languages. English language is spoken mainly by southeastern region of Nigeria. Igbo language has not improved its fortune, it is experiencing a decline and shrinkage of its share of linguistic space when compared to other local languages such as Hausa and Yoruba which are active, wide ranging and able to achieve their full potentials. Igbo language may be heading into extinction if much effort is not geared to its restoration. This backwardness is orchestrated by introduction of English language into socio-cultural activities in Igbo land by colonialism during 19th Century where statistically its speakers comprised a minority in Nigeria's population (Asogwa and Asogwa(2014). Moreover, it was basically upheld as one of the principal subject in school and equally served as the medium of instruction for other subjects including Igbo Language. This is also worsened by the middle class of Igbo tribe who see their language as inferior to English language in that they encourage their children to communicate in English rather than their native language.

Consequently, the future of Igbo language and its tilting towards extinction is a constant source of worry to researchers, policymakers, education planners and key players in the global market. Concrete efforts should be made by the Igbo language promoters, knowing that the survival of Igbo people depends of the survival of Igbo language. As (Alpha 2004:15) cited by (Adejimba 2009) remarks that "human language is a daily consumption which has patterns, rules and regulations... It is a phenomenon to the survival of any race..." To proffer solution to this is as a translator, I will highlight the view of (Akwanya 2014:4) where he pointed out that Igbo language lacks capacity of having the concept in use in a great many of the subjects. He stressed the need for effort to be geared toward its growth in an enabling environment. He advocated that this could be achieved by putting Igbo language to work through translation.

Akwanya (2014:4-5) opines that translation is identified as a very important language grower which linguists, researchers have not made effective use of in its growth especially in Igbo language. In his own view, Walter (1973:73) notes that "... translation is so far removed from being the sterile equation of dead languages..., it is the one charged with the special mission of watching over the maturing process of the original language and the birth pangs of its own". English language uses this language function to maximal effect. By translational process, they optimally produce every significant document of civilization and human intellectual endeavour from all over the world and make it available in English language. This has yielded limitless dividends to the language.

Igbo language struggling for survival can take advantage of the strategies which English Language has employed for its universal impact. Supporting this idea, Beard (2004:90) advises that "linguistics loans are never paid back and borrowing is without strings, even while competing with space".

Analysis of the text translated

The text "FBN capital to boost investment banking" was culled from Business news of 17th June, 2016 (businessnews.com.ng 2016/06/17/fbn). This is an economic text with communicative function to a targeted audience, basically, the investors. This text was translated from English language to Igbo language with Google translate and IM translate. The aim of this analysis is to appraise the effectiveness of machine translation of economic text in Igbo language. In the course of translating with the two translating engines, certain errors effected by the machine were recorded. These include semantic errors, orthographical errors, morphological errors (extra word, missing word, wrong words, etc) and syntactic errors. The correction effected by human translators was also shown;

Note: SL: Source Language

GT: Google Translate (translation engine)

IT: Im translate (translation engine)

HT: Human translate (human translator)

- c. SL₁: FBN capital to boost investment
 GT₁: FBN isi obodo iji bulite ụlọ ọrụ itinye ego
 IM: FBN Capital iji bulie akụ akụ na ụba.
 Comment: GT translated out of the context the word "capital" as "isi obodo" that is capital of a country. IT translated "investment" as "akụ akụ na ụba". (extra words). Semantic and morphological errors were observed in the translation by these machines.
 HT: FBN Capital ga-akwalite ogugo itinye ego n'ọrụ
- d. SL₂: The firm emerged as the winners of the ...
 GT: firmlọ ọrụ ahụ pụtara dika onye nmeri...
 IT: Firmlọ ọrụ ahụ pụtara dika onye nmeri...
 Comment: Both GT and IT recorded morphological errors by translating "firm" as "firmlọ ọrụ" and "winner" as "nmeri" (wrong words) instead of "mmeri". This has resulted to meaningless translation.
 HT: Ulo ọrụ ahu nwetara mmeri dika...

- e. SL₃: ‘The deal of the year Africa’ at the Bankers Awards.
 GT: ‘Deal of afọ Africa’ at Bankers Award.
 IT: ‘Deal of the year Africa’ at the Bankers Awards.
 Comment: GT translated the title of the award wrongly by translating year to “afọ”. IT: ‘Did not translate the expression “at the” in Igbo language.
 HT: ‘The Deal of the year Africa na nhazi nke ihe nrite ụlọ ọba ego.
- f. SL₄: Reacting to the development, the Director and Head of Debt Solution...
 GT: N’izaghachi na mmepe ahụ, onye isi na onye isi ngwọta Debgwo...
 IT: N’izaghachi na mmepe ahụ, onye isi na onye isi ngwọta Debgwo...
 Comment: GT and IT translated “development” as “mmepe”. This is semantically wrong because “mmepe” is really talking about physical development but “development” in this context means a turnout of events and in this case the continuous award that FBN capital is receiving. Moreover, GT and IT translated “the Director and the head of Debt Solution” as “onye isi na onye isi ngwọta Debgwo” this resulted in meaningless expression.
 HT: Mgbe onye Direkịtọ na onye isi ngalaba Debt Solution na’ekwu maka ihe nrite a.
- g. SL₅: The investment bank said it was also awarded ‘Best investment bank in Nigeria’ by Global Finance Magazine for the fifth consecutive years.
 GT: Lọ aku ahụ kwuru na enyekwara ya ‘Best investment bank na Nigeria’ site na Global Finance Magazine afo nke ise na-esote.
 IT: Lọ aku ahụ kwuru na enyekwara ya ‘Best investment bank na Nigeria’ site na Global Finance Magazine maka afọ nke ise sochiri ya.
 Comment: The expression “...for the fifth consecutive years” was wrongly translated by GT as “afọ nke ise na esote” and IT as “afọ nke ise sochiri”. Which means “for the next five years”. The meaning of this expression was not correctly rendered. Moreover, the ‘Investment Bank’ was wrongly translated showing morphological errors (missing word).
 HT: Ụlọ aku ntinye ego a kwuru na ha enwetela ihe nrita ‘Best investment Bank in Nigeria’ sitere n’aka Global Finance Magazine afọ ise na esepughi aka.
- h. SL₆: As a member of the FBN Holdings Group, FBN Capital is committed to raising the bar much higher...
 GT: Dịka onye otu FBN Holdings Group, isi obodo FBN gbalisiri ike ikwalite ụlọ mmanya ahụ...
 IT: Dịka onye otu FBN Holdings Group isi obodo FBN gbalisiri ike bulie ụlọ mmanya ahụ elu...
 Comment: Semantic error was observed. Both GT and IT translated “the bar” as “ụlọ mmanya” which is out of context.
 Moreover, the verbal expression “is committed” rendered by the two translation engines as “gbalirisi ike” was reported in the past tense instead of past participle that entails continuity.
 HT: FBN capital ka na-agbalisikwa ike iwelite ntụkwasi obi ndị ahịa ha nwere n’ebe ha nọ n’ogugu di elu...

- i. SL₇: She added “providing sound professional advice and execution capabilities in supporting the financing, investing, trading, securing and advisory needs of our clients is our singular focus, and our partner...”

GT: Ogbakwunyere “inye ezigbo ndumodu okachamara na ike ime ihe, n’ikwado ego, itinye ego izu ahia, ichekwa na mkpa ndumodu nke ndi ahia anyibu ihe anyi na-eche na ndi mmeko anyi...”

IT: Ogbakwunyere na inye ezigbo ndumodu okachamara na ikike igbu ya, n’ikwado ego itinye ego, ichekwa na mkpa ndumodu nke ndi ahia anyi bu otu ihe anyi lekwasiri anya na ndi mmeko anyi...”

Comment: The noun phrase “execution capabilities” was translated by GT as “ike ime ihe” and IT as “na ikike igbu ya”. This did not clearly bring out the intended message of the author. “our partner” was also translated by both translation engines as “ndi mmeko” which also did not bring out the contextual meaning. The Human translator translated these two expressions as “n’ikike itinye ndumodu a n’oru” and “ndi anyi na ha na-aruko oru” respectively. Moreover, HT translated “our partner” as “ndi ahia anyi-anyi na ha na aruko oru”

HT: Ogbakwunyekwara na otu ihe di mkpa nke anyi na-elekwasị anya bu inye ndumodu okachamara na ikike itinye ndumodu a n’oru, iji were kwado itinye ego, izu ahia, ichekwa ebum n’uche na ndumodu ndi ahia anyi chorọ, n’ime ka ndi ahia anyi-anyi na ha na aruko oru...

Having analyzed the translation of the economic text, the result of the analysis shows that more than two third of all the sentences were translated incorrectly. It was observed that problems of semantic, orthographical, morphological and syntactic errors were recorded. Consequently, two translation engines (GT and IT) translated out of context which resulted in lack of comprehension of the author’s message. The human translator was employed to render the accurate and exact message of the source text. Findings from this work reveal that translating automatically from a well developed language (English) to a developing language (Igbo) is more challenging especially when it has to do with an economic text that requires accuracy, exactness and consistency in the employment of terminology (Ijioma & Ezeafulukwe 2015).

Observation shows that Igbo language is low resourced in digitalization, which is evidenced in difficulty experienced in obtaining handy equivalents for concepts in Igbo Language. Moreover, there is high level of inconsistencies in Igbo orthography when translating with machine, contributing to morphological and semantic errors. E.g “lo oru” instead of “ulo oru”, “aku aku” instead of “aku”. The challenge experienced in this translation operation was as a result of lack of interest in Igbo business men to familiarize themselves with the technological advancement going on globally and lack of translational engines and devices. The situation is also worsened by the decline of the number of people wishing to study Igbo language, let alone carrying out research on it. Asogwa (2014).

For instance, the number of students sitting for Igbo language in WAEC examination kept on reducing. Consequently, no active steps have been taken to position Igbo Language effectively to face the ever increasing new lexical needs that crop up by the day as a result of innovations. Igbos, renowned globally for the zeal and tenacity with which they engage in their business should know that they contribute immensely to Nigeria and global economy. This they do by reduction of

unemployment, provision of rural-urban migration comfort ability through their transportation business which ultimately increases the country's Gross Domestic Product.

For them to sustain this position globally, they should heed to Ingold remark as cited by (Phipps 2007:123) that “man's practical engagement in the world is by and large a function of language”. There is need for organizational credibility and knowledge sharing for constructing trust and rapport in business transactions. Some of their customers are people with different languages who may not have adequate knowledge of English language but may wish to express themselves in Igbo local dialect. There is need for effective communication which should be highly context-bound and situational specific in the presentation of business content through knowledge of business specific vocabulary in Igbo language.

I thereby recommend:

- a. The need for urgent intervention by the government of the day in funding the research for the development of translational tools and devices, which will help to promote translational activities in Igbo language.
- b. Language authority like Britain Council of Great Britain or *Académie Française* of France which superintend over the growth and survival of their respective languages should be created in Igbo language to oversee its growth.
- c. Learning should also be encouraged in Igbo language especially computer appreciation. This will build up the interest of our children for their language.
- d. Scholarship should be provided by the government and other well-meaning Igbos for students studying Igbo language and Translation so as to encourage others to study it.

Conclusion

This paper focused on appraisal of machine translation of economic text from English language to Igbo Language. It is observed that Igbo language fails to measure up to the demands of digitalization of translational operation due to its low resourcefulness. Igbos known to be most energetic and entrepreneurial people should not allow their language to go into extinction. Concrete effort should be made to promote Igbo language to maximize the opportunity offered by translational tools so as to effectively communicate with their diverse customers in different languages. Igbos should not allow their language to be drawn by the forces of globalization, their language which is their identity should be upheld.

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