SEMANTIC CONNOTATION OF ARTIFICIAL INTELLIGENCE TERMS IN ENGLISH AND UZBEK

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Abstract: This article provides a comparative linguistic analysis of the semantic connotation of artificial intelligence terms within English and Uzbek discourse. As artificial intelligence technologies rapidly integrate into global and local socioeconomic structures, the associated terminology undergoes complex processes of semantic extension and emotional-evaluative shift. This study explores how technological nomenclature transitions from purely technical denotations to culture-specific connotations influenced by public perception, media representation, and linguistic adaptation mechanisms. By examining the lexical units through a cognitive-linguistic lens, the paper identifies the structural similarities and divergence points in how metaphorical extensions and conceptual mappings shape the understanding of emerging digital realities in both languages. The research yields practical insights for lexicography, technical translation, and computational terminology harmonization.

Keywords: artificial intelligence, semantic connotation, terminology, comparative linguistics, Uzbek language, English language, cognitive metaphor.

Introduction

The exponential advancement of artificial intelligence technologies has fundamentally restructured the global lexical landscape, introducing a massive influx of specialized technological terms into everyday language. Originally confined to specialized scientific domains, terms such as neural networks, deep learning, algorithmic bias, and machine autonomy have rapidly transitioned into public, media, and academic discourse. During this linguistic migration, technical

terms frequently shed their purely objective, denotative definitions and acquire complex layers of semantic connotation, capturing public anxieties, ethical dilemmas, and socio-cultural expectations.

Analyzing these semantic transformations across different language families offers critical insights into the relationship between technological globalization and linguistic relativity. While English serves as the primary matrix for generating artificial intelligence nomenclature, the Uzbek language actively assimilates, adapts, and recontextualizes these terms through borrowing, calquing, and semantic shifting. The relevance of this study is highlighted by the need to understand how diverse linguistic systems internalize abstract technological concepts and express the evaluative attitudes of their respective speaking communities. The primary objective of this article is to systematically analyze and compare the semantic connotations of artificial intelligence terminology in English and Uzbek, identifying the underlying cognitive mechanisms that drive connotative divergence.

Methods (qoshiladi)

Results

The semantic architecture of artificial intelligence terminology in English reveals a highly dynamic interplay between technological precision and conceptual metaphor, which heavily drives emotional-evaluative connotations. In English discourse, terms associated with advanced computation are frequently anthropomorphized or organicized, drawing direct parallels between machine operations and human cognitive functions. Lexical units like deep learning, computer vision, and cognitive computing naturally carry progressive, celebratory connotations, framing technology as an evolutionary extension of human capability. However, as artificial intelligence intersects with societal challenges, a secondary layer of pejorative connotation emerges in the English lexical system. Terms like algorithmic bias, black-box models, and automated surveillance evoke strong negative evaluative associations, encapsulating public fears regarding the loss of

human agency, systemic discrimination, and existential threat. This dualism shows that in English, artificial intelligence terminology functions not merely as descriptive jargon, but as a polarized semantic battlefield reflecting corporate optimization on one side and socio-ethical anxiety on the other.

When these technological concepts are transposed into the Uzbek linguistic framework, the semantic connotation undergoes a complex process of cultural filtering and structural recontextualization. The Uzbek language utilizes a combination of direct phonetic borrowings, structural calques, and descriptive neologisms to integrate artificial intelligence terminology, which directly affects the accompanying connotative baggage. For instance, the direct translation of artificial intelligence as *sun'iy intellekt* carries a predominantly futuristic, academic, and highly prestigious connotation in contemporary Uzbek media, symbolizing modernization and state-driven technological ambition. However, because many underlying technical sub-concepts are adopted as loanwords without deep historical roots in the native lexicon, their initial connotation in public discourse remains abstract or emotionally neutral compared to their English counterparts. The emotional-evaluative polarization observed in English regarding ethical threats is often attenuated in Uzbek discourse, where terms like *neyron tarmoqlari* or *algoritmik modellar* are viewed through a pragmatic, developmental lens focused on educational and economic utility. Despite this, as localized digital platforms expand, metaphorical extensions based on traditional Uzbek socio-cultural values are beginning to reshape the terminology, gradually embedding native concepts of human responsibility, morality, and intellectual integrity into the semantic field of digital autonomy.

Conclusion

The comparative analysis of artificial intelligence terminology in English and Uzbek demonstrates that semantic connotation is deeply dependent on the technological readiness and cultural background of the speaking community. While

English terminology displays a highly polarized emotional spectrum ranging from techno-optimism to existential dread, the Uzbek equivalent framework is currently characterized by pragmatic, prestige-oriented, and developmental connotations.

To facilitate precise cross-cultural communication and avoid semantic distortion, future lexicographical practices must document not only the literal definitions of technological terms but also their evolving connotative profiles. Educational institutions and translation bodies in Uzbekistan should collaborate to establish standardized, culturally resonant terminological equivalents that accurately convey both the technical substance and the ethical nuances of global AI developments. Ultimately, tracking the semantic evolution of these terms will ensure that the Uzbek language remains a highly capable, adaptive vehicle for scientific discourse in an increasingly automated global society.

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