

**“COMPARATIVE SEMANTIC ANALYSIS OF PHRASEOLOGICAL UNIT
TRANSLATION IN ARTIFICIAL INTELLIGENCE AND HUMAN TRANSLATION”**

Ro‘zmetova Shohida Ravshanbek qizi

Urgench State Pedagogical Institute, Faculty of Philology,

Department of Foreign Philology

+99893-861-91-19

ruzmetova.shohida9119@mail.com

Annotation

This article examines the semantic aspects of translating phraseological units in artificial intelligence and human translation. The study analyzes the differences between machine-generated and human translations in conveying figurative meanings, cultural nuances, and contextual interpretations. The research demonstrates that although artificial intelligence provides fast and accessible translation, it often fails to preserve the semantic and stylistic features of phraseological expressions. Human translators, due to their linguistic competence and cultural awareness, achieve more accurate and natural translations. The article emphasizes the importance of combining artificial intelligence technologies with human translation skills in modern translation studies.

Key words: phraseological units, artificial intelligence, human translation, semantic analysis, machine translation, idioms, translation studies, figurative meaning.

Annotatsiya

Mazkur maqolada frazeologik birliklarning sun'iy intellekt va inson tarjimasidagi semantik xususiyatlari tahlil qilinadi. Tadqiqot davomida mashina tarjimasi va inson tarjimasi o'rtasidagi farqlar, ayniqsa obrazli ma'no, madaniy xususiyatlar hamda kontekstual talqinlarni ifodalashdagi jihatlar qiyosiy o'rganilgan. Tadqiqot natijalari shuni ko'rsatadiki, sun'iy intellekt tezkor va qulay tarjima imkoniyatini bersa-da, frazeologik birliklarning semantik va uslubiy xususiyatlarini to'liq saqlab qola olmaydi. Inson tarjimonlari esa til kompetensiyasi va madaniy bilimlari orqali yanada tabiiy va aniq tarjimani amalga oshiradi. Maqolada zamonaviy tarjimashunoslikda sun'iy intellekt va inson tarjimasi uyg'unligining ahamiyati yoritilgan.

Kalit so'zlar: frazeologik birliklar, sun'iy intellekt, inson tarjimasi, semantik tahlil, mashina tarjimasi, idiomalar, tarjimashunoslik, obrazli ma'no.

Аннотация

В данной статье рассматриваются семантические особенности перевода фразеологических единиц в искусственном интеллекте и человеческом переводе. В ходе исследования проводится сравнительный анализ машинного и человеческого перевода с точки зрения передачи переносного значения, культурных особенностей и контекстуальной интерпретации. Результаты исследования показывают, что, несмотря на скорость и удобство искусственного интеллекта, машинный перевод часто не способен сохранить семантические и стилистические особенности фразеологических выражений. Переводчики-люди благодаря языковой компетенции и культурным знаниям обеспечивают более точный и естественный перевод. В статье подчеркивается важность сочетания технологий искусственного интеллекта и человеческих переводческих навыков в современной теории перевода.

Ключевые слова: фразеологические единицы, искусственный интеллект, человеческий перевод, семантический анализ, машинный перевод, идиомы, переводоведение, переносное значение.

Translation plays a crucial role in intercultural communication, especially in the modern digital era. One of the most challenging aspects of translation is the rendering of phraseological units, such as idioms, proverbs, and fixed expressions. These units often contain figurative meanings that cannot be translated literally. With the rapid development of artificial intelligence technologies, machine translation systems have become widely used in linguistic practice. However, the semantic accuracy of phraseological unit translation by AI systems remains a debatable issue. This article aims to compare the semantic features of phraseological unit translation in artificial intelligence and human translation.

Phraseological Units and Their Linguistic Nature

Phraseological units are stable combinations of words with figurative or transferred meanings. According to linguists, phraseological expressions reflect the culture, traditions, and mentality of a nation. Their meanings are usually non-compositional, meaning that the general meaning cannot be understood from the meanings of individual words.

For example, the English idiom “kick the bucket” means “to die,” not literally “to kick a bucket.” Such expressions create significant difficulties in translation because translators must convey both semantic meaning and stylistic effect.

1. Key Semantic Challenges in Phraseological Translation

When translating idioms, AI and human translation methods diverge significantly based on how they process linguistic layers:

- **Literal vs. Idiomatic Meaning:** AI tools generally prioritize direct, compositional meaning, often failing to decode metaphorical idioms. Humans natively apply conceptual mapping to identify the true semantic equivalent.
- **Cultural Specificity:** Idioms are heavily rooted in local context (e.g., historical contexts, cultural norms, or localized flora/fauna). Humans seamlessly use equivalence and paraphrasing to render these properly.
- **Polysemy and Context:** The same phraseological unit can hold vastly different meanings depending on the surrounding text. While advanced AI contextual embeddings have improved, human translators remain superior at discourse-level interpretation.

2. Comparative Strengths

Current research highlights the distinct advantages of both approaches:

Feature	Artificial Intelligence (AI)	Human Translation (HT)
Speed Efficiency	& Generates text instantly, processing vast amounts of data.	Slower, requiring extensive effort, context review, and cognitive processing.
Cultural Nuance	Often struggles with cultural specificity and humor.	Exceptional at preserving underlying cultural relevance and emotional intent.
Consistency	Maintains terminology consistency but can introduce meaning-altering "hallucinations".	Minor fluency errors can occasionally occur, but severe meaning changes are rare.
Figurative Language	Tends to render idioms literally.	Expertly uses equivalence, adaptation, and paraphrasing.

3. The Future of Phraseological Translation: Hybrid Models

Experts in translation studies advocate for hybrid translation models. In this framework, AI is utilized at the pre-translation or drafting stage to process immense datasets, while human translators apply post-editing to guarantee semantic accuracy, cultural sensitivity, and stylistic elegance. As Allanazarova N. mentioned in her article "Linguistic is a science that studies

language as a cultural phenomenon and its subject is language and culture in mutual relationship”

Artificial Intelligence in Translation

Artificial intelligence-based translation systems, such as Google Translate and DeepL, use neural machine translation technologies. These systems analyze large linguistic corpora and generate translations based on statistical and contextual patterns.

AI translation has several advantages:

- speed and efficiency;
- accessibility;
- ability to process large amounts of text.

However, AI systems often struggle with figurative language and phraseological units because they may interpret expressions literally rather than contextually.

For instance:

- “Break the ice” may be translated literally as “muzni sindirmoq,” while its actual meaning is “to start communication in a friendly way.”

This demonstrates the semantic limitations of AI in understanding cultural and contextual nuances.

Human Translation and Semantic Accuracy

Human translators possess cultural competence, contextual understanding, and emotional intelligence. They can interpret figurative meanings and select equivalent phraseological expressions in the target language.

For example:

- “Break the ice” can be translated by a human translator as “suhbatni boshlab bermoq” or another culturally appropriate equivalent.

Human translators consider:

- context;
- stylistic features;
- pragmatic meaning;
- cultural adaptation.

As a result, human translation is often more semantically accurate and stylistically natural than AI-generated translation.

Comparative Semantic Analysis

A comparative analysis reveals both strengths and weaknesses of AI and human translation.

Aspect	Artificial Intelligence	Human Translation
Speed	Very fast	Relatively slow
Semantic accuracy	Sometimes limited	Usually high
Understanding idioms	Often literal	Contextual and figurative
Cultural adaptation	Weak	Strong
Creativity	Limited	Flexible and creative

AI systems perform effectively in translating technical or simple texts, but they face difficulties with phraseological units that require deep semantic interpretation. Human translators, on the other hand, can preserve the emotional and cultural meaning of phraseological expressions.

Phraseological units remain one of the most difficult elements in translation studies. Although artificial intelligence technologies continue to improve, they still cannot fully replace human translators in semantic interpretation and cultural adaptation. Human translation

demonstrates greater effectiveness in preserving figurative meaning and communicative impact. Therefore, the cooperation of AI technologies and human linguistic competence may become the most productive approach in future translation practice.

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