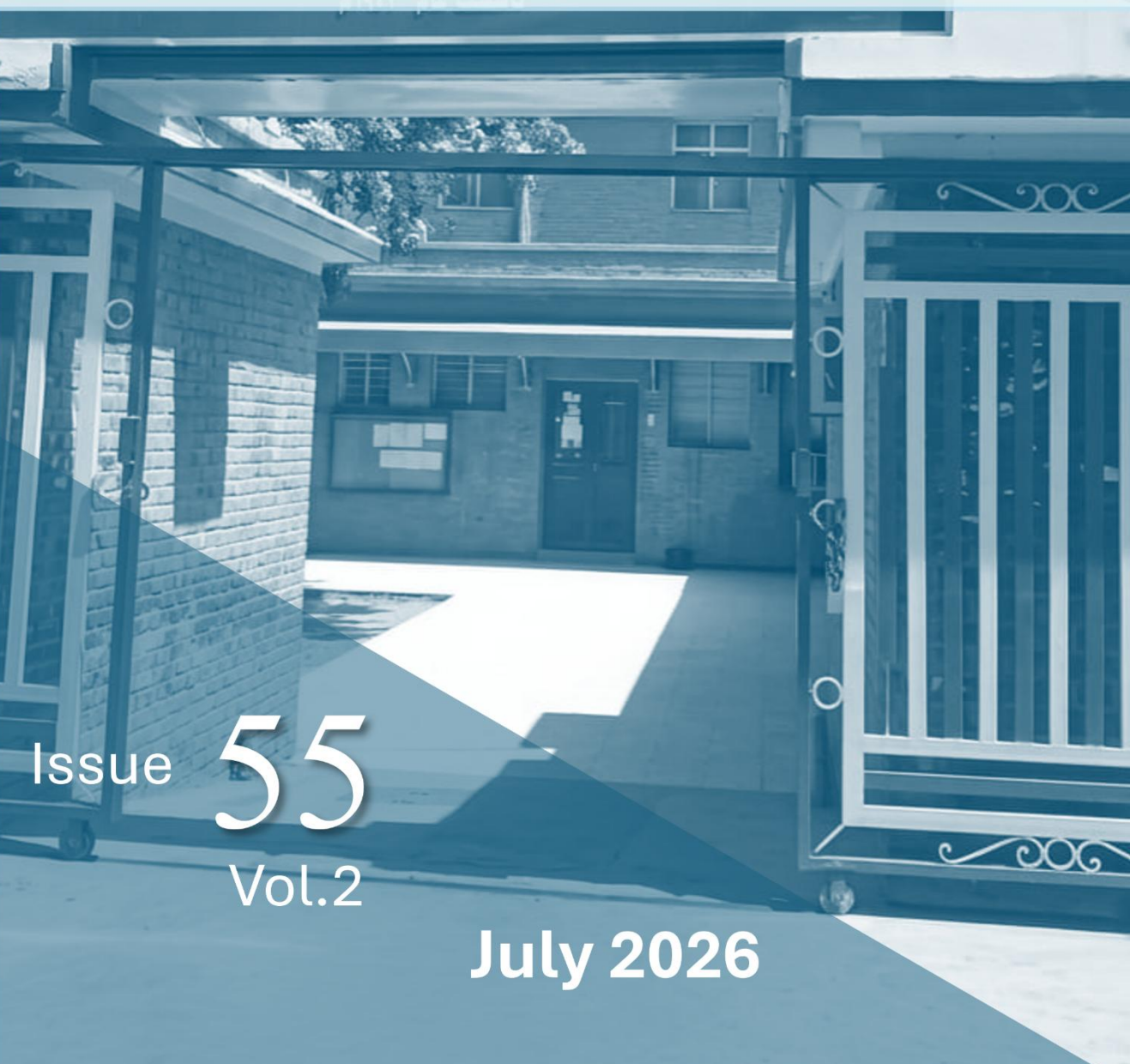


ADAB

Journal of Faculty of Arts, University of Khartoum

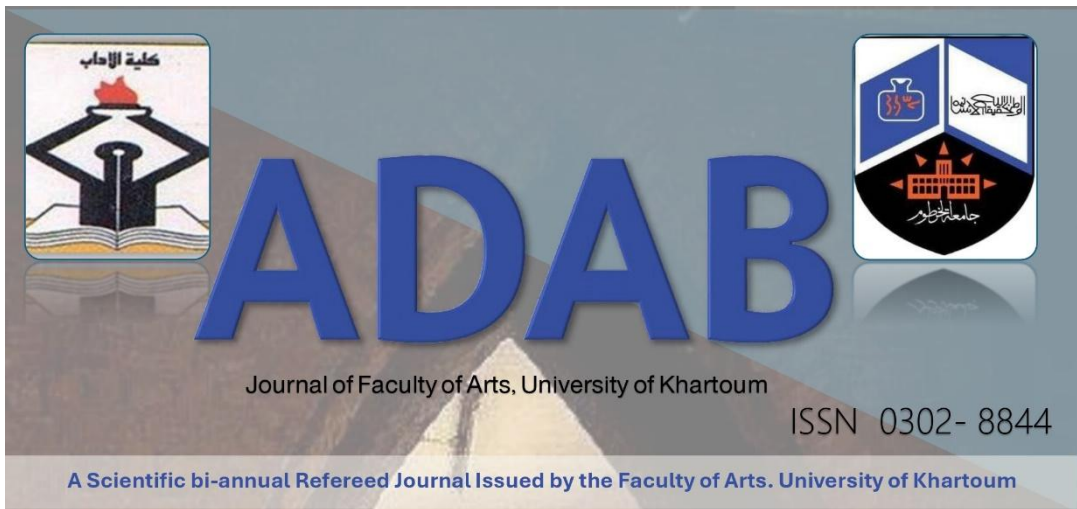
ISSN 0302- 8844

A Scientific bi-annual Refereed Journal Issued by the Faculty of Arts. University of Khartoum



Issue **55**
Vol.2

July 2026



Issue No. 55. Vol. 2. July. 2026

Editorial Board	Advisory Board
Editor-in-Chief Prof. Siddig Mustafa Elrayah Managing Editor Prof. Azhari Mustafa Sadig Ali Editorial Members Prof. El-Sadig Yahya A. Ezza Dr. Mohammed Alfatih Hayati Dr. Afaf Mohammed Elhassan Ibrahim Dr. Rasha Albaroudi Dr. Nadra Abdalla Ali Dr. Waleed Omer NourAldaim Dr. Ahmed AbdelMouniem Secretary Waleed Modather Sara Mamoun	Prof. Fadwa Abdel Rahman Ali Taha Prof. Ali Osman M. Salih Prof. Galal El-Din El-Tayeb Prof. Rugaia Elsayed Etayeb Alabass Prof. Hamadalneel M. Alhassan Prof. Hussein Al Noor Youssef Prof. Yahia Fadl Tahir Prof. Mubarak Husayn Najmalddin Dr. Younis Al-Amin Dr. Mahasin Hag Al-Safi Dr. Hassan Ali Eissa
Contributions: Addressed to the Editor: Faculty of Arts, University of Khartoum. P.O. Box 321 or by e-mail: siddig.alrayyah@uofk.edu or journal.art@uofk.edu	

Contents

Foreign Section

8. Artificial Intelligence -Assisted Translation and the Future of Professional Translators (Descriptive and analytical Study). Dr .Muntasir Mohammed Elhadi Elnor Mohammed.	244
9. Talent and Torment: The Emotional Burden of Literary Genius in Modern Sudanese Writing. Eiman Abbas El-Nour, Adil Babikir.....	285
10. Tempestuous Relations: Adaptation as Textual Movement in Césaire's Une Tempête Suha Anam	310

Arabic Section

١. أثر القرآن الكريم في اللغة العربية. د. عبد القادر محمد أحمد.....	١
٢. مسائل صرفية من كتاب (مجالس العلماء) للإمام أبي القاسم الزجاجي. محيي الدين محمد جبريل محمد.....	٢٥
٣. المعلقات السبع جدليتا الرواية والتعليق. د. أبو هداية محمد إسماعيل محمد. أ. د. يوسف محمد توتو محمد علي.....	٥٨
٤. هندسة الاختبارات اللغوية من معايير الصدق والثبات إلى تحديات التطبيق (دراسة تحليلية في ضوء بطاقة تحليل). د. سعيدة عمر محمد ثاني.....	٩٤
٥. منطقة الحلاوين في ظل الدولة السنّارية ١٥٠٤ – ١٨٢١ م. د. محمد الفاتح حياتي.....	١٥٢
٦. الجذور السوسيو-اقتصادية للصراع في السودان: مراجعة تحليلية نقدية للأدبيات المعاصرة ٢٠٢٠ م- ٢٠٢٥ م د. بابكر عيسى أحمد محمد.....	١٧٧
٧. الخطوط الحديدية السعودية في منتصف القرن العشرين: دراسة تحليلية لأبعادها الإدارية والاقتصادية وأثرها التنموي (١٣٦٦هـ-١٣٧٥هـ/١٩٤٧م-١٩٥٥م). د. حمد بن محمد صالح الصيخان.....	١٩٦

Publication Rules and Conditions

ADAB is a peer-reviewed scientific journal issued bi-annually in June and December by the Faculty of arts, University of Khartoum. It accepts research in Arts, Fine arts and humanities as per rules and conditions given below:

1. Manuscript submitted for possible publication has not been published or submitted for publication elsewhere.
2. Manuscript submitted for possible publication in the journal is subject to peer-review conducted by specialised researchers based on objective criteria.
3. Two printed copies of the manuscript along with a CD containing the research should be handed over or emailed to;
journal.art@uofk.edu or prof.siddig.alrayyah@gmail.com.
4. Manuscript should be 5000-10000 words long, with a single page abstract of 200 words in Arabic and English, followed by 5 key words highlighting the most important themes addressed by the manuscript. It should be also taken into account that the first page must contain the title of the manuscript, researcher's name, name of university or academic institution and the e-mail address.
5. The journal publishes book reviews of a maximum of 2000 words published within two years. The book's title, author's name, place and date of publication and the number of pages should appear at the top of page. The review process includes presentation, analysis and criticism and detailed summary of the book's content, paying attention to the credibility of the author's sources and his/her conclusions.
6. Manuscript should be documented scientifically by including the sources and references used by the researcher organised alphabetically at the end of the manuscript. Sources of a manuscript written in a foreign language should be organised in one of the standard formats (e.g. APA, MLA, MCF, etc.).
7. Research published by the journal expresses only the opinions of its author; they do not necessarily reflect the opinion of the journal, or any other institution associated to the researcher.
8. Editorial board has the right to make necessary editing and modifications; and decision to accept or reject the manuscript is made upon the recommendation of the referee.
9. Paying the publication fees imposed on non-Sudanese researchers, Sudanese researchers abroad, or researchers from outside the university, each according to his category.

Artificial Intelligence -Assisted Translation and the Future of Professional Translators (Descriptive and analytical Study)

Dr .Muntasir Mohammed Elhadi Elnor Mohammed, Assistant professor of Applied Linguistics, University of Gezira , Faculty of Arts and Human Sciences

Abstract

This study investigates the impact of AI-assisted translation on the future of professional translators by examining their perceptions of its benefits, challenges, and implications for professional practice. A mixed-methods research design was employed, combining quantitative and qualitative approaches. Quantitative data were collected through a structured questionnaire administered to 30 professional translators, translation instructors, and postgraduate students, while qualitative data were obtained through semi-structured interviews with 10 professional translators. Quantitative data were analyzed using descriptive statistics, whereas qualitative data were analyzed through thematic analysis. The findings indicate that participants generally hold positive attitudes toward AI-assisted translation. They agreed that AI improves productivity, reduces translation time, enhances terminology consistency, and supports the translation of routine and technical texts. However, participants also identified limitations in translating literary, religious, idiomatic, and culturally sensitive texts. Both quantitative and qualitative findings confirmed that professional translators remain indispensable because of their ability to interpret context, preserve cultural nuances, and ensure linguistic and stylistic quality. The study also highlights the growing importance of post-editing and AI literacy as essential competencies for future translators. The study concludes that AI should be viewed as a complementary technology that enhances rather than replaces professional translators. It recommends integrating AI-assisted translation into translator education, expanding post-editing training, and establishing ethical guidelines for the responsible use of AI in professional translation.

Keywords: Artificial Intelligence, AI-Assisted Translation, Professional Translators, Machine Translation, Post-editing, Translation Technology

المستخلص

تهدف هذه الدراسة إلى استقصاء أثر الترجمة المدعومة بالذكاء الاصطناعي في مستقبل المترجمين المحترفين، وذلك من خلال التعرف إلى تصوراتهم حول مزايا هذه التقنيات وتحدياتها وانعكاساتها على الممارسة المهنية. اعتمدت الدراسة المنهج المختلط، حيث جُمعت البيانات الكمية باستخدام استبانة وزعت على ٣٠ مترجمًا محترفًا وأستاذًا في الترجمة وطالب دراسات عليا، كما جُمعت البيانات النوعية من خلال مقابلات شبه منظمة مع عشرة مترجمين محترفين. وحُللت البيانات الكمية باستخدام الإحصاء الوصفي، بينما خضعت بيانات المقابلات للتحليل الموضوعي. أظهرت النتائج أن المشاركين يمتلكون اتجاهات إيجابية نحو الترجمة المدعومة بالذكاء الاصطناعي، مؤكدين أنها تسهم في زيادة الإنتاجية، وتقليل زمن إنجاز الترجمة، وتحسين اتساق المصطلحات، خاصة في النصوص التقنية والروائية. وفي المقابل، أظهرت النتائج لا تزال تواجه تحديات في ترجمة النصوص الأدبية والدينية والتعبيرات الاصطلاحية والمضامين ذات البعد الثقافي. كما أكدت النتائج أن المترجم المحترف يظل عنصرًا أساسيًا في ضمان الدقة اللغوية والملاءمة الثقافية والأسلوبية، وأن المراجعة اللاحقة والإلمام بتقنيات الذكاء الاصطناعي أصبحا من أهم الكفايات المهنية للمترجمين. وتخلص الدراسة إلى أن الذكاء الاصطناعي يمثل أداة داعمة تعزز عمل المترجمين ولا تستبدلهم، وتوصي بدمج تقنيات الذكاء الاصطناعي في برامج إعداد المترجمين، وتوسيع التدريب على المراجعة اللاحقة، ووضع أطر أخلاقية تنظم الاستخدام المسؤول لهذه التقنيات.

الكلمات المفتاحية: الذكاء الاصطناعي، الترجمة المدعومة بالذكاء الاصطناعي، المترجمون المحترفون، الترجمة الآلية، المراجعة اللاحقة، تكنولوجيا الترجمة

1.1. Introduction

Translation has always played a central role in facilitating intercultural communication and knowledge exchange among nations. In recent years, Artificial Intelligence technologies have dramatically reshaped the translation industry through the emergence of Neural Machine Translation systems and Large Language Models. AI-powered tools are now widely used in academic, commercial, technical, and media translation due to their speed, accessibility, and cost-effectiveness.

The integration of AI into translation practice has generated both optimism and concern among researchers and professional translators. While AI technologies improve productivity and translation efficiency, they also raise questions regarding translation quality, ethics, creativity, and the future role of human translators.

This paper investigates the impact of AI-assisted translation on the future of professional translators. It examines the strengths and weaknesses of AI translation systems and explores whether Artificial Intelligence will replace human translators or function as a collaborative tool that enhances translation practice.

1.2. Statement of the Problem

The rapid expansion of AI-assisted translation technologies has created uncertainty regarding the future of the translation profession. Many institutions and companies increasingly rely on machine translation systems to reduce costs and improve productivity. However, concerns remain regarding the accuracy, reliability, and cultural sensitivity of AI-generated translations. Therefore, this study seeks to investigate whether AI technologies represent a supportive tool for professional translators or a potential threat to the future of the translation profession.

1.3. Objectives of the Study

This study aims to:

- 1/ Examine the impact of AI-assisted translation on professional translation practices.
- 2/ Compare human translation with AI-generated translation.
- 3/ Investigate the advantages and limitations of AI translation systems.
- 4/ Explore translators' perceptions toward AI technologies.
- 5/ Discuss the future role of professional translators in the era of Artificial Intelligence.

1.4. Questions of the Study

The study attempts to answer the following questions:

- 1/ How does AI-assisted translation influence professional translation practice?
- 2/ What are the major differences between human translation and AI-generated translation?
- 3/ What are the advantages and limitations of AI translation systems?
- 4/ How do translators perceive Artificial Intelligence technologies?
- 5/ Will AI replace professional translators in the future?

1.5. Significance of the Study

This study is significant because it addresses one of the most contemporary issues in translation studies and applied linguistics. The study contributes to understanding the relationship between professional translators and AI technologies. It also provides valuable insights for translation researchers, university instructors, professional translators, and translation students.

Furthermore, the study may help educational institutions and translation agencies develop balanced approaches toward integrating Artificial Intelligence into translation education and professional practice.

1.6. Limitations of the Study

The present study has several limitations. First, the empirical data were collected from a limited sample of professional translators, translation instructors, and postgraduate students, which may affect the generalizability of the findings. Second, the comparative translation analysis was conducted using selected AI platforms available at the time of the study (ChatGPT, Google Translate, and Deeply), and the rapid evolution of these technologies may influence future outcomes. Third, the study employed descriptive statistics and qualitative analysis; therefore, future research is encouraged to use larger samples and more advanced statistical analyses. Finally, the findings reflect the perceptions of the participants during the study period and may change as AI-assisted translation technologies continue to develop.

2. Literature Review

2.1. Artificial Intelligence and Translation

Artificial Intelligence has become one of the most influential technological

developments in language-related fields. Recent advancements in Neural Machine Translation have significantly improved translation fluency and grammatical accuracy. AI-powered systems can process large amounts of linguistic data and produce translations within seconds.

Bowker (2023) argues that AI-assisted translation technologies have transformed translation practices by increasing productivity and facilitating multilingual communication. Similarly, O'Hagan (2021) states that intelligent translation technologies are reshaping translators' professional roles.

Recent studies have increasingly focused on the cognitive and technological dimensions of AI-assisted translation. Angelone (2023) explains that translation process research has become essential for understanding how translators interact with intelligent technologies during translation tasks. Similarly, Carl (2021) emphasizes that machine-assisted translation changes translators' cognitive effort and decision-making processes. Furthermore, Ehrensberger-Dow (2023) argues that translation technologies influence translators' cognitive behavior and working environments.

According to Doherty (2022), automated translation technologies have become increasingly important in localization and multilingual communication industries. Likewise, Jiménez-Crespo (2023) states that AI technologies are reshaping localization practices and digital multilingual content production. In addition, Gaspari (2020) notes that professional translators increasingly rely on machine translation systems as supportive productivity tools.

Kenny (2022) explains that machine translation technologies are increasingly integrated into professional translation workflows and translator training programs. Moreover, O'Brien (2022) emphasizes that usability and post-editing efficiency have become central concerns in AI-assisted translation environments.

Despite these developments, researchers emphasize that AI translation systems still face challenges in handling idiomatic expressions, cultural references, pragmatics, and contextual meanings.

2.2. Human Translation versus AI Translation

Several recent studies compared human translation with machine-generated translation. Fu and Liu (2024) found that AI-generated translations demonstrated strong grammatical fluency in scientific texts, while human translators achieved better contextual interpretation and stylistic appropriateness.

Similarly, Abdelaal (2025) investigated the use of ChatGPT in movie subtitling and concluded that human translators outperformed AI systems in preserving cultural nuances and emotional expressions.

Koponen (2021) explains that post-editing has become a central activity in professional translation workflows due to the growing dependence on machine translation systems. Similarly, Vieira (2021) emphasizes that human post-editing significantly improves translation quality and contextual accuracy.

According to House (2020), translation quality should not only be measured linguistically but also pragmatically and culturally. Moreover, O'Brien (2022) argues that usability and readability remain major challenges in AI-generated translations.

These findings indicate that AI systems perform effectively in technical and informational texts, whereas human translators remain superior in literary, creative, and culturally sensitive translation tasks.

2.3. Ethical and Professional Challenges

The increasing use of AI in translation has raised several ethical and professional concerns, including copyright, confidentiality, translator visibility, and job displacement. Professional translators increasingly fear losing employment opportunities due to the growing institutional dependence on machine translation.

Several scholars highlighted the ethical implications of AI-assisted translation. Moorkens (2022) discusses concerns related to translator visibility, confidentiality, and ethical responsibility in machine-generated translations. Similarly, Pym (2020) argues that translation technologies are transforming professional translation markets and employment structures.

Risku (2021) explains that translators working in digital environments must combine linguistic competence with technological literacy and intercultural communication skills. Furthermore, Cadwell (2022) emphasizes the importance of human-centered approaches in translation technology research.

However, many scholars argue that AI is unlikely to completely replace human translators because translation involves creativity, cultural mediation, and human interpretation.

Cronin (2021) notes that the future of translation will depend on collaboration between humans and intelligent technologies rather than competition between them.

2.4. Theoretical Framework

2.4.1. Technology Acceptance Model (TAM)

The present study adopts the Technology Acceptance Model (TAM) proposed by Davis (1989) as one of its theoretical foundations. TAM explains users' acceptance of new technologies through two major constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). According to the model, individuals are more likely to adopt a technology when they believe that it improves their performance and is easy to use. In the context of AI-assisted translation, TAM provides an appropriate framework for explaining translators' acceptance of Artificial Intelligence tools, particularly when these tools enhance translation speed, productivity, and efficiency while supporting professional translation practice.

2.4.2. Displacement Theory

Displacement Theory explains how technological innovations influence occupations and reshape labor markets. Rather than assuming that technology completely replaces human workers, the theory argues that technological development transforms professional roles and creates new forms of employment. In translation studies, this theory explains the shift from traditional translation toward AI-assisted translation, post-editing, terminology management, quality assurance, and localization. Consequently, the theory provides an appropriate framework for understanding the changing role of professional translators in the era of Artificial Intelligence.

2.4.3. Relevance of the Theories to the Present Study

Accordingly, the present study adopts the Technology Acceptance Model (TAM) to interpret translators' acceptance of AI-assisted translation technologies, while Displacement Theory is employed to explain the transformation of translators' professional roles. Together, these theories provide the conceptual framework for interpreting the findings of the present study.

2.4. 4. Previous Studies

2.4.4.1. Andani et al. (2025) under title Human and Machine Collaboration in Translation: A Systematic Review of Emerging Practices. The method of the study systematic review using the PRISMA framework. The Sample twenty empirical studies related to Artificial Intelligence and translation. The Instruments were Document analysis and thematic analysis. The study revealed that AI technologies significantly improve translation speed and productivity. However, human

translators remain essential in contextual interpretation and cultural adaptation. The researcher recommended adopting ethical frameworks for AI-assisted translation and promoting human-centered translation practices.

Relation to the Current Study

The study supports the current paper's focus on collaboration between human translators and AI systems.

2.4.4.2. Fu and Liu (2024) under title A Comparative Study of Generative Artificial Intelligence Translation and Human Translation of Scientific Texts. The method of the Study Comparative linguistic analysis. The sample Scientific texts translated from English into Chinese. The Instruments were Lexical, semantic, and syntactic analysis. The findings AI-generated translations achieved high grammatical fluency, whereas human translators demonstrated stronger contextual and stylistic awareness. The study recommended combining AI translation systems with human post-editing processes.

Relation to the Current Study

The study provides evidence for comparing translation quality between AI systems and human translators.

2.4.4.3. Abdelaal (2025), under Title Utilizing Chat GPT for Subtitling Movies: A Comparative Analysis of Accuracy and Fluency with Human Translators. The Method of the Study Comparative analytical method. The Sample Movie subtitles translated by Chat GPT and professional translators. The Instruments were Translation quality assessment scales. Findings Chat GPT produced fluent subtitles but struggled with humor, culture-specific expressions, and emotional meanings. The study recommended using AI tools as supportive assistants rather than independent translators.

Relation to the Current Study

The study highlights the limitations of AI-assisted translation in culturally sensitive contexts.

3. Methodology

3.1. Research Design

This study adopted a mixed-methods research design, integrating quantitative

and qualitative approaches to provide a comprehensive understanding of the impact of Artificial Intelligence (AI) on professional translation practice. The quantitative component was conducted through a structured questionnaire to examine translators' perceptions of AI-assisted translation, whereas the qualitative component employed semi-structured interviews to obtain deeper insights into translators' experiences, attitudes, and professional expectations regarding AI technologies.

The mixed-methods approach was selected because it enables the triangulation of quantitative and qualitative evidence, thereby improving the validity, reliability, and comprehensiveness of the research findings. While the questionnaire measured participants' levels of agreement with predefined statements, the interviews explored issues that could not be adequately captured through numerical data alone.

3.2. Research Population

The target population consisted of professional translators, translation instructors, postgraduate students specializing in translation studies, and individuals who regularly use AI-assisted translation technologies in their professional or academic work. These participants were selected because they possess sufficient practical experience to evaluate the opportunities and challenges associated with AI-assisted translation.

3.3. Sample of the Study

The quantitative phase involved 30 participants, including professional translators, university translation instructors, and postgraduate students from Sudan, Syria, and Palestine. The sample represented different age groups and levels of professional experience, providing a diverse range of perspectives on AI-assisted translation.

The qualitative phase included 10 professional translators, who participated in semi-structured interviews. The interviewees were selected purposively based on their professional experience and regular use of AI-assisted translation systems. This sampling strategy ensured that the qualitative data reflected informed opinions regarding current translation technologies and their impact on professional practice.

3.4. Research Instruments

To achieve the objectives of the study, two complementary research instruments were employed.

3.4.1. Questionnaire

The questionnaire was designed after an extensive review of previous literature on Artificial Intelligence, machine translation, translator training, and translation technology. It consisted of two sections.

The first section collected demographic information, including gender, age, occupation, years of professional experience, and country.

The second section consisted of 15 statements measuring participants' perceptions of AI-assisted translation. Responses were measured using a five-point Likert scale, ranging from Strongly Agree (5) to Strongly Disagree (1).

The questionnaire examined five major dimensions:

- Translation productivity and efficiency.
- Translation quality and accuracy.
- Human versus AI translation.
- AI literacy and translator education.
- The future of professional translators.

3.4.2. Semi-Structured Interviews

To complement the questionnaire findings, semi-structured interviews were conducted with ten professional translators. The interviews aimed to obtain deeper qualitative insights into translators' experiences with AI-assisted translation.

Each interview lasted approximately 20–30 minutes and followed the interview protocol presented in Appendix B.

The interviews explored several key issues, including:

- The influence of AI on translation practice.
- Frequently used AI translation tools.
- Advantages and limitations of AI-assisted translation.
- Human translation versus AI translation.
- The future of professional translators.
- Post-editing practices.
- Ethical concerns.
- Professional recommendations for improving AI-assisted translation.

3.5. Validity of the Instruments

The questionnaire and interview guide were reviewed by specialists in translation studies, applied linguistics, and educational research to evaluate their content validity, linguistic clarity, and relevance to the objectives of the study.

Based on the reviewers' comments, minor modifications were introduced to improve wording, eliminate ambiguity, and ensure consistency between the questionnaire items and the interview questions.

3.6. Reliability of the Questionnaire

The internal consistency of the questionnaire was assessed using Cronbach's Alpha coefficient.

The questionnaire achieved a reliability coefficient exceeding 0.80, indicating a high level of internal consistency and confirming that the instrument was appropriate for data collection.

3.7. Data Collection Procedures

The questionnaire was distributed electronically using Google Forms. Participation was voluntary, and all respondents were informed about the objectives of the study. Confidentiality and anonymity were maintained throughout the research process.

The interviews were conducted online and face-to-face according to participants' availability. All interviews were recorded with participants' consent, transcribed verbatim, and prepared for qualitative analysis.

3.8. Data Analysis

Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistical techniques, including frequencies, percentages, means, standard deviations, and rankings, were employed to summarize participants' responses.

Qualitative interview data were analyzed using Thematic Analysis. Interview transcripts were coded systematically to identify recurring themes, similarities, and patterns related to AI-assisted translation. The qualitative findings were subsequently compared with the questionnaire results to achieve methodological triangulation and enhance the credibility of the study.

4. Results

4.1. Demographic Characteristics of the Participants

A total of 30 participants completed the questionnaire. The sample included professional translators, university translation instructors, and postgraduate students from Sudan, Syria, and Palestine. The demographic characteristics are presented below.

Table 1. Distribution of Participants by Gender

Gender	Frequency	Percentage
Male	18	60.0
Female	12	40.0
Total	30	100.0

The results indicate that male participants constituted 60.0% of the total sample, whereas females represented 40.0%. The inclusion of both genders contributes to obtaining balanced perspectives regarding AI-assisted translation.

4.2. Table 2. Distribution of Participants by Age

Age	Frequency	Percentage
25–35 Years	13	43.3
36–45 Years	8	26.7
Above 45 Years	9	30.0
Total	30	100.0

Most respondents (43.3%) belonged to the 25–35 years age group, indicating that the majority of participants were active professionals or early-career academics. The remaining participants represented older and more experienced groups, providing diverse professional perspectives.

4.3 Table 3. Occupation of the Participants

Occupation	Frequency	Percentage
Professional Translator	9	30.0

Translation Instructor	10	33.3
Postgraduate Student	11	36.7
Total	30	100.0

The sample included respondents from different professional backgrounds. Postgraduate students represented the largest category (36.7%), followed by translation instructors (33.3%) and professional translators (30.0%). Such diversity enhances the comprehensiveness of the findings.

4.4Table 4. Years of Translation Experience

Experience	Frequency	Percentage
Less than 5 Years	6	20.0
5–10 Years	10	33.3
More than 10 Years	14	46.7
Total	30	100.0

Nearly half of the respondents possessed more than ten years of professional translation experience. Consequently, the questionnaire findings largely reflect the opinions of experienced translators familiar with both traditional and AI-assisted translation environments.

4.5 Table 5. Distribution of Participants by Country

Country	Frequency	Percentage
Sudan	11	36.7%
Syria	17	56.7%
Palestine	2	6.6%
Total	30	100.0%

More than half of the participants (56.7%) were from Syria, followed by Sudan (36.7%), while a smaller proportion (6.6%) were from Palestine. This reflects the regional scope of the study.

4.5. Descriptive Statistics of the Questionnaire

The questionnaire consisted of fifteen statements examining participants' perceptions of AI-assisted translation. Responses were analyzed using means, standard deviations, and levels of agreement.

4.6. Table 5. Descriptive Statistics of Questionnaire Items

4.6.1 Descriptive Statistics of Questionnaire Items (Items 1–8)

Item	Mean	SD	Level
1. AI-assisted translation has significantly improved my translation productivity.	4.27	0.58	High
2. AI tools reduce the time required to complete translation tasks.	4.43	0.68	Very High
3. AI-assisted translation has become an essential part of professional translation practice.	4.13	0.68	High
4. Human translators produce more accurate translations than AI systems in complex texts.	4.14	0.83	High
5. AI translation performs well in technical and scientific texts.	3.97	0.81	High
6. Human translators are better at preserving cultural and contextual meanings than AI systems.	4.33	0.66	Very High
7. AI translation systems provide grammatically accurate translations.	3.57	1.04	High
8. AI systems have difficulty translating idioms, metaphors, and culturally specific expressions.	3.66	0.94	High

The descriptive statistics indicate that respondents expressed generally positive attitudes toward AI-assisted translation. The highest mean score was recorded for **Item 2** ($M = 4.43$, $SD = 0.68$), indicating strong agreement that AI significantly reduces the time required to complete translation tasks. Similarly, **Item 6** ($M = 4.33$, $SD = 0.66$) received a very high level of agreement, confirming that participants believe human translators remain superior in preserving cultural and contextual meanings.

Item 1 ($M = 4.27$, $SD = 0.58$) also received a high level of agreement, demonstrating that AI contributes substantially to improving translation productivity. Furthermore, respondents agreed that AI-assisted translation has become an essential component of professional translation practice (Item 3, $M = 4.13$).

Although participants generally acknowledged the usefulness of AI, lower mean scores were observed for AI's ability to produce grammatically accurate translations (Item 7, $M = 3.57$) and to translate idioms and culturally specific expressions (Item 8, $M = 3.66$). These findings suggest that respondents recognize important limitations of current AI translation systems, particularly in linguistically

and culturally complex contexts.

Overall, the findings demonstrate that AI is widely perceived as a valuable support tool that enhances efficiency and productivity while still requiring human expertise to ensure translation quality and cultural appropriateness.

4.6.2. Descriptive Statistics of Questionnaire Items (Items 9–15)

4.6.2.1. Table 7. Descriptive Statistics of Questionnaire Items 9–15 (N = 30)

Item	Mean	SD	Level
9. AI-assisted translation enhances the consistency of translated texts	4.10	0.71	High
10. AI-assisted translation improves the overall quality of my translations.	4.20	0.73	High
11. AI tools should be integrated into translator education and training.	4.50	30.57	High
12. Professional translators will remain indispensable despite rapid advances in Artificial Intelligence.	4.60	0.55	High
13. AI-assisted translation is more suitable for general texts than specialized texts.	4.03	0.77	High
14. AI technologies positively support professional translators rather than threaten them	4.36	0.65	Very high
15. I intend to continue using AI-assisted translation tools in my future professional work	4.26	0.70	High

The findings presented in Table (7) reveal that participants maintained highly positive attitudes toward AI-assisted translation across the remaining questionnaire items.

The highest mean score was obtained by Item 12 (M = 4.60, SD = 0.55), indicating a strong consensus that professional translators will continue to play an essential role despite rapid developments in Artificial Intelligence. This finding confirms that respondents perceive AI as a complementary technology rather than a substitute for human translators.

Similarly, Item 11 (M = 4.53, SD = 0.57) received a very high level of agreement, suggesting that AI technologies should be incorporated into translator education and professional training. This reflects participants' recognition of the growing importance of AI literacy within the translation profession.

Participants also expressed positive attitudes toward AI as a supportive technology (Item 14, $M = 4.36$), while indicating their willingness to continue using AI tools in future translation practice (Item 15, $M = 4.26$).

Although respondents agreed that AI performs well with general texts (Item 13, $M = 4.03$), this item received one of the lowest mean scores, implying that participants still consider AI less reliable for highly specialized translation tasks.

Overall, these findings reinforce the conclusion that translators view AI as an effective tool for enhancing productivity while emphasizing the continuing necessity of human expertise in professional translation.

The descriptive analysis demonstrates an overwhelmingly positive perception of AI-assisted translation among the participants. The highest-rated statements emphasize the continued importance of professional translators, the integration of AI into translator education, and the efficiency gains provided by AI technologies. Conversely, the lowest-rated statements relate to AI's ability to handle grammar, idiomatic expressions, and specialized texts, highlighting the current limitations of AI systems.

These findings indicate that participants view AI as a valuable technological assistant capable of improving productivity and translation efficiency, while recognizing that professional translators remain indispensable for ensuring accuracy, contextual appropriateness, and cultural sensitivity.

4.6.3. Interpretation of the Questionnaire Findings

The statistical analysis demonstrates an overall positive attitude toward AI-assisted translation. The highest mean score was obtained by the statement indicating that AI significantly reduces translation time ($M = 4.43$), followed by the statements emphasizing the preservation of cultural meaning by human translators and the necessity of post-editing ($M = 4.33$).

Participants also expressed strong agreement that AI technologies enhance productivity and should be regarded as supportive tools rather than replacements for professional translators. Conversely, the statement suggesting that AI would completely replace professional translators received only a moderate level of agreement ($M = 3.15$), indicating that respondents largely rejected the notion of complete automation.

Overall, these findings suggest that participants perceive AI as an effective technological assistant capable of improving translation efficiency while recognizing

that human translators remain essential for ensuring contextual accuracy, cultural adaptation, and stylistic appropriateness.

4.6.3. Semi-Structured Interview Findings

To complement the quantitative findings, semi-structured interviews were conducted with ten professional translators who regularly use AI-assisted translation tools in their professional work. The interview data were analyzed using thematic analysis, resulting in six major themes that reflected participants' experiences, perceptions, and expectations regarding Artificial Intelligence in translation.

Overall, the interview findings strongly supported the quantitative results obtained from the questionnaire. Participants acknowledged the substantial benefits of AI-assisted translation while emphasizing the continuing importance of human expertise in producing high-quality translations.

4.6.3.1. Theme One: AI Significantly Improves Translation Productivity

Nine out of the ten interviewees stated that AI-assisted translation has considerably improved their productivity by reducing the time required to complete translation tasks. Participants explained that AI enables them to produce initial drafts quickly, allowing them to devote more attention to revision and stylistic refinement rather than translating every sentence from scratch.

One participant stated:

"Artificial Intelligence has transformed my daily translation workflow. Tasks that previously required several hours can now be completed in a much shorter time, allowing me to focus on improving translation quality rather than merely producing the first draft."

Another participant commented:

"AI is not replacing my work; instead, it enables me to work faster and manage a larger number of translation projects."

These findings correspond closely with the questionnaire results, in which the statement concerning AI's ability to reduce translation time received the highest level of agreement.

4.6.3.2. Theme Two: Human Translators Continue to Outperform AI in Complex Texts

All interview participants emphasized that AI systems continue to experience significant limitations when translating literary, legal, religious, diplomatic, and culturally sensitive texts. Respondents agreed that AI frequently fails to recognize contextual meaning, implied messages, figurative language, and culturally specific expressions.

One respondent remarked:

"Artificial Intelligence can translate words effectively, but it often fails to translate intentions, emotions, and cultural meanings."

Another explained:

"Literary translation still depends on creativity, cultural awareness, and human interpretation—qualities that AI cannot fully replicate."

These opinions strongly support the quantitative findings showing high agreement that human translators produce more accurate translations in complex contexts.

4.6.3.3. Theme Three: Post-editing Has Become an Essential Professional Skill

Almost all participants emphasized that post-editing has become an indispensable stage in modern translation practice. They explained that AI-generated translations usually require revision to improve terminology, style, coherence, grammatical accuracy, and contextual appropriateness.

One participant explained:

"AI produces an excellent starting point, but professional quality can only be achieved after careful human revision."

Another interviewee added:

"Post-editing is now one of the most important competencies every professional translator should master."

This theme corresponds directly with the questionnaire findings, where respondents strongly agreed that AI-generated translations require human post-

editing before publication.

4.6.3.4. Theme Four: AI Should Be Integrated into Translator Education

Most interviewees believed that universities should revise translation curricula to incorporate AI-assisted translation technologies. Participants argued that future translators should receive systematic training in prompt engineering, AI literacy, terminology management, and post-editing techniques.

One interviewee stated:

"Students should graduate knowing how to collaborate with AI rather than compete against it."

Participants also stressed that universities should maintain a balance between technological competence and traditional translation skills.

4.6.3.5. Theme Five: Ethical and Professional Concerns

Eight interviewees expressed concerns regarding ethical issues associated with AI-assisted translation. The most frequently mentioned concerns included confidentiality, data privacy, intellectual property rights, algorithmic bias, and excessive dependence on automated systems.

One participant commented:

"Uploading confidential legal or medical documents to public AI systems raises serious ethical concerns."

Another added:

"AI should always be used responsibly and under human supervision."

These findings demonstrate that ethical considerations remain one of the principal challenges associated with AI-assisted translation.

4.6.3.6. Theme Six: AI Will Support Rather Than Replace Professional Translators

All interview participants rejected the idea that Artificial Intelligence would completely replace professional translators. Instead, they predicted that translators' roles would evolve toward post-editing, quality assurance, intercultural

communication, and specialized translation.

One participant summarized this perspective by stating:

"The future belongs neither to AI alone nor to human translators alone. It belongs to translators who know how to work effectively with AI."

This conclusion is fully consistent with the questionnaire findings, in which respondents largely rejected the statement that AI would completely replace professional translators.

4.6.4. Integration of Quantitative and Qualitative Findings

The integration of questionnaire and interview findings revealed a high degree of convergence between the quantitative and qualitative data. Both methods demonstrated that AI-assisted translation significantly enhances productivity, efficiency, and consistency in professional translation. At the same time, participants consistently emphasized that AI technologies cannot replace human translators in tasks requiring cultural sensitivity, contextual interpretation, creativity, and critical judgment.

Furthermore, both data sources highlighted the increasing importance of post-editing as a core professional competency and emphasized the necessity of incorporating AI technologies into translator education and professional development. The qualitative findings therefore strengthened the quantitative results, increasing the credibility and validity of the study through methodological triangulation.

4.6.5. Comparative Translation Models

Source Text

"Education is not merely the transmission of information; it is the process of shaping critical thinking, creativity, and cultural awareness among learners in an increasingly interconnected world."

Human Translation

"لا يقتصر التعليم على نقل المعلومات فحسب، بل يُعد عملية تهدف إلى تنمية التفكير النقدي والإبداع والوعي الثقافي لدى المتعلمين في عالم يزداد ترابطاً يوماً بعد يوم."

Analysis of the Human Translation

The human translator successfully preserved the semantic meaning, stylistic elegance, and contextual coherence of the original text. The translation demonstrates:

- 1/ Accurate cultural adaptation.
- 2/ Natural linguistic fluency.
- 3/ Appropriate lexical choices.
- 4/ Preservation of the academic tone.
- 5/ Effective contextual interpretation.

The translator used the expression “عالم يزداد ترابطاً يوماً بعد يوم” to convey the meaning of “an increasingly interconnected world” in a culturally and stylistically natural manner.

AI-Generated Translation Chat GPT (v.5.5 ,2026)

"التعليم ليس فقط نقل المعلومات؛ إنه عملية تشكيل التفكير النقدي والإبداع والوعي الثقافي بين المتعلمين في عالم مترابط بشكل متزايد."

Analysis of the AI Translation

The AI-generated translation conveys the general meaning of the source text with acceptable grammatical accuracy and lexical clarity. However, several limitations can be observed:

- 1/ The expression “عالم مترابط بشكل متزايد” sounds mechanically literal.
- 2/ The translation lacks stylistic smoothness and rhetorical sophistication.
- 3/ Some lexical choices appear direct and less culturally adaptive.
- 4/ The sentence structure reflects machine-oriented translation patterns.

Although the AI system successfully maintained grammatical correctness, the translation lacks the natural fluency and contextual sensitivity demonstrated in the human translation.

Comparative Discussion

The comparison between the two translations demonstrates that AI-assisted

translation systems achieve high levels of grammatical accuracy and speed. However, human translators remain more capable of:

- 1/ Producing culturally appropriate expressions.
- 2/ Preserving stylistic and rhetorical features.
- 3/ Adapting meaning according to context.
- 4/ Ensuring natural readability.

The comparison also supports the findings of the current study, which indicate that Artificial Intelligence performs effectively in informational and technical translation, whereas human translators continue to outperform AI systems in culturally sensitive and stylistically complex texts.

4.6.6 Models of Professional Translators' Practices

Example 1: Literary Translation

Source Text

"The moonlight spread softly across the silent village."

Professional Human Translation

"انتشر ضوء القمر برفق فوق القرية الهادئة."

AI-Generated Translation

"ضوء القمر انتشر بشكل ناعم عبر القرية الصامتة."

Analysis

The professional translators produced a stylistically natural and emotionally expressive translation, while the AI-generated version appeared literal and mechanically structured. The human translation preserved the literary tone and aesthetic effect of the source text.

Example 2: Media Translation

Source Text

“The government announced urgent economic reforms to address inflation.”

Professional Human Translation

"أعلنت الحكومة عن إصلاحات اقتصادية عاجلة لمواجهة التضخم."

AI-Generated Translation

"الحكومة أعلنت إصلاحات اقتصادية مستعجلة لمعالجة التضخم."

Analysis

The professional translation reflects formal media language commonly used in Arabic news discourse, whereas the AI-generated translation demonstrates acceptable meaning but lacks journalistic naturalness and stylistic precision.

Example 3: Cultural Translation

Source Text

“He broke the ice during the meeting.”

Professional Human Translation

"نجح في كسر حاجز التوتر خلال الاجتماع."

AI-Generated Translation

"كسر الجليد أثناء الاجتماع."

Analysis

The professional translator successfully conveyed the idiomatic meaning culturally and contextually, whereas the AI translation rendered the idiom literally, resulting in semantic inaccuracy.

Example 4: Religious Translation

Source Text

“Patience is a virtue that strengthens the human spirit during hardship.”

Professional Human Translation

"يُعَدُّ الصبر فضيلة تُقَوِّي الروح الإنسانية في أوقات الشدائد."

AI-Generated Translation

"الصبر هو فضيلة تقوي الروح البشرية أثناء الصعوبة."

Analysis

The professional translator used culturally and stylistically appropriate expressions commonly employed in formal Arabic discourse. The AI-generated translation conveyed the literal meaning but lacked rhetorical elegance and natural fluency. The phrase “أوقات الشدائد” sounds more idiomatic and contextually appropriate than “أثناء الصعوبة”.

Example 5: Literary Translation

Source Text

“The city never sleeps beneath the glow of endless lights.”

Professional Human Translation

"لا تنام المدينة تحت وهج الأضواء التي لا تنطفئ."

AI-Generated Translation

"المدينة لا تنام تحت توهج الأضواء اللانهائية".

Analysis

The human translation preserved the metaphorical and poetic tone of the source text, whereas the AI-generated version appeared mechanically literal. The expression "الأضواء التي لا تنطفئ" is stylistically more natural and emotionally expressive than "الأضواء اللانهائية".

Example 6: Idiomatic Translation

Source Text

"He is walking on thin ice after the recent incident."

Professional Human Translation

"أصبح في موقف حرج بعد الحادثة الأخيرة".

AI-Generated Translation

"إنه يمشي على جليد رقيق بعد الحادثة الأخيرة".

Analysis

The human translator successfully conveyed the intended idiomatic meaning, while the AI system translated the expression literally, leading to semantic inaccuracy and cultural awkwardness.

Example 7: Academic Translation

Source Text

"Scientific research contributes significantly to sustainable development."

Professional Human Translation.

"يسهم البحث العلمي بصورة كبيرة في تحقيق التنمية المستدامة".

AI-Generated Translation

"البحث العلمي يساهم بشكل كبير في التنمية المستدامة".

Analysis

Both translations are grammatically correct; however, the human translation demonstrates greater stylistic sophistication and academic fluency through the expression "تحقيق التنمية المستدامة," which is more common in academic Arabic discourse.

Example 8: Media Translation

Source Text

"The international community called for an immediate ceasefire."

Professional Human Translation

"دعا المجتمع الدولي إلى وقفٍ فوري لإطلاق النار".

AI-Generated Translation

"المجتمع الدولي طلب وقف إطلاق نار فوري".

Analysis

The professional translation reflects formal journalistic style and diplomatic language typically used in Arabic media discourse. The AI-generated version communicates the meaning but lacks the stylistic precision and institutional tone of professional media translation.

Example 9: Cultural and Pragmatic Translation

Source Text

“Actions speak louder than words.”

Professional Human Translation

"الأفعال أبلغ من الأقوال."

AI-Generated Translation

"الأفعال تتحدث أعلى من الكلمات."

Analysis

The professional translator conveyed the proverb using a culturally equivalent Arabic expression, while the AI-generated translation relied on literal word-for-word rendering, resulting in unnatural phrasing.

Example 10: Emotional Translation

Source Text

“She carried the pain silently behind her smile.”

Professional Human Translation

"كانت تخفي ألمها خلف ابتسامتها بصمت."

AI-Generated Translation

"حملت الألم بصمت خلف ابتسامتها."

Analysis

The human translation preserved the emotional depth and stylistic smoothness of the original text. In contrast, the AI-generated translation sounded

structurally rigid and less emotionally expressive.

4.6.7 Comparative Observation

The additional comparative models further demonstrate that AI-assisted translation systems perform effectively in delivering general meaning and grammatical structure. However, professional human translators continue to outperform AI systems in:

- Idiomatic and metaphorical expressions.
- Cultural adaptation.
- Emotional and literary language.
- Stylistic elegance.
- Pragmatic interpretation.
- Media and diplomatic discourse.

These examples reinforce the argument that AI technologies are valuable supportive tools, but they still require human intervention to ensure contextual accuracy, cultural appropriateness, and natural readability.

5. Major Findings

- 1/ Artificial Intelligence technologies have contributed to improving translation speed, increasing productivity, and reducing the time and effort required to complete translated texts.
- 2/ AI-powered translation systems demonstrated a high level of linguistic fluency and grammatical accuracy, particularly in scientific and technical texts.
- 3/ Machine translation still faces limitations in understanding cultural contexts, implicit meanings, and culture-specific expressions.
- 4/ Human translators outperform AI systems in translating literary, creative, religious, and culturally sensitive texts.
- 5/ The role of translators is gradually shifting from traditional translation toward post-editing, quality control, and cultural adaptation.
- 6/ The future relationship between Artificial Intelligence and professional translators will likely depend on integration and collaboration rather than complete replacement.

5.1. Discussion

The findings of the study demonstrate that AI-assisted translation technologies offer remarkable benefits in terms of speed, accessibility, and productivity. AI systems are particularly effective in translating technical and

repetitive texts.

The findings are consistent with the Technology Acceptance Model (Davis, 1989), which explains translators' acceptance of AI technologies through perceived usefulness and perceived ease of use. Participants considered AI-assisted translation valuable because it improves productivity and translation efficiency.

However, AI technologies continue to face significant challenges in handling cultural adaptation, pragmatic interpretation, emotional expression, and creative translation. Consequently, human translators remain indispensable in contexts requiring deep contextual understanding and intercultural competence.

The study also indicates that future translators must develop technological competence alongside linguistic and cultural expertise in order to remain competitive in the digital translation market.

The findings also support Displacement Theory, which argues that technological innovations reshape professional roles rather than eliminate them. The results indicate that AI is transforming translators' responsibilities toward post-editing, quality assurance, and human-AI collaboration rather than replacing professional translators altogether.

The findings of the present study support the arguments of Massey (2024), who states that the future of translation depends on effective human-machine interaction rather than technological replacement. Likewise, Moorkens and Kenny (2024) argue that generative AI technologies are reshaping translators' professional roles while increasing the importance of post-editing and quality control.

Furthermore, Chen et al. (2025) demonstrate that AI-powered translation tools can facilitate multilingual communication in specialized fields such as medical and critical care education, although human supervision remains necessary to ensure terminological accuracy and contextual precision.

5.2. Limitations of the Study

The study employed a relatively small sample (30 questionnaire participants and 10 interviewees), which may limit the generalizability of the findings.

Participants were drawn mainly from Sudan, Syria, and Palestine; therefore, the findings may not represent translators in other linguistic and professional contexts.

The study focused on translators' perceptions rather than experimental comparisons of translation quality.

The cross-sectional design reflects participants' views at a particular stage of AI development.

Economic impacts, employment trends, and clients' perspectives were beyond the scope of the present study.

5.3. Conclusion

Artificial Intelligence has become a transformative force in translation studies and professional translation practice. AI-assisted translation systems have improved translation speed and accessibility while introducing new opportunities for collaboration between humans and machines.

The findings of this study support both the Technology Acceptance Model and Displacement Theory. While translators increasingly recognize the usefulness of AI-assisted translation technologies, they also emphasize that human expertise remains essential for ensuring translation quality, cultural appropriateness, and ethical responsibility.

Despite these advancements, AI technologies cannot fully replace professional translators because translation involves creativity, contextual understanding, ethical judgment, and cultural sensitivity. Therefore, the future of translation will likely depend on cooperation between AI technologies and human expertise rather than complete automation.

5.4. Recommendations

- 1/ Artificial Intelligence technologies should be integrated into translation education programs.
- 2/ Translators should be trained in post-editing skills and AI-assisted translation techniques.
- 3/ Ethical and legal frameworks should be developed to regulate the use of Artificial Intelligence in translation.
- 4/ Collaboration between human translators and AI systems should be encouraged to achieve higher translation quality.
- 5/ Greater attention should be given to developing translators' cultural and creative skills.

- 6/ Further studies should investigate the impact of Artificial Intelligence on translation in Arab and African contexts.
- 7/ The study also supports the views of Rico (2023), who emphasizes integrating AI literacy and technological training into translator education programs.
- 8/ Additionally, Olohan (2021) stresses the necessity of preparing future translators for technology-oriented translation environments.

Appendix A

Questionnaire

AI-Assisted Translation and the Future of Professional Translators

Instructions

Please indicate your level of agreement with the following statements by selecting one response.

Demographic Information

Gender

☐ Male

☐ Female

Age

☐ Under 25

☐ 25–35

☐ 36–45

☐ Above 45

Occupation

☐ Professional Translator

☐ Translation Instructor

☐ Postgraduate Student

Years of Experience

☐ Less than 5 years

☐ 5–10 years

☐ More than 10 years

Country

.....

Section One

Objective (1)

Examine the impact of AI-assisted translation on professional translation practices.

Statement

1. AI-assisted translation has significantly improved my translation productivity.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

2. AI tools reduce the time required to complete translation tasks.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

3. AI-assisted translation has become an essential part of professional translation practice.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

Section Two

Objective (2)

Compare human translation with AI-generated translation.

Statement

4. Human translators produce more accurate translations than AI systems in complex texts.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

5. AI translation performs well in technical and scientific texts.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

6. Human translators are better at preserving cultural and contextual meanings than AI systems.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

Section Three

Objective (3)

Investigate the advantages and limitations of AI translation systems.

Statement

7. AI translation systems provide grammatically accurate translations.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

8. AI systems have difficulty translating idioms, metaphors, and culturally specific expressions.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

9. AI-generated translations require human post-editing before publication.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

Section Four

Objective (4)

Explore translators' perceptions toward AI technologies.

Statement

10. I feel confident using AI-assisted translation tools in my translation work.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

11. I believe AI technologies positively support professional translators rather than threaten them.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

12. AI literacy should be integrated into university translation programs.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

Section Five

Objective (5)

Discuss the future role of professional translators in the era of Artificial Intelligence.

Statement

13. AI will completely replace professional translators in the future.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

14. The future of translation depends on collaboration between human translators and AI technologies.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

15. Professional translators will remain indispensable despite rapid advances in Artificial Intelligence.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

Thank you

Appendix B

Semi-Structured Interview Questions

1. How has Artificial Intelligence changed your translation practice?

.....
.....
.....

2. Which AI translation tools do you use most frequently? Why?

.....
.....
.....

3. What are the main strengths of AI-assisted translation?

.....
.....
.....

4. What limitations have you experienced while using AI translation systems?

.....
.....
.....

5. In which types of texts do you prefer human translation rather than AI? Why?

.....
.....
.....

6. Do you believe AI will replace professional translators? Please explain.

.....
.....
.....

7. What new skills should future translators develop to work effectively with AI?

.....

.....

.....

.....

8. What ethical concerns do you have regarding AI-assisted translation?

.....

.....

.....

.....

9. How important is post-editing in AI-generated translations?

.....

.....

.....

10. What recommendations would you make for improving AI-assisted translation in professional practice?

.....

.....

.....

.....

Thank u

References

- Abdelaal, N. 2025. "Utilizing ChatGPT for Subtitling Movies: A Comparative Analysis of Accuracy and Fluency with Human Translators". *Journal of Translation Studies*, Vol. 8, No. 2, Cairo, pp. 44–61.
- Andani, A. D., Sinaga, J. B., Putri, S. R., & Andriani, R. 2025. "Human and Machine Collaboration in Translation: A Systematic Review of Emerging Practices". *Journal of Translation and Technology*, Vol. 12, No. 2, Jakarta, pp. 45–67.
- Angelone, E. 2023. *Translation Process Research*. London: Routledge.
- Baker, M. 2021. *Corpus Linguistics and Translation Studies*. London: Routledge.
- Bowker, L. 2023. *Machine Translation and Global Research*. New York: Routledge.
- Cadwell, P. 2022. *Human Factors in Translation Technology*. Cambridge: Cambridge University Press.
- Carl, M. 2021. *Translation Process and Cognitive Effort*. Amsterdam: John Benjamins.
- Chen, C. L., et al. 2025. "AI Machine Translation Tools in Critical Care Education". *Journal of Medical Education Technology*, Vol. 18, No. 2, New York, pp. 45–58.
- Cronin, M. 2021. *Translation in the Digital Age*. London: Routledge.
- Davis, F. D. 1989. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology". *MIS Quarterly*, 13(3), pp. 319–340. <https://doi.org/10.2307/249008>
- Doherty, S. 2022. *Automated Translation and Localization*. London: Routledge.
- Ehrensberger-Dow, M. 2023. *Translation Technology and Cognitive Processes*. Amsterdam: John Benjamins.
- Frey, C. B., & Osborne, M. A. 2017. "The Future of Employment: How Susceptible Are Jobs to Computerisation?". *Technological Forecasting and Social Change*, 114, pp. 254–280. <https://doi.org/10.1016/j.techfore.2016.08.019>
- Fu, L., & Liu, L. 2024. "A Comparative Study of Generative Artificial Intelligence Translation and Human Translation of Scientific Texts". *Journal of Translation Studies*, Vol. 12, No. 1, Beijing, pp. 33–49.
- Gaspari, F. 2020. "Machine Translation and Professional Translators". *Translation Spaces*, Vol. 9, No. 1, Amsterdam, pp. 55–72.
- House, J. 2020. *Translation Quality Assessment: Past and Present*. London: Routledge.
- Hutchins, W. J. 2020. *Machine Translation: History and Development*.

Amsterdam: John Benjamins.

- Jiménez-Crespo, M. A. 2023. *Localization and AI Translation*. London: Routledge.
- Kenny, D. 2022. *Machine Translation for Human Translators*. London: Routledge.
- Koponen, M. 2021. *Post-Editing Machine Translation and Quality Evaluation*. Amsterdam: John Benjamins.
- Massey, G. 2024. “Human–Machine Interaction in Translation”. *Translation and Interpreting Studies*, Vol. 19, No. 1, Amsterdam, pp. 22–40.
- Moorkens, J. 2022. “Ethics in Machine Translation”. *The Translator*, Vol. 28, No. 3, London, pp. 211–226.
- Moorkens, J., & Kenny, D. 2024. “Generative AI and the Translation Profession”. *AI and Society*, Vol. 39, No. 2, London, pp. 145–160.
- Munday, J. 2022. *Introducing Translation Studies: Theories and Applications*. London: Routledge.
- O’Brien, S. 2022. *Machine Translation Usability*. London: Routledge.
- O’Hagan, M. 2021. *The Rise of Intelligent Translation Technologies*. London: Palgrave Macmillan.
- Olohan, M. 2021. *Translation and Technology*. London: Routledge.
- Pym, A. 2020. *Translation Technology and Professional Practice*. London: Routledge.
- Rico, C. 2023. “AI and Translator Training”. *Interpreter and Translator Trainer*, Vol. 17, No. 2, London, pp. 101–118.
- Risku, H. 2021. *Translation Practice in Digital Environments*. London: Routledge.
- Vieira, L. N. 2021. “Post-Editing and Translation Quality”. *Translation Spaces*, Vol. 10, No. 2, Amsterdam, pp. 134–149.