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THE FORMATION OF NEW LEXICAL UNITS IN ENGLISH UNDER THE INFLUENCE OF ARTIFICIAL INTELLIGENCE AND DIGITAL TECHNOLOGIES

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Abstract:

This article explores the process of new lexical unit formation in the English language under the influence of artificial intelligence and digital technologies. The study examines how rapid technological development, online platforms, and social media contribute to the emergence of neologisms. Special attention is given to semantic innovation, borrowing and adaptation, and the role of linguistic creativity in shaping tech-related vocabulary. The research also analyzes machine learning terminology and its transition from specialized discourse into everyday communication. The findings indicate that digital environments significantly accelerate language evolution and contribute to the continuous expansion of English terminology.

Key words:

artificial intelligence, digital technologies, neologism formation, semantic innovation, borrowing, linguistic creativity, machine learning terms, social media, language evolution, terminology expansion.

Introduction:

Language is a dynamic system that constantly evolves in response to social, cultural, and technological changes. In the 21st century, artificial intelligence and digital technologies have become key drivers of linguistic transformation, particularly in the English language. The rapid development of digital communication tools and online platforms has created new contexts in which language is used, leading to the emergence of new lexical units.

These changes are especially visible in the formation of neologisms related to artificial intelligence, machine learning, and digital communication. Terms such as “algorithm,” “deepfake,” “chatbot,” and “cloud computing” have become widely used not only in professional discourse but also in everyday communication. This demonstrates the increasing integration of technological concepts into daily life.

The aim of this study is to analyze the mechanisms of new word formation in English influenced by digital technologies and to identify their linguistic and functional characteristics.

Review of Related Literature:

Recent linguistic research has emphasized the growing impact of technology on language development. Scholars highlight that digital communication environments, including social media and online platforms, serve as key sources of lexical innovation. These platforms enable rapid dissemination and popularization of new words and expressions.

Studies on neologism formation show that technological progress often leads to the creation of entirely new terms as well as the transformation of existing words. For example,

common words may acquire specialized meanings in technological contexts, illustrating semantic innovation.

In addition, researchers note that borrowing and adaptation play a significant role in expanding English vocabulary. Many technological terms originate from different linguistic and cultural backgrounds but are adapted into English through phonetic and morphological changes. This reflects the global nature of technological development and communication.

Research Methodology:

This study employs descriptive and comparative linguistic methods to analyze new lexical units in English. A selection of technology-related terms was collected from digital platforms, online communication, and academic sources.

The analysis focuses on several key aspects:

the origin of new lexical units;

word formation processes (compounding, abbreviation, blending);

semantic changes and innovations;

usage in different communicative contexts.

Special attention is given to artificial intelligence and machine learning terminology, as these areas represent some of the most rapidly developing fields influencing language today.

Analysis and Discussion:

1. Neologism Formation in Digital Contexts

The digital environment serves as a productive space for the creation of new words. Social media users, content creators, and technology developers actively contribute to the emergence of new vocabulary. Words such as “selfie,” “unfollow,” and “hashtag” illustrate how digital communication generates widely accepted lexical units.

2. Semantic Innovation

Semantic change is one of the most significant processes in modern English. Existing words acquire new meanings in technological contexts. For instance, the word “cloud” has shifted from a natural phenomenon to a term describing online data storage. This demonstrates how language adapts to new realities.

3. Borrowing and Adaptation

English frequently incorporates terms from other languages and technical fields. These borrowed elements are often modified to fit English phonological and grammatical patterns. This process enhances the flexibility and richness of the language.

4. Machine Learning and AI Terminology

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Artificial intelligence has introduced a wide range of specialized terms, such as “neural network,” “dataset,” “automation,” and “predictive model.” Initially used in scientific discourse, these terms are increasingly becoming part of everyday vocabulary. This shift highlights the growing influence of technology on general communication.

5. Linguistic Creativity and Social Media Influence

Social media platforms encourage users to experiment with language, leading to creative word formation. Abbreviations, acronyms, and blended words are widely used for efficiency and expressiveness. This trend reflects the interactive and fast-paced nature of digital communication.

Conclusion and Suggestions:

The study demonstrates that artificial intelligence and digital technologies play a crucial role in shaping modern English vocabulary. The formation of new lexical units is driven by technological innovation, global communication, and user interaction in digital environments.

English continues to evolve as a flexible and adaptive language, capable of integrating new concepts and responding to changing communicative needs. The expansion of terminology, particularly in AI and digital fields, reflects the increasing importance of technology in everyday life.

For future research, it is recommended to conduct more detailed studies on cross-linguistic influences in technological vocabulary and to explore the long-term impact of digital communication on language structure. Additionally, interdisciplinary approaches combining linguistics, technology, and sociology may provide deeper insights into language evolution in the digital age.

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