# THE IMPACT OF INFORMATION TECHNOLOGIES ON THE THINKING OF THE YOUNGER GENERATION

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**Abstracts:** This article provides a comprehensive analysis of the impact of information technologies on the thinking patterns of the younger generation. It explores how digital technologies, the internet, mobile devices, and social media influence the cognitive development of children and adolescents, highlighting both positive and negative aspects. On one hand, quick access to information, the enhancement of creative thinking, and the development of critical reasoning are emphasized as beneficial effects. On the other hand, the article also addresses potential drawbacks such as attention disorders, addiction to virtual environments, and social isolation. The article highlights both the positive and negative aspects of information technologies and outlines effective ways to utilize them in the educational process. The research findings indicate that the role of technology in shaping the thinking and cognitive development of young people is steadily increasing.

**Keywords:** Information technologies, younger generation, cognitive development, digital technologies, social media, virtual environment, critical thinking, creativity, access to information, attention disorder, internet addiction, social isolation, impact, modern technologies.

**Аннотация:** Данная статья представляет собой комплексный анализ влияния информационных технологий на мышление младшего поколения. В ней исследуется, как цифровые технологии, интернет, мобильные устройства и

социальные сети влияют на когнитивное развитие детей и подростков, подчеркиваются как положительные, так и отрицательные аспекты. С одной стороны, акцентируется внимание на таких положительных эффектах, как быстрый доступ к информации, развитие творческого мышления и критического рассуждения. С другой стороны, рассматриваются потенциальные негативные последствия, такие как расстройства внимания, зависимость от виртуальной среды и социальная изоляция. Статья подчеркивает как положительные, так и отрицательные стороны информационных технологий и предлагает эффективные способы их использования в образовательном процессе. Результаты исследования показывают, что роль технологий в формировании мышления и когнитивного развития молодежи постепенно увеличивается.

**Ключевые слова:** Информационные технологии, младшее поколение, когнитивное развитие, цифровые технологии, социальные сети, виртуальная среда, критическое мышление, креативность, доступ к информации, расстройства внимания, интернет-зависимость, социальная изоляция, влияние, современные технологии.

In recent years, the rapid development of information technologies and their increasing presence in everyday life have become more prominent. These technologies play a significant role not only for adults but also in shaping the thinking patterns of the younger generation. Digital technologies, the internet, mobile devices, and social media create new opportunities for children and adolescents, transforming their worldview, learning processes, and methods of creative thinking.

Before analyzing the impact of information technologies on the intellectual abilities of youth, it is essential to first address the question: what are information technologies? Information Technologies (IT) refer to the set of technical, software, and organizational tools used for the collection, storage, processing, transmission, and utilization of information. These technologies enable the efficient management and dissemination of data across various domains. The primary technical components of information

technologies include computers and servers, internet and network systems, mobile devices (such as smartphones and tablets), projectors, printers, scanners, databases, and software applications. These tools collectively support the automation and optimization of information-related processes in fields such as education, healthcare, industry, and communication.

In the modern era, information technologies have become an integral part of human life. The rapid pace of technological advancement is exerting a profound influence not only on sectors such as the economy, healthcare, and industry, but also on education and social life. In particular, the younger generation—children and adolescents—are both active participants in and primary consumers of this process. It is increasingly evident that digital technologies, the internet, mobile devices, and social media play a significant and growing role in shaping their thinking and worldview. Due to the widespread availability of information technologies, today's youth have the ability to access knowledge—once obtainable only through books—within seconds via the internet. This shift is fundamentally transforming their attitudes toward information, their methods of learning, and their cognitive processes. In this regard, a scientific examination of how information technologies influence the intellectual development of the younger generation is a matter of considerable relevance. On one hand, the positive effects include rapid access to information, the stimulation of creative thinking, and the enhancement of critical reasoning skills. On the other hand, negative consequences such as reduced attention span, addiction to virtual environments, and social isolation are also being observed. In particular, the psychological and cognitive development of young individuals, who are in direct and constant interaction with technology, requires thorough analysis.

Another significant aspect of this study is its focus on identifying effective strategies for integrating information technologies into the educational process. Indeed, it is only through the correct and purposeful use of these technologies that their negative impacts can be minimized and their positive potential fully realized. The findings of this research indicate that the influence of technology on youth thinking patterns is steadily

increasing each year. This growing impact highlights the urgent need for thoughtful regulation and effective pedagogical integration of digital tools into educational settings. Information technologies have entered almost every aspect of the younger generation's life. Through these technologies, young people not only play games or communicate but also acquire knowledge, shape their worldview, and strive to think independently. In this process, the influence of the internet, mobile applications, social networks, and digital platforms is particularly significant. These tools provide considerable opportunities for the development of the intellectual capabilities of the younger generation.

First and foremost, the ability to quickly and freely access information helps meet the youth's need for knowledge almost instantly. Instead of going to traditional libraries, they can find the necessary information through online resources, video lessons, lectures, and interactive platforms in a short period of time. This not only fosters independent research skills but also develops the ability to think critically and analyze ideas. Furthermore, digital technologies provide significant opportunities for the enhancement of creative thinking. Activities such as programming, design, video editing, and content creation strengthen the innovative approach of young people. Nowadays, many students are engaging in creative endeavors like maintaining their own blogs, YouTube channels, or developing applications even during their school years. This boosts their self-confidence and creates a foundation for the development of their thinking in new directions. However, certain risks also arise in this process. Excessive use of technology leads to problems such as attention disorders, internet addiction, and social withdrawal among young people. Spending hours on social media, constantly checking notifications, and being exposed to continuous visual and auditory stimuli can lead to overstrain of the young brain's activity. As a result, it becomes difficult to focus on a single task, interest in studying decreases, and feelings of depression may emerge.

Another significant negative aspect is social isolation. Online communication cannot replace face-to-face interactions in real life. Young people are increasingly feeling lonely, especially after the pandemic, when this phenomenon became even more pronounced. Instead of meeting friends, playing games, or participating in group

activities, they dive into the virtual world. Therefore, the issue of using information technologies wisely has become an important agenda. Parents, teachers, psychologists, and educators need to work regularly with young people and guide them appropriately in this regard. Maintaining balance is also crucial when integrating information technologies into the educational process: technology should serve as a tool, not a goal in itself.

In conclusion, information technologies hold a crucial place in modern society, particularly in the lives of the younger generation. They offer extensive opportunities for shaping the thinking of children and adolescents, facilitating knowledge acquisition, and developing skills in creative approaches and critical thinking. Quick access to information, effective use of educational resources, and opportunities for self-development all contribute to the activation of young minds. However, alongside these opportunities, certain risks exist. Attention disorders, internet addiction, the weakening of real-life social connections, and changes in mental health are all consequences of improper or excessive use of modern technologies. Therefore, it is essential to teach how to manage technology and use it wisely. Educators, parents, and educational institutions must monitor how young people utilize information technologies and create a healthy and beneficial digital environment for them. Additionally, by carefully planning the integration of modern technologies into the educational process, we can reduce their negative impacts and maximize the positive aspects. In the future, the impact of information technologies on the thinking of the younger generation is expected to increase even further. For this reason, scientific research, methodological approaches, and practical measures in this field should continuously evolve and improve. Only in this way can we educate young people as conscious, creative, and digitally literate individuals.

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