

Integration of Technology & Translation for Measuring Meaning Interpretation

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Abstract

Internet users have the choice between several machine translation services that can automatically translate a given text or website in another language. Google Translate is one of the most popular services of this kind. It allows web users to translate text or websites into 51 languages. The present research aims at exploring the integration of translation and technology for measuring meaning interpretation. The scope of the research is confined to Translation from English to Telugu. The data used in this study is based on short copy that was translated from English to Telugu using Google Translator. The study will be significant in analyzing how translation and technology plays an important role in measuring the impact on interpretation.

Keywords: Translation, Technology, Google translate, Interpretation, Measuring meaning

INTRODUCTION

In a world of growing globalization and increasing mobility, more and more people find themselves in situations which involve some sort of translation. Messages are adapted to new situations, local texts are transferred to global contexts, and global texts are localized into multiple languages. The production of knowledge, entertainment, services and industrial products presupposes interaction and communication across languages and cultures. Translation, interpretation and exchange of knowledge and information are becoming a still more integral part of both global production processes and of the way we think,

communicate and construct our cultural identities.

The relation between technology and translation is part of the wider question of what technology does to language. Technology should help us with whatever we are doing. Technology might thus be driving us to a world of amateurish fun. This would be a world where translation is no longer a special task left for special people – translation becomes one of the basic things you do with language: you speak, you listen, you write, you read, and you translate (Campbell, 2002).

The designers of technology are often not in the same communities as the users, and the risk of exploitation remains constant. Google, Facebook, dotSUB and the like are in the translation game in order to make profits (Smolens, 2011). Then again, the social distance between design and use is not as extreme as it was in Taylorist production which emphasize that the time gaps between user-feedback and technology redesign are vastly reduced; the more significant problem is the social distance and temporal delay of researchers like ourselves (Pym, 2011b).

This study attempts to measure the impact on meaning interpretation as a result of integration of technology and translation.

LITERATURE REVIEW

Online tools have received increased attention as witnessed by rapidly changing of Technology. Students use those tools in solving the barrier of second language (e.g, Gaspari, 2007; Conroy, 2010; Zengin & Karçar, 2011, Garcia and Pena, 2011). On the basis of the above notion, it is obviously declared by researchers that young people are in the age of digital technology and Internet. With the advancement of technology and wireless, there are increasingly used of “laptop computers”, “palmtop computers”, and “mobile phones” in education. These technology

provide “anytime, and anywhere education” to students (Cavus & Ibrahim, 2009). No doubt, technology facilitates them to access varieties of endless learning (Gardner & Holmes, 2006). They have evidently demonstrated itself the relationship within itself to young people.

Many current studies are widespread to students who have used online dictionaries in solving difficulties and consulting language in translation (Zengin and Kaçar, 2011, Fujii, n.d, Somers, Gaspari, and Niño, 2006). For example, Zengin and Kaçar (2011) stated that learners used online dictionaries in order to “correct accuracy of style, and structure” consulted difficulties of language.

Apart from online dictionaries, machine translations were used in assisting students in translation. Yamamoto (n.d) claimed that machine translation (MT) is used in translating source texts to target texts. Google Translator’s survey announced on “For what purpose(s) did you use Google Translator today?” responded by a language learner. The results showed that a learner used Google Translator in order o learn foreign words, short phrases, read webpage, email, and article. He/she also learnt how to write and saying a word or phrase (as cited in Garcia & Pena, 2011). Recently, there has been an emphasis on the new trends of acquiring new language by using online tools among students.

SIGNIFICANCE OF THE STUDY

The present research will be significant in exploring the nature of the translation process provided by Google Translate Service with an eye on the impact on meaning interpretation.

The study will be important in investigating the possibility of refining the system used so as to make a better use of it on the part of the average Internet user, who is, by no means a professional translator and depends on web based translation technology.

TRANSLATION USING TECHNOLOGY

Machine translation or MT, with its various forms and types, have increasingly become a subject of interest to those who seeks the translation of a given texts as a means to another end and the translation specialist who attempts to conduct an academic research on MT as such. There have recently been an increasing number of Web Sites that offer the service of an automatic/machine translation of individual sentences or even whole texts. Internet users have the choice between several machine translation services that can automatically translate a given text or website in another language.

Google Translate is one of the most popular services of this kind. It allows web users to translate text or websites into 51 languages. Google has recently announced that they had expanded their translation services by offering a translate gadget for webmasters, by which the latter can integrate the code of the Google Translate gadget into their website to offer visitors the option to automatically translate the text that is displayed on the website into a different language. In this research, however, the interest is confined to the general Google Translate Service which is available for all Internet users.

One of the most exciting areas of research in Machine Translation is to investigate free of charge Internet on-line service translators.

GOOGLE TRANSLATE SERVICE

Google Translate Service is one of the most popular computer-aided translation services, however, using an online-translator for individual lexical items, sentences and even full texts.

The following questions arise:

- How context is maintained in texts produced by Google

Translate Service?

- What is the level of accuracy in the translated text?
- How does that translation function in understanding interpretation of translated text

MEANING INTERPRETATION

The present study aims to measure the meaning interpretation in terms of context, meaning construction, and clarity as a result of translation using technology.

The major problem with machine translators is to maintain context; without context we can never achieve a perfect translation. Another problem is that a lot of machine translators produce very literal translations; clearly, they cannot be expected to abide by the many different syntactical rules of a foreign language, yet this is a crucial aspect that needs to be addressed when translating, otherwise the target audience won't be able to interpret the meaning of the message.

What is missing at even the simplest level is domain knowledge, from which greater relevance of context can be derived. Without context, many words can be ambiguous. Online translators are becoming an increasingly popular means of translation, but in terms of accuracy it cannot be relied on.

Clarity is defined as the ease with which a reader can understand the translation (Fiederer and O'Brien, 2009). Clarity is synonymous with intelligibility, comprehensibility or what is understandable. Simply put, the less the evaluator understands, the lower the quality of the translation. Fidelity is defined as the extent to which the translated text contains the same information as the original (Fiederer and O'Brien 2009). One other major difference between the studies carried out up to now and our own is that each of our sentences is targeted to test a specific feature of a language. That is to say, each sentence tests the free

online translator's ability to translate a particular element in the language.

Technology aided translation can help in overcoming language barrier and transfer off cultural meaning. Cultural problems arise when some concepts in the source text are totally missing in the TL culture or at least confused with similar yet far from identical ones. Among the most common techniques used to handle such problem is usually transliteration (ElShiekh, 2011).

RESEARCH QUESTIONS

The guiding questions for this study are as follows:

RQ I: Does the context of text and construction of intended meaning is maintained in translation using technology?

RQ II: Does translation using technology maintain accuracy and meaning of text is not distorted?

RQ III: Does translation using technology helps in minimizing language barrier and transfer of cultural meaning?

RQIV: Does translation using technology helps in easy understanding of meaning interpretation of text?

MEASUREMENT

To determine the impact of technology on translation and its meaning interpretation and study research question, seven measures were employed in this research: 1. Integration & context, 2. Integration & intended meaning, 3. Integration & accuracy, 4. Integration & distortion, 5. Integration & language barrier, 6. Integration & cultural meaning, and 7. Integration & meaning interpretation. These measures will contribute to judging impact of integration of technology & translation on meaning interpretation. To test the validity of these measures chi square test was conducted.

POPULATION

The study was designed to analyze the meaning interpretation as a result of doing translation using technology. The social and multidisciplinary characteristics of translation technology are the reason to focus on the field of various disciplines. Our sampling frame comprised of students of Krishna University, Machilipatnam. The sample size of 24 students came from three departments; namely, Mass Communication, Telugu, & English.

METHODS

To measure the meaning interpretation as a result of integration of translation using technology, transcript was prepared. The news story published in The Hindu, Vijayawada dated July 21, 2013 was translated using Google Translator in Telugu. Students were given copy of the text both in English & Telugu. The transcript is mentioned in Annexure I. Students were asked to read them and as per their interpretation they were asked to fill the questionnaire. Likert scale based questions (APPENDIX II) ensured that meaning interpretation can be measured. The statements were on a five point Likert-type scale of Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. Scores of 1, 2, 3, 4, and 5 were awarded to the given statements.

DATA ANALYSIS

The Likert Scale results are listed in frequency table (Table 1) that demonstrates the responses to the 10 statements. Ordinal-level data were analyzed using descriptive statistics (Mean, Standard Deviation & Mode). Chi-square analysis was conducted on each of the mentioned measures to determine if there was a significant relationship between integration of technology and translation on meaning interpretation.

Table 1: Frequency distribution of the ratings on statements on meaning interpretation by respondents (n=24)[figures in parenthesis are percentages]

RESULTS & DISCUSSION

MEASURES

1. Integration & context

Frequency of Response -“Context of the text was maintained in translation (using technology).”The responses for this measure have a mean of 2.7917 (SD = 1.28). The mode for this statement is 5. The P value equals 0.1712 (Chi square(X²) =6.4, Df=4), this difference is considered to be not statistically significant. Hence majority of students were of opinion that context of text is not maintained in translation using technology. This one had over a 37 percent agreement rate (those who preferred agree or strongly agree).-

2. Integration & intended meaning

Frequency of Response -“Translation (using technology) helped in the construction of intended meaning of text.”The responses for this measure have a mean of 3.0 (SD = 1.02). The mode for this statement is 4. . The P value equals 0.0328 (Chi square(X²) =10.5, Df=4), this difference is considered to be extremely statistically significant. Hence majority of students were of opinion that translation using technology helped in the construction of intended meaning of text. This one had over 37 percent agreement rate (those who preferred agree or strongly agree).

3. Integration & accuracy

Frequency of Response -“Accuracy of the text was sustained in translation (using technology).” The responses for this measure have a mean of 2.9 (SD = 1.17). The mode for this statement is 5. The P value equals 0.07490(Chi square(X²) =8.5, Df=4) this difference is considered to be not statistically significant. Hence students are of opinion that translation of the text does not sustain the accuracy of text. The precision in the translation did not match the original text. This one had over 41 percent disagreement rate

(those who preferred disagree or strongly disagree).

4. Integration & distortion

Frequency of Response -“Translation (using technology) did not distort the meaning of text.”The responses for this measure have a mean of 3.2 (SD = 0.93). The mode for this statement is 5. The P value equals 0.0091 (Chi square(X²) =13.5, Df=4), this difference is considered to be extremely statistically significant. Hence majority of students opine that translation using technology did not distort the meaning of text. Though the accuracy level was not maintained in the translation, but its meaning was not distorted. This research question had agreement rate of over 33% and 37 % were neutral to it.

5. Integration & language barrier

Frequency of Response -“Translation (using technology) helped in minimizing language barrier.”The responses for this measure have a mean of 3.3 (SD = 1.27). The mode for this statement is 4. The P value equals 0.2772 (Chi square(X²) =5.1, Df=4), this difference is considered to be not statistically significant.

6. Integration & cultural meaning

Frequency of Response -“Translation (using technology) helped in transfer of cultural meaning in text.”The responses for this measure have a mean of 3.3 (SD = 1.27). The mode for this statement is 3. The P value equals 0.2772 (Chi square(X²) =5.1, Df=4), this difference is considered to be not statistically significant.

7. Integration & meaning interpretation

Frequency of Response -“Translation (using technology) helped me in easy understanding of meaning interpretation of text.” The responses for this measure have a mean of 3.5(SD = 1.24). The mode for this statement is 4. The P value equals 0.0189 (Chi square(X²) =11.8, Df=4, P value=0.0), this difference is considered

to be extremely statistically significant.

CONCLUSION

With the development of networks and online translation services, online translation tools have played a great part in translation. With the advancement in technology, web based online translation has achieved greater readability in translation. The result of the study shows that there exists room for improvement in the translation. Although *Google Translate* provides translations among a large number of languages, the accuracies vary greatly.

The style in the machine translation text is clumsy and not organized. The suggested translation is more or less typical of a word-for-word approach. The inevitable result is that the translated version lacks the communicative effect of the original passage in the source language.

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ANNEXURE I

THE HINDU

VIJAYAWADA, July 21, 2013

Rtc Workshops in Krishna Division to Get Feminine Touch

కృష్ణ డివిజన్‌లో RTC కార్మికులు స్త్రీలకు పొందుటకు Court Faults Rtc for Barring Women from Posts of Mechanics and 'shramiks'

ముఖం మీద పండ్లు మరియు 'shramiks' నుండి మహిళలు నిషేధిత కోసం RTC హైకోర్టు లోపాలుగా

A woman underneath a bus with tool belt strapped to the hips and grease stains on the face is not a familiar site, but soon, a new set of AP State Road Transport Corporation employees will change the way we think about who should be under the vehicle, cleaning or repairing it.

The RTC workshops across Krishna Division will acquire a feminine touch with the doors being opened for women to work as mechanics and 'shramiks' (assistants to the mechanics). With this, women will be storming yet another male bastion as a heavy vehicle workshop is considered a 'man's domain'.

"Shramiks assist mechanics in garages and have physically strenuous work. They need to do servicing of the vehicles, disassemble and assemble parts, lift heavy weights, squat on the floor, work in the maintenance pit and in the night shifts. It will be a hard labour and depend on the grit and determination of the individual on how ably she handles the task," says RTC Regional Manager G. Sudesh Kumar.

No directive has, however, come from the corporate office on the recruitment. Performance of women conductors was fairly good. "Transfers may be a problem because they are posted wherever vacancies exist and they have to leave their families behind," he says.

VIOLATION

This avenue has been opened for women after Justice B. Chandra Kumar of the A.P. High Court found fault with the RTC for barring women from applying for the posts of shramiks, mechanics and chargeman, stating that such exclusion violates Article 16 of the Constitution. The judge was responding to a plea by G. Anita Rani and K. Sulochana, who contended that denial of the posts

to women was illegal. The Corporation's contention that it had never recruited women for the posts as they involved heavy and strenuous work and as such it had sought exception from the Government from recruiting women to these posts and the latter had approved its plea, did not cut any ice.

RECRUITMENT

Citing documents, the judge pointed to the fact that the exemption was given only for certain special circumstances and that it was not meant to be a permanent exemption and directed the RTC to allow recruitment of women to the posts within four weeks.

ముఖంమీద ఎండ్లు మరియు జిడ్డు మరకలుకు వేయబడి సాధనం బెల్ తో ఒక బస్సు కింద ఒక మహిళ వెంటనే తెలిసిన సైట్ కాదు, కానీ, రాష్ట్ర రోడ్ రవాణా సంస్థ ఉద్యోగులు ఒక కొత్త సెట్ మేము వాహనం కింద ఉండాలి ఎవరు గురించి ఆలోచించడం మార్గం మారుతుంది, శుద్ధి లేదా మరమ్మత్తు.

కృష్ణ విభజన అంతటా RTC కార్ణానాలు మెకానిక్స్ మరియు 'shramiks' (మెకానిక్స్ సహాయకులు) వంటి పని మహిళలకు తెరువబడి తలుపులు స్త్రీ టవ్ పొందుతుంది. ఒక భారీ వాహనం వర్క్, ఒక మునిషి యొక్క డోమైన్ పరిగణిస్తూ ఈ స్త్రీల మరొక పురుషుడు బురుజు పేల్చివేసినట్లు ఉంటుంది.

"Shramiks గ్యారేజీలు మెకానిక్స్ సహాయం మరియు భౌతికంగా బలమైన పని కలిగి. వారు, వాహనాల సర్వీసింగ్ చేయండి disassemble భాగాలు స కరించటం, నిర్వహణ పిట్ మరియు రాత్రి మార్పులు పని, నేలపై చతికిలబడిన భారీ బరువులు, లిఫ్ట్ అవసరం. ఇది ఒక కఠిన మరియు ఆమె పనిని ఎలా సమర్థవంతంగా న గ్రీట్ మరియు వ్యక్తిగత నిర్ణయంలో ఆధారపడి ఉంటుంది, "RTC ప్రాంతీయ మేనేజర్ జి. సుదేశ్ కుమార్.

సంఖ్య నిర్దేశకం, అయితే, నియామకన కార్పొరేట్ కార్యాలయం నుంచి వచ్చిన మహిళలు, కండక్టర్ల యొక్క ప్రదర్శన చాలా మంచి "ఖాళీలు ఉన్నాయి ఎక్కడ పోస్ట్ చేసిన ఎందుకంటే, బదిలీలు సమస్య ఉండవచ్చు మరియు వారు వెనుక వారి

కుటుంబాలు వదిలి” అతను చెప్పిన.

ఉల్లంఘన

AP హైకోర్టు న్యాయమూర్తి బి. చంద్రకుమార్, shramiks, మెకానిక్స్ మరియు chareman పదవులను కోసం దరఖాస్తు నుండి మహిళలు నిషేధిత అలాంటి మినహాయింపు రాజ్యాంగంలోని ఆర్టికల్ 16 ఉల్లంఘించే తెలిపాయి కోసం RTC తో తప్పు దొరకలేదు తర్వాత ఈ AVENUE మహిళలకు తెరవబడింది. న్యాయమూర్తి మహిళలు పోస్ట్ ల ఆ తిరస్కారం ఉద్ఘాటించాడు. ఎవరు జి. అనితరాణి మరియు K. Sulochana, కె. సులోచన ఒక హేతువు స్పందించిన చట్ట రుద్దమని వారు భారీ మరియు బలమైన పని చేరి మరియు అది నియామక మహిళల ఈ పోస్ట్ మరియు తరువాత దాని హేతువు అనుమతించని ప్రభుత్వం నుండి మినహాయింపు కోరిన దానిని పోస్ట్ కోసం మహిళలు నియంతుకుంది. ఎప్పుడూ కార్పొరేషన్ యొక్క వాదన, ఏ

మంచు కట్ లేదు.

రిక్రూట్మెంట్

ప్రత్యేక, న్యాయమూర్తి మినహాయింపు కేవలం కొన్ని ప్రత్యేక పరిస్థితులలో మరియు ఇది ఒక శాశ్వత మినహాయింపు అని అర్థం మరియు నాలుగు వారాలలో పోస్ట్ మహిళలు నియామక అనుమతించేందుకు

RTC దర్శకత్వం లేదని ఇచ్చిన వాస్తవానికి చూపారు.

QUESTIONNAIRE

INTEGRATION OF TECHNOLOGY & TRANSLATION FOR MEASURING MEANING INTERPRETATION

NAME _____ AGE _____

OCCUPATION _____ Mb. No _____ M F

S no.	Statements	Neutral	Agree	Strongly agree	Disagree	Strongly Disagree
1	Context of the text was maintained in translation (using technology).	06(25)	03(12.5)	06(25)	08(33.33)	01(4.1t2)
2	Translation (using technology) helped in the construction of intended meaning of text.	06(25)	08(33.33)	01(4.1)	08(33.33)	01(4.1)
3	Accuracy of the text was sustained in translation (using technology).	04(16.6)	09(37.5)	01(4.1)	09(37.5)	01(4.1)
4	Translation (using technology) did not distort the meaning of text.	09(37.5)	07(29.1)	01(4.1)	07(29.1)	01(4.1)
5	Translation (using technology) helped in minimizing language barrier.	05(20.8)	09(37.5)	04(16.6)	09(37.5)	04(16.6)
6	Translation (using technology) helped in transfer of cultural meaning in text.	09(37.5)	09(37.5)	01(4.1)	09(37.5)	01(4.1)
7	Translation (using technology) helped me in easy understanding of meaning interpretation of text.	04(16.6)	11(45.8)	05(20.8)	11(45.8)	05(20.8)