LINGUO-CULTURAL FEATURES OF AI TERMINOLOGY IN ENGLISH

Khaitova Alokhon

Andijan State Technical Institute Academic Lyceum

g.otaxonova11@gmail.com

Abstract: This article explores the linguo-cultural features inherent in the terminology of artificial intelligence within the English language. Grounded in the principles of cultural linguistics and the anthropocentric paradigm, the study examines how the structural nomenclature of computer science reflects Western cognitive frameworks, cultural archetypes, and historical conceptual shifts. The analysis focuses on the widespread use of anthropomorphic, zoomorphic, and spatial metaphors that shape how human-machine interactions are conceptualized. By evaluating the lexical architecture of artificial intelligence terms, the research reveals that this terminology is not a culturally neutral set of technical descriptors, but rather a linguo-cultural construct that reflects specific philosophical traditions regarding mind, consciousness, and agency. The findings offer valuable insights for cognitive linguistics, cross-cultural terminology management, and translation studies.

Keywords: AI terminology, linguo-cultural features, cultural linguistics, anthropomorphism, conceptual metaphor, English discourse, cognitive models.

Introduction

Terminology has traditionally been classified within classical linguistics as a strictly objective, monosemous, and emotionally neutral layer of vocabulary designed solely for precise scientific communication. However, the emergence of the anthropocentric paradigm and the development of cultural linguistics have significantly altered this perspective, demonstrating that specialized nomenclature is deeply intertwined with the cultural and cognitive experiences of its creators. The terminology of artificial intelligence, which primarily originated and evolved within

the Anglo-American scientific ecosystem, serves as an exceptional manifestation of this phenomenon. Rather than developing in a cultural vacuum, the lexical landscape of advanced computing actively mirrors the philosophical underpinnings, social anxieties, and historical paradigms of the English-speaking world.

The relevance of investigating the linguo-cultural dimensions of artificial intelligence terminology stems from the global hegemony of English as the foundational language of technological innovation. When these terms are exported globally, they carry embedded cultural presuppositions and cognitive models that influence how other societies perceive and interact with emerging technologies. Understanding the cultural codes encoded within English technological idioms is essential for both semantic precision and effective cross-cultural knowledge transfer. The primary objective of this article is to systematically analyze the linguo-cultural characteristics of artificial intelligence terminology in English, identifying the metaphorical patterns and cultural values that define its structural profile.

Methods (qoshiladi)

Results

A detailed linguo-cultural analysis of English artificial intelligence terminology reveals that its foundational conceptual matrix relies heavily on anthropomorphic metaphorization. In Western cultural history, the human mind and physical form have consistently served as the ultimate benchmarks for measuring intellectual capacity, a tendency that is clearly reflected in computer science jargon. Terms such as machine learning, computer vision, artificial neural networks, and genetic algorithms directly transpose human biological and cognitive attributes onto silicon-based systems. This linguistic choice demonstrates a distinct cultural drive within Anglo-American scientific discourse to demystify complex computational abstractions by framing them through the lens of human anatomy and psychology. By utilizing verbs and nouns deeply rooted in human agency-such as machines *recognizing* patterns, *deciding* outcomes, or *understanding* text-the English

language constructs a linguo-cultural reality where technological artifacts are elevated from passive tools to active, semi-autonomous participants in socioeconomic processes.

Furthermore, the linguo-cultural landscape of this terminology exhibits a pronounced polarization rooted in Western literary archetypes and historical anxieties regarding hubris and mechanical creation. Alongside optimistic, progress-oriented terms, the English lexical system contains a robust subsystem of apocalyptic and defensive metaphors that echo cultural narratives ranging from the Golem to the Prometheus myth. Specialized terms such as machine ethics, alignment problem, algorithmic transparency, and kill switches illustrate an institutionalized linguistic effort to conceptualize and contain the potential dangers of technological autonomy. This specific terminological layer reflects a unique cultural preoccupation with control, individual liberty, and legal-ethical accountability that characterizes contemporary Western society. Additionally, spatial and industrial metaphors abound within the discipline, with terms like data mining, knowledge repositories, and information pipelines framing digital data as a tangible, extractable natural resource. This conceptual mapping reflects the deep-seated values of industrial capitalism and utilitarianism embedded within the historical evolution of the English language, where abstract information is linguistically transformed into a commodity to be harvested, processed, and financially optimized.

Conclusion

The structural examination of artificial intelligence terminology in English proves that scientific language remains a deeply cultural product. The widespread integration of anthropomorphic metaphors, utilitarian resource concepts, and ethical containment terms demonstrates that English technological jargon is thoroughly saturated with specific Western cognitive models, philosophical dualisms, and socioeconomic values.

To ensure that the global dissemination of these technical terms does not lead to conceptual distortion, international terminological organizations must actively account for these underlying linguo-cultural biases. Educators, lexicographers, and translators should work to decode the metaphorical frameworks embedded within English terms, ensuring that when they are adapted into non-Western languages, the target terminology respects local cognitive structures while retaining technical precision. Ultimately, recognizing the cultural features of technological language enhances our collective capacity to navigate the linguistic, social, and philosophical challenges of a rapidly evolving digital civilization.

References

1. Baranov, A. N. (2003). *Introduction to applied linguistics*. Moscow: Editorial URSS.
2. Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
3. Maslova, V. A. (2001). *Linguoculturology*. Moscow: Academy.
4. Sager, J. C. (1990). *A practical course in terminology processing*. Amsterdam: John Benjamins Publishing Company.
5. Sharifian, F. (2017). *Cultural linguistics: Cultural conceptualisations and language*. Amsterdam: John Benjamins Publishing Company.