

Machine Translation in Arabic-Speaking ELT Classrooms: Applications and Implications

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Abstract—There has been an enormous boom in Machine Translation (MT) research and practice in recent years. Today millions of words are being translated into different languages by people using computers every day, and this number is anticipated to increase exponentially in the near future. This reality has gone in tandem with the fact that English is currently enjoying the status of being international lingua franca (Cook, 2003). Machine translation of many types of straightforward text between the major languages already meets the quality standards for practical applications. Such a popularity of the practice is realized in the typical EFL classrooms in the Arab world especially in the Gulf States where MT is one of the strategies employed by students in learning English. However, the adoption of MT by EFL Arabic-speaking students is better examined in the light of the fact that Arabic language and its dialectical variations present many challenges for computational processing and machine translation. This paper investigates the usage and dependence on machine translation by EFL Arabic speaking learners and the implications of that on meaning accuracy and message consistency. The paper also explores the impact of MT on human translation profession and practice.

Index Terms—English, ELT classrooms, EFL arabic-speaking students, language, machine translation.

I. INTRODUCTION

Machine translation (MT) as an automated activity is the process by which computer software is used to translate a text from one natural language (such as English) to another (such as Arabic). Today millions of words are being translated into different languages by people using computers every day, and this number is anticipated to increase exponentially in the near future. Machine translation in the EFL classrooms in the Arab world in the Gulf States is one of the strategies employed by students in learning English. In the beginning of the 20th century, translation has flourished the Arab countries based on individuals. But in the Gulf States it became popular during the recent decades. Machine translation in Gulf States is not very old. There is a huge demand for MT among the EFL Arabic Speaking students in ELT classrooms; hence this study attempts to investigate, the following:

II. THE STUDY'S OBJECTIVES

This study is an attempt to explore the relevance of the application of machine translation by EFL Arabic-speaking

students at the tertiary level in the Sultanate of Oman. The study strives to achieve the following specific objectives:

- 1) To investigate the students' perceptions about the reliance on MT in the process of learning English
- 2) The degree of compatibility between students' perceptions and the actual accuracy of MT in achieving the target meaning as compared with human translation.
- 3) The reliability of MT in assignments, reports & projects in ELT classrooms.
- 4) The frequency of usage with MT
- 5) Will the accuracy level of MT meet the requirements of assignments in English
- 6) EFL Arabic-speaking students' perceptions about the reliability on MT
- 7) Degree of compatibility between students' perception and the actual accuracy of MT

III. METHOD AND PROCEDURES – DESIGN

This study is an exploratory in nature in a sense that it investigates the students' perceptions about the reliance on MT in the process of learning English and the degree of compatibility between students' perceptions and the actual accuracy of MT in achieving the target meaning as compared with human translation. The setting of this study is Majan University College, Muscat-Sultanate of Oman, affiliated to the University of Bedfordshire-UK. Majan is a private college with 95% of its students being the Omanis speaking as mother tongue. However, the medium of instruction in the College is English.

IV. PARTICIPANTS OR SUBJECTS

The primary source of data was collected through survey questionnaires with a total number of 60 students from two different streams, Business and Information Technology in the College.

V. RESEARCH FINDINGS

A. Section – A:

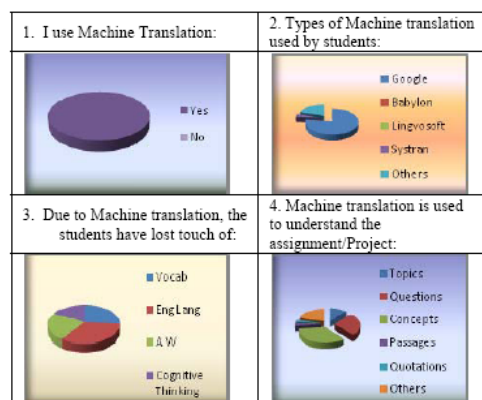
In the survey 60 undergraduate students belonging to Business and IT streams were given the questionnaire and their responses led us to understand that all the students depend on Machine translation in ELT classrooms. According to the above findings in Section-A, Machine translation is used by 100% of the students by EFL-Arabic speaking students in the ELT classrooms. Among them more than 75% of them use Google translation which is the most

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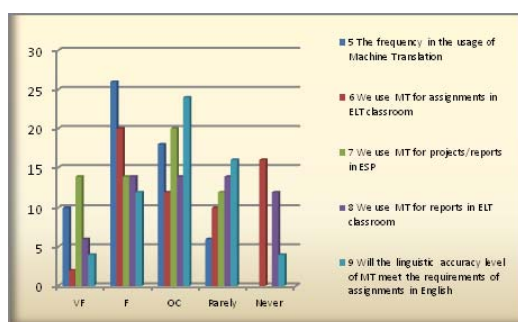
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popular MT application or software used. They use MT mostly to translate and understand the concepts taught in the ELT classrooms and apart from that they use it to translate the questions and topics with the words such as, *illustrate, elaborate, comprehend, contrast, significance, observation, etc...* which are given to them in their assignments, projects and reports. There are also other reasons to use MT, like translating and understanding the quotations, passages and others. We have also observed that there are some concerns due to the use of MT in ELT classrooms. The students have lost the touch of English language and vocabulary due to their indulgence in machine translation for most of the things in the ELT classrooms.

B. Section – B:



Q. No.	Statement	VF	F	OC	Rarely	Never
5	The frequency in the usage of Machine Translation	10	26	18	6	0
6	We use MT for assignments in ELT classroom	2	20	12	10	16
7	We use MT for projects/reports in ESP	14	14	20	12	
8	We use MT for reports in ELT classroom	6	14	14	14	12
9	Will the linguistic accuracy level of MT meet the requirements of assignments in English	4	12	24	16	4

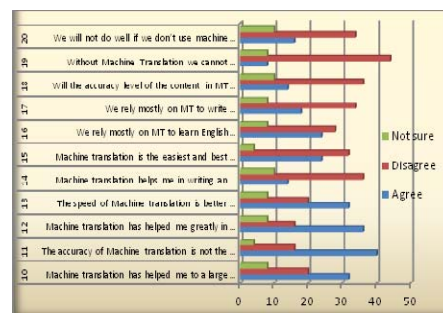


According to the above findings in Section-B, we have observed the frequency of the usage of machine translation by EFL – Arabic speaking students in the ELT classrooms. The most significant observation in this section is that machine translation is used frequently, especially for projects and reports in ESP in the ELT classroom. But the negative trend noted here is that the linguistic accuracy level

occasionally or rarely meets the requirements of assignments of English in machine translation.

C. Section – C:

Q. No.	Statement	Agree	Disagree	Not sure
10	Machine translation has helped me to a large extent in scoring higher grades in ESP assignments	32	20	8
11	The accuracy of Machine translation is not the same as human translation	40	16	4
12	Machine translation has helped me greatly in the process of learning English Language	36	16	8
13	The speed of Machine translation is better than human translation	32	20	8
14	Machine translation helps me in writing an error free English Language assignment in ELT classroom	14	36	10
15	Machine translation is the easiest and best way to score good grades in English Language assignments	24	32	4
16	We rely mostly on MT to learn English Language	24	28	8
17	We rely mostly on MT to write assignments/reports/projects in ELT classroom	18	34	8
18	Will the accuracy level of the content in MT meet the requirements of assignments in English	14	36	10
19	Without Machine Translation we cannot complete the assignments in English modules	8	44	8
20	We will not do well if we don't use machine translation	16	34	10



According to the above findings in Section – C, we have tested the overall agreement or disagreement of the various uses, trends and purposes of using machine translation. The EFL – Arabic speaking students in the ELT classroom strongly disagree that without the use of machine translation they cannot do well or complete the tasks and assignments given to them in the ELT classrooms. But on the contrary they accept and strongly agree that machine translation has helped them in learning English language and to score higher grades in their assignments and reports in English and it is the easiest method to score good grades in English language assignments. They are also under the opinion that the speed of machine translation is better than human translation but the accuracy level of Machine translation is not the same as human translation.

D. General Comments about Machine Translation

EFL – Arabic speaking students have a variety of opinions about machine translation. They feel that Google translation is very helpful in translation and it helps them to understand and improve English. Some of them feel that without it they

cannot learn English. They generally use to translate important and difficult words. Though it is helpful, the students cannot learn English well. They feel it helps in writing faster but affects the ability to think, it changes the meaning of the sentence. It also helps them in writing Vocabulary, academic words & scientific jargons in English assignment and home work. They can do very well in English Language with MT. It has grammatical errors with wrong meaning and too many mistakes and it is not accurate and they feel that they shouldn't rely completely on MT.

VI. SCOPE AND LIMITATIONS

The following can be limitations and the limited scope of study in MT in this paper and it has much scope of research in the next paper as we will be looking at the following areas in Machine Translation:

- 1) Exploring the impact of Machine Translation on human translation profession and practice.
- 2) The teachers' opinion about the accuracy and consistency of MT in ELT classroom tasks and assignments
- 3) The usage of MT for Core Business and IT programmes by EFL Arabic speaking students in the gulf.

VII. CONCLUSION

On the whole machine translation is very popular among the EFL – Arabic Speaking students in its usage in the ELT classrooms. The research findings have revealed that MT is used by these students in English Language translation for various reasons ranging from understanding questions, concepts and topics but unfortunately the use and dependency on MT has led to the loose in touch with English language and vocabulary. As far as the frequency is concerned, these students use MT frequently for projects and reports in ESP in the ELT classroom.

APPENDIX

Questionnaire

Dear Students,

This questionnaire is part of a research on Machine Translation used by English as Foreign Language (EFL) Learners for English modules in English Language Teaching (ELT) Classrooms in Oman.

Programme: _____ Course: _____ Level: _____ Semester: _____

Abbreviations:

MT – Machine Translation
ELT – English Language Teaching
EFL – English as Foreign Language
ESP – English for Specific Purposes

VF – Very frequently
F – Frequently
OC – Occasionally

1. I use Machine Translation.
 - a. Yes
 - a. No
2. I use Machine translation to understand the assignment/Project.
 - a. Topic
 - a. Questions
 - a. Concepts
 - a. Passages
 - a. Quotations
 - a. Others (specify) _____
3. Due to Machine translation, we have lost touch of
 - a. Vocabulary
 - a. English Language
 - a. Academic Writing abilities
 - a. Cognitive thinking
4. Types of Machine translation you use:
 - a. Google translation
 - a. Babylon
 - a. LingvoSoft Suite
 - a. Systran
 - a. Others (specify) _____

Sl. No.	Statement:	VF	F	OC	Rarely	Never
05.	The frequency in the usage of Machine Translation					
06.	We use MT for assignments in ELT classroom					
07.	We use MT for projects/reports in ESP					
08.	We use MT for reports in ELT classroom					
09.	Will the linguistic accuracy level of MT meet the requirements of assignments in English					

Sl. No.	Statement:	Agree	Disagree	Not Sure
10.	Machine translation has helped me to a large extent in scoring higher grades in ESP assignments			
11.	The accuracy of Machine translation is not the same as human translation			
12.	Machine translation has helped me greatly in the process of learning English Language			
13.	The speed of Machine translation is better than human translation			
14.	Machine translation helps me in writing an error free English Language assignment in ELT classroom			
15.	Machine translation is the easiest and best way to score good grades in English Language assignments			
16.	We rely mostly on MT to learn English Language			
17.	We rely mostly on MT to write assignments/reports/projects in ELT classroom			
18.	Will the accuracy level of the content in MT meet the requirements of assignments in English			
19.	Without Machine Translation we cannot complete the assignments in English modules			
20.	We will not do well if we don't use machine translation			

21. Please mention any comments on Machine translation being used by yourself, your classmates, your friends or others.

Thank you for your patience and kind co-operation in taking time to fill in this questionnaire.

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REFERENCES

- [1] G. Cook, *Applied Linguistics*, Oxford: Oxford University Press, 2003, pp. 134.
- [2] N. Shah and S. Goswami, *Statistical Machine Translation using Moses*.
- [3] S. Rajeev. (2007). *Artificial Intelligence meets Language Translation*. [Online]. Available: <http://pcquest.ciol.com/content/topstories/2007/107120504.asp>
- [4] Wikipedia. The free encyclopaedia. (2008). *Machine translation*. [Online]. Available: http://en.wikipedia.org/wiki/Machine_translation
- [5] Wikipedia. The free encyclopaedia. (2012). *Natural language understanding*. [Online]. Available: http://en.wikipedia.org/wiki/Natural_language_understanding

- [6] S. V. Vitek. (2000). Reflections of a Human Translator on Machine Translation. *Translation Journal*. [Online]. 4 (3). Available: <http://www.bokorlang.com/journal/13mt.htm>
- [7] Google translate. (2000). About Google translate. [Online]. Available: http://translate.google.com/about/intl/en_all/
- [8] P. Hodges. (2009). Linguistic Approach to Translation Theory. Translation Directory. [Online]. Available: <http://www.translationdirectory.com/articles/article2019.php>
- [9] D. Arnold L. Balkan S. Meijer, R. L. Humphreys, and L. Sadler. (2008). Machine Translation. An Introductory Guide. [Online] Available: <http://www.scribd.com/doc/9376560/Machine-Translation-an-Introductory-Guide>
- [10] Systran. (March 2011). What Is Machine Translation? [Online]. Available: <http://www.systran.co.uk/systran/corporate-profile/translation-technology/what-is-machine-translation>.



A. Kumar was born in one of the popular southern city of India called Bangalore, also known as the silicon valley of the East. He has obtained a B.A. degree in 1998 with humanities from St. Joseph's Evening College affiliated to Bangalore University, which is at Bangalore in the state of Karnataka located in Southern India and an M.A. degree in English Literature from Bangalore University, Bangalore-India, and he is currently pursuing his masters in Journalism and Mass Communication in

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