

Examining The Translation Strategies Employed by Machine Translation for Arabic and English Idioms in News Headlines

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Abstract:

The present study aimed to examine the translation strategies employed by machine translation systems (MTs) when translating Arabic and English idioms in news headlines also suggests the most suitable strategies for conveying the idioms. Translating idioms is a difficult task for MT and human translators due to the non-compositional nature of idioms, which makes a literal translation likely to be inaccurate, thus, MT and human translators struggle to recognize idiomatic expressions accurately. This study hypothesizes that MTs outputs frequently use literal translation strategy when translating idioms. In this study, qualitative and quantitative (mixed- approaches) are employed. This research uses Baker's (2018) strategies for translating idioms. These include: total equivalence, partial equivalence, paraphrasing, omission, and literal translation. In this study, sixteen English and Arabic idioms were selected from Arabic and English websites' news headlines. Based on the results, this study revealed that 63.3% of these expressions were translated literally. It is concluded that literal translation was the most used strategy by MTs, consequently, MTs struggle to recognize idiomatic expressions, potentially leading to mistranslations that do not accurately convey the source text's meaning. The study recommends conducting more research to continuously testing MT translation strategies, emphasizing its weaknesses in rendering idioms and the necessary strategies for improvement. Furthermore, a post-editing process is essential for achieving the intended translations of MTs output.

Keyword: translation strategies, machine translation systems, literal translation strategy.

Introduction

Translation is "rendering the meaning of a text into another language in the way that the author intended the text" (Newmark, 1988, p. 5). Baker (2011) mentioned that employing suitable and effective strategies for the translation of idiomatic expressions is essential for ensuring high quality in the overall translation process. Translating idioms has always been a challenging decision-making process for translators and MT, mainly because not all idioms have direct equivalents in the target language. Translators, especially those who translate from a language that is foreign to them, may not always have a full understanding of the meaning of an idiom, "since the true meaning of an idiom generally cannot be determined by a knowledge of its constituent parts" (Collis, 1994, p. 5). The Arabic and English languages are representative of two distinct settings and language families. Arabic is classified as a Semitic language, while English belongs to the Indo-European family. These languages are culturally unrelated and distinct. Additionally, non-linguistic factors such as religion, geographical locations, and differing ideologies can complicate the understanding and translation of idiomatic expressions between English and Arabic (Oualif, 2017). James (2023) defines MT as the process of using a computer program to translate text from one language to another. Regardless of some of its deficiencies, the use of MT on personal computers and smartphones "has become increasingly widespread. Translation students often rely on machine translation (MT) for most of their translation tasks and assignments. Idiom translation is a complex issue in MT due to the non-compositional nature of idioms, making literal translations often incorrect. Idioms are defined as "a fixed expression whose meaning cannot be deduced from the denotative meanings of the words that constitute it (Dickins et al., 2017, p. 293). They are deeply rooted in the culture and language of a specific region, making them particularly challenging for MTs to handle accurately. One of the major challenges posed by MT when translating between English and Arabic is idiomatic expressions since their meanings are

not taken literally but have a cultural meaning behind them, and they are “all in all metaphorical and cannot be understood directly” (Ghazala, 2003).

Theoretical Background

Machine Translation (MT)

The term originally referred only to automatic systems with no human involvement (Sager 1994, p. 326). James (2023) defines MT as the process of using a computer program to translate text from one language to another. Likewise, Larson (1998) defined an idiom as “a string of words whose meaning is different from the meaning conveyed by the individual words. Daxbock (2010, p. 2) defines MT as a subfield of computational linguistics, which investigates the use of computers to translate text or speech from one natural language to another. The ultimate goal is to program computers to understand text or speech in the source language (SL) like a human does, to create output in the target language (TL) that sounds as if it were from a human. Zakraoui et al. (2021) define MT as “a computer application that translates texts or speech from one natural language (i.e., the source) to another (i.e., the target)”. In other words, MTs are programs that automatically render and translate electronic texts and speeches into other languages. The term originally referred only to automatic systems with no human involvement (Sager 1994, p. 326).

Types of Machine Translation

Machine translation can generally be classified into three main types:

1. Rule-Based Machine Translation (RBMT): This type uses predefined linguistic rules and dictionaries for translating text. It often involves direct, transfer, or interlingual approaches to tackle the translation process.

2. Statistical Machine Translation (SMT): SMT relies on statistical models to determine the best translation based on previous text data and linguistic patterns.
3. Neural Machine Translation (NMT): This modern approach uses artificial neural networks to learn how to translate text in a more context-aware manner, often producing more fluent and natural translations compared to the previous methods.

Idioms

According to Bahumaid (2010, p. 101), an idiom is generally defined as a group of words recognized as a unit of usage, with a meaning that cannot be deduced from its constituent words. Richards et al. (2002, p.246) defined an idiom, as "An expression which functions as a single unit and whose meaning cannot be worked out from its separate parts

In a definition given by Larson, an idiom is "a string of words whose meaning is different from the meaning conveyed by the individual words" (Larson, 1984, p. 20). According to McCarthy (2010), idioms are fixed combinations of words whose meaning is often difficult to guess from the meaning of each individual word. For instance, if I say, "I really put my foot in it," when I ask her if Jane is her mother, she says, Jane is her sister." However, most humans and MTs translate this idiom literally into Arabic as "أضع قدمي فيها", which does not make sense to the target readers. It is difficult to know exactly what the sentence means, as it has a non-literal or idiomatic meaning.

Characteristics of Idioms

Baker (2011, p. 67) also states some specific characteristics of an idiom which should be taken into account by translators. According to Baker, idiomatic expressions have the following characteristics:

- (a) cannot accept change in the order of the words they are made of. (e.g. the idiom the long and the short of it cannot be *the short and the long of it;
- (b) cannot accept a deletion of a word. For instance, the idiomatic expression spill the beans cannot be *spill beans;
- (c) cannot accept the addition of a word. For instance, the long and the short of it cannot be *the very long and short of it; and the idiomatic expression face the music cannot be *face the classical music;
- (d) cannot accept the replacement of one word with another. For example, *the tall and the short of it; *bury a hatchet; and
- (e) cannot accept grammatical structure change. E.g., the idiom face the music cannot be *the music was faced.

Classification of Idioms

Different scholars have classified idioms based on various factors that they have studied in their research. Moon (1998) states that the term 'idiom' is used as a common expression for a variety of multiword expressions whether the expression is opaque or transparent. Idioms have been classified into three types namely Pure-idioms, Semi-idioms and Literal-idioms by Fernando (1996) based on the transparency of meaning. Pure idioms do not change their meaning and are opaque in nature. An example of a pure idiom is: to kick the bucket which is considered to be a semantically opaque and lexically fixed expression. In a semi-literal idiom at least, there is one element that is non-literal in nature and these idioms according to Fernando are not fully opaque but are partially opaque.

A typical example of a semi-literal idiom is to cost an arm and a leg with the verb element, to cost, preserving its literal sense when used in this idiomatic expression. The last type in Fernando's classification is 'Literal-idioms' which

are less complex semantically and the variations are restricted to a certain degree. An example of a literal idiom is: I felt numb and had to shake a leg to stand up. Scholars like Moon and Fernando have provided valuable insights into the classification of idioms, shedding light on their varying degrees of opacity and literalness. By studying these classifications, linguists and language enthusiasts can gain a deeper appreciation for the richness of idiomatic expressions in different languages.

Idioms Usage

McCarthy (2010, p.6) mentioned that students need to understand a lot of idioms to read English fiction, newspapers, and magazines, or understand TV shows, films, and songs. They are particularly common in everyday conversation and in popular journalism. For example, they are often found in magazine horoscopes, e.g. You'll spend much of this week **licking your wounds** (trying to recover from a bad experience), or in problem pages, e.g. Do you think that my relationship **has run its course**? (Come to a natural end) However, idioms are also used in more formal contexts, such as lectures, academic essays, and business reports, e.g. It is hoped the regulations will **open the door** to better management.

Translation Strategies

Mona Baker (2018) introduces the following strategies for translating idiomatic expressions as follows:

1. Using an idiom of similar meaning and form (Total Equivalence): This strategy involves using an idiom in the TL which conveys roughly the same meaning as that of the SL idiom and, in addition, consists of equivalent lexical items. This kind of match can only occasionally be achieved. The following examples illustrate the usage of some of many foreign idiomatic expressions in present-day Arabic:

يصطاد في الماء to fish in troubled water , يبكي بدموع التماسيح to shed crocodile tears
العكر, two sides of the same coin.

2. Using an idiom of similar meaning but dissimilar form (Partial Equivalence):
As following examples; أتى على الأخضر واليابس To take the rough and the smooth

يقوم الدنيا ويقعدها to move earth and heaven وفي السراء و الضراء through thick and thin

3. Translation by Paraphrasing. This is the most commonly used strategy in translating translation. In this strategy, the translator paraphrases the source language idiom using words to explain its meaning in order for the language recipient to understand its meaning. Translation by paraphrase is one of the strategies that translators follow to solve the problem of lack of equivalence, as mentioned by Baker (2018). As following examples; to let the cat out of the bag

بيدي الدهشة raise eyebrows سريع البديهة , يفشي سر

4. Translation by the omission of a play on idiom (Literal Translation): This strategy involves the act of rendering the literal meaning only in a context that tolerates a concrete reading of playful usage of language (Baker: 2018).

5. Translation by the omission of the entire idiom. This strategy involves omitting the entire source. This strategy is usually used when an equivalent for the source language idiom is not existent in the target language, and the ST idiom cannot be conveyed by paraphrasing or due to stylistic reasons. e.g., The Arabic idiom دب الشفاق بينه وبين أخيه could be omitted and substituted by “fight” or “dispute” which is easy for the English audience to understand.

Difficulties In Translating Idiomatic Expressions Using Machine Translation

The main challenges related to translating idioms are summarized by Baker (1992, pp.68-71) as follows:

(a) The idiom or fixed expression may have no equivalent in the TL (lack of equivalence). some idioms are culture-specific, and therefore, they do not have equivalents in the TL.

(b) The idiom or fixed expression may have a similar counterpart in the TL; however, its context of use may be different; the two expressions may have different connotations or they may not be pragmatically transferable. Baker gives the example of “pull his leg”, which has an equivalent idiom in Arabic, viz., (يسحب رجله). (This means what literally “pull his leg”) However, the intentional meaning in Arabic is "أمزح معك".

(c) The idiom may be used in the ST in both its literal and idiomatic senses at the same time. Baker gives examples of idioms, which may be misleading and might be translated literally; the example is “*drain the radiator*”, which means ‘to urinate, especially for males.’. However, it might be perceived literally as an action of emptying a radiator.

(d) The very convention of using idioms in written discourse, the contexts wherein they can be used and their frequency of use may be different in the source and target languages. For example, English makes large use of idioms in written discourse, which is not the case in Arabic. Table (4) gives examples of challenges related to translating idioms:

| Difficulties | English idiom | Arabic idiom |
|--------------|---------------------------------|---------------------|
| 1 | to put one's cards on the table | يفصح/يكشف عن نواياه |
| 2 | to eat one's words | يسحب كلامه |
| 3 | to get cold feet | يرتبك/ يتوتر |
| 4 | to warm the heart | أثج الصدر |

Table 1 Examples of challenges related to translating idioms

Methodology

This study aimed to examine the translation strategies employed by machine translation when translating Arabic and English idioms in news headlines using three MTs Google, Bing, and Reverso, and to determine which MTs render English and Arabic idiomatic expressions perfectly and produce the intended meaning. It's important to note that this study uses bidirectional languages English - Arabic - English, as they belong to different linguistic and cultural families. A mixed methods research design is used as an approach to collecting and analyzing both qualitative and quantitative data in this study. Mixed research methods combines both quantitative and qualitative data collection and analysis within the same study. Hence, it considers as the best and most modern method that combines and integrates mixed-method methods. Furthermore, such a method helps avoid bias. Ivankova et al. (2006, p.2) suggest involving two consecutive stages: quantitative and then qualitative, as both methods can capture more details of the research problem, consequently method also helps to avoid bias. Statistical analysis is used to discover commonalities or patterns in the data. This study uses descriptive a content analysis for tracking the occurrence, position, and meaning of phrases for qualitative analysis. The results are reported in graphs and tables. Applications such as Excel is used to calculate things like Average scores (means), the number of times a particular answer was given, the correlation or causation between two or more variables, the reliability and validity of the results.

Adopted models

This study adopted Mona Baker's translation strategies: a model for translating idioms as outlined in her book: *In Other Words, A Coursebook on Translation*, Third Edition. Baker (2018, p.77) outlined five strategies for translating idioms: using an idiom with similar meaning and form (Total Equivalence), using an

idiom with similar meaning but different form (Partial Equivalence), borrowing the idiom from the source language (loan translation), paraphrasing the idiom, translation by omission of a play on idiom (Literal Translation), and Translation by omission of entire idiom. Baker's strategies can be taken as a valid and practical model for translating idioms across languages.

Machine Translation Selection

It should be noticed here that there are many online MTs; however, the choice of these three MTs is based on many factors. These were chosen for their popularity, free service, they are among the most commonly used by translators, translation studies scholars and translation trainees in general, and most importantly, their provision of the Arabic language. Three different MT engines were used to translate idioms: Google, Microsoft Bing, and Reverso Translator. At this time, there isn't a single MT software that can perfectly cater to all needs and use cases. Each software has its pros and cons and may be best suited for meeting certain language translation objectives, content formats, and target audiences over others.

Data Collection

The researcher tended to work on the idioms which are troublesome in the process of translation, additionally, various types of texts were selected including political, sports, and entertainment news. The data source consists of 16 idioms that were selected purposefully to address the research objectives, with half in English and half in Arabic, randomly selected from the most commonly used ones. The data collected (sixteen idiomatic expressions used in natural Arabic and English) were taken from: English online websites namely, The Guardian, The Independent, USA today, and Arabic online websites namely, Shafaq news, Alwatannews, Skynewsarabia, Istanbul/Anadolu.

Data Analysis

A statistical quantitative analysis to investigate translation strategies was carried out. The main procedures used in achieving the objectives of this research are stated below:

1. Gathering data for the study, which comprises 20 idiomatic expressions of Arabic and English website news headlines (see Appendix), with half of them in Arabic and half in English.
2. Feeding these idiomatic expressions as they have been used in online website news headlines into the MTs: Google Translator, Bing Translator, and Reverso to produce the Target Text.
3. The outputs of all MTs (Google Translator, Bing Translator, and Reverso) listed in one table, and used qualitative content analysis method for tracking the occurrence, position and meaning of phrases, and testing their translation strategies based on Baker's strategies (2018). The Researcher's role in the last two rows of the table is to suggest adequate translation that conveys the intended meaning of the ST if MTs fail to provide incorrect translations, and also declares the adopted strategy the researcher used according to Baker's strategies (2018).

Data Analysis

Qualitative and quantitative (mixed-approach) are employed in this study. This evaluative study uses content analysis for qualitative data analysis, and statistical analysis for quantitative data. The qualitative analysis of data is characterized by errors committed in rendering idiomatic expressions in English and Arabic news headlines across three MTs Google, Bing, and Reverso. The ST was divided into 16 segments, and the TT outputs of each translator were analyzed to identify translation strategies,

1. President Donald Trump says he's "moving heaven and earth" to protect seniors from the coronavirus. (*USA today*, 2020).

Translation of political texts is one of the fundamental activities in mass media. Besides essential skills, the translator should be well-versed in political science, history, famous speeches, and quotations. Thus, the definition of the idiom "moving heaven and earth" entails making every possible effort to achieve a goal, as per the [Cambridge Advanced Learner's Dictionary & Thesaurus](#). Upon analysis, it was observed that MTs tend to provide a literal translation "يحرك السماء والأرض", employing the strategy of 'Translation by the omission of a play on the idiom' also known as Baker's fifth strategy. The literal translation is unacceptable since it is far away from the real meaning of the SL idiomatic

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|---|--|
| ST | President Donald Trump says he's " moving heaven and earth " to protect seniors from the coronavirus. | | |
| TT | يقول الرئيس دونالد ترامب إنه يحرك "السماء والأرض" لحماية كبار السن من فيروس كورونا. | يقول الرئيس دونالد ترامب إنه يحرك "السماء والأرض" لحماية كبار السن من فيروس كورونا. | قال الرئيس دونالد ترامب إنه يحرك «السماء والأرض» لحماية كبار السن من فيروس كورونا. |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | يقول الرئيس دونالد ترامب إنه "يقيم الدنيا ويقعدها" لحماية كبار السن من فيروس كورونا. | | |
| Adopted Strategy | Partial Equivalence | | |

expression.

2. “Biden ‘hit the nail on the head’ in revealing joke about the press”.(Skynews, 2023).

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|--|---|
| ST | Biden ‘hit the nail on the head’ in revealing joke about the press. | | |
| TT | لقد "ضرب بايدن المسمار على رأسه" عندما كشف نكتة عن الصحافة. | بايدن «ضرب المسمار على الرأس» في الكشف عن نكتة عن الصحافة. | بايدن «ضرب المسمار على رأسه» في الكشف عن نكتة عن الصحافة. |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | بايدن "أصاب كبد الحقيقة" عندما القى نكتة عن الصحافة. | | |
| Adopted Strategy | Partial Equivalence | | |

This is a political statement with an idiomatic expression " hit the nail on the head " Literally the idiom means to strike a nail precisely on the head with a hammer, while figuratively to do exactly the right thing; to do something in the most effective and efficient way, according to Thefreedictionary.com . Upon analysis, it was observed that MTs tend to provide a literal translation " ضرب المسمار على الرأس " employing the strategy of 'Translation by the omission of a play on the idiom'.

3. Hold your horses! The new Ford Mustang GT is galloping to the UK”. (Topgear,2024)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|--|---|
| ST | Hold your horses! The new Ford Mustang GT is galloping to the UK. | | |
| TT | اكبح جماح نفسك! سيارة فورد موستانج جي تي الجديدة تتجه إلى المملكة المتحدة. | مهلا! فورد موستانج GT الجديدة تنطلق إلى المملكة المتحدة. | تمهل! سيارة Ford Mustang GT الجديدة تسير إلى المملكة المتحدة. |
| MT Strategy | Partial Equivalence | Paraphrasing | Paraphrasing |
| Suggested translation | تمالك نفسك /هدئ من روعك! سيارة فورد موستانج جي تي الجديدة تتجه إلى المملكة المتحدة. | | |
| Adopted Strategy | Partial Equivalence | | |

Literally the idiom " Hold your horses " in Arabic means "تحكم في خيولك" while figuratively means to wait a moment or be patient (often because you are moving too quickly or thoughtlessly) according to Thefreedictionary.com . Upon analysis, it was observed that Google translation tends to use an idiom of similar meaning but a dissimilar form (Partial Equivalence), as in "الكبح جماح نفسك" employing Baker's second strategy, while Bing and Reverso translations used paraphrasing strategy i.e. Baker's fourth strategy as in (مهلا).

4. "Iraq Between a Rock and a Hard Place, the U.S. assassinates Soleimani and Abu Mahdi al-Mohandes".(*POMEPS, 2020*).

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|---|---|
| ST | Iraq: <u>between a rock and a hard place</u> , the U.S. assassinates Soleimani and Abu Mahdi al-Mohandes. | | |
| TT | العراق: بين المطرقة والسندان، الولايات المتحدة تغتال سليمانى وأبو مهدي المهندس. | العراق: بين المطرقة والسندان، الولايات المتحدة تغتال سليمانى وأبو مهدي المهندس. | العراق: بين صخرة ومكان صلب، الولايات المتحدة تغتال سليمانى وأبو مهدي المهندس. |
| MT Strategy | Partial Equivalence | Partial Equivalence | Literal |
| Suggested translation | العراق: بين شقَى الرحي، الولايات المتحدة تغتال سليمانى وأبو مهدي المهندس. | | |
| Adopted Strategy | Partial Equivalence | | |

Literally, the idiom " between a rock and a hard place " in Arabic means " بين صخرة ومكان صلب" while figuratively means to be in a very difficult situation and to have to make a hard decision according to Cambridge dictionary.com. Upon analysis, it was observed that Google and Bing translations tend to provide a partial equivalence as in " بين المطرقة والسندان " employing the strategy of 'translation by finding an idiom of similar meaning but a

dissimilar form in the target language, additionally, Reverso uses Baker's fifth strategy i.e., Translation by the omission of a play on idiom (Literal Translation) as in " بين صخرة ومكان " صلب".

5. "No use crying over spilt milk: Lukaku & United move on from derby defeat."

(Goal, 2017).

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|---|---|
| ST | No use crying over spilt milk: Lukaku & United move on from derby defeat. | | |
| TT | لا فائدة من البكاء على اللبن المسكوب: لوكاكو ويونايتد بيتعدان عن هزيمة الدبري. | لا فائدة من البكاء على الحليب المسكوب: لوكاكو ويونايتد ينتقلان من هزيمة الدبري. | لا فائدة من البكاء على الحليب المسكوب: لوكاكو ويونايتد ينتقلان من هزيمة الدبري. |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | حين لا يُفَع النَم: لوكاكو ويونايتد بيتعدان عن هزيمة الدبري. | | |
| Adopted Strategy | Partial Equivalence | | |

Literally, the idiom " No use crying over spilled milk " in Arabic means " لا فائدة من البكاء على " الحليب المسكوب " while figuratively means that it is pointless to worry or be upset about something that has happened and cannot be changed according to [Collins English Dictionary.com](https://www.collinsdictionary.com). Upon analysis, it was observed that Google, Reverso, and Bing Translation tend to use Baker's fifth strategy i.e., (Literal Translation) as in " لا فائدة من البكاء على الحليب " المسكوب.

6. “McGauran: They have a big debate on their hands': PM and Treasurer have 'let the cat out of the bag'. (*Sky News, 2024*)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|---|---|
| ST | McGauran: 'They have a big debate on their hands': PM and Treasurer have ' <u>let the cat out of the bag</u> '. | | |
| TT | ماكجوران: «لديهم نقاش كبير بين أيديهم»: رئيس الوزراء وأمين الخزانة «أخرجوا القطة من الحقيبة». | ماكجوران: «لديهم نقاش كبير بين أيديهم»: رئيس الوزراء وأمين الخزانة «تركوا القطة تخرج من الحقيبة». | ماكجوران: «لديهم نقاش كبير بين أيديهم»: رئيس الوزراء وأمين الخزانة «تركوا القطة تخرج من الحقيبة». |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | .«ماكجوران: لديهم نقاش كبير بين أيديهم: "زلة لسان" كشفت رئيس الوزراء وأمين الخزانة». | | |
| Adopted Strategy | Partial Equivalence | | |

Literally, the idiom "let the cat out of the bag" in Arabic means "تركوا القطة تخرج من الحقيبة" while figuratively if you let the cat out of the bag, you reveal a secret, probably one that you promised to keep to yourself according to Vocabulary.com. Upon analysis, it was observed that Google, Reverso, and Bing Translation tend to use Baker's fifth strategy i.e. (Literal Translation) as in "تركوا / أخرجوا القطة من الحقيبة".

7. “Peta Credlin says 'People can smell a rat if you pretend to be what you are not'.”. (*SkyNewsAustralia, 2016*)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|--|---|
| ST | Peta Credlin says ' <u>people can smell a rat</u> if you pretend to be what you are not | | |
| TT | تقول بيتا كريدلين: "يمكن للناس أن يشموا رائحة الفئران إذا تظاهرت بأنك لست على طبيعتك". | تقول بيتا كريدلين: "يمكن للناس أن يشموا رائحة فأر إذا تظاهرت بأنك لست كذلك". | تقول بيتا كريدلين: «يمكن للناس أن يشموا رائحة فأر إذا تظاهرت بأنك ما لست عليه». |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | .«تقول بيتا كريدلين: "يمكن للناس أن يشموا رائحة الفئران إذا لم تتصرفي على طبيعتك». | | |
| Adopted Strategy | Paraphrasing | | |

Literally, the idiom "smell a rat" in Arabic means "يشموا رائحة فأر" while figuratively means to have a feeling that something is wrong or that someone is not being honest. When you smell a rat, it's like when you have a particular feeling that something isn't right, but you can't explain why. People often use this expression when they suspect that someone is being dishonest or trying to deceive them according to [Oysterenglish.com](https://www.oysterenglish.com). Upon analysis, it was observed that Google, Reverso and Bing translations tend to use Baker's fifth strategy i.e. (Literal Translation) as in "يشموا رائحة فأر".

8. "Ah...it warms the heart to know that Robert Lewandowski still has that fire burning inside him". (*Bavarianfootballworks, 2024*)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|--|---|
| ST | Ah...it <u>warms the heart</u> to know that Robert Lewandowski still has that fire burning inside him. | | |
| TT | أه... إنه يدفئ القلب عندما يعلم أن روبرت ليفاندوفسكي لا يزال مشتعلًا بداخله. | أه... يدفئ القلب لمعرفة أن روبرت ليفاندوفسكي لا يزال لديه تلك النار المشتعلة بداخله. | أه... يسخن القلب أن يعرف أن روبرت ليفاندوفسكي لا يزال لديه تلك النار المشتعلة بداخله. |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | أه... أتلع صدري لمعرفة أن روبرت ليفاندوفسكي لا يزال لديه تلك النار المشتعلة بداخله. | | |
| Adopted Strategy | Partial Equivalence | | |

The difficulty of translating idiomatic expressions, which contain some rhetorical images and cultural details that the translator must pay attention to, as in "warms the heart". The idiom in Arabic means "يدفئ القلب" while figuratively means to cause someone to have pleasant feelings of happiness according to [merriam-webster.com](https://www.merriam-webster.com). Upon analysis, it was observed that Google, Reverso, and Bing translation tend to use (Literal Translation) as in "يدفئ القلب".

٩. بعد أن تضع الحرب أوزارها. ماذا عن متطلبات إعمار غزة؟“ (Aljazeera, 2021)

As you can see, idiomatic expressions related to war and peace have permeated our language and conversations, offering us a richer and more nuanced way of expressing ourselves. By understanding the origins and meanings of these phrases, you'll be better equipped to use them effectively in your own communication. Literally, the idiom "تضع الحرب أوزارها" in English means "After the war puts her burdens" while figuratively means "after the war has ended" following Almaany dictionary.com. Upon analysis, it was observed that Google and Bing translations use paraphrasing strategy in translating the Arabic idiom "تضع الحرب أوزارها" into "After the war is over / ends", but Reverso translation tends to use literal translation as in "After you put the war on".

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|---|--|
| ST | بارتوميو يريد بيع الماء في حارة الساقين! | | |
| TT | Bartomeu wants to <u>sell water in the watermen's neighborhood!</u> | Bartomeu wants to <u>sell water in the watering lane!</u> | Bartomeu wants to <u>sell water in the bartenders' lane!</u> |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | Bartomeu wants to <u>carry coal to Newcastle!</u> | | |
| Adopted Strategy | Partial Equivalence | | |

| | Google Translation | Bing Translation | Reverso Translation |
|-------------|---|---|---|
| ST | بعد أن تضع الحرب أوزارها.. ماذا عن متطلبات إعمار غزة؟ | | |
| TT | <u>After the war ends...what about the requirements for the reconstruction of Gaza?</u> | <u>After the war is over. What about the requirements for the reconstruction of Gaza?</u> | <u>After you put the war on. What about Gaza's reconstruction requirements?</u> |
| MT Strategy | Paraphrasing | Paraphrasing | Literal |

١٠: بارتوميو يريد بيع الماء في حارة الساقيين! (Hi Cora ,2020)

Literally, the idiom "بيع الماء في حارة الساقيين" in Arabic means "to sell water in the watermen's neighborhood" while figuratively to take an unnecessary item to an area where it is already plentiful, following Almaany dictionary.com. Upon analysis, it was observed that Google, Reverso, and Bing translations tend to use literal translation as in "sell water in the watering lane".

١١. "التيار الصدري: بحثنا مع الزعيم بارزاني وضع النقاط على الحروف." (Shafaq news ,2022)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|--|--|
| ST | التيار الصدري: بحثنا مع الزعيم بارزاني وضع النقاط على الحروف. | | |
| TT | The Sadrist Movement: We discussed with Leader Barzani and <u>put the dots on the letters.</u> | Sadrist movement: We discussed with leader Barzani <u>putting dots on the letters.</u> | Chest Current: Our search with Chief Barzani <u>put dots on letters.</u> |
| MT Strategy | Literal | Literal | Literal |
| Suggested translation | The Sadrist Movement: We discussed with Leader Barzani to dot the i's and cross the t's. | | |
| Adopted Strategy | Partial Equivalence | | |

The Arabic idiom "وضع النقاط على الحروف" literally means "put the dots on the letters", and figuratively means to put things in their proper context, according to Almaany dictionary.com. upon analysis it was observe that all MTs tend to use the strategy 'Translation by the omission of a play on the idiom' also known as Baker's fifth strategy (literal translation) as in "put the dots on the letters".

١٢. "على أحر من الجمر. عشاق "البروفيسور" في البحرين ينتظرون الجزء الأخير" (Alwatannews)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|---|--|
| ST | على أحر من الجمر.. عشاق "البروفيسور" في البحرين ينتظرون الجزء الأخير. | | |
| TT | <u>On the verge of embers...</u> fans of "The Professor" in Bahrain are waiting for the final part. | <u>On pins and needles..</u> Fans of "The Professor" in Bahrain await the final part. | <u>On the warmest of embers..</u> Professor's fans in Bahrain are waiting for the last part. |
| MT Strategy | Literal | Partial Equivalence | Literal |
| Suggested translation | <u>On tenterhooks.</u> Fans of "The Professor" in Bahrain await the final part | | |
| Adopted Strategy | Partial Equivalence | | |

The Arabic idiom "على أحر من الجمر" literally means "On the hottest embers", and figuratively means to be waiting impatiently or nervously for someone or something, according to Almaany dictionary.com. upon analysis of MT Strategy, it was observe that Google & Reverso translations tend to use the strategy 'Translation by the omission of a play on the idiom' also known as Baker's fifth strategy (literal translation) as in "On the verge / warmest of embers", but Bing translation tends to use partial equivalence as in "On pins and needles".

13. "Prince Harry was given the cold shoulder while attempting to talk to senior royals at coronation." (*The Royal Observer, 2023*).

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|---|--|
| ST | Prince Harry was <u>given the cold shoulder</u> while attempting to talk to senior royals at coronation. | | |
| TT | الأمير هاري كان باردًا أثناء محاولته التحدث إلى كبار أفراد العائلة المالكة في التتويج | أصيب الأمير هاري بالبرد أثناء محاولته التحدث إلى كبار أفراد العائلة المالكة في حفل التتويج. | تم إعطاء الأمير هاري الكتف البارد أثناء محاولته التحدث إلى كبار أفراد العائلة المالكة في التتويج |
| MT Strategy | Omission | Omission | Literal |
| Suggested translation | عُومِلَ الأمير هاري بجفاء أثناء محاولته التحدث إلى كبار أفراد العائلة المالكة في حفل التتويج | | |
| Adopted Strategy | Paraphrasing | | |

Literally, the idiom " given the cold shoulder " in Arabic means " أعطى الكتف البارد " while figuratively if you give someone or something the cold shoulder, you intentionally ignore them or show no interest in them [Cambridge dictionary.org](https://www.cambridge.org/dictionary). Upon analysis, it was observed Google and Bing's translations tend to use omission strategy by omitting the English idiom "given the cold shoulder " into " كان باردًا / أصيب بالبرد ", additionally Reverso translation tends to use literal translation strategy as in " تم إعطاء الأمير هاري الكتف البارد ".

١٤. " عقيلة أردوغان: القدس تراث مشترك للإنسانية وقرعة أعيننا " (*Istanbul/Anadolu, 2018*)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|---|---|---|
| ST | عقيلة أردوغان: القدس تراث مشترك للإنسانية وقرّة أعيننا. | | |
| TT | Aguila Erdogan: Jerusalem is a common heritage of humanity and <u>the apple of our eyes</u> | Aguila Erdogan: Jerusalem is a common heritage of humanity and <u>the dignity of our eyes</u> | Aqila Erdogan: Jerusalem is the common heritage of humanity and <u>the dirt of our eyes</u> |
| MT Strategy | Partial Equivalence | Paraphrasing | Literal |
| Suggested translation | Aguila Erdogan: Jerusalem is a common heritage of humanity and <u>our sweetheart</u> . | | |
| Adopted Strategy | Paraphrasing | | |

The Arabic idiom " قرّة أعيننا " figuratively means delight of the eye, according to [Almaany dictionary.com](http://Almaanydictionary.com). upon analysis of MT Strategy, it was observe that Google translation tends to use partial equivalence strategy as in " the apple of our eyes " , Reverso translation tend to use the paraphrasing strategy as in " the dignity of our eyes " , but Bing translation tends to use literally as in " the dirt of our eyes " .

١٥. طفح الكيل... الخلفي يتوعد مبابي ويعطيه مهلة قصيرة“ (Russia Today, 2023)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|--|---|
| ST | طفح الكيل.. الخلفي يتوعد مبابي ويعطيه مهلة قصيرة. | | |
| TT | <u>Enough is enough</u> . Al-Khelaifi threatens Mbappe and gives him a short deadline. | <u>Enough is enough</u> . Al-Khelaifi threatens Mbappe and gives him a short deadline. | <u>It's rash</u> . Al-Khalifi promises Mbappe and gives him a short reprieve. |
| MT Strategy | Partial Equivalence | Partial Equivalence | Literal |
| Suggested translation | <u>This is the last straw</u> . Al-Khelaifi threatens Mbappe and gives him a short deadline. | | |
| Adopted Strategy | Partial Equivalence | | |

The Arabic idiom " طفح الكيل " literally means " Kale overflow " , while figuratively means to become unbearable, according to Almaany dictionary.com. upon analysis of MT Strategy, it was observed that Google & Bing translations tend to use partial equivalence strategy as in " Enough is enough " , Reverso translation conversely tends to use literal translation strategy as in " It's rash " .

١٦. " سوء إدارة ملف فك ازدحامات بغداد... "زاد الطين بلة" (National News Center/Report, 2023)

| | Google Translation | Bing Translation | Reverso Translation |
|-----------------------|--|---|--|
| ST | "سوء إدارة ملف فك ازدحامات بغداد.. "زاد الطين بلة". | | |
| TT | Mismanagement of the Baghdad congestion issue... <u>made matters worse</u> . | Mismanagement of the file of decongestion in Baghdad. " <u>To make matters worse</u> ". | Mismanagement of Baghdad's decommissioning file.. " <u>Make matters worse</u> ." |
| MT Strategy | Paraphrasing | Paraphrasing | Paraphrasing |
| Suggested translation | Mismanagement of the file reducing the traffic jam in Baghdad... <u>add fuel to the fire</u> . | | |
| Adopted Strategy | Partial Equivalence | | |

The Arabic idiom " زاد الطين بلة " figuratively means to make things even worse, according to Almaany dictionary.com. upon analysis of MT Strategy, it was observed that Google, Bing, and Reverso translations tend to use paraphrasing strategy in translating the Arabic idiom " زاد الطين بلة " as in " made matters worse " .

Results

By gathering data from all 16 segments, the researcher reached the findings presented in Table (2) , which shows translation strategies employed by selected MTs outputs for Google, Bing, and Reverso in all 16 segments. Throughout adopting Baker's translation strategies (2018), the results analyzed by the researcher yielded the following outcomes:

| | | | |
|----|---------------------|---------------------|--------------|
| 1 | Literal | Literal | Literal |
| 2 | Literal | Literal | Literal |
| 3 | Partial Equivalence | Paraphrasing | Paraphrasing |
| 4 | Partial Equivalence | Partial Equivalence | Literal |
| 5 | Literal | Literal | Literal |
| 6 | Literal | Literal | Omission |
| 7 | Literal | Literal | Literal |
| 8 | Literal | Literal | Literal |
| 9 | Paraphrasing | Paraphrasing | Literal |
| 10 | Literal | Literal | Literal |
| 11 | Literal | Literal | Literal |
| 12 | Literal | Partial Equivalence | Literal |
| 13 | Omission | Omission | Omission |
| 14 | Partial Equivalence | Paraphrasing | Literal |
| 15 | Partial Equivalence | Partial Equivalence | Literal |
| 16 | Paraphrasing | Paraphrasing | Literal |

Table 2 Translation Strategies Used by Selected MTs

By gathering data from MTs outputs in Table (2), the researcher discovered that regarding translation strategies, Google Translation employed literal translation 17 times out of 30 segments, resulting in 56.66% when calculated as a percentage. Moreover, Google used omission 2 times, accounting for 6.6% as a percentage, paraphrasing 5 times equating

to 16.66%, partial equivalence 5 times also making up 16.66%, and total equivalence only once, representing 3.33% . By collecting data from MTs outputs as shown in Table (5), the researcher found that concerning translation strategies, Bing Translation used literal translation 17 times out of 30 segments, resulting in 56.66% when calculated as a percentage. Additionally, Bing used omission twice, accounting for 6.6% as a percentage, paraphrasing (7) times equating to 23%, partial equivalence (3) times also representing 10 %, and the total equivalence just once representing 3.33%. The researcher found that concerning translation strategies, Reverso translation employed literal translation 23 times for a total of 30 segments, resulting in 76.6 % when calculated as a percentage. Moreover, Reverso used omission twice representing 6.6% as a percentage, paraphrasing 3 times representing 10%, partial equivalence just once representing 3.3 %, and the total equivalence just once representing 3.33%. Figure 1 shows translation strategies used by MTs.

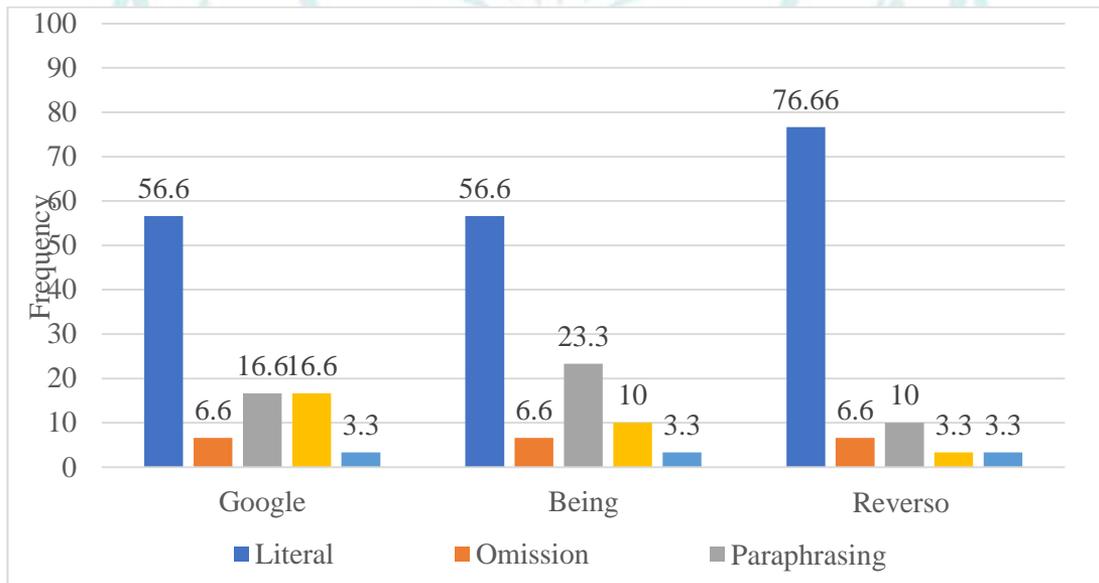


Figure 1 Translation Strategies Used by MTs

Discussion

Concerning MTs strategies, the findings indicate that the most commonly used strategy by MTs was literal translation, thus Google and Bing's translation had an equal percentage usage of literal translation at 56.6 % and Reverso higher at 76.6%. However, it was observed that literal translation means that MTs struggle to recognize idiomatic expressions in English and Arabic, additionally MTs have difficulty to provide partial equivalence or use paraphrasing strategy, or a lack in the dataset, potentially leading to mistranslations that do not accurately convey the source text's meaning.

The second strategy was paraphrasing, as it is clear here that Bing translation possesses the highest rate at 23.3%, followed by Google at 16.6%, and Reverso at 10%. This means MTs had other solutions if total equivalence and partial equivalence strategies were not stored in their database or when a match could not be found in the target language. The third strategy was the omission, Google, Bing, and Reverso translations had equal percentages at 6.6%. This suggests a minor tendency for all MTs to omit certain elements, additionally may be because MTs have no close match in their translation memory, or its meaning cannot be easily paraphrased.

The fourth strategy was the partial equivalence strategy at equal percentages for all MTs 3.33%. This ensures that it is often possible to find an idiom in the target language that has a meaning similar to that of the source idiom but consists of different lexical items.

The last strategy was the total equivalence strategy at 3.33% for all MTs. This lower rate of strategy indicates that achieving total equivalence is rare, because using an idiom in TT which conveys roughly the same meaning as that of the SL idiom in addition, consists of equivalent lexical items can occasionally be achieved.

Conclusions

This study aimed to examine the translation strategies of three MTs: Google, Microsoft Bing, and Reverso translations in translating English and Arabic idiomatic expressions in news headlines, according to Baker's (2018) translation strategies. For this purpose, thirty English and Arabic idiomatic expressions were selected from Arabic and English websites' news headlines and were analyzed qualitatively and quantitatively. Based on the results, this study revealed that 63.6% of these expressions were translated literally by the three MTs, followed by paraphrasing at 16.6%, partial equivalence at 10%, omission at 6.6%, and total equivalence at 3.3%. However, it was observed that literal translation means that MTs struggle to recognize idiomatic expressions in English and Arabic, additionally MTs have difficulty to provide partial equivalence or use paraphrasing strategy, or a lack in the dataset, potentially leading to mistranslations that do not accurately convey the source text's meaning.

Recommendations

The study recommends that MTs in the future can enhance their output quality in rendering English and Arabic by equipping them with a specific model for idioms processing, treating them as a unit of usage rather than individual words, at least warn the user that a sentence may contain an idiom or a metaphorical meaning, and suggest different translation strategies. furthermore, MTs can effectively translate such idioms through a simple memory translation that contains a collection of English and Arabic idioms that pair side by side, in addition, it will be useful the collect information under any circumstances an idiom is used, in any context and text type. Etc. Additionally, conducting more research to continuously evaluate the quality of MTs, emphasizing its weaknesses in rendering idioms and the necessary strategies for improvement. Furthermore, a post-editing process is essential for achieving the intended translations of MTs output.

Suggestions for Further Studies

The study suggests conducting more research to continuously testing the quality of MT emphasizing its weaknesses in translating English and Arabic idiomatic expressions and the necessary strategies for improvement. It is highly suggested that more studies can help in reducing the faults and deficiencies in translating idioms using MTs, and can provide solutions and suggestions that could enhance the quality of MTs translation.

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