



LINGUOCULTURAL AND SEMANTIC FEATURES OF MODERN TERMS IN ENGLISH AND UZBEK LANGUAGES

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MAQOLA HAQIDA/О СТАТЬЕ	ANNOTATSIIYA/ АННОТАЦИЯ
Qabul qilindi: 2-oktabr 2026-yil Tasdiqlandi: 5-oktabr 2026-yil Jurnal soni: 19-B Maqola raqami: 19 KALIT SO'ZLAR/ КЛЮЧЕВЫЕ СЛОВА zamonaviy terminologiya, lingvokulturologiya, semantik xususiyatlar, ingliz va o'zbek tillarining qiyosiy tahlili, terminologik moslashuv, o'zlashma so'zlar, kognitiv semantika, globallashuv	Mazkur maqolada ingliz va o'zbek tillaridagi zamonaviy terminlarning lingvomadaniy va semantik xususiyatlari qiyosiy jihatdan tahlil qilinadi. Texnologik taraqqiyot, globallashuv va raqamli transformatsiya jadal kechayotgan hozirgi davrda axborot texnologiyalari, biznes, tibbiyot va ijtimoiy media kabi sohalarida terminologik birliklar tez sur'atlar bilan kengayib bormoqda. Zamonaviy terminlar nafaqat kasbiy tushunchalarni ifodalovchi neytral leksik vositalar, balki muayyan madaniy qadriyatlar, kognitiv qarashlar va milliy dunyoqarash bilan uzviy bog'liq til birliklari sifatida ham namoyon bo'ladi. Tadqiqotda zamonaviy terminlarning shakllanishi, o'zlashishi, semantik o'zgarishlarga uchrashi hamda ingliz va o'zbek tillarining lisoniy tizimlariga moslashish jarayonlari o'rganiladi. Qiyosiy-tipologik va lingvomadaniy yondashuvlar asosida har ikki tildagi semantik siljish, metaforalashuv, bevosita o'zlashish va kalkalash mexanizmlari tahlil qilinadi. Tahlil zamonaviy terminlarning ingliz tilidan o'zbek tiliga o'tish jarayonida kognitiv konseptualashtirish xususiyatlari muayyan farqlar bilan namoyon bo'lishini ko'rsatadi. Shuningdek, terminlarni o'zbek tiliga moslashtirishda ularning lingvomadaniy mazmunini saqlash, milliy til xususiyatlarini hisobga olish va ilmiy-texnik aniqlikni ta'minlash zarurligi asoslanadi.
ABOUT THE PAPER	ANNOTATION
Accepted: 2 October 2026 Approved: 5 October 2026 Volume: 19-B Paper number: 19 KEYWORDS modern terminology, linguoculturology, semantic features, English and Uzbek comparative linguistics, terminology adaptation, borrowing, cognitive semantics, globalization	This paper presents a comprehensive comparative analysis of the linguocultural and semantic features of modern terminology in English and Uzbek. In the contemporary era of rapid technological advancement, globalization, and digital transformation, terminology is expanding rapidly across various domains such as information technology, business, medicine, and social media. Modern terms do not merely function as neutral lexical tools for conveying professional concepts; they are deeply embedded with cultural values, cognitive perspectives, and national worldviews. This study examines how modern terms are formed, borrowed, semantically modified, and integrated into the English and Uzbek linguistic systems. Utilizing a comparative-typological and linguocultural framework, the research investigates the semantic shift, metaphorization, direct borrowing, and calque adaptation mechanisms in both languages. The findings highlight the significant divergence in cognitive conceptualization between English as a donor/source language and Uzbek as a receptor language, emphasizing the necessity of preserving linguocultural authenticity while maintaining scientific and technological precision.

Introduction

The study of terminology has evolved significantly over the past few decades, shifting from a strictly prescriptive, structural-linguistic view to a multidimensional cognitive and linguocultural paradigm. Modern terminology is no longer viewed merely as a standardized system of technical signs designed to eliminate ambiguity; rather, it reflects the social, economic, and cultural dynamics of human thought. Globalization and the unprecedented pace of digital innovation—specifically in fields such as artificial intelligence, biotechnology, fintech, and digital marketing—have created thousands of new specialized terms in short periods.

English currently functions as the global primary source language (*lingua franca*) for technological, scientific, and economic terminology. Consequently, languages such as Uzbek actively absorb, adapt, or create lexical equivalents for these international terms. However, terminology transfer is not a passive phonetic process; it involves semantic reconfiguration and cultural accommodation. Terms carry cultural connotations, implicit cognitive metaphors, and social values embedded in their language of origin. When imported into another language system, these terms interact with the host culture's conceptual structures.

This study examines the linguocultural and semantic attributes of modern terms in English and Uzbek. The primary research objectives include:

1. Analyzing the semantic structures and cognitive models underlying modern English terms.
2. Investigating the adaptation mechanisms (direct borrowing, semantic shift, calque, and hybrid word-formation) of modern terms in the Uzbek language.
3. Identifying the cultural and pragmatic factors that influence term acceptance or resistance in Uzbek linguoculture.

4. Evaluating how metaphors and cultural metonymies transition between an analytical West-Germanic language and an agglutinative Turkic language.

Literature review

In the study of the linguocultural and semantic characteristics of modern terminology, scholarly approaches to terminology theory, cognitive linguistics, translation studies, and linguoculturology provide an important theoretical foundation. Eugen Wüster's General Theory of Terminology places particular emphasis on terminological precision, unambiguity, and the systematic relationships between terms and concepts. His theoretical framework is significant for organizing scientific and technical concepts, standardizing terminological systems, and defining the semantic boundaries of terms [1, pp. 15–22]. However, in contemporary communicative environments, the meanings of terms are not limited to strict scientific definitions; they are also influenced by specific communicative situations and social factors.

Maria Teresa Cabré examines terminology through the interaction between language, knowledge, and communication. In her approach, terms are not only linguistic units that represent concepts within specialized fields but also linguistic resources used in real communicative contexts. This perspective is theoretically important for analyzing the meanings, domains of use, and professional acceptance of contemporary terms borrowed from English into Uzbek [2, pp. 10–18]. Rita Temmerman, in turn, emphasizes the role of social and cognitive factors in describing terminological units, focusing on the development of concepts and their interpretation across different communicative situations. Her approach provides a useful framework for explaining semantic changes in terms associated with information technology, the digital economy, and internet communication [3, pp. 1–10].

George Lakoff and Mark Johnson's Conceptual Metaphor Theory also

plays an important role in explaining the formation and semantic development of terms. The authors interpret metaphor not merely as a stylistic device but as a cognitive mechanism that structures human thought. According to this theory, abstract concepts are often understood through everyday experience and perceptions of the physical world [4, pp. 3–9]. This perspective is particularly relevant to the study of the semantic characteristics of English terms such as *firewall*, *digital footprint*, *virus*, and *data mining*. In these expressions, concepts associated with the physical world are used metaphorically to represent complex processes in digital environments. Their translation into Uzbek raises the question of whether the original imagery should be preserved or the intended meaning should be conveyed through an explanatory equivalent.

Zoltán Kövecses analyzes the conceptual, cultural, and contextual dimensions of metaphor, demonstrating that although certain metaphorical patterns may be shared across cultures, their expression and interpretation can differ [5, pp. 1–12]. This theoretical perspective is valuable for the comparative study of contemporary terminology in English and Uzbek. When the figurative meaning of a term is transferred from one language to another, not all its semantic components may be preserved to the same extent. In some cases, a literal translation fails to convey the full meaning of the term, making an explanatory equivalent or descriptive expression necessary.

Within the field of linguoculturology, the scholarly contributions of V. N. Telia and V. I. Karasik provide an important theoretical basis for identifying the cultural meanings embedded in linguistic units. V. N. Telia examines the semantic and pragmatic characteristics of linguistic expressions in relation to cultural factors. Her approach makes it possible to investigate how national and cultural perceptions and values are reflected in the meanings of lexical units [6, pp. 5–15]. V. I. Karasik explores the relationships among language, personality, concepts, and discourse, demonstrating that the meaning of linguistic units is closely connected with the contexts in which they are used [7, pp. 20–32]. These perspectives support the need to investigate not only the lexical meanings of terms entering Uzbek from English but also their interpretation and use within specific social environments.

The scholarly works of R. Doniyorov and H. Dadaboyev are particularly significant for investigating the formation and development of Uzbek terminology. R. Doniyorov examines various aspects of technical terminology in Uzbek, focusing on the expression of scientific and technical concepts through the resources of the national language and the organization of terminological systems [8, pp. 12–20]. H. Dadaboyev's research on Uzbek terminology provides an important source for studying the historical formation of terms, the naming of scientific concepts, and the systematization of terminological units [9, pp. 15–25]. The ideas developed by these scholars establish a foundation for analyzing the integration of contemporary English terms into Uzbek in relation to the lexical and grammatical resources of the target language.

From the perspective of translation studies, the research of Peter Newmark and Mona Baker is also of considerable theoretical importance. Newmark emphasizes the need to consider textual meaning, context, and communicative purpose in the translation process [10, pp. 5–15]. Baker examines semantic equivalence between translation units, lexical choices, and the ways in which different languages express meaning [11, pp. 17–25]. These approaches demonstrate that translating contemporary terminology into Uzbek requires more than literal substitution; it also involves taking into account the scientific meaning and practical function of the concept. For example, rather than translating the term *phishing* solely on the basis of its original imagery, it is important to convey its meaning in relation to online deception and the unauthorized acquisition of confidential information.

David Crystal's research on the global status of English contributes to an understanding of the role of English in science, technology, and international communication [12, pp. 1–10]. The position of English in global communication facilitates the rapid dissemination of new terminology across languages. This process is also evident in Uzbek, where the adoption of international terms, their adaptation to national pronunciation and spelling conventions, calquing, and the creation of semantically equivalent expressions have become increasingly important issues. Accordingly, the study of contemporary terminology requires consideration not only of lexical enrichment but also of the grammatical resources and national-cultural characteristics of the language.

Overall, the reviewed scholarly sources demonstrate the need to study contemporary terms not merely as units representing specialized concepts but as complex linguistic phenomena shaped by semantic change, cognitive models, translation strategies, and cultural factors. Existing theoretical approaches make it possible to explain the structural and semantic characteristics of English and Uzbek terminology from different perspectives. Nevertheless, further research is needed to examine the

interrelationships among linguocultural adaptation, the preservation of metaphorical meaning, and the integration of terminology into the agglutinative structure of Uzbek. A comparative analysis of these issues can contribute to a deeper understanding of how contemporary terms function in Uzbek and help ensure the precision of scientific and technical terminology while maintaining conformity with the norms of the national language.

Methodology

To conduct a detailed comparative analysis, a specialized corpus comprising 1,500 contemporary terms introduced between 2010 and 2026 was compiled across four domains: Information Technology (IT), Business and Economics, Medicine and Biotechnology, and Digital Media. The corpus was assembled from authentic academic journals, official terminology databases, and professional publications in both English and Uzbek. The study employed an integrated methodological framework combining structural, semantic, and linguocultural approaches to investigate the formation, meaning, and cross-linguistic adaptation of contemporary terminology. The comparative-typological method was used to examine the structural and morphological characteristics of modern terms in English, an analytical language, and Uzbek, an agglutinative language. Componential semantic analysis was applied to identify and decompose the core semantic components (semes) of terminological units and trace semantic shifts occurring during their transfer from one language to another. Linguocultural analysis focused on the influence of cultural values, cognitive metaphors, and social contexts on the formation, interpretation, and acceptance of contemporary terms in Uzbek. In addition, etymological and derivational mapping was employed to classify terminological units according to their origins and word-formation mechanisms, including compounding, blending, prefixation, suffixation, and loan translation. The combination of these methods enabled a comprehensive examination of the structural, semantic, and cultural dimensions of contemporary English and Uzbek terminology, providing a basis for identifying patterns of linguistic adaptation and the preservation or transformation of meaning across the two languages.

Results

The comparative analysis reveals distinct semantic and linguocultural patterns in the functioning of contemporary English terms and their adaptation into Uzbek. These patterns reflect differences in the conceptualization of specialized knowledge, the organization of lexical structures, and the linguistic resources available for expressing emerging scientific and technological concepts. From a structural and semantic perspective, contemporary terminology can be classified into four principal adaptation categories: direct phonetic borrowings, structural loan translations (calques), semantic shifts and metaphorical extensions, and hybrid formations. Each category represents a different mechanism through which specialized concepts are transferred between languages and integrated into the Uzbek terminological system.

Direct phonetic borrowings involve the adoption of English terms with varying degrees of adjustment to Uzbek pronunciation and spelling conventions. This process is particularly evident in rapidly developing fields such as information technology, digital communication, and biotechnology, where new concepts frequently enter professional discourse through international communication networks. Borrowed terms may retain much of their original form while acquiring Uzbek grammatical markers when used in sentences. Their integration therefore involves more than the transfer of lexical material: it also reflects the capacity of Uzbek morphological structures to accommodate foreign-language vocabulary. The extent of phonetic and orthographic adaptation may vary according to the degree of international standardization, professional usage, and the availability of established Uzbek equivalents.

Structural loan translations, or calques, represent another important mechanism of terminological adaptation. In this process, the components of an English expression are translated into Uzbek while its underlying conceptual structure is retained, although the grammatical arrangement may change. Such translations can facilitate the development of transparent terminology by expressing specialized concepts through familiar lexical resources. However, successful calquing depends on the semantic compatibility of the translated components and their conformity with Uzbek linguistic conventions. A formally accurate translation does not necessarily guarantee conceptual precision; therefore, the resulting expression must be evaluated in relation to its technical meaning and actual use within the relevant professional domain.

Semantic shifts and metaphorical extensions constitute a particularly significant aspect of contemporary terminology. Many English terms rely on conceptual metaphors derived from familiar physical objects, everyday activities, and experiences. Expressions such as *phishing*, *firewall*, *sandbox*, *digital footprint*, *virus*, and *data mining* illustrate how concepts from the physical world are used to explain complex processes in digital

environments. These metaphorical models reduce the conceptual distance between unfamiliar technological phenomena and more accessible forms of experience. Their terminological functions, however, differ from their ordinary meanings: the interpretation of each expression depends on specialized knowledge and the context in which it occurs.

The transfer of metaphorical terminology into Uzbek follows different semantic pathways depending on the transparency of the original image and the availability of an established equivalent. One pathway involves the preservation of the source-language metaphor through direct translation or an established technical expression. For example, *firewall* can be rendered as *xavfsizlik devori*, which preserves the image of a protective barrier while communicating its function in network security. The expression connects a familiar physical structure with the technological process of controlling unauthorized access to a computer network. Its effectiveness derives from the compatibility between the original metaphor and the functional characteristics of the concept being represented. The form *brandmauer* may also occur in specialized contexts, although its status and frequency in Uzbek terminology require verification against relevant professional and terminological sources.

A different approach is descriptive clarification, in which the functional meaning of a term takes precedence over the preservation of its original metaphorical image. The English term *phishing*, for instance, refers to deceptive practices intended to obtain sensitive information by impersonating a trustworthy person or organization. In Uzbek, the expression *internet-firibgarligi* can communicate the general nature of this activity to a broad audience, particularly in educational and public-information contexts. Nevertheless, this expression is broader than *phishing* because internet fraud encompasses various forms of online deception. Where terminological precision is required, a more specific explanatory equivalent, such as *maxfiy ma'lumotlarni qo'lga kiritishga qaratilgan soxta elektron xabarlar orqali aldash*, may better convey the defining characteristics of phishing. This distinction demonstrates the importance of differentiating between a general explanatory expression and a precise technical equivalent.

The semantic adaptation of terms is also influenced by the relationship between metaphorical meaning and the knowledge of the target-language community. A metaphor that is immediately recognizable to specialists familiar with international terminology may be less transparent to general users. Consequently, the translation strategy may vary according to the communicative purpose, intended readership, and degree of technical specialization. In academic and professional discourse, a concise standardized equivalent may be preferable, whereas explanatory wording can be more effective in educational materials and public communication. These alternatives should not be treated as interchangeable in every context, since their semantic scope and degree of terminological precision may differ.

Hybrid formations provide further evidence of the interaction between international terminology and the internal resources of Uzbek. Such formations combine borrowed lexical elements with Uzbek words or affixes, producing expressions that retain a connection with international technical vocabulary while conforming to the grammatical patterns of the receiving language. In an agglutinative language such as Uzbek, borrowed stems can participate in suffixation and other morphological processes. This enables foreign terminological units to function within Uzbek grammatical structures without requiring the complete replacement of their original lexical forms. The resulting formations illustrate how terminological borrowing and native word formation can operate together in the development of specialized vocabulary.

Discussion

Structural differences between English and Uzbek are especially evident in the formation and translation of complex noun phrases. English frequently employs compounding and sequences of nouns functioning as modifiers, allowing several conceptual relationships to be expressed in a relatively compact construction. Expressions such as *Big Data Analytics Platform* demonstrate how multiple nouns can be combined to specify the type, function, and intended application of a technological system. Uzbek, by contrast, often requires more explicit grammatical relationships between the components of a complex term. These relationships may be expressed through case markers, possessive suffixes, postpositions, and syntactic restructuring.

The adaptation of complex English noun phrases therefore involves identifying the semantic relationship between their constituent elements

rather than translating each component independently. The expression *Customer Relationship Management System*, for example, can be rendered in Uzbek as *mijozlar bilan munosabatlarni boshqarish tizimi*. In this translation, the English sequence of noun modifiers is restructured into a phrase containing a postpositional construction and a verbal noun. The word *mijozlar* identifies the participants in the relationship, *bilan* expresses the relevant relational connection, *munosabatlarni boshqarish* specifies the activity being performed, and *tizimi* identifies the system designed to perform that function. The translation thus preserves the conceptual hierarchy of the source expression while reorganizing its grammatical structure according to Uzbek usage.

This example also demonstrates that the adaptation of terminology cannot be reduced to the mechanical application of genitive and possessive affixes. Although constructions involving *-ning* and *-i/-si* are important in Uzbek, their use depends on the semantic relationships expressed in a particular phrase. Some English noun sequences are more naturally translated through possessive constructions, while others require postpositions, participial or verbal-noun structures, or explanatory phrases. The appropriate solution must therefore be determined by the internal meaning of the term, established usage, and the grammatical conventions of Uzbek. Overly literal translations may preserve the apparent structure of the source expression while obscuring the relationship between its components.

The comparison further highlights the role of morphological integration in the practical use of borrowed terminology. Once incorporated into Uzbek discourse, an English-derived term may function as the base for Uzbek grammatical forms, allowing it to be used in different syntactic positions. This process is particularly relevant when terminology must be incorporated into sentences expressing possession, plurality, direction, or other grammatical relations. The adaptation of borrowed stems through native affixes illustrates the interaction between international lexical resources and the agglutinative morphology of Uzbek. At the same time, consistent spelling and the appropriate selection of suffixes remain essential for ensuring clarity in professional and academic communication.

Taken together, these patterns indicate that the adaptation of contemporary terminology involves several interrelated processes: lexical borrowing, structural translation, semantic reinterpretation, metaphorical transfer, and morphological integration. The choice among these mechanisms is influenced by the nature of the concept, the transparency of its metaphorical motivation, the availability of established equivalents, and the communicative requirements of the target context. Preserving an English term may be appropriate when international consistency is important, whereas a calque or descriptive equivalent may provide greater semantic transparency for Uzbek-speaking users. Hybrid formations, meanwhile, demonstrate how international concepts can be incorporated into the grammatical and lexical systems of the receiving language.

The findings underscore the importance of evaluating terminological adaptation through both linguistic structure and communicative function. A successful Uzbek equivalent should convey the defining characteristics of the specialized concept, conform to the grammatical norms of Uzbek, and remain sufficiently transparent to its intended users. Where multiple translation options exist, their semantic scope, contextual suitability, and degree of terminological precision should be assessed before one form is recommended for standardized use. Such an approach supports the development of a coherent Uzbek terminological system while acknowledging the continuing influence of English on contemporary scientific, technological, and professional communication.

Conclusion

This study provided a comparative linguocultural and semantic analysis of modern terminology in English and Uzbek. The research demonstrates that modern terms carry cognitive metaphors and cultural perspective alongside their core scientific definitions.

While English serves as the primary source of technological and socio-economic terms, its adaptation into Uzbek involves a combination of direct borrowing, calquing, semantic expansion, and syntactic restructuring. Achieving clarity in modern Uzbek terminology requires a balanced approach that combines international standardization with linguocultural adaptation to ensure both scientific precision and linguistic authenticity.

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