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DIGITAL TECHNOLOGY NEOLOGISMS IN ENGLISH AND UZBEK LANGUAGES: LEXICAL-SEMANTIC AND TRANSLATION ANALYSIS

ORIENTAL UNIVERSITY (Tashkent)

Akhmedov Oybek Saporbayevich,

Professor, Doctor of Science in Philology (DSc),

Dapartment “Languages №2”

Abstract: This article explores digital technology neologisms in the English and Uzbek languages with a focus on their lexical-semantic features and translation challenges. The rapid development of information and communication technologies has led to the emergence of numerous new terms that reflect technological innovations, digital practices, and online communication. The study aims to identify the main semantic groups of digital neologisms, analyze their word-formation mechanisms, and examine the strategies used to translate them between English and Uzbek. A comparative and descriptive methodology is employed, incorporating lexical-semantic analysis, contextual interpretation, and translation analysis. The findings reveal that English digital neologisms are predominantly formed through compounding, blending, and abbreviation, while Uzbek equivalents often rely on borrowing, calquing, and semantic adaptation. The research also highlights cases of semantic shift and partial equivalence that arise in the translation process. The results contribute to a deeper understanding of digital terminology development and provide practical implications for translators, lexicographers, and language educators working in the field of digital communication.

Keywords: digital technology neologisms; lexical-semantic analysis; English and Uzbek languages; translation strategies; borrowing and calquing; digital terminology; semantic adaptation

INTRODUCTION

The rapid development of digital technologies has profoundly transformed modern society, influencing communication, education, economics, culture, and everyday life. As technological innovations continuously emerge, languages are compelled to adapt to new realities by creating and adopting neologisms that denote novel concepts, processes, tools, and phenomena. In this context, digital technology neologisms represent a dynamic and productive layer of contemporary vocabulary, reflecting both technological progress and linguistic creativity. English, as the dominant language of global digital discourse, serves as the primary source of most digital technology neologisms. Terms such as cloud computing, blockchain, streaming, cybersecurity, and artificial intelligence initially emerge in English and later spread to other languages through translation, borrowing, or adaptation. Uzbek, like many other languages, actively incorporates digital neologisms, either by direct lexical borrowing, semantic calquing, hybrid formations, or by creating native equivalents. This process highlights the interaction between global technological trends and national linguistic systems. The study of digital technology neologisms is particularly relevant from a lexical-semantic perspective, as these terms often undergo semantic expansion, narrowing, metaphorization, or resemanticization when integrated into a new linguistic environment. In Uzbek, digital neologisms may acquire culturally specific connotations or function alongside traditional lexical units, leading to synonymy, variation, or terminological instability. Such semantic shifts require careful linguistic analysis to understand how meaning is constructed, modified, and stabilized in both source and target languages. Translation analysis plays a

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crucial role in examining how digital neologisms are transferred between English and Uzbek. Translators face challenges related to the absence of direct equivalents, differences in word-formation patterns, and varying levels of technological awareness among language users. The choice between transliteration, descriptive translation, functional equivalence, or term creation significantly affects the comprehensibility and acceptance of digital terminology in the target language. Therefore, investigating translation strategies contributes to improving terminological consistency and communicative effectiveness. Despite the growing importance of digital terminology, comparative studies focusing specifically on English and Uzbek digital neologisms remain limited. Most existing research concentrates on widely spoken languages, leaving less-resourced languages underexplored. This study seeks to fill this gap by providing a comprehensive lexical-semantic and translation analysis of digital technology neologisms in English and Uzbek, emphasizing their formation, semantic features, and translation patterns. By analyzing authentic linguistic data from digital media, academic texts, and technological discourse, the research aims to identify dominant trends in neologism formation and translation. The findings of this study are expected to contribute to contrastive linguistics, translation studies, lexicography, and the development of standardized digital terminology in Uzbek. Moreover, the research underscores the role of language as a flexible and adaptive system capable of responding to the challenges of the digital age.

LITERATURE REVIEW AND METHODOLOGY

The study of neologisms has long occupied a central position in lexical semantics, as neologisms reflect linguistic innovation driven by social, cultural, and technological change. In recent decades, scholarly attention has increasingly focused on technology-related neologisms due to the rapid expansion of digital communication and information technologies. Researchers emphasize that digital neologisms are not merely new lexical units but also carriers of new conceptual frameworks shaped by virtual environments and technological practices. Previous studies on digital terminology primarily concentrate on English, highlighting its role as a global donor language in the digital sphere. Scholars note that English digital neologisms are often formed through productive word-formation processes such as compounding, blending, clipping, and abbreviation. These mechanisms enable the language to respond quickly to technological innovation and user needs. From a semantic perspective, digital neologisms frequently involve metaphorical extension, semantic shift, and functional redefinition of existing lexical items. In translation studies, digital neologisms are considered one of the most challenging lexical categories due to their novelty, terminological instability, and cultural specificity. Researchers identify common translation strategies such as borrowing, transliteration, calquing, descriptive translation, and functional equivalence. The choice of strategy often depends on the degree of term conventionalization, the target audience, and the linguistic norms of the recipient language. Inconsistent translation practices may lead to synonymy, ambiguity, or misunderstanding in professional and everyday digital discourse. Studies focusing on Turkic languages, including Uzbek, indicate that digital neologisms are predominantly introduced through borrowing from English, either directly or via intermediary languages. While some research addresses general terminological issues in Uzbek, systematic comparative analyses of English–Uzbek digital neologisms remain limited. Existing literature often lacks an integrated approach that combines lexical-semantic analysis with translation-oriented perspectives. This gap underscores the need for comprehensive research that examines how digital neologisms are formed, semantically adapted, and translated within the English–Uzbek language pair.

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The present study employs a qualitative descriptive and comparative methodology to analyze digital technology neologisms in English and Uzbek. The research is based on authentic linguistic data collected from digital media sources, technology-related publications, online platforms, and contemporary dictionaries. The selected corpus includes widely used digital terms that have emerged or gained prominence in recent years. Lexical-semantic analysis is applied to identify the semantic structure, meaning extension, and functional characteristics of digital neologisms in both languages. This approach allows for the classification of neologisms into semantic groups such as communication technologies, data processing, artificial intelligence, cybersecurity, and social media. Special attention is paid to semantic shifts and contextual meaning variation during the process of language transfer. Translation analysis is conducted to examine the strategies used to render English digital neologisms into Uzbek. The study analyzes translation techniques including borrowing, calque, descriptive translation, hybrid formation, and semantic adaptation. Each strategy is evaluated in terms of accuracy, transparency, and communicative effectiveness. Comparative analysis is used to identify similarities and differences in word-formation patterns and translation solutions across the two languages. Additionally, contextual analysis is employed to observe how digital neologisms function in real discourse. This method helps to determine the level of term integration and standardization in Uzbek digital communication. The combined methodological framework ensures a systematic and comprehensive examination of digital technology neologisms from both linguistic and translational perspectives.

RESULTS AND DISCUSSION

The analysis of digital technology neologisms in English and Uzbek reveals clear differences in their lexical-semantic formation and translation patterns. The findings show that English digital neologisms are predominantly created through productive word-formation processes such as compounding, blending, and abbreviation, which enable rapid lexical innovation in response to technological advancements. In contrast, Uzbek digital neologisms largely emerge through borrowing and calquing from English, reflecting the influence of global digital discourse. From a semantic perspective, English neologisms often undergo metaphorical extension and semantic specialization, while Uzbek equivalents demonstrate semantic adaptation to fit the structural and cultural norms of the language. In several cases, partial equivalence is observed, where the translated term conveys the core meaning but lacks certain connotative or functional nuances present in the source language. The translation analysis indicates that borrowing and transliteration remain the most frequently used strategies due to the absence of established native equivalents. However, descriptive translation and hybrid formations are also employed to enhance clarity and accessibility for Uzbek language users. The coexistence of multiple translation variants for a single term highlights ongoing terminological instability in Uzbek digital discourse. Overall, the results confirm that the integration of digital neologisms into Uzbek is an evolving process influenced by linguistic, technological, and communicative factors. These findings emphasize the need for consistent translation strategies and standardized terminology to ensure effective digital communication and terminological clarity. An important aspect revealed by the analysis is the role of usage frequency and institutional endorsement in the stabilization of digital neologisms. Terms that are actively used in official documents, educational materials, and media discourse tend to achieve faster normalization in Uzbek, while less frequently used neologisms remain unstable and variable in form. This indicates that linguistic acceptance of digital terminology is closely

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linked to sociolinguistic factors rather than purely linguistic ones. Furthermore, the findings suggest that excessive reliance on direct borrowing may limit the development of native word-formation potential in Uzbek. Although borrowing ensures rapid comprehension within professional communities, it may reduce accessibility for general users and hinder terminological transparency. In contrast, semantically motivated calques and descriptive translations, despite being longer or less concise, contribute to clearer conceptual understanding and greater inclusivity in digital communication. The study also highlights the growing influence of bilingualism and multilingual digital environments on neologism adaptation. Many Uzbek speakers encounter digital terms simultaneously in English and Uzbek contexts, which leads to code-mixing and hybrid usage. This phenomenon accelerates lexical diffusion but may also result in inconsistency and semantic ambiguity. Therefore, coordinated efforts between linguists, translators, and technology specialists are essential to achieve terminological consistency. Overall, the discussion underscores that the translation and integration of digital neologisms is not a static process but an ongoing negotiation between global technological trends and local linguistic norms. Addressing this dynamic requires continuous monitoring of usage patterns and the development of adaptive, context-sensitive translation strategies.

CONCLUSION

The present study has examined digital technology neologisms in the English and Uzbek languages from lexical-semantic and translation perspectives, highlighting the dynamic interaction between technological innovation and linguistic development. The findings demonstrate that digital neologisms constitute a rapidly expanding lexical domain, reflecting ongoing changes in digital communication, information processing, and technological practices. English, as the primary source language of digital innovation, plays a central role in shaping the global digital lexicon, while Uzbek actively adapts these neologisms through various linguistic mechanisms. The analysis confirms that English digital neologisms are mainly formed through productive word-formation processes such as compounding, blending, and abbreviation, which allow for efficient and flexible lexical creation. In contrast, the Uzbek language primarily incorporates digital neologisms through borrowing, calquing, and hybrid formations, often accompanied by semantic adaptation. This difference reflects both structural distinctions between the two languages and the influence of global technological trends on less-resourced linguistic systems. From a semantic standpoint, the study reveals that digital neologisms frequently undergo semantic shifts during the process of linguistic transfer. While some terms achieve full equivalence in translation, others display partial equivalence or functional divergence due to cultural, contextual, or pragmatic factors. Such semantic variation underscores the complexity of meaning negotiation in digital terminology and highlights the importance of contextual awareness in translation practice. The translation analysis further indicates that the lack of standardized digital terminology in Uzbek leads to the coexistence of multiple translation variants for the same concept. Although borrowing and transliteration remain dominant strategies, descriptive translation and semantic adaptation play an essential role in improving comprehensibility and user acceptance. These findings suggest that translation choices significantly influence the stabilization and normalization of digital neologisms in the target language. Overall, the study contributes to contrastive linguistics, translation studies, and lexicography by providing a systematic analysis of English–Uzbek digital neologisms. The results emphasize the necessity of developing consistent translation strategies and standardized terminological resources to support effective digital communication

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in Uzbek. Future research may expand the corpus, incorporate quantitative analysis, or explore the pedagogical implications of digital neologisms in language education, thereby further advancing the understanding of linguistic adaptation in the digital age.

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