

FUNCTIONING OF ARTIFICIAL INTELLIGENCE TERMS IN MODERN ENGLISH

Dziazhynskaya P.V.

Belarusian State University of Informatics and Radioelectronics, Minsk, Republic of Belarus

Perevyshko A.I. – Senior Lecturer at the Department of Foreign Languages

Annotation. The main subject of this article is the analysis of AI terminology. The author describes the main ways of term formation. They include abbreviation, eponymy, and metaphorisation. Special attention is paid to the semantic process of determinologisation. The article also analyses the pragmatic functions of AI terms in scientific and media discourse. The author shows that the development of AI terminology influences the vocabulary of modern English. The article presents a classification of AI terms according to their structural models. The historical development of this terminology is linked to prominent scientists in the field.

Keywords: AI terminology, term formation, abbreviation, eponymy, metaphor, determinologisation, discourse analysis.

Introduction. The origins of the term 'artificial intelligence' date back to 1956, when John McCarthy coined it during the Dartmouth Summer Research Project [2]. In his formulation, AI represents the discipline devoted to creating intelligent machines, particularly computer programs capable of intelligent behaviour. Yet the conceptual foundations of AI terminology reach far earlier, drawing on the ideas of philosophers and mathematicians spanning the 13th to 20th centuries. This article aims to reconstruct the evolution of core AI terms and to examine their structural and semantic characteristics as they are used in contemporary English.

Main part. The lexical landscape of AI has been shaped incrementally over centuries, with each era contributing distinctive concepts. In the 13th century, Ramon Llull devised a mechanical method for generating knowledge via logical operations – a precursor to later computational thinking. Gottfried Leibniz, in the 17th century, expanded on these ideas by envisioning a universal symbolic language for reasoning. The word 'robot' entered the lexicon much later, through Karel Capek's 1920 play, drawing on the Czech term for forced labour. These early innovations laid the groundwork for the terminology that would later flourish in the age of digital computing.

Alan Turing fundamentally shaped the conceptual foundation of AI through his 1950 article, which proposed an operational benchmark for machine intelligence – the Turing Test. The operational definition proposed by Turing – a machine's capacity to mimic human conversation – laid the groundwork for decades of research and gave the field one of its most enduring terms [1]. The development of LISP by John McCarthy in 1958 provided AI researchers with a powerful tool for symbolic manipulation, shaping the field's programming practices for a long period. That same year, two pioneering programs – Logic Theorist and General Problem Solver – appeared, showing that machines could prove theorems by manipulating symbols according to the logical rules of Principia Mathematica [1, pp. 3–4]. Concurrently, Norbert Wiener introduced the term «cybernetics» (1948) to describe the common principles governing control and communication in both living organisms and machines – a concept whose terminology later merged with that of AI [1, p. 2].

The glossary material presented in the source allows for the identification of the following models of term formation (Table 1):

Table 1 – Classification of English-language AI terms by structure

Term Type	Formation Model	Examples
Abbreviated Terms	Initial abbreviation	AI, ANN, AGI, ASI, NLP, ML
Eponymous Terms	Named after a scientist/project	Turing test, Logic Theorist, LISP
Metaphorical Terms	Anthropomorphic transfer	Agent, android, behavior, hand, wrist
Compound Terms	N+N, Adj+N	Neural network, natural language processing

Among the structural patterns, abbreviation proves the most frequent. Lengthy expressions such as Artificial General Intelligence are routinely shortened to acronyms like AGI, reflecting the need

for economy in professional communication. Abbreviations fall into two main types: initialisms, spoken as separate letters (AI, NLP, CNN), and acronyms pronounced as words (LISP, GPT, BERT). Clipping – removing parts of words, as in sync or algo – occurs but is less common in formal writing. The predominance of abbreviation highlights the fast-paced, international nature of AI research, where concise terminology facilitates exchange [4].

A pervasive semantic mechanism is metaphorisation – the transfer of human-related vocabulary to machines. For instance, an agent is software acting autonomously on behalf of a user; an android is a robot built to mimic human form; behaviour refers to the actions of an artificial system; and anatomical terms like hand, arm, and wrist label parts of robotic manipulators. This anthropomorphic framing aids intuition but can also obscure differences between human and machine cognition, a point emphasised by recent critiques [3]. Other examples include memory in computers and learning in neural networks, further illustrating how human concepts shape technical terminology.

Determinologisation – the diffusion of specialised terms into everyday language – is evident in several AI-related words. Robot, originally a fictional concept, now refers to both industrial machines and domestic appliances. Cybernetics spawned a family of terms (cyberspace, cybersecurity, cyborg) that are now commonplace. More recently, the rise of generative AI has accelerated this trend: prompt has become familiar to non-specialists, deepfake denotes manipulated media, and to hallucinate now describes AI's tendency to produce false information confidently. Such examples illustrate how technical vocabulary constantly enriches general English.

A further dimension worth examining is the pragmatic role of AI terms. Historical forecasts by leading researchers illustrate how language can shape expectations and guide research agendas. In 1958, Herbert Simon predicted that within a decade computers would prove new mathematical theorems and become world chess champions. A few years later, Marvin Minsky expressed confidence that human-level AI would be achieved within a generation (1967) and subsequently narrowed this estimate to three to eight years (1970) [1]. Such statements not only reflected the optimism of the era but also helped direct funding and public interest.

In contemporary discourse, AI terminology serves several pragmatic functions:

- community identification – specialised jargon (backprop, fine-tuning) marks professional belonging;
- euphemism – the term hallucination downplays the seriousness of machine errors;
- manipulation – Annotation buzzwords like AGI, singularity, and disruption are often used to attract investment and media attention [4].

Conclusion. This analysis reveals that the lexicon of artificial intelligence is remarkably dynamic, shaped by three dominant mechanisms: abbreviation, eponymy, and metaphorisation. These patterns reflect both the need for efficiency in professional communication and the tendency to conceptualise machines in human terms. The historical development of AI terminology is inseparable from the achievements of scientists such as Turing, McCarthy, Minsky, and Wiener, and from landmark projects like Logic Theorist, General Problem Solver, and ELIZA. Moreover, determinologisation demonstrates how specialised terms steadily migrate into everyday English, mirroring the growing presence of AI in daily life.

References

1. Turing, A. *Computing Machinery and Intelligence* / A. Turing // *Mind*. – 1950. – Vol. 59, N 236. – P. 433–460 [Electronic resource]. – Mode of access: <https://danielwharris.com/teaching/268/readings/Turing.pdf>. – Date of access: 02.03.2026.
2. Russell, S. *Artificial Intelligence: A Modern Approach* / S. Russell, P. Norvig. – 3rd ed. – London : Pearson, 2010. – 1132 p. – ISBN 978-0-13-604259-4 [Electronic resource]. – Mode of access: <https://people.engr.tamu.edu/guni/csce625/slides/AI.pdf>. – Date of access: 03.03.2026.
3. Inie, N. *De-anthropomorphizing «AI»: From wishful mnemonics to accurate nomenclature* / N. Inie, P. Zukerman, E.M. Bender // *First Monday*. – 2026. – Vol. 31, N 2. – P. 1–24 [Electronic resource]. – Mode of access: URL: not specified. – Date of access: 07.03.2026.
4. Massion, F. *Terminology in the Age of AI: The Transformation of Terminology Theory and Practice* / F. Massion // *Journal of Translation Studies*. – 2024. – Vol. 4, N 1. – P. 67–94 [Electronic resource]. – Mode of access: URL: not specified. – Date of access: 14.03.2026.