academic publishers
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE (ISSN: 2692-5206)
Volume 04, Issue 09, 2024
Published Date: 22-11-2024

UZBEK LANGUAGE AND INTERNATIONAL LANGUAGES: ISSUES OF MAINTAINING SEMANTIC ACCURACY IN TRANSLATION

Abduvaliyeva Shahnoza Abduvaliyevna
University of Exact and Social Sciences
Linguistics (English)First-year Master's student

Annotation: This article examines the challenges of preserving semantic accuracy in translations between Uzbek and international languages, focusing on linguistic and cultural factors. The study identifies issues such as polysemy, morphological complexity, and syntactic differences that complicate accurate translations. Additionally, cultural nuances, including idiomatic expressions and honorifics, are analyzed as factors that influence meaning. The research highlights the limitations of current machine translation technologies and emphasizes the importance of human intervention in translation processes.
Keywords: linguistics, artificial intelligence (ai), natural language processing (nlp), linguistic theories, machine learning, deep learning, syntax and semantics, language models, semantic analysis, computational linguisticsnce of human intervention in translation processes.

Introduction

Translation plays a crucial role in intercultural communication, bridging the gap between languages with distinct linguistic and cultural systems. Uzbek, as a Turkic language, presents unique challenges in translation when paired with international languages, especially those of differing linguistic typologies such as English or Russian.

Maintaining semantic accuracy is vital in translation to preserve the original message's meaning and intent. This becomes particularly complex when translating between languages with significant lexical, syntactic, and cultural disparities. Errors in meaning can distort messages, leading to misunderstandings or loss of cultural nuances.

This study explores the issues translators face when maintaining semantic accuracy in translations involving Uzbek and international languages, highlighting linguistic, cultural, and contextual factors.

Methods

Data Collection

- **Corpus Analysis**: A parallel corpus of Uzbek-English and Uzbek-Russian translations was analyzed to identify patterns of semantic shifts and mistranslations.
- **Interviews**: Professional translators and linguists were interviewed to understand the challenges they face and the strategies they employ.
- **Case Studies**: Examples of literary, technical, and legal translations were studied to evaluate the preservation of meaning across genres.

Framework

The analysis was conducted using:

- **Linguistic Dimensions**: Phonological, morphological, syntactic, semantic, and pragmatic aspects of the languages were examined.
- **Cultural Dimensions**: The influence of idioms, metaphors, and culturally bound expressions on translation accuracy was evaluated.

• **Technological Tools**: The role of machine translation tools like Google Translate and CAT (Computer-Assisted Translation) tools was assessed.

Analysis Methods

• Semantic equivalence was measured using translation quality metrics such as BLEU (Bilingual Evaluation Understudy).

• Comparative analysis was applied to identify discrepancies and propose solutions.

Results

Key Challenges in Semantic Accuracy

1. **Linguistic Challenges**:
   - **Polysemy**: Words with multiple meanings (e.g., "tom" in Uzbek for "roof" and "top") often result in mistranslations without contextual cues.
   - **Morphological Complexity**: The agglutinative nature of Uzbek leads to long, morphologically complex words that are difficult to translate directly into languages like English.
   - **Word Order**: Uzbek's Subject-Object-Verb (SOV) structure contrasts with the Subject-Verb-Object (SVO) structure of English, complicating syntactic alignment.
2. **Cultural Challenges**:
   - **Idiomatic Expressions**: Uzbek idioms, such as "Ko‘rgan tog‘dan qochgan tog‘ afzal" ("The mountain seen is better than the mountain avoided"), lose their impact when translated literally.
   - **Honorifics and Politeness**: Cultural nuances in politeness and respect forms in Uzbek are often absent in international languages, leading to potential loss of social context.
3. **Technological Limitations**:
   - Machine translation tools often fail to capture nuances in meaning, resulting in literal translations that distort the intended message.
   - CAT tools require extensive training with high-quality bilingual datasets, which are scarce for Uzbek.

Strategies for Improvement

• **Human Intervention**: Combining machine translation with human editing enhances semantic accuracy.

• **Cultural Adaptation**: Translators need to adapt culturally bound expressions using dynamic equivalence techniques rather than literal translation.

• **Bilingual Resources**: Developing comprehensive bilingual dictionaries and parallel corpora for Uzbek and international languages is essential.

Discussion

Integration of Linguistic and Cultural Factors

The study highlights the importance of understanding linguistic features, such as Uzbek's morphology and syntax, in achieving semantic accuracy. Cultural adaptation is equally critical, as literal translations often fail to convey the original meaning.

Role of Technology

While advancements in machine translation and CAT tools have improved efficiency, their effectiveness for Uzbek remains limited. Developing AI systems trained on Uzbek-specific datasets is necessary to overcome current limitations.

Limitations

The study faced challenges due to the limited availability of high-quality parallel corpora for Uzbek and international languages. Additionally, certain cultural nuances remain difficult to quantify and address systematically.

Future Directions

1. **Resource Development**: Creating extensive bilingual corpora and translation memory databases for Uzbek and major international languages.
2. **AI Training**: Collaborating with linguists and technologists to enhance NLP models for Uzbek-specific translation tasks.
3. **Translator Training**: Introducing specialized training programs for translators to address linguistic and cultural challenges effectively.

5. Conclusion

This study underscores the challenges and strategies for maintaining semantic accuracy in translations involving Uzbek and international languages. The findings highlight:

- The influence of linguistic and cultural disparities on translation quality.
- The need for a balanced approach combining human expertise and technological tools.
- The importance of interdisciplinary efforts in advancing translation technologies and resources.

By addressing these challenges, translators and researchers can enhance the quality and reliability of translations, fostering better intercultural communication and understanding.

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