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Attitudes of university faculty members towards the usefulness of using Google translation in their research and lecture preparation

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Abstract

This study aimed to reveal the faculty members' attitudes towards the benefit of using Google's translation in their research and preparation of their lectures. A valid and reliable questionnaire was designed that included (20) items and was applied to a sample of (100) subjects of the faculty members in Jordanian universities, by using their e-mails, divided equally in both variables: their gender and specializations. The data were analyzed and classified into three levels: high, medium, and low. The results, in general, showed that the attitudes of faculty members are positive and fall at the high level, that the attitudes of females are more positive than the males, and that the attitudes of people with humanitarian specializations are higher than those of scientific specializations, and that the weights of most of the items are at the high level that measures the attitudes towards using Google Translation.

Keywords: attitudes, Google, Google translation service, university faculty member

Introduction

Universities and their research centers are the institutions responsible for leading scientific development, innovation, discovery, and invention, through their faculty members, who hold the highest degrees in the field of scientific specialization, as well as other tasks they perform that are no less important than scientific development and innovation, which is the service of the community and prepare the scientifically advanced generations in various disciplines to be as able to absorb and keep pace with the latest findings of scientists in their field of specialization.

As humanity is currently living under scientific and technological acceleration that has never been entrusted to man. Science is now produced in different societies, and in many languages, some with limited local prevalence, = 0987 and others with widespread universalities, such as English and French, for example, members of the teaching staff in higher education need to know the latest in their disciplines. Since a large proportion of them may be fluent only in the language of their society, and the other part may be familiar with one of the languages that they may have taught in their universities, the majority of university researchers and teachers need to learn about the production of hundreds or thousands of universities in the world in multiple languages.

Also, since a faculty member at the university needs to be acquainted with the latest available research in his major, and since he may not be fluent in more than one or two languages, and because of the scientific explosion in various fields, it becomes very difficult to translate everything produced in his specialization to be used in his research writing in his mother tongue or to prepare a lecture for his students, thus, leads to a lack of research production and weakness in the scientific material provided. This is a real problem that needs to be solved.

The solution came from, the "Google" application, which, although not fully achieving the required, has facilitated for researchers a free, quick, and easy opportunity to translate any text, research, or author, from the language in which it was written to the language in which the researcher writes, and for more than a hundred language. The beneficiary researcher is required only to make some adjustments to the translation. Google seeks to move from machine translation to neural translation, which is more accurate, through feedback provided by users.

A review of the titles of some relevant studies notes that surveyed the role of the Internet in providing translation for research, such as (Evans, & Mathur 2005) revealed the importance of translation servers in education, such as the (Kucis, V. & Seljan, S., 2014) study. It also dealt with the impact of technological developments on the teaching of translation, as in the study of Odacıoğlu & Kokturk (2015). Studies have dealt with how to improve digital translation servers, such as the study of Gonzales (2021), and has also dealt with revealing the benefits of digital technology, Internet search, and virtual library in preparing programs for specific disciplines, such as the study of Akhtar, 2021.

Previously, studies have not addressed the attitudes of faculty members towards the use of the Google translation service in preparing research and teaching. Thus, the gap related to the use of Google translation in research and teaching has emerged. This gap represents the problem addressed by the current study.

The research problem

The problem that the current study addresses are to reveal the attitudes of faculty members in Jordanian universities towards translation provided by Google, and to benefit from it in their research and teaching, as no such study has been conducted previously, despite the increasing number of faculty members who use it.

The research problem can be summarized in the following questions:

1. What is the level of attitudes of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparing the scientific material for their lectures?
2. What is the level of attitudes of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparing the scientific material for their lectures according to the following variables?

a. Gender: male/female.
b. Specialization: Scientific / Humanitarian.

3. How are the directions paragraphs arranged according to their weights?

The research importance

The importance of the search is highlighted by the questions that need to be answered, which is to reveal the attitudes of the faculty members in Jordanian universities towards translation provided by Google and to benefit from it in their research and teaching to help them save time and effort and train them on translation.

The research objectives

The current study aims to reveal the attitudes of faculty members in Jordanian universities towards benefiting from the use of the translation service provided by Google in their work:

a. Teaching and preparing lectures.
b. Research and authorship.

Besides, faculty members are encouraged to use this free service, which helps them learn more about foreign research in various living languages and to rapidly carry out research and prepare and enrich lectures.

Terminology identification

Attitude: It is a tendency to respond to a particular topic, which may be an idea, a person, or a particular group, either in a positive, negative, or neutral manner.

In the current study, it is the tendency of the participant in the current study towards the ideas contained in the questionnaire paragraphs prepared for the current study, either by acceptance, rejection, or neutrality.

The attitude is measured procedurally in the current study by the degree obtained by the respondent on the questionnaire prepared for the current study:

Google: It is a specialized American company (Wikipedia, 2021). The name Google is derived from the word Googol, which refers to the number ten raised to the power of 100. It is one of the largest and most successful brands of all time, as its name is known all over the world. The word (Google) refers to the famous search engine over the Internet, software, hardware, and computing, Google also provides services such as YouTube, where Google offers more than 250 different products and services, Google Chrome, which is the most widely used browser around the world, as well as many other services such as Gmail (Mawdoo3, 2021).

Google translation

Google developed the translation service in 2006, to translate multiple forms of text and media such as words, phrases, and web pages. It was "statistical machine translation", and it was necessary to translate texts into English and then into the intended language. The accuracy of the translation was poor, and Google did not initially hire experts to solve these limitations due to the ever-evolving nature of the language.

In 2016, Google converted its translation method to a system called "Neural Machine Translation", which uses deep learning techniques to translate entire sentences simultaneously, to be more accurate translation between English, French, German, Spanish, and Chinese.

Google Translate can translate multiple forms of text and media, speech, and text within animated images.

Google Translate for Android and iOS supports 109 languages,[4] and can suggest translations for 37 languages via image, translations for 32 languages via voice in "Conversation Mode", and translations for 27 languages via live video images in "Augmented Reality Mode". [25]. The application accepts translations with voice input in 15 languages and pronounced translations in 23 different languages [26] [27]. It is available for devices running Android 2.1 and above and can be downloaded by searching for “Google Translate” in Google Play (Wikipedia, 2021).

Previous studies:

Previous studies on Google's translation service and other translation service sites, for example:
Evans, & Mathur, 2005 study, in which a survey was conducted on the role of materials provided by the Internet, including translation, in preparing research, analyzing strengths and weaknesses, and an overview of the available Internet services.

Kucis, V. & Seljan, S., 2014 conducted a study that aimed to reveal the importance of online translation servers as a contemporary educational tool in the process of language education and translation. An evaluation of the translation quality was carried out between two groups: one group used the traditional method performed by the translator, and the other used electronic online translation tools. An analysis of translation errors in the two groups was conducted by an evaluation committee, for translation quality. The Fleiss' kappa scale was used to assess the reliability of agreement among the assessors. The committee concluded that there were errors in both groups. It concluded that the use of free online translation tools can contribute to the development of ICT competencies and quality in the translation process.

Odacıoğlu & Kokturk (2015) conducted a study aimed at examining the effects of technological developments on translation teaching in the twenty-first century. Usually, these technological developments in the field of information technology (IT) contribute to the rapid growth of the computer industry. The popularization of the computer, especially in the early 1980s, changed the way the translator goes about the translation process through the advent of useful translator tools including translation memories, terminology databases, translation management software, electronic dictionaries, etc. These innovations in computer technologies have also given rise to a different perception of what we call functional translation theories which see that every translation is done with a

purpose and suggest a goal-oriented approach. In the past, a translator had to translate using a typewriter or paper and pen. The development of technology has encouraged the translation industry, or the localization industry to adopt new tools in the translation process. While explaining all these points, the study follows a descriptive and comparative methodology.

Akhtar 2021 conducted a study aimed at revealing the benefits of digital technology, searching on the Internet and the virtual library to obtain programs that provide means of artificial intelligence, and their usefulness for professionals in staying equipped with updates related to computer sites and stations to enhance their research and benefit from the information services provided by the sites, including digital translation.

Gonzales' study (Gonzales, 2021), entitled "Improving digital translation: Research results from multilingual communicators", The study suggests that as people continue to communicate online in hundreds of different languages, the techniques used to translate information between languages also continue to evolve. For example, Google's translator toolkit and Skype's multilingual translation script translate content into more than 130 languages. Cross-Language Information Retrieval (CLIR) software (eg Google Search) allows users to search for information and get results in multiple languages simultaneously.

Discussing previous studies:

This sample of studies surveyed the role of the Internet in providing translation for the preparation of research, as in Evans, & Mathur, 2005), and revealed the importance of translation servers in education, such as the study of Kucis, V. & Seljan, S., 2014. It also dealt with the impact of technological developments on the teaching of translation, as in the study of Odacıoğlu & Kokturk (2015). Studies have dealt with how to improve digital translation servers, such as the study of Gonzales (2021), and it has also dealt with revealing the benefits of digital technology, Internet search, and virtual library in preparing programs for specific disciplines, such as the study of Akhtar, 2021.

The previous studies did not address the faculty members' attitudes towards using the Google Translate service in preparing research and teaching. Hence the gap in research is related to the use of Google Translate in research and teaching. This gap represents the problem addressed in the current study.

Methodology

The descriptive-analytical approach was used, whereby a sample of faculty members in Jordanian universities was selected, in which the research variables are represented. A special questionnaire was prepared for research consisting of a set of paragraphs that measure their attitudes towards translation provided by Google. The validity and reliability of the tool were verified and applied to the sample, and its data was emptied and analyzed statistically.

The study sample

The study sample consisted of (100) faculty members who answered the electronic questionnaire and were chosen randomly. It was resent until the required number was completed (100) according to the variables of gender and human and scientific specializations, ie (25) in each cell of the sample. Table (1) indicates the distribution of the study sample according to the study variables:

Table (1) the targeted sample distribution according to gender and specialty variables

Variable	Humanitarian	Scientific
Male	50	50
Female	50	50

Study tool:

To achieve the goal of the study, a questionnaire was designed to diagnose the attitudes of faculty members at universities towards the usefulness of using Google Machine Translation in their research and lecture preparation.

Tool originality

The questionnaire, in its initial form, consisting of (20) paragraphs, was submitted to (7) arbitrators with expertise in the fields of education and psychology. They were asked to determine the degree to which the paragraphs in the questionnaire were appropriate and comprehensive to measure the attitudes of faculty members in universities towards the usefulness of using Google Machine Translation for their research and lecture preparation, its affiliation with what the tool measures, its clarity, and its linguistic integrity. Any proposed amendments should be made, paragraphs should be proposed and unnecessary paragraphs should be deleted. After the arbitration was obtained, the proposed amendments were made in the drafting of some paragraphs, all paragraphs were accepted with an agreement rate of (80%). In the light of the amendments, the post-arbitration questionnaire was finalized and consisted of (20) paragraphs, positive paragraphs whose numbers are (1-17), and negative paragraphs (18, 19, 20). When calculating the scores, the balance is reversed.

Tool stability

After the questionnaire was applied to the sample, a random sample of (40) questionnaires was selected. The stability was calculated using the internal consistency method, according to the Cronbach ALpha equation, and the consistency coefficient was 0.87 and was considered acceptable for the current study.

The response was designed on the questionnaire according to a five-graded scale as follows, the first of which are: very high (5), high (4), average (3), few (2), and very few (1).

Thus, and due to the current study, the attitude has been calculated as follows: the highest score for the paragraph minus its lowest score divided by the number of levels, i.e. 5-1/3 = 1.33. Hence, the paragraph whose arithmetic average ranges between (1.00 -2.33) was considered to be low and indicates that the attitude towards digital translation of Google is weak, and is offset by the total score (20 - 6.46). The paragraph whose average ranges between (2.34 - 3.67) indicates that the attitude is moderate, and it corresponds to the total score of the tool (7.46 - 73.4). Also, the paragraph whose arithmetic average ranges (3.68 - 5.00) indicates that it came with a high score, and it corresponds to the total scores (73.41 - 100.00). Besides, the highest score that the respondent can obtain on the tool as a whole is (100), the lowest score is (20) and the average score is (60). Annex (1)

Study results

First: the answer to the first question

What is the level of the attitude of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparation of the scientific material for their lectures?

The results showed that the level of attitudes of faculty members in Jordanian universities towards Google translation and reliance on it in research and teaching, amounted to (3.91) as measured by the weight of the paragraph, and (78.2) as measured by the total score, is within the highest level.

Second, the answer to the second question:

What is the level of the attitude of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparation of the scientific material for their lectures according to the following variables?

a. Gender: male/female.
b. Specialization: Scientific / Humanitarian.

a. Gender: male/female

The results indicated that the attitudes of male faculty members towards Google translation and reliance on it in research and teaching amounted to (3.72) as measured by the weight of the paragraph, and (74,33) as measured by the total score, falls within the highest level. It is noted that the male attitudes are located at the highest level and specifically at the lower of this level.

Besides, the results also showed that the attitudes of female faculty members towards Google translation and reliance on it in research and teaching, which is (4.20) as measured by the weight of the paragraph, and (84.00) as measured by the total score, is within the highest level. It is noted that the level of female attitudes is at the upper of this level.

b. Specialization: Scientific / Humanitarian

The results indicated that the level of attitudes of faculty members from scientific disciplines towards Google translation in research and teaching, which is (3.75) as measured by the weight of the paragraph, and (75.10) as measured by the total score that it falls within the highest level. It is noted that the level of attitudes for those with a scientific specialization is at the highest level, and specifically at the lower of this level.

The results also showed the level of attitudes of faculty members with humanitarian specialization in using Google Translate in research and teaching, which is (4.21) as measured by the weight of the paragraph, and (84.00) as measured by the total degree, is within the highest level. It is noted that the level of their attitudes is at the upper of this level.

Third: the answer to the third question:

How are the directions paragraphs arranged according to their weights?

Study results indicated that the paragraphs of the directions that ranked first and got a relative weight of (84) are (7) paragraphs. This indicates that more than a third of the attitudes rank first. Among these paragraphs: "Google translation provides a benefit in preparing research", and "saves time in obtaining scientific material." Table No (1) indicates this.

Table (1): The paragraphs of the directions are arranged according to their weights

Rank	Paragraph	Relative weight
	Google Translate provides a benefit in research preparation	84
	Save time in obtaining scientific material	84
	The researcher was able to view large numbers of studies related to teaching and research	84
	It helps those who do not master a living foreign language to obtain modern scientific material in their field of specialization	84
	It helps those who do not master a living foreign language to obtain modern scientific material in their field of specialization	84

	Although the translation provided by Google needs to be modified, it is useful	84
	Digital translation evolves through user comments and feedback	84
2.	It helps access research published in many of the world's vital languages.	80
	Faculty members are currently fortunate to have a digital translation available compared to their predecessors	80
2.	Depends on Google Translate who is not fluent in a live foreign language	80
	Google Translate is useful for preparing lectures	76
3.	Digital translation provides free translation at no financial cost to the faculty member	76
	I speak publicly to my colleagues that I use Google translation in my research and teaching	72
4.	The researcher now does not dispense with digital translation.	72
	Despite the mechanism that characterizes Google Digital Translate, it is useful in scientific work	68
5.	Using digital translation improves my foreign language proficiency	68
	I don't care about those who say I use digital translation	64
	Whatever the benefits of digital translation, I'm not going to rely on it.	52
	Digital machine translation does not give the exact meaning	48
	Those who do not know a living foreign language justify the use of digital translation	40

As for the paragraphs that ranked second, their number is (3), and they have a relative weight of (80). Including the paragraph: "helps view research published in many vital languages of the world." Thus, half of the paragraphs got the first and second place.

The paragraphs that measure a negative attitude towards the use of Google Translate, were the negative paragraphs, that is, those that measure negative attitudes towards the use of Google Translate. Including the paragraphs: “The use of digital translation is justified by the one who is not fluent in a living foreign language”, it got the ninth and last rank, which will reach its relative weight (40).

As for the rest of the paragraphs, Table (1) shows their ranks and weights.

Results Discussion

The first question result discussion: **What is the level of the attitude of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparation of the scientific material for their lectures?**

The results indicated that attitudes towards using Google Translate are positive and at the highest level. The reason for this high positive attitude is because Google Translate provides a basis for obtaining a

translation of what a faculty member needs for his research and preparing his lectures quickly and easily. They do not require much effort and time, only you have to copy the text to the Google translation site and get the result immediately and without any financial cost. Besides, resorting to Google translation is practiced even by those who are fluent in a living foreign language, for the reasons previously mentioned, with some modification in its formulation that does not take time and effort.

The findings of the current study are supported by the findings of previous studies such as the study of: (Evans, & Mathur, 2005), and (ocis, V. & Seljan, S., 2014) and (Odacıoğlu & Kokturk, 2015) and (Gonzales, 2021) and (Akhtar, 2021).

The second question results discussion:

What is the level of the attitude of faculty members in Jordanian universities towards benefiting from Google translation in their research and preparation of the scientific material for their lectures according to the following variables?

a. Gender: male/female.
b. Specialization: Scientific / Humanitarian.

The results indicated that female faculty members have positive attitudes to a higher degree than males' attitudes towards using Google Translate. The reason may be because the proportion of male faculty members who are graduates of foreign universities is higher than that of female faculty members. This is because their view of benefiting from the Google translation is because nothing is embarrassing if they disclose the source of the translation frankly.

The third question results discussion:

How are the directions paragraphs arranged according to their weights?

The results indicated that most of the attitude measurement items had high relative weights, and this is a natural thing, because the entire attitude is positive and is at the highest level, and is mainly based on the relative weight of all paragraphs, such as, Google Translate provides benefit in preparing research, saves time in obtaining scientific material, and enables the researcher to view large numbers of studies related to teaching and research. The rest of the paragraphs are all the core of the work of the faculty member and the tasks required.

Conclusion

It is concluded from the findings of the current study that the attitudes of faculty members in Jordanian universities towards the usefulness of using Google's translation service are positive, and that their attitudes towards it are positive, both with regard to the types of faculty members and their scientific specializations.

Recommendations

1. Enhancing the positive attitude towards the use of translation provided by websites and servers.
2. Emphasizing that relying on web translations is better and that as long as it serves scientific work, it's harmless.
3. Contribution of researchers by providing feedback to translation servers on the World Wide Web to develop them.

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