

Linguistic Adaptation of English IT Terminology in Contemporary Karakalpak Publicistic Discourse

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ABSTRACT

As digital technologies have become an integral part of contemporary communication, English IT terminology has increasingly entered the vocabularies of many languages. This development has made the translation and adaptation of IT terms an important topic in terminology and translation studies. This study investigates the principal strategies used to translate and adapt English IT terminology in contemporary Karakalpak publicistic discourse. The research is based on authentic materials collected from the newspapers Erkin Qaraqalpaqstan, Qaraqalpaqstan hawazi, Qaraqalpaqstan jaslari, as well as official online media, including KarPressa, Kruz.uz, and the Qaraqalpaq 24 Telegram channels. A descriptive, comparative, contextual, componential and terminological analysis was employed to classify English IT terms according to their adaptation strategies. The findings show that English IT terminology in contemporary Karakalpak publicistic discourse is adapted through four principal translation strategies: transcription, transliteration, calquing and descriptive translation. Each strategy plays a distinct role in the integration of English IT terminology into the Karakalpak language in different communicative contexts.

Transcription and transliteration preserve the international recognizability of technical vocabulary, whereas calquing contributes to the development of national terminology by employing the lexical resources of the Karakalpak language. Descriptive translation is mainly used to facilitate the comprehension of newly introduced technical

concepts. The results demonstrate that the contemporary Karakalpak IT terminological system develops through the interaction of international borrowing and language-internal adaptation mechanisms, ensuring both terminological accuracy and communicative accessibility.

Keywords: IT terminology, English borrowings, Karakalpak language, translation strategies, transcription, transliteration, calquing, descriptive translation.

1. INTRODUCTION

English has become the main source of new information technology terminology as digital communication has expanded across different spheres of society. In the Karakalpak language, this process is reflected in the growing use of IT vocabulary in e-government, education, cyber security and online communication.

The integration of English technical vocabulary into Karakalpak is accompanied by various linguistic adaptation processes that ensure the compatibility of borrowed terms with the phonetic, orthographic, grammatical and lexical norms of the recipient language.

Previous studies have extensively examined the translation of non-equivalent vocabulary and specialized terminology. One of the fundamental theories of linguistic borrowing was proposed by Haugen [3], who distinguished importation and substitution as two basic processes in linguistic borrowing, providing an important framework for analysing the adaptation of borrowed lexical material. The translation of non-equivalent lexical units was further developed by Barkhudarov [1: 96-102], who argued that the absence of a direct lexical equivalent does not preclude translation and identified several techniques for rendering non-equivalent vocabulary. Komissarov [7] identifies transcription, transliteration and calquing among the principal lexical translation techniques. He defines transcription and transliteration as methods of reproducing the form of a source-language lexical unit through the letters of the target language, with transcription reproducing its sound form and transliteration

its graphic form. Calquing, in turn, involves replacing the constituent morphemes or words of the source-language unit with their lexical equivalents in the target language while reproducing its structure. According to Makhmutova & Yurova [8: 1939], S. V. Grinev-Grinevich, drawing on the work of L. L. Nelyubin distinguishes four principal strategies for translating non-equivalent terminology: 1) borrowing through transcription or transliteration, 2) semantic calquing, 3) structural calquing, and 4) descriptive translation. The present study applies this classification to the analysis of English IT terms found in contemporary Karakalpak publicistic discourse. The adaptation of English borrowings in the Karakalpak language has been investigated by Jumaniyazova [4] and Murtazaeva [9], whose studies focus on the phonological, morphological and graphic adaptation of English lexical units. Broader issues of lexical borrowing, calquing and the development of Karakalpak terminology have been examined by Karimxojaev [6], Berdimuratov [2], and Qoshanov & Qoshanova [10]. In addition, Kadirbekova [5: 92-99] examined the translation of English IT terminology into Uzbek, providing valuable comparative evidence for Turkic languages. Existing studies describe borrowing and terminology development, while the present study focuses specifically on translation strategies observed in contemporary Karakalpak publicistic discourse. Therefore, the aim of this study is to identify and analyse the principal translation strategies used in adapting English IT terminology in contemporary Karakalpak publicistic discourse.

2. MATERIALS AND METHODS

2.1. *Materials*

The study is based on authentic Karakalpak publicistic texts reflecting the current use of English information technology (IT) terminology. The research corpus includes publications from the newspapers *Erkin Qaraqalpaqstan*, *Qaraqalpaqstan hawazı* and *Qaraqalpaqstan jasları*, as well as materials published on the Telegram channels KarPressa, Kruz.uz, and Karakalpak24. These sources were selected because they actively cover issues related

to digital technologies, e-government, artificial intelligence, cybersecurity and online communication, providing representative examples of contemporary IT terminology in actual language use.

2.2. *Methods*

The research employed a combination of descriptive, comparative, contextual, componential and terminological analysis. The descriptive method was applied to identify English IT terms functioning in Karakalpak publicistic discourse. Comparative analysis was used to examine the relationship between English source terms and their Karakalpak equivalents. Contextual analysis made it possible to investigate the use of IT terminology in authentic communicative situations, whereas componential analysis was employed to identify semantic modifications occurring during the adaptation process. Terminological analysis was used to classify the collected lexical units according to the translation strategy applied.

The identified terms were grouped into four principal categories: transcription, transliteration, calquing, and descriptive translation. Each category was analysed to determine its structural characteristics, semantic features and productivity in the adaptation of English IT terminology in contemporary Karakalpak publicistic discourse.

3. RESULTS

3.1. *Transcription in the adaptation of English IT terms*

The corpus shows that transcription is one of the strategies used to adapt English IT terminology in contemporary Karakalpak publicistic discourse. Most English terms retain their original meanings while undergoing phonetic and orthographic adaptation in accordance with the norms of the Karakalpak language. In many cases, these terms entered Karakalpak through Russian, which influenced their present-day phonetic and graphic forms. The adaptation of some IT terms also reflects the intermediary influence of Russian. As a result, certain terms entered Karakalpak not directly from English pronunciation but through forms that had

already become established in Russian. This can be observed in terms such as “authentication” – *autentifikaciya*, and “identification” – *identifikaciya*. In these cases, the adapted forms preserve not only phonetic features but also graphic and structural characteristics that developed through the intermediary language.

The corpus contains numerous transcribed IT terms, including *superkompyuter* (supercomputer), *noutbuk* (notebook), *akkaunt* (account), *onlayn* (online), *veb-sayt* (website), *skaner* (scanner), *xaker* (hacker), *fayl* (file), *brauzer* (browser), *interfeys* (interface), *xeshteg* (hashtag) and *skrinshot* (screenshot). Although their phonetic forms have been adapted, their technical meanings remain unchanged, ensuring effective communication in the field of information technologies. The collected material includes transcribed terms related to computer hardware, software, Internet technologies, cybersecurity and digital communication.

3.2. Transliteration in the adaptation of English IT terms

The analysis revealed that transliteration is another strategy used in adapting English IT terminology in contemporary Karakalpak publicistic discourse. Unlike transcription, which reproduces the pronunciation of the original term, transliteration preserves its graphic form by representing it through the writing system of the recipient language. This strategy is primarily applied to international terms whose written forms have become widely recognized in professional communication.

The research corpus includes transliterated terms recorded in the Karakalpak Cyrillic script, such as *Промпт* (prompt), *портал* (portal), *вирус* (virus), *сервер* (server), *спам* (spam), *линк* (link), *логин* (login), *контент* (content), *антивирус* (antivirus), *СМС* (SMS), *бот* (bot), *админ* (admin), *старт* (start), *QR код*, and *платформа* (platforma). For example, the newspaper *Erkin Qaraqalpaqstan* explains the term *Промпт* in the sentence: *Промптдегеннедегенлерге – булоңызмийин ебуйрық* (“For those asking what a prompt is, it is a command for its ‘brain’”). These examples preserve a high degree of graphic similarity to their English originals while functioning as integral components of Karakalpak IT discourse.

The findings indicate that transliteration is particularly common in terminology related to software, Internet services, cybersecurity and digital communication. Since the graphic form of these terms is largely maintained, semantic changes are minimal, allowing the original technical meaning to be preserved. As a result, these terms retain their original technical meaning while remaining recognizable in professional communication.

The analysis also identified hybrid forms combining transliteration with other translation strategies. For example, “QR code” retains the international abbreviation “QR” while adapting the lexical component “code.” Similarly, terms such as *nizamsız kontent* combine a translated lexical element with a transliterated international component. These examples demonstrate that different translation strategies may operate simultaneously in the adaptation of English IT terminology.

Overall, transliteration helps preserve the international character of English IT terminology.

3.3. *Calquing as a means of developing national IT terminology*

The results show that calquing is one of the strategies used to create Karakalpak equivalents of English IT terminology. Unlike direct borrowing, calquing reproduces the semantic and structural model of the original term using native lexical resources. As a result, newly created terms conform more closely to the linguistic norms of the Karakalpak language while accurately conveying the meaning of the English source term.

The corpus contains numerous examples of structural and semantic calques, including *data orayı* (data center), *jasalma intellekt* (artificial intelligence), *sanlı texnologiyalar* (digital technologies), *mobil qosımsha* (mobile application), *IT qánigesı* (IT specialist), *kiber jinayat* (cybercrime), and *videobaylanıs* (video communication). These terms combine international concepts with native linguistic resources, facilitating their integration into the Karakalpak terminological system.

Semantic calques were also identified in the corpus. Existing Karakalpak words acquire new specialized meanings without changes in their formal structure. Examples include *bet* (“page”)

and *túyme* (“button”), whose meanings have been extended to denote elements of digital interfaces. Such semantic development enriches the national lexicon while avoiding unnecessary lexical borrowing.

The findings indicate that calquing makes a significant contribution to the development of Karakalpak IT terminology by combining semantic precision with linguistic accessibility. Compared with direct borrowing, this strategy relies more extensively on the language's own lexical resources and therefore promotes the formation of technical terminology based on Karakalpak word-formation patterns.

3.4. Descriptive translation of English IT terms

Descriptive translation is one of the strategies used to adapt English IT terminology in the examined corpus. Unlike transcription, transliteration and calquing, descriptive translation does not introduce a new lexical equivalent but explains the meaning of a technical term through a brief definition. This strategy is mainly employed when newly borrowed IT terms may be unfamiliar to the general public and therefore require additional clarification.

Several examples of descriptive translation were identified in the corpus. The term “prompt” is explained as a command given to an artificial intelligence system, allowing readers to understand its functional role. Similarly, “phishing” is described as the theft of passwords and banking information through fraudulent websites, while “vishing” is explained as telephone fraud involving deceptive phone calls. The meaning of “APK files” is clarified through their potential security risks, and “hacking” is explained by describing unauthorized access to user accounts.

These findings indicate that descriptive translation performs an explanatory rather than a terminological function. It is typically used when a technical concept is introduced for the first time or when the target audience may not be familiar with specialized vocabulary. Once the concept becomes widely recognized, descriptive explanations are usually omitted and the borrowed term functions independently.

Overall, descriptive translation is used mainly to clarify unfamiliar technical concepts and facilitate the comprehension of new technological vocabulary in publicistic discourse.

4. DISCUSSION

The analysis shows that the adaptation of English IT terminology in contemporary Karakalpak publicistic discourse relies on four principal translation strategies: transcription, transliteration, calquing and descriptive translation. The analysed corpus contains examples of each strategy, indicating that different translation techniques are employed depending on the linguistic and communicative context.

The results are also consistent with Murtazaeva's [9: 111] observations that English computer terminology in the Karakalpak language is primarily adapted through transcription and transliteration. Similar patterns can be observed in the analysed media materials.

Furthermore, the study supports Jumaniyazova's [4: 416] conclusion that English borrowings undergo systematic phonological and morphological adaptation after entering the Karakalpak language. Even internationally recognized IT terms gradually become integrated into the grammatical system through orthographic normalization and the addition of native inflectional and derivational markers.

The significant role of calquing identified in the present study is consistent with Karimxojaev's [6: 101-102] view of calquing as an important mechanism of lexical development and enrichment in Karakalpak. He emphasizes that calquing contributes to the quantitative and semantic enrichment of the language and that calques may eventually become an integral part of its vocabulary. Berdimuratov [2: 125-127] identifies calquing as one of four methods of neologism formation in Karakalpak, alongside lexical-semantic, grammatical and borrowing mechanisms. The analysed material also shows that calquing remains relevant to contemporary IT terminology, where English technological concepts are conveyed through the lexical resources of Karakalpak.

The findings are consistent with Qoshanov & Qoshanova's [10: 392] observation that many Western European terms entered Karakalpak through Russian in written form and retained similarities to Russian graphic forms. This intermediary role of Russian is also relevant to the adaptation of some English IT terminology.

5. CONCLUSION

This study examined the translation and adaptation of English IT terminology in contemporary Karakalpak publicistic discourse. The analysed material shows that English IT terms are integrated into the language through four translation strategies – transcription, transliteration, calquing and descriptive translation – each serving a different communicative function.

Transliteration is used mainly for international terms and abbreviations whose written forms are widely recognized in professional communication. Calquing relies on the lexical and word-formation resources of Karakalpak to create linguistically transparent equivalents, while descriptive translation helps explain unfamiliar technical concepts to a wider audience.

The analysed examples illustrate how international borrowings interact with language-internal adaptation mechanisms in the development of contemporary Karakalpak IT terminology. Borrowed terms help maintain compatibility with global IT discourse, whereas calques expand the language's own terminological resources.

The findings may be useful for terminology research, translation practice, lexicography and the standardization of modern IT vocabulary. Further research could examine a broader corpus of media texts and compare the adaptation of English IT terminology across other Turkic languages.

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