

## The Effectiveness of Machine Translation Systems in Translating English Fixed Phrases into Arabic

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© 2024 جامعة العلوم والتكنولوجيا، اليمن. يمكن إعادة استخدام المادة المنشورة حسب رخصة مؤسسة المشاع الإبداعي شريطة الاستشهاد بالمؤلف والمجلة.

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## The Effectiveness of Machine Translation Systems in Translating English Fixed Phrases into Arabic

### Abstract

The purpose of this study is to investigate the effectiveness of machine translation systems in translating English fixed phrases into Arabic. The study uses a qualitative approach to translate 25 English fixed phrases into Arabic using four machine translation systems. The translations are then compared and analyzed along with four well-known sources: Al-Mawrid Dictionary by Baalbaki (1993), Dictionary of Comparative Proverbs by Mourad (2006), Dictionary of Common English Proverbs by Attia (2004), and Ghazala's (2008) translations. The study found all systems struggled with accuracy. The main problems were poor translations, loss of figurative meaning, inappropriate equivalents, and the Arabic sentences seemed to be distorted in terms of forms and contents. The study indicates that adding cultural knowledge bases into translation systems can greatly improve their ability to understand and translate complex fixed phrases.

**Keywords:** Effectiveness of MT systems, English fixed phrases, idioms, proverbs, phrasal verbs.

## فعالية أنظمة الترجمة الآلية في ترجمة العبارات الانجليزية الثابتة إلى اللغة العربية

### الملخص

الغرض من هذه الدراسة هو معرفة مدى فعالية أنظمة الترجمة الآلية في ترجمة العبارات الإنجليزية الثابتة إلى اللغة العربية. وقد تم استخدام المنهج النوعي لترجمة 25 عبارة إنجليزية ثابتة إلى العربية بواسطة أربعة أنظمة للترجمة الآلية، حيث تمت مقارنة الترجمات وتحليلها وفقا لأربعة مصادر معروفة: قاموس المورد (Baalbaki, 1993)، قاموس الأمثال المقارنة (Mourad, 2006)، قاموس الأمثال الإنجليزية الشائعة (Attia, 2004)، وكتاب Ghazala (2008). ووجدت الدراسة أن جميع الأنظمة عانت من دقة في الترجمة، وكانت الصعوبات الرئيسية هي الترجمات السيئة، وفقدان المعنى المجازي، والمرادفات غير المناسبة، وظهور الجمل العربية مشوهة من حيث الشكل والمحتوى. وتشير الدراسة إلى أن إضافة قواعد المعرفة الثقافية إلى أنظمة الترجمة يمكن أن يحسن بشكل كبير من قدرتها على فهم وترجمة العبارات الثابتة المعقد.

الكلمات المفتاحية: فعالية أنظمة الترجمة الآلية، العبارات الإنجليزية الثابتة، المصطلحات، الأمثال، الأفعال المركبة.

## 1. Introduction

Translating fixed phrases i.e., idioms, proverbs and phrasal verbs from English to Arabic needs careful consideration due to linguistic and cultural differences. Understanding context and intended meaning is crucial to finding the closest Arabic equivalent. In some cases, direct translations may not exist, and translators may need to paraphrase or use other expressions to convey the original message. For example, the English idiom 'second hand' in the sentence 'My car is second hand' translated into Arabic as (مستعملة). The English proverb 'Don't count your chickens before they're hatched' translated into Arabic as (تكل مقام مقال/ تكل حادث حديث). The English phrasal verb 'run out' translated into Arabic as 'ينفذ'. Machine translation (MT) uses software to automatically translate text between languages, revolutionizing cross-cultural communication. While using vast amounts of translated text to identify patterns, MT continues to struggle with fixed phrases that rely on cultural references and figurative language. Despite advancements highlighted in studies by Jibreel (2023), MUSAAD and Al-Towity (2023), Ali (2020), and Aldawsari (2023), further research is needed to improve how machine translation handles different types of text, especially those rich in cultural nuances.

This study aims to evaluate how well machine translation systems handle English fixed phrases when rendering into Arabic. It seeks to recognize the system that produces the most natural and accurate Arabic equivalents. This study is essential for enhancing the effectiveness of online machine translation systems, ensuring accurate translation of complex, culturally influenced phrases.

## 2. Definition of Terms

### 2.1. English Fixed Phrases

According to Walde and Smolka (2020), "Idiomatic expressions are the multi-word expressions which may be considered as showing the strongest semantic shift that the constituents undergo, because the figurative meaning is usually not even remotely connected with the meaning of its components." (p. ix). Translating fixed phrases can be difficult because their intended meanings may differ even when similar expressions exist in the target language. Ghazala (2008) defines fixed phrases as groups of words with specific

meanings beyond their literal clarifications, typically in a specific order and wording. It is necessary to take context into account when translating these phrases to ensure that the intended meaning is taken accurately.

### 2.1.1. Idioms

Idioms are phrases composed of words that may be difficult to understand based on their individual meanings. An idiom is "an expression with the following features: 1. It is fixed and is recognized by native speakers. You cannot make up your own! 2. It uses language in a non-literal - metaphorical - way." (Wright, 2002, p. 7). According to Cruse (1986), an idiom is "an expression whose meaning cannot be inferred from the meanings of its parts." (p. 37). Ghazala (2008) provides a similar definition, stating that an idiom is a specific phrase with a fixed form that always conveys the same meaning, and is figurative, indirect, and unchangeable. For example, while "hard task" translated into Arabic as (مهمة شاقّة), "tall order" cannot be translated as (امر/ نظام طويل) but should be rendered as (مهمة شاقّة) to preserve its fixed, indirect meaning (p. 128).

### 2.1.2. Proverbs

Proverbs are "generally characterized as traditional maxims or sayings with didactic meaning, typically offering advice or reflections on life and human nature, social relations, or the natural world." (Taylor, 2015, p. 130). They are brief sayings that have been passed down through generations to convey wisdom, truth, or moral lessons. They offer advice, make observations, or present teachings in a concise and memorable manner. Ghazala (2008) describes proverbs as fixed phrases with unchanging meanings that cannot be translated by analyzing the individual meanings of the words. Attia (2004, p. 3) defined the proverb as:

المثل هو قول شائع وجيز يحمل معنى النصيح أو التحذير، فالمثل لا بد أن يكون شائعا بين عدد كبير من أفراد المجتمع طوال فترة طويلة من الزمن وهذا ينم عن قدم المثل، فلا يمكن للمثل أن يكتسب صفة الشيوخ بين يوم وليلة وإنما تتناقله الأجيال وتردده الألسنة حتى يصبح جزءا من تراث الأمة.

A proverb is a common, brief saying that carries the meaning of advice or warning. It must be common among many members of society over a long period of time, revealing its antiquity. A proverb cannot acquire the status of being common overnight; rather, it is passed down through generations and repeated until it becomes part of the nation's heritage.

### 2.1.3. Phrasal Verbs

According to The American Heritage Dictionary of Phrasal Verbs, “a phrasal verb refers to an ordinary verb combined with a preposition or an adverbial particle that has at least one meaning which is unpredictable and different than what would be denoted by taking the literal meanings of the individual words separately and placing them together” (as cited in Mordaunt & McGuire, 2020, p. 1). Ghazala (2008) stated that phrasal verbs are common expressions formed by combining a verb with an adverb, a preposition, or both. The Longman Phrasal Verbs Dictionary defines phrasal verbs as verbs consisting of two or three words, with the first word is a verb and the second word is a particle, which can be an adverb or a preposition (Dignen et al., 2000). Phrasal verbs are naturally idiomatic, as their complete meaning cannot be inferred simply by understanding the individual meanings of their components.

### 3. Translation of English Fixed Phrases

When rendering texts that contain fixed expressions, the first step is to be able to identify them, because they frequently do not have a literal meaning in context. Baker (2018) identified four challenges in translating idioms and fixed expressions:

- (1) An idiom or fixed expression may have no equivalent in the target language.
- (2) An idiom or fixed expression may have a similar counterpart in the target language, but its context of use may be different.
- (3) An idiom may be used in the source text in both its literal and idiomatic senses at the same time.
- (4) The very convention of using idioms in written discourse, the contexts in which they can be used, and their frequency of use may be different in the source and target languages (pp. 73-76).

While Arabic and English are different languages, many equivalent expressions can be found in both languages. For example, the English idiom “It was the straw that broke the camel’s back”, has an Arabic equivalent: (كانت القشة التي قصمت ظهر البعير). Similarly, the Arabic proverb (لا جديد تحت الشمس) is an equivalent of the English proverb “There is nothing new under the sun”. However, consider the idiom “How nice to remember your palmy days!”. The literal translation (كم هو جميل أن تتذكر أيام النخلة) is incorrect, but the Arabic equivalent is (ما أجمل أن تتذكر أيام العز!). We can realize that the literal translation is unacceptable and fail to convey the actual meaning of the source idiom.

#### 4. Machine Translation

Translation is the process of transferring text or speech from one language to another. It involves not just replacing word for word, but also understanding and transferring the meaning, context and nuances from the source to the target language. One of the big challenges in this process is translating fixed expressions, which have meanings that cannot be obtained from their individual words. According to Baker (2018), "The way in which an idiom or a fixed expression can be translated into another language depends on many factors... Questions of style, register and rhetorical effect must also be taken into consideration." (p. 77). The author suggested four strategies for translating an idiom or a fixed expression into another language as follows: "1- Using an idiom of similar meaning and form. 2- Using an idiom of similar meaning but dissimilar form. 3- Borrowing the source language idiom. 4- Translation by paraphrase, and 5- Translation by omission." (pp. 77-85).

Machine translation (MT) is the automatic translation of text from one language to another using software, without human interference. Today, many types of machine translation exist, such as Rule-Based Machine Translation, which relies on linguistic rules and dictionaries; Statistical Machine Translation which uses static models; Neural Machine Translation which has shown significant developments, particularly for languages with different word orders or complex grammatical structures; and Hybrid Machine Translation, which combines elements of different approaches to improve translation quality (Lelner, 2022; Kumari, 2020). These systems can benefit from the strengths of each approach to produce more accurate translations. Despite advances, machine translation systems still face significant challenges, particularly with translating idiomatic expressions from English into Arabic. Human translators remain essential to ensuring accuracy and cultural relevance in translations.

#### 5. Literature Review

Machine translation has evolved significantly since its early days, with several promising studies evaluating its strengths and weaknesses for translating between English and Arabic. Studies, such as Ali's (2020), highlight these advancements, demonstrating that Microsoft Bing offers the most accurate translations, while Google Translate struggles with both accuracy and clarity. Ginger falls somewhere in between, offering better accuracy than Google Translate but not quite reaching Microsoft Bing's level. Further research by Aldawsari (2023) shows both Google Translate and SYSTRAN face difficulties

with specific Arabic language features such as homonyms, heteronyms, and polysemes. While both Google Translate and SYSTRAN has difficulties in this area, Google Translate shows a slight advantage in overall performance.

Idiomatic expressions and proverbs also pose obstacles to machine translation, as evidenced by Musaad and Al Towity (2023) and Jibril (2023). These studies reveal that the three major systems – Google Translate, Microsoft Bing, and SYSTRAN – struggled to accurately translate these nuances across online newspapers and proverbs, respectively. In both studies, Microsoft Bing emerged as the most effective tool, especially when offering natural-sounding alternatives for proverbs. These studies collectively highlight the progress made in machine translation, especially when dealing with complex linguistic elements such as idiomatic expressions. However, the identified limitations underscore the need for further development. Future interactions of machine translation systems may benefit from incorporating more contextual background information to enhance accuracy and fluency.

## 6. Problem and Questions of the Study

Translating English fixed phrases into Arabic present a challenge due to the contrasting linguistic structures, cultural contexts, and idiomatic expressions of each language. This task holds vital importance for machine translation systems because of the complexity of these expressions. The problems associated with the translation of English fixed phrases by machine translation systems include: (1) literal translation: Machine translation systems often produce literal translations that may not accurately convey the intended meaning in Arabic due to differences in idiomatic expressions. For example, “kick the bucket” might not convey the meaning of ‘to pass away’ (يموت) in Arabic if translated literally. (2) Lack of context and ambiguity: These systems may struggle with context and ambiguity, resulting in translations that may not accurately, reflect the intended meaning of English fixed phrases, as noted by Abdelaal and Alazzawie (2020) and Zakraoui et al. (2020). For example, “break the ice” have different interpretations depending on the context: قطع حبل الصمت واستهل الحديث/ يكسر الجمود/ يمهّد السبيل/ يقوم بالخطوة الأولى (Almaany Company, n.d.). (3) Lack of direct equivalents: Many English phrases lack direct equivalents in Arabic, making it difficult for machine translation systems to effectively convey the same meaning (Abdalla, 2023).



The present study aims to address the following research question:

- How well do MT systems i.e., Google Translate, iTranslate, Bing Translate and Reverso Translate transfer English fixed phrases i.e., idioms, proverbs and phrasal verbs from English into Arabic?

## 7. Methods

The current study employed a qualitative method to examine the effectiveness of four machine translation systems - Google Translate, iTranslate, Bing Translate and Reverso Translate - in translating English fixed phrases into Arabic. The study sample consists of 25 English fixed phrases, randomly selected from Ghazala (2008), including 10 idioms, 10 proverbs, and 5 phrasal verbs. Since the study only considered twenty-five examples, it may not be able to fully capture the diversity of English fixed phrases and they may not be representative of the entire range. However, the findings from a well-defined set of 25 examples can be more easily implemented into machine translation systems for improvement. Analyzing this sample size strikes a balance between the need for comprehensive data and the limitations of time and resources, making the study feasible and effective. These examples are relevant and appropriately challenging. The instrument used for evaluating the translation output of the four machine translation systems involves comparing the translations against well-recognized dictionaries to ensure that the benchmarks are accurate and reliable. The dictionaries used are Al-Mawrid Dictionary by Baalbaki (1993), the Dictionary of Comparative Proverbs by Mourad (2006), the Dictionary of Common English Proverbs by Attia (2004), and Ghazala's (2008) translations. By using translations from established dictionaries and sources, the checklist ensures that the evaluation criteria are based on widely accepted standards. The instrument is designed to systematically evaluate the translations of English fixed phrases into Arabic by different machine translation systems. It relies on these established dictionaries and translations as benchmarks to validate the accuracy and effectiveness of the MT outputs. While the instrument is verified through its design and choice of sources, further formal validation procedures could enhance its robustness and reliability. The English fixed phrases are numbered from 1 to 25, with the Arabic translations provided by each machine translation system.

## 8. Findings and Discussion:

Regarding the study question, how well do MT systems i.e., Google Translate, iTranslate, Bing Translate and Reverso Translate transfer English fixed phrases i.e., idioms, proverbs and phrasal verbs from English into Arabic?, the following present the translations of the four MT systems compared to the well-established translations in Al-Mawrid Dictionary by Baalbaki (1993), Dictionary of Comparative Proverbs by Mourad (2006), Dictionary of Common English Proverbs by Attia (2004), and Ghazala's (2008) translations.

### 8.1. Translation of Idioms

1- Passing the exam is not a bed of roses.

Table 1: Translation of the 1<sup>st</sup> idiom: 'a bed of roses'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
Passing the exam is not a bed of roses.	اجتياز الامتحان ليس فراش من الورود.	اجتياز الامتحان ليس سريرا من الورود.	اجتياز الامتحان ليس فراشا من الورود.	اجتياز الامتحان ليس سريرا من الورود.

The expression 'a bed of roses' in English means a situation or activity that is comfortable or easy. The MT output of the idiom was (.فراش من الورود) by Google Translate and Bing Translate and (.سريرا من الورود) by iTranslate and Reverso Translate. These translations are all literal and somewhat awkward, with slight variations in wording. However, none of these translations fully capture the idiomatic core of the original English phrase. In contrast, Ghazala's (2008) translation, "النجاح في الامتحان ليس طريقا مفروشا بالورود" (p. 128) offers a culturally adapted equivalent. This translation more effectively conveys the intended meaning by using an idiomatic expression familiar to Arabic speakers, emphasizing the difficulty and effort required.

2- Our dear aunt is at death's door.

Table 2: Translation of the 2<sup>nd</sup> idiom: 'death's door'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
Our dear aunt is at death's door.	عمتنا العزيزة على باب الموت.	عمتنا العزيزة عند باب الموت.	عمتنا العزيزة على باب الموت.	عمتنا العزيزة على باب الموت.

'Death's door' indicates "so ill that you may die" (Siefring, 2004, p.19). The idiom translates to Arabic in slightly different ways by the four systems; the output was (على باب الموت) by Google Translate, Bing Translate, and Reverso

Translate and (عند باب الموت) by iTranslate. The first translation can be interpreted as being positioned directly on the doorstep, suggesting an immediate proximity to death. The second translation might be considered slightly more precise due to its direct use of “at” as in the original English idiom, while the first translation may indicate being at or near the door, which might convey a slightly broader sense of being close to death without necessarily implying the same nearness. Both translations are widely accepted and understood, and they effectively communicate the serious condition of the aunt being near death. The Arabic equivalent offered by Ghazala (2008) is “خالتنا العزيزة” على أبواب الموت (p. 75).

3- They needed the job, so they signed on the dotted line.

Table 3: Translation of the 3<sup>rd</sup> idiom: ‘signed on the dotted line’

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
They needed the job, so they signed on the dotted line.	لقد احتاجوا الى الوظيفة، لذلك وقعوا على الخط المنقط.	كانوا بحاجة الى الوظيفة، لذلك وقعوا على الخط المنقط.	كانوا بحاجة إلى الوظيفة ، لذلك وقعوا على الخط المنقط.	كانوا بحاجة الى الوظيفة، لذلك وقعوا على الخط المنقط.

‘Signed on the dotted line’ means “agree formally” (Siefring, 2004, p. 262). The translation output of the idiom was (وقعوا على الخط المنقط) by the four systems. They translated the given idiom literally, which is unacceptable in this context. The Arabic equivalent given by Ghazala (2008) is “كانوا بحاجة الى العمل لذا وقعوا على بياض” (p.129). The result indicated that the four online systems lost implied meaning and showed poor translations. Therefore, the whole meaning of the sentence was distorted completely.

4- They apply the law of the jungle.

Table 4: Translation of the 4<sup>th</sup> idiom: ‘the law of the jungle’

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
They apply the law of the jungle.	إنهم يطبقون قانون الغاب.	انها تطبق قانون الغابة.	إنهم يطبقون قانون الغاب.	إنهم يطبقون قانون الغاب.

Siefring (2004) explains that “the law of the jungle” refers to the idea that those who are powerful and act in their own self-interest without mercy will be the most successful. (p.158). Based on the translations of the idiom by the four systems, the output was (قانون الغابة) by iTranslate, whereas it was (قانون

الغاب) by Google Translate, Bing Translate and Reverso Translate. The Arabic equivalent as revealed by Ghazala (2008) is "انهم يطبقون شريعة الغاب" (p.129). The study revealed that the Arabic translations made by the four systems are accurate and easily understood by the target audience. The Arabic terms 'قانون الغاب' and 'شريعة الغاب' are synonyms.

5- His name is on the tip of my tongue.

Table 5: Translation of the 5<sup>th</sup> idiom: 'on the tip of my tongue'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
His name is on the tip of my tongue.	اسمه على طرف لساني.	اسمه على طرف لساني.	اسمه على طرف لساني.	اسمه على طرف لساني.

Siefring (2004) describes the English expression 'on the tip of my tongue' as being very close to remembering a specific word or name, but not quite able to recall it. The translation output of the idiom was (على طرف لساني) by the four systems. While the literal translations provided by the machine translation tools are clear and convey the meaning, they do not fully capture the idiomatic heart of the phrase as effectively as Ghazala's translation. The Arabic equivalent is "على رأس لساني" (Ghazala, 2008, p. 129). Ghazala's translation offers a more accurate and culturally appropriate equivalent, representing the importance of using idiomatic expressions that resonate with native speakers for more effective communication.

6- My niece is so selfish. She is a dog in the manager.

Table 6: Translation of the 6<sup>th</sup> idiom: 'a dog in the manager'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
She is a dog in the manager.	ابنة أخي أنانية جدا. هي كلبة في المدير.	ابنة أخي أنانية جدا. هي كلب في المدير.	ابنة أخي أنانية للغاية. هي في المدير.	ابنة أخي أنانية جدا. هي كلب في المدير.

According to Siefring (2004), a 'dog in the boss' is a person who tends to prevent others from accessing or using things they do not want or need. When translated into Arabic, the translation output of the idiom by the systems was (كلب/ذ في المدير) except Bing Translate which omitted the name (dog). The outcome was a direct translation that was not suitable for Arabic. The Arabic equivalent as cited in Ghazala (2008) is "ابنة اخي (اختي) انانية جدا. انها مثل ذكر". (p. 131). "الانحل تاكل العسل وتضييق المكان/ لا تحب الخير لنفسها وتمنعه عن غيرها". (p. 131). The four systems produced unacceptable translations as they could not recognize



translations are completely incorrect and unacceptable. In contrast, Ghazala's translation, "هو (انه) رجل عظيم," accurately captures the intended meaning of the idiom, showing someone important or significant.

9-The two athletes were neck and neck in the race.

Table 9: Translation of the 9<sup>th</sup> idiom: 'neck and neck'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
The two athletes were neck and neck in the race.	كان اللاعبان هما العنق والرقبة في السباق.	وكان الرياضيان الرقبة والرقبة في السباق.	كان الرياضيان متصدرين في السباق	وكان الرياضيان من العنق والرقبة في السباق.

The term 'neck and neck' refers to being at the same level in a race, competition, or comparison. The translation output of the idiom by the four systems was as follows: (العنق والرقبة) by Google Translate and Reverso Translate, (الرقبة والرقبة) by iTranslate and (متصدرين) by Bing Translate. The term "neck and neck" does not necessarily mean (متصدرين), rather, the competitors are very close. The translations of Google Translate, iTranslate, and Reverso Translate were taken literally and deemed inappropriate as they did not accurately convey the intended meaning of the English idiom. According to Ghazala (2008), the Arabic equivalent of this idiom is "كان العداءان جنباً الى جنب" (p. 131). With reference to the outputs of these systems and the translation of Ghazala, the online systems failed to recognize the implicit meaning and, thus, they could not accurately convey the true essence of the term in the original language.

10- There is a black sheep in every family.

Table 10: Translation of the 10<sup>th</sup> idiom: 'a black sheep'

English Idiom	Google Translate	iTranslate	Bing Translate	Reverso Translate
There is a black sheep in every family.	هناك خروف أسود في كل عائلة.	هناك أغنام سوداء في كل عائلة.	هناك خروف أسود في كل عائلة.	هناك خروف أسود في كل عائلة.

According to Siefing (2004), the term 'black sheep' refers to an individual who is perceived to be discrediting a family or group and is often described as a person with negative emotions. The translation output of the idiom was (خروف أسود) by Google Translate, Bing Translate and Reverso Translate and (أغنام سوداء) by iTranslate. Ghazala's (2008) translation "هناك ولد نشاز/ عاق في كل" (p. 131), although not literal, provides a culturally nuanced and easily

understood interpretation that directly communicates the proverb’s intent. It may affect deeply the Arabic speakers due to its cultural relevance and directness. The remarkable thing is that the four systems produced poor, incorrect and inaccurate literal translations since they were far from the true meaning of the English idiom because they failed to recognize its implicit meaning.

## 8.2. Translation of Proverbs

11- Like father, like son.

Table 11: Translation of the 1<sup>st</sup> proverb: ‘Like father, like son.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Like father, like son.	مثل الأب مثل الابن.	مثل الأب مثل الابن.	مثل الأب مثل الابن.	مثل الأب مثل الابن.

Manser and Fergusson (2002) explained that the English proverb ‘like father like son’ indicates that children usually display similar personality and behavioral characteristics to their parents, emphasizing this similarity. As shown in Table (11), the translation output of the proverb was (مثل الأب مثل الابن) by the four online systems. Their direct translations might lack the depth and emotional significance that idiomatic expressions can provide in Arabic. The equivalent proverb in Arabic as stated by Mourad (2006) is “الولد سر أبيه/” (p. 89). Mourad’s translations are more cultural, richer, and more expressive ways of conveying the meaning of the proverb. He uses familiar idiomatic expressions that increase the proverb’s effect on Arabic speakers. However, the translations by the four systems could not recognize the implied meaning and produced unacceptable translations.

12-All that glitter is not gold.

Table 12: Translation of the 2<sup>nd</sup> proverb: ‘All that glitter is not gold.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
All that glitter is not gold.	ليس كل ما يلمع ذهباً	كل هذا البريق ليس الذهب	كل هذا اللمعان ليس ذهباً.	كل هذا اللمعان ليس ذهباً.

According to Siefring (2004), the proverb ‘All that glitter is not gold.’ means that the outward beauty of something may not accurately denote its true nature. The translation output of the proverb was (ليس كل ما يلمع ذهباً.) by Google Translate and (كل هذا اللمعان ليس ذهباً.) by iTranslate, Bing Translate and Reverso Translate, respectively. The

equivalent proverb in Arabic as given by Mourad (2006) is “ما كُلُّ أَصْفَرٍ دِينَارًا” (p. 26). The translations ((كل هذا البريق ليس ذهبًا and ((كل هذا اللمعان ليس ذهبًا)) may be more appropriate in specific contexts, such as describing someone who seems wealthy and successful. The English proverb is translated exactly and clearly by the four machine systems.

13- A drowning man will clutch at a straw.

Table 13: Translation of the 3<sup>rd</sup> proverb: ‘A drowning man will clutch at a straw.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
A drowning man will clutch at a straw.	الرجل الغريق سيتعلق بالقشة.	سيقوم رجل الغرق بتمسك في قش.	الرجل الغريق: سوف يمسك بالقشة.	رجل يغرق سوف يمسك بقشة.

The proverb, ‘A drowning man will clutch at a straw.’, implies “someone who is in a very difficult situation, and who will take any available opportunity to improve it.” (Cambridge University Press & Assessment, n.d.). This proverb is translated in various ways by the four systems: Google Translate renders it as “الرجل الغريق سيتعلق بالقشة”, Bing Translate as “الرجل الغريق سوف يمسك بالقشة”, iTranslate as “سيقوم رجل الغرق بتمسك في قش” and Reverso Translate as “رجل يغرق سوف يمسك بقشة”. Google and Bing Translate provide similar and accurate translations that convey the misery of a person in dire circumstances, effectively preserving the proverb. Reverso Translate’s version also captures the spirit but uses a slightly less formal structure, whereas iTranslate’s version is grammatically problematic and less idiomatic, making it less effective. Baalbaki’s translations, “الغريق يتعلق بقشة” and “الغريق يتعلق بحبال الهواء” offer culturally nuanced equivalents that more fluently convey the same sense of worry to Arabic speakers. Baalbaki’s idiomatic expressions echo more deeply within the cultural context, illustrating the proverb’s meaning with greater impact. While machine translations generally capture the core of the proverb, Baalbaki’s versions stand out for their fluency and cultural appropriateness, emphasizing the importance of idiomatic understanding in translation.

14-As you sow, so will you reap.

Table 14: Translation of the 4<sup>th</sup> proverb: ‘As you sow, so will you reap.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
As you sow, so will you reap.	كما تزرع، لذلك سوف تجني.	كما تزرع، وكذلك سوف تجني.	كما تزرع، كذلك ستحصد.	كما تزرع، لذلك سوف تحصد.



The saying ‘As you sow, so will you reap’ suggests that the consequences of one’s actions are closely tied to the intentions of one towards others. The Arabic translations by Google Translate, Bing Translate, and Reverso Translate were acceptable, whereas the translation by iTranslate was unacceptable. By comparing the translations of four systems with the equivalent proverb in Arabic “كما تزرع تحصد. / كما تدين تُدان” (Baalbaki, 1993, p. 18), Google Translate, Bing Translate and Reverso Translate gave accurate translations, while iTranslate mistranslated the meaning of the English proverb. It produced poor translation because it selected the wrong synonyms, and the sentence appears incoherent.

15- Man is known by the company he keeps.

Table 15: Translation of 5<sup>th</sup> proverb: ‘Man is known by the company he keeps.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Man is known by the company he keeps.	يُعرف الإنسان بالشركة التي يحتفظ بها.	يُعرف الرجل من قبل الشركة التي يحتفظ بها.	الرجل معروف من قبل الشركة التي يحتفظ بها.	الرجل معروف من قبل الشركة التي يحتفظ بها

The proverb, ‘Man is known by the company he keeps.’, means that individuals tend to have similar characteristics to their friends. The output of the four-machine translation systems was literal and unacceptable. The Arabic equivalent of the proverb is “يعرف المرء برفاقه (عن المرء لا تسأل وسل عن قرينه).” (Attia, 2004, p. 127). The remarkable thing here is that the four online MT systems failed to recognize the implied meaning of the English proverb and produced poor, incorrect and inaccurate translations. In contrast, the Arabic equivalents provided by Attia (2004, p. 127) are idiomatic and culturally resonant, accurately taking the spirit of the proverb that one’s character is judged by their associates. These equivalents convey the intended meaning more naturally and effectively in Arabic.

16- Forbidden fruit is sweet.

Table 16: Translation of the 6<sup>th</sup> proverb: ‘Forbidden fruit is sweet.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Forbidden fruit is sweet.	الفاكهة المحرمة حلوة.	الفاكهة المحرمة حلوة.	الفاكهة المحرمة حلوة.	الفاكهة المحرمة حلوة.

The proverb, “Forbidden fruit is the sweetest” (2024, para. 7), means

“Forbidden things seem more appealing; people desire things more if (or, in some way, because) they can’t have them.”. The output of the four MT systems was literal translations. The equivalent proverb in Arabic as given by Baalbaki (1993) is “كل ممنوع متبوع / أحب شيء إلى الإنسان ما منعا / المرء تواق إلى ما لم ينل” (p. 41). These expressions are more idiomatic and culturally appropriate, capturing the nuance and depth of the original English proverb, whereas the literal translation “الفاكهة المحرمة حلوة” is not. The four systems gave unacceptable and inaccurate Arabic translations. They could not identify the implied meaning which led to poor translations.

17- Birds of a feather flock together.

Table 17: Translation of the 7<sup>th</sup> proverb: ‘Birds of a feather flock together.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Birds of a feather flock together.	الطيور على أشكالها تقع.	الطيور من ريشة تتدفق معا.	الطيور من قطع الريش معا.	الطيور على أشكالها تقع.

The saying ‘birds of a feather flock together’ means that individuals are drawn to others who share similar characteristics or qualities. The translation output was (الطيور على أشكالها تقع) by Google Translate and Reverso Translate, which corresponds directly to the meaning of the English proverb. Meanwhile, iTranslate and Bing Translate translated it as (الطيور من ريشة تتدفق معا) and (الطيور) (من قطع الريش معا), which are not effective because they do not convey the intended meaning naturally and idiomatically in Arabic, leading to poor, incorrect and inaccurate translations. The Arabic equivalent of the proverb is “إن الطيور على اشكالها تقع/ الطيور على ألأفها تقع / كل طير يأوي إلى شكله” (Baalbaki, 1993, p. 21). Baalbaki’s proverbs effectively convey the idea that similar people or things come together naturally, keeping the proverb’s wisdom alive across languages.

18 - A friend in need is a friend indeed.

Table 18: Translation of the 8<sup>th</sup> proverb: ‘A friend in need is a friend indeed.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
A friend in need is a friend indeed.	الصديق وقت الضيق.	صديق في الفعل هو صديق في الواقع.	الصديق وقت الضيق.	الصديق في العمل هو صديق بالفعل.

The proverb ‘a friend in need is a friend indeed’ means that a true friend is someone who assists you when you are in genuine need of help. The output of the four MT systems varied between accurate and inaccurate translations. Google Translate and Bing Translate are accurate and idiomatic, directly capturing the meaning of the English proverb. iTranslate and Reverso Translate are more literal and awkward and are not common or idiomatic expressions in Arabic. They fail to convey the proverb’s meaning naturally. The Arabic equivalent of this proverb is “الصديق عند الضيق / عند الشدائد تُعرف” (الإخوان (Baalbaki, 1993, p. 8). Baalbaki’s proverbs, along with the accurate translations, effectively express the wisdom that real friendship is developed of difficulty.

19- Diamond cut Diamond.

Table 19: Translation of the 9<sup>th</sup> proverb: ‘Diamond cut Diamond.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Diamond cut Diamond.	لا يفل الحديد الا الحديد.	الماس يقطع الماس.	قطع الماس الماس.	الماس يقطع الماس

The proverb ‘Diamond Cut Diamond’ describes a scenario where two individuals of similar intelligence or cunning participate in a confrontation or competition. Google Translate provided an accurate Arabic equivalent (لا يفل الحديد الا الحديد). In contrast, iTranslate and Reverso Translate’s translations are direct translations that are understandable but not idiomatic. Bing Translate’s “قطع الماس الماس” is awkward and incorrect. The Arabic equivalent of the English proverb is “إن الحديد بالحديد يفل / لا يفل الحديد الا الحديد” (Baalbaki, 1993, p. 33). Baalbaki’s equivalents, along with the accurate translation by Google Translate, effectively convey the idea that something strong can only be matched or overcome by something equally strong. They are idiomatic and resonate well within the cultural context.

20- Better to be safe than sorry.

Table 20: Translation of 10<sup>th</sup> proverb: ‘Better to be safe than sorry.’

English Proverb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Better to be safe than sorry.	من الأفضل أن تكون آمنا من أن تكون أسفا.	أفضل أن تكون آمنة من أسف.	من الأفضل أن تكون آمنا من أسف.	أفضل أن تكون آمنة من أسف.

The saying, ‘Better to be safe than sorry.’, advises taking precautions to

avoid possible negative consequences in the future. The translations of the four systems were literal. However, Google Translate and Bing Translate’s translations lack the idiomatic expression and cultural resonance found in traditional Arabic proverbs. iTranslate and Reverso Translate’s translations are less effective due to their awkward and incomplete nature. In comparing the above translations to the equivalent proverb in Arabic as given by Baalbaki (1993) “من نظر في العواقب، سلم من النوايب / ليس للأمر بصاحب، من لم ينظر في” (p. 21), the remarkable thing is that Baalbaki’s expressions are idiomatic and resonate well within the cultural context, maintaining the essence of the proverb’s wisdom. The third equivalent, while less directly related, still metaphorically associates with the concept of taking precautions to avoid future embarrassment or disappointment.

### 8.3. Translation of Phrasal Verbs

21-The mother barked out when her child had fallen down.

Table 21: Translation of the 1<sup>st</sup> phrasal verb: ‘barked out’

English phrasal verb	Google Translate	iTranslate	Bing Translate	Reverso Translate
The mother barked out when her child had fallen down.	صرخت الأم عندما سقط طفلها.	الأم نشأت عندما سقط طفلها.	نبحت الأم عندما سقط طفلها.	نباح الأم عندما سقط طفلها.

Longman Phrasal Verb Dictionary defined ‘barked out’ as “to shout something loudly and suddenly, especially an order.” (Dignen et al., 2000, p.15). The translation output of the phrasal verb was (صرخت) by Google Translate, (نشأت) by iTranslate, (نبحت) by Bing Translate and (نباح) by Reverso Translate. Google Translate was accurate in rendering this phrasal verb into (صرخت) and it conveyed the same meaning of the English phrasal verb since, the (barked out) means “to shout” or “to cry out” which is what the mother is doing in this sentence, while iTranslate, Bing Translate and Reverso Translate gave unacceptable translations and more than that Bing Translate and Reverso Translate gave insult expressions when translated the phrasal verb into (نبحت) (/نباح), which means “to bark” like a dog. In comparing the Arabic equivalent provided by Ghazala (2008) “صرخت الأم بشدة عندما سقط طفلها.” (p. 134), Google Translate captured the meaning of the English sentence and provided an accurate Arabic equivalent whereas iTranslate, Bing Translate and Reverso

Translate selected the wrong synonyms because they could not recognize the implicit meaning.

22- Please, do not break in while I am talking.

Table 22: Translation of the 2<sup>nd</sup> phrasal verb: 'break in'

English phrasal verb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Please, do not break in while I am talking.	من فضلك، لا تقتحم بينما كنت أتحدث.	من فضلك، لا تنفصل بينما أتحدث.	من فضلكم، لا تقتحموا وأنا أتحدث.	من فضلك، لا تقتحم بينما أنا أتحدث.

According to Longman Phrasal Verb Dictionary, 'break in' denotes "to suddenly say something when someone else is already talking, so that they cannot continue." (Dignen et al., 2000, p. 36). The translation output of the four systems, was completely unacceptable. The Arabic equivalent of the English phrasal verb is "من فضلك لا تقاطعني اثناء كلامي." (Ghazala, 2008, p. 134). The translations provided by four systems were inaccurate and irrelevant because they could not capture the implied meaning of the English phrasal verb in this context. They used the wrong synonyms when they translated 'break in' into (تقتحم، تنفصل، تقتحموا، تقتحم) respectively, instead of using the exact equivalence (تقاطع).

23- We are obliged to carry out our promise.

Table 23: Translation of the 3<sup>rd</sup> phrasal verb: 'carry out'

English phrasal verb	Google Translate	iTranslate	Bing Translate	Reverso Translate
We are obliged to carry out our promise.	نحن ملزمون بتنفيذ وعدنا.	نحن ملزمون بتنفيذ وعدنا.	نحن ملزمون بتنفيذ وعدنا.	نحن مضطرون للوفاء بوعدنا.

The phrasal verb, 'Carry out', implies "to do something that you have said you will do, or instead to do." (Dignen et al., 2000, p. 63). The translations of the four systems were acceptable. The Arabic equivalent is نحن ملزمون بتنفيذ وعدنا (Ghazala, 2008, p.134). The English phrasal verb is translated exactly and clearly by the four systems and the meaning is simply understood. The phrasal verb 'carry out' was translated into 'بتنفيذ' by Google Translate, iTranslate and Bing Translate whereas Reverso Translate utilized a different word 'للوفاء'. Nevertheless, both words have identical meanings. Among the provided translations, Bing Translate's version is the most accurate, as it exactly matches the Arabic equivalent provided by Ghazala. Google Translate and iTranslate are very close but use a slightly less common form of

the verb. Reverso Translate provides a translation that, while understandable, is not as precise or idiomatic. Ghazala's equivalent is clear and precise, maintaining the idiomatic expression of agreement in Arabic. It effectively conveys the meaning of the English phrasal verb. Overall, the most effective translations are those that match Ghazala's equivalent, capturing both the literal and idiomatic meanings accurately.

24- Mary always likes to get in on preparing food.

Table 24: Translation of the 4<sup>th</sup> phrasal verb: 'get in'

English phrasal verb	Google Translate	iTranslate	Bing Translate	Reverso Translate
Mary always like to get in on preparing food.	تحب ماري دائما المشاركة في إعداد الطعام.	ماري دائما تحب الحصول على في اعداد الطعام.	تحب ماري دائما المشاركة في إعداد الطعام.	تحب ماري دائما المشاركة في إعداد الطعام.

As stated in the Longman Phrasal Verb Dictionary, the phrasal verb 'get in' points to "to start doing something that other people are already doing or planning, because you think you will get an advantage." (Dignen et al., 2000, p. 193). Among the provided translations, Google Translate, Bing Translate, and Reverso Translate are all accurate and idiomatic, effectively conveying the meaning of the English phrasal verb as they translated it into المشاركة. However, iTranslate provides an awkward and incorrect translation 'الحصول'. The Arabic equivalent "تحب ماري دائما أن تشارك في إعداد الطعام." (Ghazala, 2008, p. 125), is the most complete and precise, capturing the principle of the English phrase and maintaining idiomatic and grammatical correctness in Arabic. It effectively communicates the idea that Mary always likes to participate in preparing food.

25- My friend always says that he will give up smoking.

Table 25: Translation of the 5<sup>th</sup> phrasal verb: 'give up'

English phrasal verb	Google Translate	iTranslate	Bing Translate	Reverso Translate
My friend always says that he will give up smoking.	يقول صديقي دائما أنه سيقطع عن التدخين.	يقول صديقي دائما أنه سوف يتخلى عن التدخين.	يقول صديقي دائما أنه سيتخلى عن التدخين.	يقول صديقي دائما أنه سيتوقف عن التدخين.

Longman Phrasal Verb Dictionary defines 'give up' as "to stop smoking, drinking etc." (Dignen et al., 2000, p. 204). The translation output was (سيقطع، سيتوقف، سيتخلى، سيتوقف) by the four systems, Google Translate, iTranslate, Bing Translate and Reverso Translate, respectively. The Arabic lexical items

(يقلع، يتخلى و يتوقف) are synonyms. The Arabic equivalent of the English phrasal verb is "يقول صديقي دائما انه سوف يقلع عن التدخين" (Ghazala, 2008, p. 134). The meaning of this phrasal verb was translated accurately and clearly by the four systems. Among the provided translations, Google Translate's translation is the most accurate and idiomatic, matching Ghazala's equivalent closely. It uses "سيقلع عن التدخين," which is the preferred expression for stopping smoking in Arabic. iTranslate and Bing Translate both use "سوف يتخلى عن" and "سيتخلى عن," respectively, which are understandable but less idiomatic and less commonly used to express stopping smoking. Reverso Translate uses "سيتوقف عن," which is idiomatic and correct, effectively conveying the meaning of stopping smoking. However, it is slightly different in expression compared to "يقلع عن". Ghazala's equivalent is the most complete and precise, capturing the core of the English phrasal verb and maintaining idiomatic and grammatical correctness in Arabic. It effectively communicates the idea that the friend always talks about stopping smoking.

The findings indicate that translating English fixed phrases into Arabic using online machine translation systems poses difficulties for developers. The four systems were incapable of providing accurate translations for most of the selected English fixed phrases. They often fail to correctly translate idiomatic expressions due to their literal translation, which distorts the intended meaning (Abdalla, 2023; Abdelaal & Alazzawie, 2020; Ali, 2020; Musaad & Al Towity, 2023). Only with some expressions the four systems produced accurate translations (Zakraoui et al., 2020).

The findings indicate that Google Translate appears to be more accurate in providing Arabic equivalents than the other systems. It was the most accurate compared to Bing Translate and Reverso Translate, which both were very close in their accuracy. However, iTranslate seemed to provide the least accurate translations. Comparing these findings with findings of previous studies such as Aldawsari's (2023) and Jibreel's (2023), significant challenges remain obvious in achieving good translations of idiomatic expressions and handling words with multiple meanings. To fix these problems, developing smarter and more context-aware translation algorithms and using thorough evaluation methods can make those MT systems more accurate and effective.

## 9. Conclusion

The study aimed to evaluate the effectiveness of four machine translation systems – Google Translate, iTranslate, Bing Translate and Reverso Translate – in translating English fixed phrases into Arabic. These systems have difficulty dealing with fixed phrases because of their figurative nature and cultural context. Most translations were literal and mostly incorrect, which indicate that the accuracy level of MT systems remains unreliable despite its fast advancements. Several errors were discovered, such as poor and inaccurate translations; loss of implicit meanings; inappropriate equivalent; and distorted Arabic sentences structures. Therefore, human translators are still preferred for accuracy and preserving the intended meaning. This suggests that integrating information bases with cultural references and basic information could enhance MT systems' understanding and translation of fixed phrases. The continued development of MT technology and the involvement of human translations remains essential to achieve accurate translations. The current study only examined 25 fixed phrases, which might not capture the full range found in English. To improve the generalizability of the findings, future work should involve more MT systems and a broader selection of these idiomatic expressions.

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