

LARGE LANGUAGE MODELS INFLUENCE ON THE THINKING AND IDENTITY OF MODERN PEOPLE

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Abstract

This article examines the complex influence of large language models (LLMs) on the cognitive processes of modern humans. Using an interdisciplinary approach, it analyzes the psychological mechanisms underlying trust in AI through the lens of metacognition and “value functions.” The article examines the phenomenon of cognitive and linguistic homogenization arising from the statistical averaging of linguistic norms by algorithms, and its implications for creative thinking. Particular attention is paid to the philosophical dilemma of “outsourcing of thought.”

Keywords: Large Language Models (LLMs), metacognition, cognitive homogenization, machine learning, intellectual autonomy.

Анотація

У тезах досліджується комплексний вплив великих мовних моделей (LLM) на когнітивні процеси сучасної людини. На основі міждисциплінарного підходу аналізуються психологічні механізми довіри до ШІ через призму метакогніції та «функцій цінності». Розглядається феномен когнітивної та лінгвістичної гомогенізації, що виникає внаслідок статистичного усереднення мовних норм алгоритмами, та його наслідки для творчого мислення. Особлива увага приділяється філософській дилемі «аутсорсингу мислення».

Ключові слова: великі мовні моделі, метапізнання, когнітивна гомогенізація, машинне навчання, інтелектуальна автономія.

The integration of large language models (LLMs) into everyday human activities has marked the beginning of a new era in the evolution of intelligence. Contemporary philosophical discussions view these systems not merely as software, but as “cognitive assistants” capable of radically transforming the processes of learning, decision-making, and self-expression [1]. The question arises: does a person become smarter by delegating complex tasks to AI, or, conversely, are we witnessing a gradual decline in critical thinking?

One of the most important lessons from interacting with AI is the realization that intelligence is not merely the ability to generate ideas, but above all the ability to evaluate them. In machine learning, this process is described through “value functions,” which determine the priority of one line of reasoning over another [2]. The problem is that LLMs often prioritize “fluency” and grammatical perfection over factual accuracy [2]. Humans are naturally inclined to trust texts that appear confident and well-structured. This creates a “fluency trap”: the user perceives a polished style as a sign of deep competence. In this regard, AI becomes a mirror of our own cognitive biases—we often confuse confidence with truth [2]. The impact on thinking here manifests as a weakening of metacognition—the ability to be aware of one’s own thinking, control one’s cognitive processes, and question the first conclusions that come to mind [2]. If a person does not actively resist the “authoritative” tone of AI, they lose the ability to independently verify knowledge (justification), which transforms the received information into “knowledge-by-proxy” [1].

Language is not only a means of communication but also a carrier of identity, culture, and unique experience. However, the widespread use of LLMs for text editing and generation leads to a phenomenon that researchers call “cognitive homogenization” [3]. Since models are trained on massive datasets, they align with statistical norms (primarily Western, English-speaking, and liberal standards). This leads to the gradual erosion of rare dialects, metaphors, and specific linguistic markers. Experiments show that texts edited using AI lose traces of the author’s identity: it becomes harder to determine their age, gender, or political views based on linguistic cues [3]. This has serious implications for creative thinking. Innovation typically arises at the intersection of unconventional ideas and cognitive diversity. When millions of people use the same models for writing essays, brainstorming, or problem-solving, the intellectual landscape becomes “flattened” [3]. We are witnessing the “weirdization” (Westernization) of thought, where local ways of conceptualizing time,

space, and causality are replaced by averaged-out global templates [3].

From a phenomenological perspective, LLMs resemble John Searle's "Chinese Room": they manipulate symbols according to rules (syntax) but have no access to meaning (semantics) [1]. When a person delegates the process of articulating their thoughts to AI, they transfer part of their subjectivity to the machine. This is particularly critical in education. According to Vygotsky, learning takes place in the "zone of proximal development," where the learner overcomes difficulties with support [1]. If AI becomes "cognitive crutches" that immediately provide a ready-made result, the stage of overcoming difficulties disappears. This can lead to "cognitive relaxation," where the brain loses the ability to focus deeply and construct logical chains [1]. Furthermore, the question arises regarding the authenticity of the creative act. Can an idea be considered one's own if it was selected by an algorithm from among thousands of statistical probabilities? [1]. Constant reliance on AI's "ideal" answers may diminish the need for intellectual autonomy and the capacity for reasoned discourse in the public sphere (according to Habermas) [1].

The impact of large language models on human thinking is not unequivocally negative or positive. It is a tool that can both enhance and limit us. The positive scenario lies in complementarity: humans use AI's computational power for routine data processing, freeing up resources for ethical analysis, creative synthesis, and complex social interactions. The key competency of the future will not be the possession of information, but metacognitive vigilance—the ability to recognize the limitations of algorithms, identify biases, and preserve one's own unique "cognitive voice." Preserving cognitive diversity and critical skepticism is the only way to ensure that AI becomes an extension of the human mind, rather than its replacement.

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