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PSYCHOLOGICAL IMPACT OF GENERATIVE ARTIFICIAL INTELLIGENCE ON THE EVERYDAY LIFE OF INDIVIDUALS

Abstract

The rapid development of generative artificial intelligence (GenAI) has become one of the most significant technological transformations of the twenty-first century, fundamentally changing the ways people search for, process, generate, and use information in educational, professional, and everyday contexts. Unlike traditional digital technologies, large language models not only provide access to information but also generate, analyze, interpret, and adapt it to users' needs, thereby becoming an active component of human cognitive activity. As a result, generative AI is increasingly regarded not merely as a technological tool but as a new psychological factor of the digital environment that influences cognitive functioning, emotional experiences, behavioral strategies, and social interaction.

The article systematizes contemporary theoretical and empirical findings on the psychological consequences of generative AI use and integrates fragmented research into a unified conceptual framework. The analysis demonstrates that generative AI simultaneously creates substantial opportunities and psychological risks. Positive effects include cognitive support, improved information processing, personalized learning, enhanced creativity, reduced emotional tension, increased productivity, expanded communication opportunities, and broader access to knowledge. At the same time, excessive reliance on AI may contribute to cognitive offloading, weakened critical

thinking, automation bias, emotional attachment to digital systems, reduced behavioral autonomy, changes in decision-making strategies, transformation of interpersonal communication, and increased dependence on algorithmic recommendations.

Based on the synthesis of recent psychological research, the paper proposes a four-level classification of the psychological consequences of generative AI use, encompassing cognitive, emotional, behavioral, and socio-psychological dimensions. The proposed model emphasizes the interdependence of these dimensions and demonstrates that changes within one psychological domain inevitably influence the others. This integrative framework provides a theoretical basis for future empirical investigations, the development of psychological assessment instruments, and evidence-based recommendations for the safe, critical, and responsible use of generative artificial intelligence.

Keywords: generative artificial intelligence, psychological consequences, cognitive processes, critical thinking, digital interaction, personality psychology, digital psychology, artificial intelligence.

Problem statement

The rapid development of generative artificial intelligence (GenAI) is one of the most defining technological phenomena of the twenty-first century, profoundly transforming the ways individuals acquire, process, and create information, as well as reshaping educational, professional, and everyday human activities. Unlike traditional digital technologies, large language models do not merely provide access to data; they actively generate, analyze, interpret, and adapt information to user needs, thereby significantly expanding the scope of its psychological impact. Generative AI is actively utilized in learning, professional practices, creative endeavors, information retrieval, planning, decision-making, communication, and psychological support. Consequently, it transcends the role

of a mere technological tool and assumes the characteristics of a novel psychological factor within the digital environment, influencing cognitive processes, emotional responses, behavioral strategies, and social interaction.

Alongside the benefits associated with cognitive support, personalized learning, broader access to knowledge, and the stimulation of creativity, the use of generative artificial intelligence introduces novel psychological challenges. These include cognitive offloading (which potentially leads to cognitive atrophy), the weakening of critical thinking, overreliance on algorithmically generated information (automation bias), altered decision-making strategies, emotional dependency, and the transformation of interpersonal communication. Despite the exponential growth in literature, contemporary scientific publications predominantly focus on isolated aspects of generative AI usage, such as cognitive assistance, education, mental health, digital communication, or ethical issues. This focus leads to fragmented insights and underscores the urgent need to integrate existing findings into a unified theoretical framework capable of comprehensively explaining the interconnectedness of the cognitive, emotional, behavioral, and socio-psychological consequences of generative artificial intelligence utilization.

Analysis of recent research and publications

The emergence of generative artificial intelligence has marked one of the most significant milestones in the evolution of digital technologies, signaling a transition from information systems focused on data retrieval and transmission to systems capable of generating content, analyzing information, modeling problem-solving options, and sustaining natural language interaction. The theoretical foundation for analyzing human interaction with such systems is the concept of Extended Cognition proposed by A. Clark and D. Chalmers [4], which posits that external technologies can function as full-fledged components of the human cognitive system. Generative artificial intelligence qualitatively

expands this interaction by performing functions of analysis, interpretation, summarization, and information creation, which provides grounds for viewing it as an external, active cognitive resource.

In contemporary scientific literature, generative artificial intelligence is interpreted not merely as a digital product, but as a novel psychological factor within the digital environment. Researchers emphasize that large language models open up fundamentally new opportunities for psychological science due to their capacity to model complex forms of linguistic and cognitive activity [1], while their everyday use leads to a profound transformation of an individual's learning processes, decision-making, and social interaction [13].

Recent empirical studies strongly support these theoretical propositions. Specifically, M. Binz and E. Schulz [2] demonstrated that large language models exhibit certain characteristics of human cognition, opening up prospects for their utilization as models for studying human cognitive processes. Concurrently, the integration of generative artificial intelligence into daily practice substantially alters an individual's strategies for information analysis, alternative evaluation, and decision-making algorithms [9]. Consequently, contemporary scientific discourse captures a shift from understanding artificial intelligence as an applied tool to viewing it as a comprehensive factor of the digital environment that requires systematic psychological analysis.

Purpose of the article

The purpose of the article is to provide a theoretical analysis of contemporary scientific approaches to studying the psychological consequences of generative artificial intelligence usage in everyday human life, to systematize scientific data regarding its impact on the cognitive, emotional, behavioral, and socio-psychological domains of personality, and to substantiate the author’s conceptual approach to understanding these consequences as an integrated, multilevel system of interconnected psychological changes.

Presentation of the main material of the study

Cognitive Consequences of Generative Artificial Intelligence Use

The cognitive domain is one of the most susceptible to the influence of generative artificial intelligence, as large language models increasingly perform cognitive support functions: analyzing information, summarizing data, formulating responses, and suggesting alternative ways to solve problems. At the same time, their utilization not only expands human intellectual capabilities but also alters the internal mechanisms of cognitive activity.

One of the most significant positive outcomes is the increased efficiency of information processing. Large language models accelerate data retrieval, analysis, systematization, and summarization, thereby supporting complex cognitive processes. Researchers emphasize their capacity to effectively facilitate the analysis of large textual datasets, explain complex abstract concepts, formulate working hypotheses, and provide an initial interpretation of information [1]. Similar conclusions were reached by G. Dillon [5], who experimentally demonstrated the high productivity of large language models during the execution of various analytical and creative tasks. Generative artificial intelligence also plays a crucial role in education by providing personalized explanations, individualized feedback, and support for autonomous learning, which stimulates creative thinking through the generation of non-standard ideas.

Concurrently, contemporary research highlights serious cognitive risks. One such risk is cognitive offloading — the unconscious or intentional delegation of a portion of intellectual functions to external algorithmic systems. Although this reduces mental workload in the short term, the systematic use of generative artificial intelligence to solve straightforward tasks can weaken autonomous information analysis and the skills required to form independent conclusions [2].

Another critical risk is the impairment of an individual's critical thinking.

The high linguistic persuasiveness and structured nature of large language model responses foster the so-called automation bias effect, wherein users begin to uncritically accept algorithmically generated information without proper verification of its reliability [9]. The situation is further compounded by the fact that the logical and mathematical capabilities of language models are not constant: due to continuous algorithmic updates, the quality of ChatGPT's responses to identical tasks can fluctuate unpredictably over time [3; 4], rendering blind trust in AI even more hazardous. This trend is particularly hazardous in educational, scientific, and professional activities. The integration of algorithmic recommendations transforms the decision-making process itself, altering traditional strategies for evaluating alternatives and risks, which leads to a gradual decline in the subject's cognitive autonomy.

Emotional Consequences of Generative Artificial Intelligence Use

Alongside the cognitive domain, generative artificial intelligence increasingly influences the emotional sphere of personality. Due to their ability to sustain natural dialogue, adapt communication styles to specific requests, and demonstrate complex empathetic linguistic structures, large language models are frequently perceived by users not merely as a dry informational tool, but as a full-fledged interlocutor or virtual partner.

One of the primary positive effects in this context is the rapid reduction of emotional tension and a subjective sense of psychological support. The instantaneous receipt of detailed explanations and benevolent feedback mitigates the state of uncertainty and enhances users' self-confidence. Furthermore, research indicates that the responses of contemporary large language models are often evaluated by humans as more empathetic and compassionate than the typical responses of an average person, which opens up significant prospects for utilizing AI in the field of primary psychological support and the dissemination of psychoeducational information [11].

Concurrently, emotional interaction with generative artificial intelligence is accompanied by a series of specific psychological risks:

1. Anthropomorphization of generative models: the unconscious attribution of human qualities, intentions, consciousness, and a genuine capacity for empathy to algorithms creates an illusion of full-fledged social presence and unjustifiably elevates the level of trust in the system [6].

2. Formation of emotional dependency: the regular use of generative artificial intelligence as a primary tool for psychological decompression can significantly weaken the need for real interpersonal interaction and contribute to the development of a surrogate psychological attachment to digital systems [6]. Empirical studies on the dynamics of user relationships with generative chatbots indicate that prolonged interaction often transforms the perception of AI from a technical assistant into a unique social partner or «quasi-friend» [12].

3. Substitution of professional help: the constant availability of a digital assistant alters natural emotional regulation processes; however, AI is fundamentally incapable of replacing professional psychotherapeutic care or full-fledged emotional connections within society [10].

Behavioral Consequences of Generative Artificial Intelligence Use

The use of generative artificial intelligence is accompanied by a transformation of human behavioral strategies, altering the methods of executing educational, professional, and everyday tasks, as well as reshaping general information behavior and decision-making processes. Unlike traditional software, large language models do not merely automate isolated operations; they actively participate in activity planning, final content creation, and the pursuit of creative solutions.

One of the most significant positive consequences is a substantial increase in individual productivity. Generative artificial intelligence accelerates the retrieval, analysis, and systematization of information, the preparation of draft

texts, schedule planning, and the summarization of complex materials, thereby optimizing time management. Contemporary empirical data indicate that large language models significantly enhance the efficiency of performing complex intellectual tasks, particularly under conditions of chronic information overload [1]. Specifically, large-scale experiments have demonstrated that the utilization of ChatGPT reduces the time required to execute real-world professional tasks by nearly 40%, while simultaneously enhancing the quality of the final output [8].

Concurrently, the information behavior of users is undergoing a radical shift. Instead of traditional independent searching and the critical comparison of multiple independent sources, individuals are increasingly inclined to rely entirely on a ready-made, aggregated response generated by an algorithm. While this simplifies routine work, it fosters a persistent behavioral dependency on algorithmic recommendations and leads to the atrophy of autonomous search skills [13]. Academic and professional behavior also experiences significant modifications. The automation of text, source code, and analytics generation gives rise to new behavioral risks: the violation of academic integrity principles, the superficial execution of tasks without internal comprehension, and an overall decline in intrinsic motivation for independent labor. In this regard, there is an urgent need to develop a new digital literacy oriented toward recognizing the strict boundaries of generative artificial intelligence application within the professional domain [9].

Socio-Psychological Consequences of Generative Artificial Intelligence Use

The proliferation of generative artificial intelligence influences not only individual psychological functioning but also a broader context: social interaction, communication structures, interpersonal trust, and the functioning of core social institutions. Due to their capability to sustain natural language dialogue and instantaneously adapt communication strategies to the user's socio-

cultural profile, large language models are integrating into various spheres of social activity, assuming the role of a novel quasi-social participant within the information space.

The positive effect manifests in a significant expansion of communication opportunities and the general accessibility of information. Generative artificial intelligence effectively facilitates the overcoming of linguistic and terminological barriers, the personalization of the educational process, and the development of inclusive practices, thereby increasing the overall speed of digital interaction within society.

Concurrently, serious socio-psychological challenges are observed:

1. Transformation of interpersonal communication: a substantial portion of communicative functions that previously required the involvement of another person (consulting, tutoring, primary support) is shifting to the plane of «human-machine» interaction, which threatens to diminish the subjective value of direct interpersonal communication [13].

2. Formation of algorithmic trust: due to the high linguistic persuasiveness of the models, users demonstrate a tendency to uncritically transmit even erroneous or manipulative information into society (so-called AI «hallucinations»), which amplifies the risks of spreading misinformation in education, medicine, and the media [9].

3. Ethical and legal determinants of well-being: the blurring of boundaries regarding authorship and responsibility for the outcomes of algorithmic activity demands ensuring system transparency and protecting the psychological autonomy of the individual [7], which is also reflected in the official safety guidelines of the World Health Organization [10].

A Systematization of the Psychological Consequences of Generative Artificial Intelligence Use

Based on theoretical generalization and the integration of contemporary

research, a systematization of the psychological consequences of generative artificial intelligence use is proposed across four interconnected levels:

1. Cognitive level: encompasses changes in the processes of thinking, memory, learning, and decision-making. It combines positive effects (active cognitive support, optimization of data analysis) with corresponding risks (cognitive offloading, the weakening of critical thinking, and the automation bias effect).

2. Emotional level: reflects the impact of AI on emotional well-being and self-regulation processes. It includes positive factors (reduction of anxiety due to the rapid resolution of uncertainty, a subjective sense of empathetic support) and risks (anthropomorphization of systems, formation of emotional attachment to the algorithm).

3. Behavioral level: characterizes modifications in the structure of activity and information search. It links the growth of individual productivity and labor optimization with the risks of behavioral dependency on prompts, a decline in action autonomy, and challenges to academic integrity.

4. Socio-psychological level: covers the transformation of interpersonal relationships, trust, and social bonds. It spans the expansion of knowledge accessibility and the overcoming of barriers alongside the challenges of communication algorithmization, the blurring of ethical responsibility, and the necessity of forming a novel digital competence of the individual.

The proposed model clearly demonstrates systemic interdependence: profound changes at the cognitive level inevitably transform behavioral strategies, whereas the emotional dynamics of interaction with AI directly shape new formats of an individual's social interaction in the contemporary digital world.

Conclusions

Under contemporary conditions, generative artificial intelligence has ceased to function exclusively as a technical tool and has transformed into a leading psychological factor of the digital environment, acting as an active «external cognitive resource» within the framework of the concept of extended human cognition.

It has been established that the impact of GenAI on an individual's life is ambivalent in nature. On the one hand, it significantly increases individual productivity, stimulates creativity, and reduces mental tension when working with large volumes of data. On the other hand, regular, uncritical use of these models leads to cognitive offloading, the formation of a persistent automation bias effect, the anthropomorphization of algorithms, and a potential decline in human behavioral and cognitive autonomy.

The proposed four-level systematization (encompassing cognitive, emotional, behavioral, and socio-psychological levels) allows for the integration of fragmented empirical data into a cohesive theoretical model. It captures the interdependence of these domains and establishes a methodological framework for future empirical investigations, the development of diagnostic instruments, and the formulation of applied recommendations for safe, critical, and psychologically sustainable human interaction with generative systems.

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