

AI in Translation Education: Benefits and Risks

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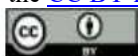
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Abstract:

Artificial intelligence nowadays dominates various fields especially education. The integration of AI tools such as Google Translate, DeepL, and ChatGPT in the educational sector has revolutionized learning and teaching. AI has transformed traditional classes into digitally enhanced learning contexts through instant information access and interactive, engaging learning experiences. However, there are some challenges and shortcomings in integrating AI in education in general and universities in particular. This study aims to explore the influence and challenges of AI tools in translation classes of Naama University. Findings reveal that these tools serve as significant resources in refining translation efficiency.

Keywords: AI tools; Artificial intelligence; ChatGPT; DeepL; Google Translate.

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Résumé :

De nos jours, l'intelligence artificielle domine divers domaines, en particulier celui de l'éducation. L'intégration d'outils d'IA tels que Google Translate, DeepL et ChatGPT dans le secteur éducatif a révolutionné l'apprentissage et l'enseignement. L'IA a transformé les classes traditionnelles en environnements d'apprentissage numériques enrichis grâce à l'accès instantané à l'information et à des expériences d'apprentissage interactives et engageantes. Cependant, l'intégration de l'IA dans l'éducation en général, et dans les universités en particulier, présente certains défis et limites. Cette étude vise à explorer l'influence et les défis des outils d'IA dans les cours de traduction à l'université de Naâma. Les résultats révèlent que ces outils constituent des ressources importantes pour améliorer l'efficacité de la traduction.

Mot clés : ChatGPT ; DeepL ; Google Translate ; intelligence artificielle ; outils d'IA.

الذكاء الاصطناعي في تعليم الترجمة: الفوائد والمخاطر

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المخبر مخبر التكوين في الهندسة وتصميم المشاريع الجامعة صالحى احمد النعامة

الملخص:

يهيمن الذكاء الاصطناعي في الوقت الحاضر على مختلف المجالات، وخاصة مجال التعليم. وقد أدى دمج أدوات الذكاء الاصطناعي مثل (Google Translate) و (DeepL) و (ChatGPT) في القطاع التعليمي إلى إحداث ثورة في عمليتي التعلم والتعليم. فقد أسهم الذكاء الاصطناعي في تحويل الفصول الدراسية التقليدية إلى بيئات تعلم رقمية معززة، من خلال إتاحة الوصول الفوري إلى المعلومات وتوفير تجارب تعلم تفاعلية وجذابة. ومع ذلك، توجد بعض التحديات والسلبيات المرتبطة بدمج الذكاء الاصطناعي في التعليم بشكل عام وفي الجامعات بشكل خاص. تهدف هذه الدراسة إلى استكشاف تأثير وتحديات أدوات الذكاء الاصطناعي في حصص الترجمة بجامعة النعامة. وتكشف النتائج أن هذه الأدوات تُعد موارد مهمة في تحسين كفاءة الترجمة.

الكلمات المفتاحية: الذكاء الاصطناعي؛ أدوات الذكاء الاصطناعي: (Google Translate)؛ (DeepL)؛ (ChatGPT).

1. Introduction : The advent of Artificial Intelligence (AI) has reshaped many fields counting education. In recent years, AI-powered applications such as Google Translate, DeepL, and ChatGPT have impressively influenced the way teaching and learning are conducted. In higher education, AI tools offer instant and easy access to information, encourage academic achievement, and support interactive learning.

Artificial intelligence tools mainly within translation studies provide immediate text creation and various translation options. Within translation studies, these digital tools have significantly reformed the traditional methods of translating by delivering instant access to a given content in different languages, automated services of translation, and linguistic support services. Unlike classical translation systems, modern applications use neural networks and machine learning techniques that rely on context sensitive translation. Consequently, researchers and educators demonstrate interest in AI-assisted translation and its adoption in their teaching practices.

Although Artificial intelligence programs are beneficial, their incorporation into university classes brings up academic and ethical concerns such as the overuse of AI systems and academic misconduct. This paper examines the impact of AI tools on translation classes at Naama University, probing both its educational benefits and possible limitations.

Thus, this study intends to answer the following questions:

- 1) How do AI-powered applications such as Google Translate, DeepL, and ChatGPT influence students' performance in translation?
- 2) Do AI-powered applications such as Google Translate, DeepL, and ChatGPT enhance translation learning?
- 3) What challenges and issues arise from the implementation of these tools?

2. Literature Review:

2.1 Translation Studies and the Emergence of Machine Translation : In recent years, as online data calls for rapid and accurate translation from one language to another, the need for translation has significantly increased. (Bell, 1991) argues that the main goal of translation is to convert an original manuscript into another language keeping the same meaning and the same features. When

translating from one language to another or from the source to the target one, some issues may emerge such as cultural references and word equivalence. In fact, the job of translation is challenging. (Crystal, 1991) explains that when translating from the source language to the target one, the meaning should be adjusted.

Due to the evolution of technology, new translation methods have been introduced such as what is called Machine Translation (MT). This method refers to transferring automatically speech or texts from one language to another using computers.

As reported by (Hutchins, 1995), Machine translation refers to “computerized systems responsible for the production of translations with or without human assistance”.

Machine Translation (MT) translates manuscripts or speech between languages using software and without human interference. MT has undergone several phases throughout history; each phase was characterized by different technologies and methods. Modern translation systems rely heavily on neural networks that can manage high volumes of linguistic data.

2.2 Artificial Intelligence and Natural Language Processing: Following ‘Dartmouth Conference’ in 1956, artificial intelligence has achieved major progress in different domains, emerging as a 3rd generation with new approaches and applications. In the light of the fundamental connection between language and thought, Natural Language Processing (NLP) is considered as a central and primary component of Artificial intelligence (Yusuf, 2025, pp. 245–256).

Machine translation is regarded among the dominant applications of NLP in various fields such as education, computer science etc. The interrelation between machine translation, NLP and AI is illustrated in figure 1 as follows:

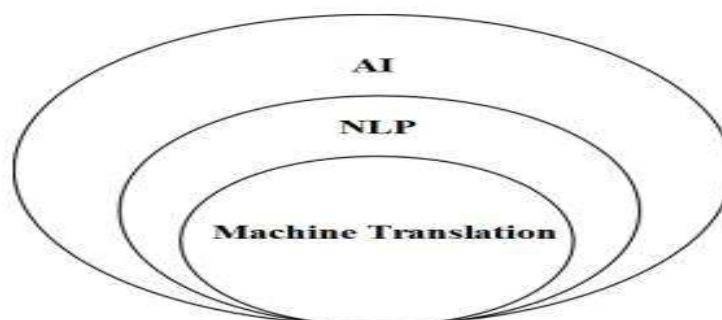


Figure1: The interrelation between machine translation, NLP and AI Source: (Bhatt, 2021)

As a matter of fact, AI, NLP, and machine translation have become interrelated domains that play a significant role in the transformation of language related professions and education.

2.3 AI Tools in Translation Education : In the digital era, different platforms such as Google Translate, DeepL and ChatGPT are extensively used because they provide rapid translation and easy access.

Although these platforms share the same goal of facilitating communication in multilingual contexts, they exhibit differences in terms of architecture and educational uses. Each tool has its strengths of accuracy, language support and contextual analysis. The following table demonstrates a general comparison between Google Translate, DeepL and ChatGPT:

Table1: A comparison between Google Translate, DeepL and ChatGPT

Feature	Google Translate	DeepL	ChatGPT
Languages	249	33 core (with regional variants)	Most major languages
Translation approach	Neural machine translation	Specialized translation AI	General-purpose LLM
Text translation	✓ Unlimited, free	✓ Unlimited on web	✓ Via conversation
Document upload	✓ PDF, DOCX	✓ PDF, DOCX, PPTX	⚠ Can read files, plain text output
Formatting preserved	⚠ Inconsistent	✓ Generally good	✗ No formatted export
Image translation	✓ Camera + upload	✓ Upload	⚠ Can read, limited translation
Tone control	✗	✓ Formal/informal toggle	✓ Full prompt control
Glossary	✗	✓ (Pro)	✓ Via prompt
Offline mode	✓ Mobile app	✗	✗
API	✓	✓	✓

Cited in **OpenL Blog** "Google Translate vs DeepL vs ChatGPT: Which Translates Best in 2026?"

As regards Google Translate, it is well known for covering a large variety of languages, and its relation to different Google platforms. However, the tool of DeepL has gained a prominent status for generating highly precise translations particularly in supporting European languages. Similarly, ChatGPT offers different linguistic models in order to provide description, explanations and context related translations. ChatGPT is considered as a flexible instrument for daily use especially in learning new languages.

In fact, the wider availability and development of AI platforms throughout the world indicate the significant role of artificial intelligence technology in establishing successful communication and eliminating language challenges.

2.4 Previous Studies on AI in Language Learning : The incorporation of artificial intelligence in the field of translation has reshaped the domain of communication and language processing (Dergaa, 2023). Recent research has demonstrated the effectiveness of AI technologies to improve the writing skills, in educational and academic settings.

In this vein, (Rodríguez-Rubio, 2024), carried out an investigation of a variety of AI translation instruments and noted that these applications contribute significantly to minimizing grammatical errors, and seek to enhance clarity and accuracy in written texts. (Mohammad, 2024). Their exploration stresses the necessity to adopt technology to help generating correct, and a high quality content.

ChatGPT is also, a recognized tool developed by OpenAI, has been integrated as a prominent application in the field of AI-driven writing support. In this respect, (Hua, 2024) analysed the performances of ChatGPT and indicated its capability to produce contextually related texts. This tool is regarded as a valuable means for writers to boost their works.

The analysis explains how ChatGPT can assist in structuring sentences and suggesting vocabulary, and thus simplifying the process of writing. Its use is advantageous for non-native speakers who may have issues in learning languages. Moreover, many scholars and academics have experienced the efficacy of these tools in writing academic papers. (Suhardiman, 2024) .

In the subject of Google Translate, it is one of the most extensively used tool regarding its usefulness and efficacy. According to (Tai, 2020) in some situations, Google Translate offers awkward content due to the lack of contextual knowledge which leads to poor academic writing,

where clarity and accuracy are crucial. Despite its weaknesses, Google Translate, due to its simple use, remains a favoured and popular choice.

As far as DeepL is concerned, it receives a strong recognition in translation fields thanks to its natural sounding translation and its precision. In this respect, (Kramar, 2024) carried out a comparative study of translations tools and concluded that DeepL often excels over other services as regards language accuracy. This investigation demonstrates that DeepL's algorithms offer opportunities to understand more about language nuances, which makes it a good and appropriate choice for academics (Li, 2024). Despite these advantages, researchers continue to express distresses concerning overreliance on AI systems.

3.Methodology:

3.1. Research Design and Sampling :In this study, both quantitative and qualitative approaches are adopted. The quantitative approach helps obtain statistical data regarding students' opinions, perceptions, experiences, and practices related to the integration of AI tools, particularly ChatGPT, in translating content. The qualitative approach, on the other hand, enables the researcher to gather more in-depth insights into the challenges and limitations that students encounter when using artificial intelligence in their learning process. The study was conducted at Naama University and involved 25 students enrolled in the translation department. Participants were selected through convenience sampling based on their availability and familiarity with AI –assisted translation tools. Translation classes attempt to enhance students' capacities to translate texts using English, French and Arabic focusing on linguistic accuracy and cultural knowledge.

Students of translation have recently opted for artificial intelligence applications to achieve their tasks in reading comprehension and vocabulary acquisition. In this respect, the researcher considers this situation a suitable setting for investigation.

a. Data Collection Instrument :Data were collected through an online questionnaire designed to explore students' use of AI tools, particularly Google Translate, DeepL, and ChatGPT. The questionnaire consisted of closed-ended and open-ended questions. The closed-ended questions produced quantitative data regarding the frequency of AI usage and students' perceptions of its effectiveness, while the open-ended questions provided qualitative insights into the benefits, challenges, and limitations associated with AI-assisted translation.

b. Data Analysis : The collected data were analyzed using both quantitative and qualitative procedures. Quantitative responses were summarized through descriptive statistics, including frequencies and percentages, to identify general trends in students' use of AI tools. Qualitative responses were examined through thematic analysis in order to identify frequent themes related to students' experiences, perceived advantages, and concerns regarding AI-assisted translation.

The combination of these analytical procedures enabled a more comprehensive interpretation of the answers and facilitated the analysis of both the educational benefits and potential limitations of AI technologies in translation learning.

4. Results and Discussion: The purpose of the questionnaire is to examine the integration of artificial intelligence tools in translation tasks and to know about students' perceptions and challenges related to the AI tools.

4.1 Use of AI Tools in Translation Learning: According to the results of the questionnaire, most respondents confirmed their use of AI tools in translation tasks and academic learning. This indicates that AI tools are widely reachable and adopted in educational settings.

Table 2. Use of AI Tools in Translation Tasks

Answers	Frequency	percentage
Yes	17	68%
No	8	32%

The table demonstrates the extent to which students integrate AI tools in their learning assignments and tasks. The results report that the majority of participants use AI applications in translation for support. 17 students (68%) noted that they rely on tools of artificial intelligence, however, 8 members (32%) mentioned that they do not.

These results explain that there is a wide tendency towards AI tools in translation studies among students. the large portion of users of AI shows that these technologies are recognized as beneficial for translators. They boost their productivity, offer linguistic suggestions, and help to gain time.

Nevertheless, the fact that only (32%) avoid these technologies demonstrates that some students favour traditional translation methods. This may result from unfamiliarity with AI tools, or they do

not trust in the accuracy of translations. The widespread use of AI applications can be attributed to their ability to provide rapid translations, linguistic support, and immediate access to information. Such findings are consistent with previous studies that highlight the increasing adoption of AI technologies in language learning and translation education. However, the proportion of students who do not use these tools suggests that concerns regarding reliability, accuracy, or personal learning preferences continue to influence students' choices.

Overall, the analysis of data suggests that the reliance on AI technologies is not universal, although it plays a crucial role in translation context.

Table 3. AI Tools Used in Translation

Translation tools	Frequency	percentage
Google Translate	12	48 %
ChatGPT	19	76%
DeepL Other	7	28%

Table 3 illustrates the AI tools that respondents rely on in translation studies. According to the distributions, the most widely adopted tool among respondents is ChatGPT; (76%) of respondents report its use in translation. There is a strong inclination towards this tool due to its effectiveness in producing human-like texts, and assistance in different translation tasks.

The next commonly accessible instrument is Google Translate, where (48%) of participants rely on this tool. Thus, it should be mentioned that even if Google Translate has a lower usage rate compared to ChatGPT, it is still considered popular due to its rapid translations and comprehensive language support.

As regards DeepL, only (28%) of participants mentioned that they resort to this tool in their tasks. DeepL is recognized for the accuracy and high quality of translation. However, in this study, as regards translation students, they do not rely much on it, which means that it is not recognized universally.

These findings demonstrate that students tend to favour AI tools that combine translation functions with broader educational support, reflecting a move from traditional machine translation systems toward interactive AI-based learning environments.

4.2 AI Tools Purposes: The researcher suggested four possible purposes behind the use of Artificial intelligence apps among translation students, so that respondents choose the appropriate ones. As table 4 indicates, the common aim of using AI tools is to translate texts, followed by checking word meanings and understanding unfamiliar words. Some students stated that these tools help them improve grammar and construct correct sentences.

Table 4. AI Tools Purposes

Purpose	Percentage
Text Translation	75%
Checking Word Meaning	65%
Understanding Unfamiliar Words	60%
Improving Grammar	50%
Constructing Correct Sentences	30%

The results mentioned in the table demonstrate that AI tools may serve not only as means of translation but also as supports to assist language comprehension, especially when they find new or complex words which need clarification.

The findings reinforce the view that AI applications have evolved beyond their traditional role as translation tools and now serve as multifunctional learning assistants within language education.

4.3. Benefits of AI tools: According to the students' answers and opinions, there was a variety of advantages provided by AI tools to help students in their learning process. The majority of students agreed that these tools provide fast translation and are considered as efficient means of time saving.

Moreover, students reported that AI tools help refine their translations and contribute to better interpretation. They also stated that these tools enable them to select suitable vocabulary.

Another significant benefit stressed by the participants in their answers is vocabulary acquisition. They mentioned that these tools familiarize them with new terms, words and expressions which leads to a high proficiency level.

Lastly, most students noted that AI tools facilitate translation and that they welcome the adoption of these applications in their learning.

Overall, students viewed AI applications as valuable educational resources that support translation learning, enhance productivity, and facilitate access to linguistic information.

4. 4 AI Tools and Challenges: Although the majority of students in translation department have shown positive perceptions of AI tools in translation, the findings of the current study revealed some issues regarding the reliance on AI in classroom.

Some students indicated that overreliance on technology may undermine their capacities to think critically and their abilities to solve translation assignments.

Another significant issue that students of translation may face is the inaccuracy of translations. AI tools sometimes offer incorrect or erroneous translations especially when dealing with idioms and meanings influenced by context.

Additionally, some answers suggest that AI tools may embolden learners to plagiarize and diminish their own efforts in translation tasks, which limits their language learning.

5. Discussion of the Findings: The results of the study at hand validate that AI tools have become a major component of the field of translation studies. There is a great tendency towards the use of technology applications in translating texts, reviewing vocabulary, and correcting grammar.

Moreover, the answers of the participants revealed that students show positive attitudes towards artificial intelligence programs. They consider that technology increases their efficiency and productivity.

Conversely, the findings also indicate some risks in AI use, such as the overuse of technology and the issue of erroneous translations. Thus, it is imperative to be careful when depending on AI tools.

Most students, regardless of the potential risks, were in favour of the adoption of these tools in translation contexts. They assert that the integration of such tools should be under the control of teachers to ensure correct use and to enhance their translation skills.

In conclusion, AI tools contribute effectively to translation learning, and their value is displayed in the way they are used. In fact, Students require training about the successful integration of these technologies, and how they should adopt them carefully and correctly in order not to influence their translation skills and abilities negatively.

6. Recommendations: In the light of the results of the current study, some recommendations can be suggested:

6.1 Recommendations for Students: Students have to be careful using AI tools by adopting them as supportive learning tools and not to rely on them for complete answers. They are required to check and review carefully AI-driven translations rather than relying on them without analysis. Moreover, students are supposed to develop their skills in translation by themselves with the help of other multiple resources like dictionaries.

6.2 Recommendations for Teachers: In translation classes, teachers should help students make them aware of the correct use of AI applications. For instance, teachers can provide them with activities and trials to show them how to deal responsibly with AI translations.

In this respect, teachers can also include some tasks where they ask the students to compare between AI generated translations and their own in order to motivate them and enhance their competences.

6.3 Recommendations for Educational Institutions: Universities and institutions should take into consideration the incorporation of these tools into their curricula. For the sake of assisting students as well as educators to use these tools successfully and properly in educational settings, extensive training and workshops should be organized.

6.4 Recommendations for Future Research: Future research could scrutinize the influence of Artificial intelligence programs on students' linguistic skills and translation abilities over time.

Also, future studies may include teachers of translation and their perceptions towards AI tools in translation classes. A comparative study also can be carried out between students using Artificial intelligence and those who depend on other traditional resources.

Conclusion: Many educational aspects have been reshaped due to the rapid growth of artificial intelligence, including translation studies. Although AI tools are regarded as important supports in education, they should be adopted appropriately. Technology can be considered as a prevailing instrument that improves language learning and translation process if it is accompanied with proper supervision and correct use.

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