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STRUCTURAL-SEMANTIC AND PRAGMATIC FEATURES OF NEOLOGISMS RELATED TO ARTIFICIAL INTELLIGENCE IN THE ENGLISH LANGUAGE

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Abstract: This study examines how English-language expressions associated with artificial intelligence (AI) are formed, how their meanings become specialized, and how speakers deploy them for explanation, persuasion, evaluation, and risk communication. A purposive, illustrative set of twenty widely recognizable AI-related expressions is analysed through morphological classification, semantic component analysis, and pragmatic interpretation. The study distinguishes established lexical items undergoing semantic extension from recently popularized compounds, blends, derivatives, and initialisms. In the selected set, compounding accounts for 11 of 20 items (55%); these proportions describe the analytical selection only and do not estimate the frequency of neologisms in English. The findings suggest that AI vocabulary performs dual functions: it provides operational labels for technical workflows and frames public judgments about agency, reliability, creativity, and responsibility. Particular attention is paid to metaphorical expressions such as hallucination and to socially evaluative forms such as AI slop. The article proposes a replicable coding scheme for future corpus-based inquiry and discusses implications for terminology management, translation, and critical AI literacy.

Keywords: artificial intelligence; neologism; word formation; structural semantics; pragmatics; metaphor; terminology; discourse.

Annotatsiya: Maqolada ingliz tilidagi sun’iy intellektga oid neologizmlarning yasalish usullari, semantik o‘zgarishi va pragmatik vazifalari o‘rganiladi. Yigirmata atamadan iborat maqsadli, ko‘rgazmali tanlanma so‘z yasalishi, semantik komponentlar va diskursdagi vazifalar asosida tahlil qilinadi. Natijalar korpus chastotasi emas, aynan tanlanma xususiyatlarini ifodalaydi. Terminologik aniqlik, metaforik ifoda va baholovchi birliklarning tarjimadagi ahamiyati ko‘rsatiladi.

Kalit so‘zlar: sun’iy intellekt, neologizm, so‘z yasalishi, semantika, pragmatika, metafora, terminologiya.

Аннотация: В статье исследуются словообразовательные, семантические и прагматические особенности англоязычных неологизмов, связанных с искусственным интеллектом. На материале целевой иллюстративной выборки из двадцати единиц

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сопоставляются сложные слова, аббревиатуры, производные формы и семантические переосмысления. Полученные доли характеризуют только выборку, а не частотность в языковом корпусе. Обсуждаются переводческие трудности и значение критической терминологической грамотности.

Ключевые слова: искусственный интеллект, неологизм, словообразование, семантика, прагматика, метафора, терминология.

1. Introduction

Artificial intelligence is not only a technological domain but also a site of accelerated lexical innovation. As large language models and generative tools have entered education, business, media, and everyday interaction, expressions such as prompt engineering, AI agent, hallucination, and deepfake have circulated outside specialist communities. The resulting vocabulary is heterogeneous: some forms are new combinations of familiar words, some are abbreviations, and others reassign older expressions to technical processes. Consequently, “neologism” should not be equated automatically with a newly coined string. It may denote a newly stabilized meaning, a new domain-specific convention, or an emergent discourse function [1–4].

AI-related words also shape interpretations. To describe an output as a hallucination may efficiently signal factual unreliability, yet the metaphor can imply human-like cognition. To describe a system as an agent may encourage assumptions about autonomy. Such expressions connect lexical semantics to social action: naming, legitimizing, promising efficiency, allocating blame, or mobilizing caution. Language on the Internet repeatedly illustrates that changing communication practices enable new lexical and stylistic choices [3].

The aim is to identify (a) major structural patterns in an explicitly delimited selection of AI terms, (b) recurrent semantic mechanisms, and (c) context-sensitive pragmatic functions. The paper asks which types of formations predominate in this sample, how technical senses are constructed, and why the same term may sound informative in a manual but promotional or alarming in a headline. Its novelty lies in connecting morphological coding to discourse-oriented interpretation while making the limits of a manually curated dataset explicit.

2. Literature Review

Bauer conceptualizes word formation as a system of productive but constrained patterns, while Plag provides a framework for analysing English derivation, compounding, and related morphological operations [1, 2]. These approaches support classification of prompt injection and language model as multiword nominal compounds, fine-tuning as a derived form, and deepfake as a blend. Such labels require operational decisions: terms may contain more than one morphological process, but the present classification assigns the most salient process for transparent comparison.

Crystal describes how computer-mediated communication expands communicative repertoires and encourages rapid diffusion of lexical innovations [3]. Cabré and Sager stress that terminology is tied to conceptual organization and context, rather than a list of detachable word equivalents [4, 5]. This is

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particularly relevant when English terms migrate into Uzbek scholarly and educational discourse. Rahmatullayev's treatment of Uzbek lexical and morphemic systems provides a local linguistic point of reference for distinguishing loanwords, semantic adaptation, and native expression in subsequent contrastive research [6]. The Uzbek-language source is used here as a framework for comparison rather than as evidence of English corpus trends.

A pragmatic account adds another dimension. Grice's model of contextual inference helps explain why a technical term may convey more than its dictionary definition [7]. Fairclough's discourse approach foregrounds relationships between language, authority, institutional practices, and social change [8]. In AI debates, Bender and colleagues warn against anthropomorphic readings of large language models, while Bommasani and collaborators discuss the opportunities and risks created by foundation-model systems [9, 10]. Together, these studies motivate a combined structural, semantic, and pragmatic analytical design.

3. Materials and Methods

The investigation is qualitative and descriptive, with a small numerical summary. The material is a purposively compiled illustrative inventory of 20 English expressions recognizable in contemporary AI discussions. Selection prioritizes diversity of morphology and function rather than random sampling. Expressions were chosen because they name model types, prompting practices, security threats, governance issues, or socially evaluated outputs. The list is an authored analytical sample; no claim is made that an independent corpus search, survey, experimental intervention, or statistical population estimate was performed.

Each entry was coded on three axes: (1) dominant formation mechanism—compounding, semantic extension, derivation, blending, or initialism; (2) principal semantic domain—classification, procedure, evaluation, security, governance, or interaction; and (3) a plausible pragmatic function in a specified communicative context, including technical description, instruction, promotion, criticism, and warning. Ambiguous cases were resolved using the most contextually salient reading, and alternatives were recorded in the interpretive discussion. Because one researcher's provisional classification is not an intercoder reliability test, results must be treated as analytically illustrative. The percentages below are calculated as $n/20 \times 100$.

4. Results

The twenty-item selection contains 11 compounds, 3 initialisms, 2 derivatives, 2 blends, and 2 items classified as semantic extensions. Table 1 illustrates how linguistic form interacts with domain meaning and communicative intent. For example, prompt injection is a compound naming a security technique; in guidance texts its use is normally cautionary. Foundation model is a classificatory compound whose technical neutrality may acquire promotional value in vendor advertising. Hallucination is an established word with a specialized AI sense and often carries negative evaluation. These values are contextual tendencies, not immutable properties of lexemes.

Table 1. Illustrative structural-semantic and pragmatic classification

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
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http://houghtonstreetreview.com/index.php/hsr

AI expression	Formation	Core semantic role	Possible discourse function
prompt engineering	Compounding	task design	instruction / expertise
prompt injection	Compounding	security vulnerability	warning
foundation model	Compounding	model category	technical labeling
AI agent	Compounding	automation system	promotion / classification
hallucination	Semantic extension	unreliable generated content	criticism / warning
fine-tuning	Derivation	model adaptation	technical instruction
deepfake	Blending	synthetic deceptive media	risk framing
chatbot	Blending	dialogue interface	service promotion
RAG	Initialism	retrieval-augmented generation	expert shorthand
AI slop	Compounding	low-quality mass AI content	dismissive evaluation

Figure 1 presents the composition of the curated sample. Compounding constitutes 55% (11/20), followed by initialisms at 15% (3/20); derivation, blending, and semantic extension each account for 10% (2/20). The percentages are not evidence that compounds dominate all AI neologisms. They primarily demonstrate that multiword naming patterns are highly visible in the chosen teaching-oriented examples.

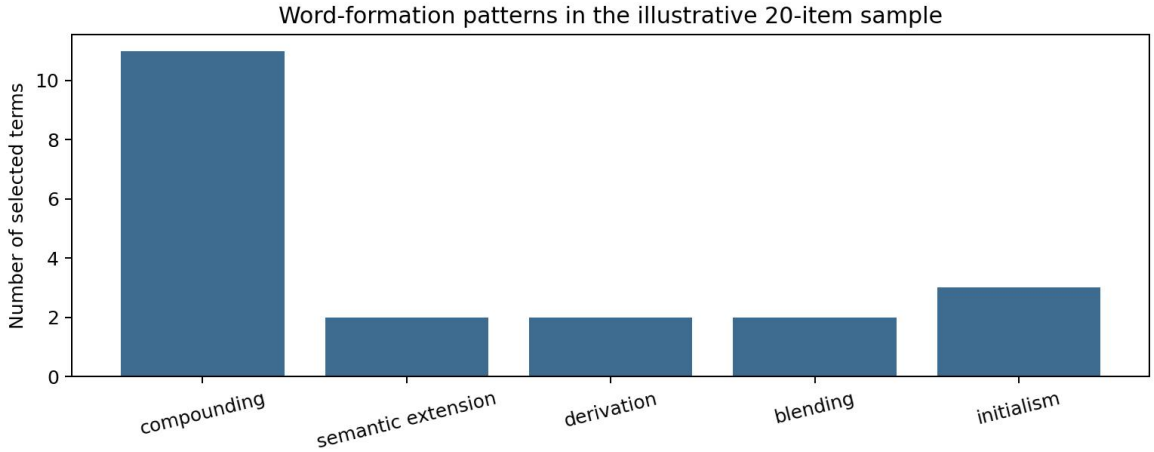


Figure 1. Distribution within the illustrative 20-term inventory (not corpus frequencies).

Three semantic mechanisms emerge. First, compositional specification creates more precise task labels: prompt chaining narrows prompting to a sequence of linked instructions, whereas context

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window describes a system's usable input context. Second, semantic extension recruits familiar vocabulary: hallucination shifts from a human perceptual phenomenon to a model-output failure, and alignment acquires a specialized sense associated with intended system behavior [9, 10]. Third, evaluative condensation produces compact judgments: AI slop signals disapproval without an explicit quality metric, and deepfake invokes manipulation or deception even when synthetic media may also be used transparently.

A closer inspection suggests that pragmatic force depends on genre, addressee, and speaker intention. In research writing, LLM compresses a technical phrase and presupposes disciplinary familiarity. In public-policy discourse, model alignment can foreground accountability and governance. In a marketing description, AI agent can promise autonomy; in a critical review, exactly the same term can question whether such autonomy is genuine. Thus, semantic definitions should be supplemented by usage examples and pragmatic notes rather than treated as context-free equivalents [4, 7, 8].

5. Discussion

The results connect productive English morphology to the rapid diffusion of AI concepts. Compounding is useful because it preserves transparent familiar elements, making terms accessible while still allowing specialization. Yet apparent transparency is deceptive: prompt engineering evokes professional engineering even when the activity ranges from informal trial-and-error prompting to systematic task design. Likewise, AI agent can transfer associations of initiative and autonomy from human agents to software. Such terminological choices may influence perceived expertise and expectations beyond the literal reference of the term [1, 2, 9].

Metaphor is especially influential in risk communication. Hallucination condenses a complex range of output problems into an immediately recognizable label. However, human-oriented language can obscure the difference between human experience and machine-generated text. Deepfake conventionally foregrounds impersonation and potential deception; in educational contexts, the label may be more effective when accompanied by explanations of provenance, consent, and verification. AI slop functions as a stigmatizing evaluative label whose force comes from public discourse rather than from a stable technical taxonomy. These observations follow from contextual semantic analysis, not direct measurements of audience attitudes.

For English–Uzbek communication, the translation problem concerns conceptual fit rather than one-to-one substitution. Some forms can be calqued (e.g., language model → til modeli), some may require a borrowed label with an explanatory gloss (RAG), and some need careful pragmatic framing (hallucination → modelning faktga mos kelmaydigan javobi in explanatory writing). A termbase should register preferred equivalent, context, domain, usage note, and potential misconceptions. Uzbek word-formation principles provide a useful grammatical lens, but target-language acceptability should ultimately be checked against authentic Uzbek professional use [4–6].

Table 2 translates these observations into practical recommendations for academic editors, lecturers, translators, and policy communicators. It also clarifies the epistemic status of the study: a manually selected sample can demonstrate an annotation procedure and generate hypotheses, but it cannot establish diachronic neologism productivity or the prevalence of forms in the broader language. Future

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work should sample a dated corpus across research articles, news, marketing, and user forums; specify search criteria; involve independent coders; and compare meaning change over time.

Table 2. Proposed practical framework for documenting AI neologisms

Problem	**Recommended practice**	**Expected analytical benefit**
Unstable term boundaries	Record lemma, variants, and date	Distinguish innovation from established use
Anthropomorphic metaphor	Provide referential definition and caveat	Reduce misleading human analogies
Genre-dependent connotation	Tag context: academic, news, marketing	Make pragmatic value explicit
English–Uzbek translation	Pair equivalent with usage note	Improve terminological consistency
Small convenience samples	Use multi-genre dated corpus and second coder	Support generalizable future comparison

The central limitation is the deliberate absence of independent corpus frequencies and reader-response evidence. The twenty examples are not asserted to be all newly coined in 2026; some, including chatbot and hallucination, predate the contemporary generative-AI boom and have gained renewed salience or specialized senses. The article therefore uses neologism in a broad terminological-innovation sense and explicitly separates new form from new meaning. This prevents terminological novelty from being overstated.

6. Conclusion

AI-related English vocabulary is best understood as an interaction between lexical structure, conceptual specialization, and social discourse. In an illustrative twenty-term inventory, compounds provide many transparent labels, while blends, derivatives, initialisms, and semantic extensions create other routes to domain-specific expression. The analysis indicates that the communicative value of a term is not exhausted by morphology: an expression can classify a technology, recommend practice, assign professional status, attract users, or communicate a risk depending on context. For academic practice, the principal recommendations are to define specialist terms, distinguish metaphor from literal description, mark pragmatically loaded expressions, and document translation equivalents transparently. The proposed framework offers a basis for larger, reproducible English and English–Uzbek corpus studies, not a substitute for them.

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HSR (LONDON),
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