

الترجمة البشرية مقابل الترجمة الآلية: تقييم الكفاءة واستكشاف الحدود

Human Translation vs. Machine Translation: Assessing the Competence and Exploring the Limits

م. رعدة ستار جبار م.م داليا سالم نقي

Mustansiriyah University, Collage of Art, Translation Department

الجامعة المستنصرية كلية الآداب، قسم الترجمة

RAGHAD862009@uomustansiriyah.edu.iq

dalia.salem@uomustansiriyah.edu.iq

المستخلص

تهدف هذه الدراسة إلى تقييم كفاءة الترجمة الآلية ومقارنتها بالترجمة البشرية من العربية إلى الإنجليزية. وتستكشف أيضاً ما إذا كان منتج الترجمة الآلية مناسباً وأكثر موثوقية من الترجمة البشرية. ويسعى البحث إلى تحديد ما إذا كانت الترجمة الآلية تهدد المترجمين المحترفين. اختيرت معايير هاتشينز وسومرز (١٩٩٢) لتقييم جودة ترجمة عناوين الأخبار العربية المختارة المأخوذة من حساب التلغرام الرسمي العربي للمكتب الإعلامي لرئيس الوزراء العراقي الحالي محمد شياع السوداني، ومقارنتها بالترجمة الآلية (ترجمة جوجل). تشمل معايير التقييم التي اقترحها هاتشينز وسومرز (١٩٩٢) الدقة والطلاقة وغنى المعلومات. وتشير نتائج البحث إلى أن الترجمة الآلية تمكنت من النقل الشامل والدقيق للبيانات والتفاصيل المهمة من النص المصدر إلى النص الهدف. كما أظهرت الدراسة أن الترجمة البشرية تحقق مستوى أعلى من الطلاقة، إذ يأخذ المترجم البشري في الاعتبار القواعد الأسلوبية (مثل الكلمات الطبيعية والتعابير الاصطلاحية) لجمهور النص الهدف. ومع ذلك، أثبتت الدراسة القدرة العالية للترجمة الآلية على الحفاظ على غنى المعلومات، حيث تنقل جميع التفاصيل دون حذف. أما الترجمة البشرية، فتحذف في

بعض الاحيان بعض التفاصيل غير المهمة. وتظهر النتائج أيضاً أن دور المترجمين البشريين لا يمكن الاستغناء عنه في المهام التي تتطلب فهماً عميقاً للمعنى، والمرونة، والدقة، والتعبير العاطفي، إذ يتمتع المترجمون البشريون بتفوق في تحقيق القابلية للقراءة والمقبولية لدى جمهور اللغة الهدف.

الكلمات المفتاحية: الترجمة البشرية، الترجمة الآلية، نموذج هتشينز وسومرز (١٩٩٢) ، الدقة، الطلاقة، غنى المعلومات

Abstract

The present study aims to assess and compare the competence of machine translation (MT) and human translation (HT) from Arabic into English . It explores whether the MT product is adequate and more reliable than the HT and seeks to decide whether MT threatens professional translators. The criteria of Hutchins and Somers' (1992) model were chosen to assess the human translation quality of selected Arabic news headlines taken from the Arabic official Telegram account of the Media Office of the current Iraqi Prime Minister Mohammed S. Al-Sudani by comparing it with machine translation (Google Translate). The criteria suggested by Hutchins and Somers (1992) are Accuracy, Fluency, and Informativeness. By considering the results, it can be observed that MT manages to comprehensively and accurately transfer the significant data and details from the ST to the TT. Moreover, a higher level of fluency is achieved by HT as the translator takes the stylistic norms (like natural words and idiomatic expressions) of the TT audience into consideration. However, MT proves a high level of informativeness as it conveys and preserves all the details. HT, in contrast, sometimes resorts to delete insignificant details. The results also show that the role of human translators is irreplaceable in tasks requiring profound comprehension of meaning, flexibility, precision and emotional expression, as the human translators have the supremacy in achieving the eligibility and readability to the TL audience.

Keywords: Human translation, Machine Translation, Hutchins and Somers' (1992) Model Accuracy, Fluency, Informativeness

Introduction:

With the rapid growth of Artificial Intelligence AI and Natural Language Processing NLP, translation as a field has hugely changed. The different machine translation systems have come to be of critical importance as tools that have raised changes in the face of translation, therefore posing several questions on the future of translation as a human profession. This research paper compares machine translation with human translation in terms of strengths, weaknesses, and complementarities. Translation is a highly human activity and has its history very deeply ingrained. Starting from ancient texts of holy books to the scientific manuscripts of today, it has bridged cultures, fostered global understanding, and disseminated knowledge. The pioneers among the first generation of MT systems were rule-based machine translation RBMT; these emerged during the mid-20th century. These systems relied on linguistic rules combined with dictionaries to translate text. However, such systems struggled with the complexities of natural language-(Forcada & Neco, 2011). In the late 20th century, large bilingual corpora began to be employed in statistical machine translation to make predictions about translations based on statistical models. Statistical Machine Translation) SMT(was a major improvement over RBMT in its handling of ambiguity and fluency of translation (Koehn, 2010). The next revolution came with the arrival of the mid-2010s Neural Machine Translation)NMT(. Employing deep learning techniques, NMT systems achieved unequalled levels of accuracy and fluency, which really transformed the fortunes of machine translation, as recorded by Bahdanau et al. (2014). Human translation is a basically complex process, relying on the interplay of linguistic, cultural, and cognitive skills. The most

important ones include linguistic competence, i.e. translators have to be acquainted with grammar, vocabulary, and idiomatic expressions in both source and target languages, as Baker (2018) asserts. Whereas cultural competence means knowledge of essential cultural issues since cultural knowledge, beliefs, and historical contexts determine meaning (Bassnett, 1991). Analytical and interpretive skills, on the other hand, suggest that translators have to deduce what is implied, iron out ambiguities, and interpret idiomatic expressions correctly according to Newmark (1988). By cognitive flexibility it means that translation is a dynamic process in which decisions have to be made in acts of balancing accuracy, fluency, and context (Chesterman, 1997). Human translators manage to add some creativity into the process of translation by making sure the final text is catchy, appealing to the target audience, and faithful to the source material. Despite these enormous steps in technology, some of the challenges that remain with MT systems include firstly contextual awareness. In other words, MT typically doesn't have the capability for contextual understanding and, therefore, results in mistakes in the overall meaning (Van der Meer, 2019). Secondly, ambiguity resolution which means that words with several meanings might create errors in translation (Popović 2017). Thirdly, idiomatic expressions that suggest that machines are void of cultural understandings to interpret idioms and metaphors correctly (Moorkens et al., 2018). Fourthly, cultural sensitivity that points out MT systems are usually insensitive to cultural nuances (Tiedemann, 2012). Nevertheless, MT systems have some advantages: they are easy to access and affordable, and they process volumes of text in minimal time (Hassan et al., 2018).

Methodology

The present paper examines 25–30 official news headlines taken from the Arabic <https://t.me/IraqiPmo> and English <https://t.me/IraqiPMOEng> Official Telegram

account of the Media Office of the current Iraqi Prime Minister Mohammed S. Al-Sudani. These headlines are gathered during December 2024 and January 2025. They cover different topics concerning the achievements of the current government, such as launching the construction of the “January 6 City” residential project, which will be built for the Ministry of Defense service members. Similarly, opening units for gasoline enhancement and gas and industrial water treatment at the North Refinery in Baiji District. Also, opening Al-Shaab General Hospital in Baghdad which is one of the delayed projects. In addition, the analyzed data include exchanging Christmas greetings between the PM and the Christian Clergy via video conference in the occasion of Christmas. The MT (Google Translate) of the selected headlines will be analysed and assessed using the evaluation model suggested by Hutchins and Somers (1992). They develop this model in order to assess MT tools and compare it to HT. as far as this study is concerned, the researchers analyze the MT of the understudy data, comparing it to the HT to examine whether MT is as adequate, fluent and informative as HT. accordingly, the main criteria of Hutchins and Somers (1992) model are: Accuracy, Fluency and Informativeness. The first criterion, accuracy, refers to whether MT comprehensively transfers all the significant details of the ST to the TT. Fluency, on the other hand, refers to whether MT employs natural language; the grammatical structures are clear and stylistically acceptable and readable by the TL audience by avoiding literal translation that sounds unnatural. However, informativeness suggests that MT includes all the ST data in the TT without any deletion.

Results and Discussions

The following tables show the manifestation of Hutchins and Somers' (1992) Model in the selected Arabic headlines and their English machine translations (Google Translate):

Table 1

Accuracy in the Arabic headlines and their English MT

Function	Manifestation of Accuracy in Arabic Headlines and their English MT	Percentage %	Total
Highly understood	30	83%	100%
Partly understood	6	17%	
Not understood			

Table 2

Fluency in the Arabic headlines and their English MT

Function	Manifestation of Fluency in Arabic headlines and their English MT	Percentage %	Total
Highly understood	24	61.5%	100%
Partly understood	15	38.5%	
Not understood			

Table 3

Informativeness in the Arabic headlines and their English MT

Function	Manifestation of Informativeness in Arabic headlines and their English MT	Percentage %	Total
Highly understood	21	87.5%	100%
Partly understood	3	12.5%	
Not understood			

The percentages mentioned in the above tables show that MT achieves high levels of *accuracy* (83%), *fluency* (61.5%), and *informativeness* (87.5%). Yet, *fluency* in MT is relatively weaker than *accuracy* and *informativeness*, as 38.5% of the translations are partly understood, proving that while MT covers all the significant details of the ST and conveys the meaning completely, it requires certain adjustments to support readability and naturalness. Consider the following headlines and their HT and MT:

- رئيس مجلس الوزراء السيد محمد شياع السوداني يؤكد أن تحديث عمل تسجيل الشركات في صلب “ جهود الإصلاح الاقتصادي ومكافحة الفساد وتحسين بيئة الأعمال ” ١٤ كانون الأول ٢٠٢٤
- (HT) “Prime Minister Al-Sudani Stresses Modernizing Company Registration as Key to Economic Reform and Anti-Corruption”

- (MT) *"Prime Minister Mohammed Shia Al-Sudani confirms that modernizing company registration is at the heart of economic reform efforts, combating corruption and improving the business environment"*

Starting with *accuracy*, one can see that the HT of the Arabic headline conveys the intended meaning of the ST, but ignores certain elements, i.e. HT does not mention وتحسين بيئة الأعمال which is translated by the MT into *improving the business environment*, rather, it (MT) focuses on economic reforms and fighting corruption. As a result, MT shows a higher level of *accuracy* as it well transfers all the details to the TT.

As to *fluency*, the HT grammatical structure is fluent and the style is natural, using such idiomatic expressions as *Key* as a translation to في صلب. MT, on the other hand, employs correct and clear grammatical structures but literal. That is, في صلب is rendered to *at the heart of*, and the noun جهود الإصلاح الاقتصادي in جهود is kept in the TT: *economic reform efforts*. So it can be said that although MT uses grammatically correct sentences, HT proves to show a higher level of *fluency* as it employs phrases and words that enhance English style.

Concerning *informativeness*, HT only mentions the title of the Prime Minister *Al-Sudani*, while MT renders the full name, which is stylistically very readable and natural. Nevertheless, it can be said that MT is more informative than HT. In addition, MT covers all the details of the ST without any deletion, in contrast to HT which omits وتحسين بيئة الأعمال.

- القائد العام للقوات المسلحة السيد محمد شياح السوداني، بمناسبة عيد الجيش العراقي، يطلق الأعمال “ التنفيذية في مشروع مدينة (٦ كانون) السكنية الذي سيُشيد على أرض معسكر التاجي، المخصص لمنتسبي وزارة الدفاع ” . ٦-كانون الثاني-٢٠٢٥
- (HT) “*Commander-in-Chief of the Armed Forces Mohammed S. Al-Sudani, on the occasion of Iraqi Army Day, launches the construction of the “January 6 City” residential project, which will be built on the land of Al-Taji Camp, designated for Ministry of Defense service members*”.
- (MT) “*Commander-in-Chief of the Armed Forces, Mr. Mohammed Shia Al-Sudani, on the occasion of the Iraqi Army Day, launches the executive works of the (6th of January) residential city project, which will be built on the land of the Taji camp, designated for members of the Ministry of Defense*”.

As for *accuracy*, the first criterion in Hutchins and Somers’ model, it can be seen that machine translation (Goggle Translate) conveys the primary content and information of the Arabic ST to the English TT, for instance القائد العام للقوات المسلحة السيد محمد شياح السوداني is perfectly rendered to *Commander-in-Chief of the Armed Forces, Mr. Mohammed Shia Al-Sudani*, the important event talked about عيد الجيش العراقي is translated into *the Iraqi Army Day*. However, الأعمال التنفيذية is literally translated into *the executive works* which somehow lacks naturalness in English, so the human translation the construction sounds more natural in the TT.

As to *fluency*, the grammatical quality of the machine translation is correct. Yet, using parenthesis with the date (*6th of January*) is uncommon in English style, especially in headlines. So the human translation scored a higher level of fluency concerning the said point depending on the translator’s knowledge on the rules of translating headlines into English.

Concerning the last criterion of evaluation (*Informativeness*), as suggested by Hutchins and Somers' model, the MT proves to be fully informative, conveying all the significant data from the ST to the TT.

- تحسين البنزين، وتحلية الغازات "رئيس مجلس الوزراء السيد محمد شياع السوداني يفتتح وحدات؛ منها والمياه الصناعية، وإنتاج الغاز السائل، ودرجة النفط الأبيض، في مصفى الشمال بقضاء بيجي في محافظة صلاح الدين. (٢-كانون الثاني-٢٠٢٥)

#عام_استمرار_الانجازات

- (HT) "Prime Minister Mohammed S. Al-Sudani inaugurates units for gasoline enhancement, gas and industrial water treatment, liquefied gas production, and kerosene hydrogenation at the North Refinery in Baiji District, Salah al-Din Province."
- (MT) "Prime Minister Mohammed Shia Al-Sudani inaugurates units including gasoline improvement, gas and industrial water desalination, liquefied gas production, and white oil hydrogenation, at the Northern Refinery in Baiji District, Salah al-Din Governorate".
- #Year_of_Continuing_Achievements

The MT of the above Arabic headline shows a high level of *accuracy*, i.e. it conveys the main details to the TT. It can be said that MT proves to be more accurate and adequate than HT since the later does not translate the hash tag عام استمرار الانجازات while the MT renders it literally to #Year_of_Continuing_Achievements

As to *Fluency*, the MT is grammatically correct. Still, the translation of وتحلية الغازات into *gas and industrial water desalination* is unconventional in English style because the noun *desalination* is used for water rather than gases. Thus, HT is

superior to MT in this area because the human translator employs his/her stylistic knowledge about the TL and how to use the combination of words that sounds right to English native speakers. Moreover, the literal machine translation of هدرجة النفط الأبيض into *white oil hydrogenation* and تحسين البنزين into *gasoline improvement* seems to be unnatural for English audience, so the choices made by the human translator *kerosene hydrogenation* and *gasoline enhancement* respectively are stylistically acceptable and natural. As for *Informativeness*, the MT is highly informative, even more than the HT, as all the data and details are conveyed and there is no deletion for any piece of information.

- “رئيس مجلس الوزراء السيد محمد شياع السوداني يفتتح مستشفى الشعب العام في العاصمة بغداد، أحد المشاريع المتكئة، ويعلن عن اعتماد الإدارة المشتركة لتشغيله لتقديم أفضل الخدمات للمواطنين.”
٢٨ كانون الاول - ٢٠٢٤

#عام_الانجازات

- (HT) “Prime Minister Mohammed S. Al-Sudani Inaugurates Al-Shaab General Hospital in Baghdad, One of the Stalled Projects, and Announces the Adoption of Joint Management to Ensure the Best Services for Citizens.”
- (MT) “Prime Minister Mohammed Shia Al-Sudani inaugurates the People's General Hospital in the capital, Baghdad, one of the stalled projects, and announces the approval of the joint management to operate it to provide the best services to citizens.”

#Year_of_Achievements

The MT of the above headline suggests that the content and information are well conveyed from the ST to the TT. So the MT is accurate and adequate. Yet, HT does not translate the hash tag عام استمرار الانجازات while the MT renders it technically to #Year_of_Continuing_Achievements.

Concerning *fluency*, the grammatical structures of the MT are clear, i.e. it conveys the intended message functionally. Still, the translation of ويعلم عن اعتماد الإدارة المشتركة into *and announces the approval of the joint management to operate it to provide the best services to citizens* is correct but sounds unnatural in terms of English style. So the HT once again demonstrates acceptability and naturalness.

As to *Informativeness*, the MT covers all the details and information of the ST, including the title of the PM, the event of opening the hospital, its description as one of the stalled projects in the government and the hashtag which is absent in the HT, so the MT proves to be more informative than the HT in this regard.

- “رئيس مجلس الوزراء السيد محمد شياح السوداني يستقبل رئيس وأعضاء الهيئة الوطنية العليا للمساءلة والعدالة”. ٢٦ كانون الأول ٢٠٢٤
- (HT) “Prime Minister Mohammed S. Al-Sudani Meets the Chairman and Members of the Supreme National Commission for Accountability and Justice”
- (MT) “Prime Minister Mohammed Shia Al-Sudani receives the head and members of the Supreme National Commission for Accountability and Justice”

The assessment of *accuracy* indicates that the overall content is well conveyed to the TT. The MT preserves the details of ST in the TT. So it scored a high degree of

accuracy. For *Fluency*, the results show that the MT of the above-mentioned Arabic headline keeps the grammatical and stylistic naturalness of the ST in the translation. So the TT is highly fluent and natural. As to *informativeness*, the MT is highly informative since the translation captures all the details with no unnecessary deletion of addition.

- "رئيس مجلس الوزراء السيد محمد شياح السوداني يتبادل التهاني مع عدد من رجال الدين المسيحيين (عبر دائرة تلفزيونية) من مختلف الطوائف، بمناسبة أعياد الميلاد المجيد " ٢٥ كانون الأول ٢٠٢٤
- (HT) "Prime Minister Mohammed S. Al-Sudani Exchanges Christmas Greetings with Christian Clergy via Video Conference"
- (MT) "Prime Minister Mohammed Shia Al-Sudani exchanges greetings with a number of Christian clerics (via video conference) from various sects, on the occasion of Christmas"

The MT of the afore-mentioned headline proves to be fully understandable, as all the details and information are transferred from the ST to the TT. It can be seen that the MT scores a higher level of *accuracy* than the HT, since the latter fails to render من مختلف الطوائف، بمناسبة أعياد الميلاد المجيد while the former manages to translate it into *from various sects, on the occasion of Christmas*.

As far as *fluency* is concerned, it is clear that this criterion is preserved in the MT as it employs acceptable and suitable English grammatical structure and style. In addition, MT is highly *informative* as it captures most of the ST significant details. It is more informative than the HT due to failure to convey من مختلف الطوائف، بمناسبة أعياد الميلاد المجيد to the TT.

- “اللجنة العليا للإعمار والاستثمار تقرر رؤية صندوق العراق للتنمية لتوفير المجمعات السكنية الممولة لعوائل الشهداء في بغداد والمحافظات ١٩ ” كانون الأول ٢٠٢٤
- (HT) *“The Higher Committee for Construction and Investment Approves Iraq Development Fund’s Vision to Provide Housing for Martyrs’ Families in Baghdad and Other Provinces”*
- (MT) *“The Higher Committee for Reconstruction and Investment approves the vision of the Iraq Development Fund to provide funded housing complexes for the families of martyrs in Baghdad and the governorates”*

To start with *accuracy*, the information and content of the ST are well preserved in the MT. The translation of لتوفير المجمعات السكنية الممولة لعوائل الشهداء into *to provide funded housing complexes for the families of martyrs* may sound literal but acceptable. As to *fluency*, the grammatical structures employed by the MT are logical and natural. However, the use of the noun *governorates* in *in Baghdad and the governorates* as a translation to في بغداد والمحافظات may lack readability in English style, so the HT employs the more suitable equivalent by rendering the said adverbial phrase to *in Baghdad and Other Provinces*. Concerning *informativeness*, the MT is comprehensive in covering all the necessary details, with no unjustifiable deletion or addition. Moreover, it can be said that the MT here scores a higher level of informativeness than HT as it (HT) fails to render لتوفير المجمعات السكنية الممولة in الممولة , لعوائل الشهداء , while MT covers such adjective by translating it into *to provide funded housing complexes for the families of martyrs*.

- "رئيس مجلس الوزراء السيد محمد شياح السوداني يطلع على المعايير المعتمدة لاختيار إحدى الشركات العالمية المتقدمة لتأهيل مطار بغداد الدولي." ١٦ كانون الأول ٢٠٢٤
- (HT) "Prime Minister Mohammed S. Al-Sudani Reviews Standards for Selecting a Global Company to Rehabilitate Baghdad International Airport"
- (MT) "Prime Minister Mohammed Shia Al-Sudani reviews the approved criteria for selecting one of the advanced international companies to rehabilitate Baghdad International Airport"

Starting with the assessment *accuracy*, it can be observed that the intended meaning of the ST is well transferred by the MT, so the translation is highly adequate and accurate. However, the MT resorts to literal translation in some points; rendering المعايير المعتمدة to *the approved criteria* which is suitably translated by the HT as only *Standards*, since the noun criterion refers to "a defined specification to fulfil in order to reach a standard" while standard refers to the level of achievement or quality. Thus, the human translator, having searched for the suitable selection for the context, manages to choose the readable and eligible noun, which standard¹.

As to *fluency*, the MT employs correct and logical grammatical sentences. Also, the language used is natural to the SL audience. Concerning *informativeness*, the MT is comprehensive; all the ST data are included in the TT. Surprisingly, it can be noticed that the MT is even more informative than the HT, as the former translates the adjective المتقدمة in إحدى الشركات العالمية المتقدمة while the latter skips it *a Global Company*. So, the MT shows a high level of *informativeness*.

- "رئيس مجلس الوزراء السيد محمد شياح السوداني يترأس اجتماعاً خاصاً لإطلاق الأعمال التنفيذية للمرحلة الثالثة من مشروع تأهيل مدينة بغداد التاريخية التي تشمل محور الميدان لغاية ساحة الرصافي، ومحور الرشيد".

كانون الأول ٢٠٢٤ 16

- (MT) "Prime Minister Mohammed S. Al-Sudani chaired today, Monday, a special meeting to officially launch the implementation of the third phase of the Baghdad Historical City Rehabilitation Project. This phase includes the Al-Midan up to Al-Rusafi Square, as well as Al-Rasheed".
- (HT) "Prime Minister Mohammed Shia Al-Sudani chairs a special meeting to launch the executive works of the third phase of the rehabilitation project of the historic city of Baghdad, which includes the Al-Midan axis to Al-Rusafi Square, and the Al-Rashid axis. "

Although MT preserves the significant details in the TT, there are certain shortcomings. For instance, HT determines the date of holding the meeting (today, Monday), making the translation more precise, whereas MT lacks such technique. Moreover, HT employs the adverb *officially* before the act of launching the implementation to add formality to the event, while MT does not do so. Also, HT renders محور الميدان لغاية ساحة الرصافي، ومحور الرشيد to *the Al-Midan up to Al-Rusafi Square, as well as Al-Rasheed*, which is more idiomatic, readable and natural to the SL audience, whereas MT technically and literally uses the term *axis* as in *the Al-Midan axis to Al-Rusafi Square, and the Al-Rashid axis* which does not enhance accuracy. As a result, the HT proves to show a higher level of accuracy. It can be suggested that MT employs correct and logical grammatical structures. In terms of style, the MT uses the term *axis* twice in the sentence, which seems to be unfavorable form of repetition in English style, yet, HT concisely uses the same term only once. Furthermore, rendering الأعمال التنفيذية to *the executive works* by MT appears to be literal, while HT uses the more fluent noun *the implementation*. Accordingly, HT demonstrates more fluency than the MT. As to *informativeness*, MT

manages to convey all the details mentioned in the ST, i.e. all the data and information are included within the TT with no unnecessary deletion. Nevertheless, HT proves to be more informative than the MT by setting the date of holding and chairing the meeting, depending on the translator's background information about the time of the meeting.

Conclusions:

By analyzing and comparing the HT and MT (Google Translate) of the selected Arabic headlines depending on Hutchins and Somers' (1992) model, the researchers draw the following conclusions:

1. MT shows a higher level of *accuracy* than HT by well conveying and preserving all the details of the ST in the TT. However, MT sometimes employs literal translation, which can be described as accurate but lacks contextual naturalness and appropriateness. While HT often resorts to use contextually acceptable translations in order to enhance the readability and naturalness of the TT. HT resorts to deletion or brevity for the sake of conciseness.
2. HT proves a higher level of *fluency* than MT as it (HT) employs stylistically acceptable words, avoids redundancy, grasps idiomatic expressions and concise language. MT, on the other hand, uses grammatically correct and clear sentences but it occasionally results in literal or unconventional translations, especially when dealing with certain stylistic nuances and culture-related words.
3. MT demonstrates a higher level of *informativeness* than HT, as it includes all the ST ideas in the TT without any unjustifiable omission. By considering the HT and MT of the understudy data, one may observe that MT is longer and more detailed than HT. Nevertheless, HT sometimes opts for deleting minor

elements to offer professional communicative effectiveness by achieving brevity and readability in the TT.

4. While MT is comprehensive, accurate and informative, human revision is critical for achieving fidelity, naturalness, fluency and stylistically acceptable translations. So, MT is recommended as a starting point followed by a human editing to conduct stylistic adjustments and ensure naturalness.

References

(Bahdanau, D., Cho, K., & Bengio, Y. (2014). Neural machine translation by jointly learning to align and translate. arXiv preprint arXiv:1409.0473.)

(Baker, M. (2018). In other words: A coursebook on translation (3rd ed.). Routledge. p. 45.)

(Bassnett, S. (1991). Translation studies (Revised ed.). Routledge. p. 67.)

(Chesterman, A. (1997). Memes of translation: The spread of ideas in translation theory. John Benjamins Publishing Company. p. 89.)

(Forcada, M. L., & Neco, R. P. (2011). Rule-based machine translation systems. In H. Somers (Ed.), Handbook of translation studies (pp. 174–179). John Benjamins Publishing. p. 175.)

(Hassan, H., Aue, A., Chen, C., et al. (2018). Achieving human parity on automatic Chinese to English news translation. arXiv preprint arXiv:1803.05567.)

(Hutchins, W. J., & Somers, H. L. (1992). An introduction to machine translation. Academic Press. pp. 112–114.)

(Koehn, P. (2010). Statistical machine translation. Cambridge University Press. p. 123.)

(Moorkens, J., Castilho, S., Gaspari, F., & Doherty, S. (2018). Translation quality assessment: A brief overview of current approaches. In J. Moorkens et al. (Eds.), Translation quality assessment: From principles to practice (pp. 9–20). Springer. p. 15.)

(Newmark, P. (1988). A textbook of translation. Prentice Hall. p. 62.)

(Popović, M. (2017). Challenges in evaluating machine translation output. The Prague Bulletin of Mathematical Linguistics, 108(1), 233–244. p. 236.)

(Tiedemann, J. (2012). Machine translation: Models and applications. Springer. p. 45.)

(Van der Meer, J. (2019). Contextual awareness in neural machine translation. International Journal of Machine Translation, 33(4), 275–289. p. 277)

Websites consulted:

(https://www.reddit.com/r/ENGLISH/comments/xzp36s/difference_between_standard_and_criteria/)