TRANSLATING NEOLOGISMS IN TECHNOSCIENTIFIC TEXTS: METHODS AND RISKS

G‘afurova Nazokat Bakhriddin’s daughter

student of Tashkent State of transport university

Annotation: *This article analyzes the challenges of translating neologisms in technoscientific texts, with a focus on how newly coined terms are rendered from English into Uzbek. It identifies key strategies such as transliteration, descriptive translation, calque, and semantic extension, while also examining the potential risks involved — including ambiguity, overgeneralization, and the distortion of meaning. The article discusses examples from fields such as biotechnology, IT, and environmental science.*

Keywords: *neologisms, technoscientific translation, calque, transliteration, lexical innovation, semantic accuracy*

Annotatsiya: *Ushbu maqolada texnologik-ilmiy matnlardagi yangi yaratilgan so‘zlar — neologizmlarni tarjima qilish bilan bog‘liq muammolar tahlil qilinadi. Asosan ingliz tilidan o‘zbek tiliga o‘girish jarayonida ishlatiladigan strategiyalar: transliteratsiya, tavsifiy tarjima, kalkalash va semantik kengaytirish kabilar yoritilgan. Shuningdek, noaniqlik, umumlashtirish, va ma’no buzilish xavflari ham muhokama qilinadi. Biotexnologiya, axborot texnologiyalari va ekologiya sohalaridan misollar keltiriladi.*

Kalit so‘zlar: *neologizm, ilmiy-texnik tarjima, kalka, transliteratsiya, leksik yangilik, semantik aniqlik*

Аннотация: *В статье рассматриваются проблемы перевода неологизмов в научно-технических текстах, особенно при переводе с английского языка на узбекский. Анализируются основные стратегии: транслитерация, описательный перевод, калькирование и семантическое расширение. Также поднимаются вопросы рисков, таких как двусмысленность, чрезмерное обобщение и искажение смысла. Примеры*

взяты из биотехнологии, ИТ и экологической лексики.

Ключевые слова: *неологизмы, научно-технический перевод, калька, транслитерация, лексические инновации, семантическая точность*

In the last few decades, technological development has led to a dramatic increase in **neologisms** — newly coined words or phrases used to describe emerging concepts, devices, and processes. These are particularly frequent in **technoscientific discourse**, where terminological innovation is ongoing.

When translating such texts from English to Uzbek, the translator must decide how best to render terms that may not yet exist in the target language. As Newmark (1988) notes, "neologisms pose perhaps the greatest problem in translation, requiring both linguistic creativity and terminological discipline" [1, p. 141].

Theoretical Background

Neologisms are categorized into several types:

- **Created terms**: completely new words (e.g., *nanorobot*, *bioprinter*)
- **Derived terms**: affixation of known roots (e.g., *eco-friendly*)
- **Blends**: word combinations (e.g., *brunch*, *smog*)
- **Loanwords**: borrowed from another language but modified

In scientific texts, they often carry high **semantic load** and may not have established equivalents in the target language.

Translation Methods for Neologisms

Transcription and Transliteration

Transcribing sound structure from source to target language. Example:

- *Blockchain* → *blokcheyn*

Risk: May result in incomprehensibility if concept is unknown to the reader.

Descriptive Translation

Explaining the term's meaning rather than translating the word itself. Example: *Greenwashing* → *atrof-muhitni soxta himoya qilish amaliyoti* Advantage: clarity; Risk: overextension and verbosity

Calque (Literal Translation)

Word-for-word rendering. Example:

- *Carbon footprint → uglerod izi*

Problem: May sound unnatural or ambiguous in Uzbek

Semantic Extension

Using an existing term in the target language with expanded meaning. Example:

- *Virus* (IT kontekstida) → *virus* (asl so‘zga yangi ma’no yuklanadi)

Risks and Challenges

Risk Type	Description	Example
Ambiguity	Term is not clearly defined or understood	*smart dust* → could confuse lay readers
Cultural dissonance	Term refers to concept absent in target culture	*biohacking*
Overgeneralization	Broader term used, losing specificity	*cloud computing → onlayn saqlash*
Non-acceptance	Readers reject or ignore unfamiliar new term	*nanobots*

As Baker (1992) argues, “The translator must balance between innovation and intelligibility, especially when introducing lexical novelties” [2, p. 94].

Case Study: Uzbek Translations of Emerging IT Terms

Original Term	Common Translation	Strategy Used	Notes
Blockchain	blokcheyn	Transliteration	Widely accepted
Cloud computing	bulutli hisoblash	Calque	Sometimes misunderstood
Greenwashing	soxta ekologik imidj	Descriptive	Rarely used in practice

The translation of neologisms in technoscientific texts remains a complex

task. Due to the absence of fixed equivalents, translators are often required to choose between several imperfect options — each carrying a potential risk. The strategies of **transliteration**, **calque**, **semantic expansion**, and **description** all have their merits and limitations.

Rather than aiming for exact replication, neologism translation requires a **balanced approach** that considers context, clarity, and linguistic norms. The examples discussed here illustrate the practical complications that arise when conveying lexical innovations across languages.

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