

USE OF TECHNOLOGY AMONG TEENAGERS: BETWEEN NECESSITY AND DEPENDENCY

DINCU ANA-MARIANA¹, ORBOI MANUELA DORA^{*1}, SICOE-MURG OANA-MARIA¹,
ȘÎRBU CORINA¹, DRĂGOI VIOLETA ELENA²

¹*University of Life Sciences” King Mihai I” from Timisoara,
Faculty of Management and Rural Tourism, Timisoara, Romania*
²*Valahia University of Târgoviste, Faculty of Economics, Romania*

*Corresponding author’s e-mail: orboi@usvt.ro

Abstract: *In the context of accelerating digitization and increasingly easy access to technology, adolescents represent one of the most vulnerable age groups to the influence of the digital environment. While technology offers significant benefits in education, information access, and social interaction, its excessive and uncontrolled use can lead to emotional, behavioral, and cognitive imbalances. This paper investigates the impact of prolonged exposure to electronic devices on adolescents, highlighting key manifestations such as digital anxiety, depression, sleep disturbances, social isolation, and declining academic performance. At the same time, it also explores the positive dimensions of technology—fostering creativity, enabling rapid access to information, and facilitating global communication—thus portraying a complex and nuanced picture of adolescents’ relationship with the digital world. The study argues that technology addiction is not a myth but a growing reality, and maintaining a balance between use and self-regulation is essential. It emphasizes the importance of educational and social measures aimed at preventing the negative effects of excessive digital exposure and promoting the use of technology as a tool for sustainable personal development among young people.*

Key words: *technology, teenagers, technology addiction, social networks, education, digital behavior*

INTRODUCTION

In recent decades, technology has undergone rapid development, profoundly influencing all aspects of daily life, from communication and education to entertainment and identity formation. In this context, adolescents, who are at a crucial stage of psychosocial development, are among the most receptive but also the most vulnerable users of digital technology [4].

Mobile devices, social networks, video games, and online platforms have become an integral part of young people’s lives. According to the World Health Organization (WHO, 2022), the average time spent daily by adolescents on digital devices has increased significantly in recent years, reaching in some cases as much as 6–8 hours per day. This intensive use is fueled by the need for socialization, information, and belonging, but can lead to addictive behaviors in the absence of self-regulation.

A growing number of studies highlight that excessive use of technology among adolescents can have negative effects on mental and emotional health, leading to disorders such as digital anxiety, depression, decreased self-esteem, and impaired real-life social relationships [1,5]. At the same time, a deterioration in academic performance has been observed, caused by decreased attention and concentration [3]. On the other hand, technology brings undeniable benefits: it facilitates rapid access to information, develops digital skills, provides educational resources, and stimulates creativity. Thus, a paradox emerges: technology is simultaneously an indispensable resource and a potential risk factor [2].

This paper aims to analyze in a balanced way the impact of technology use among adolescents, investigating both the positive aspects and manifestations of addictive

behavior. The goal is to highlight possible directions for educational and social intervention that will contribute to the formation of a healthy relationship between young people and the digital environment.

MATERIALS AND METHODS

To carry out this work, a qualitative methodology was used, based on the analysis of specialized literature, studies published by national and international institutions, as well as articles from credible sources in the online press and educational platforms.

The information was collected through documentary research, and the working method consisted of synthesising these sources and structuring the relevant information according to areas of impact: mental health, social life, academic performance and physical condition. The paper does not include field research, but is based exclusively on secondary data and existing analyses.

RESEARCH RESULTS

Technology addiction among teenagers is not simply an exaggeration or an unfounded fear of modern society, but a reality with proven effects on mental, social and physical health [14]. Young people are spending more and more time online, and the balance between digital and real life is becoming increasingly difficult to maintain without educational intervention and proper guidance.

To summarize how technology use influences adolescent development, it is necessary to highlight the main areas affected. Based on the specialized literature analyzed, four essential dimensions can be identified on which technology has a direct impact: mental health, school performance, social relationships, and overall physical condition. Each of these dimensions is influenced by factors such as frequency of use, type of digital activity (social media, games, streaming, etc.), and lack of behavioral self-regulation [10].

The following figure provides a representation of these interdependencies, highlighting the multidimensional nature of technological influence, as well as the connections between the psychological, social, and physical effects identified in recent literature [1,5].

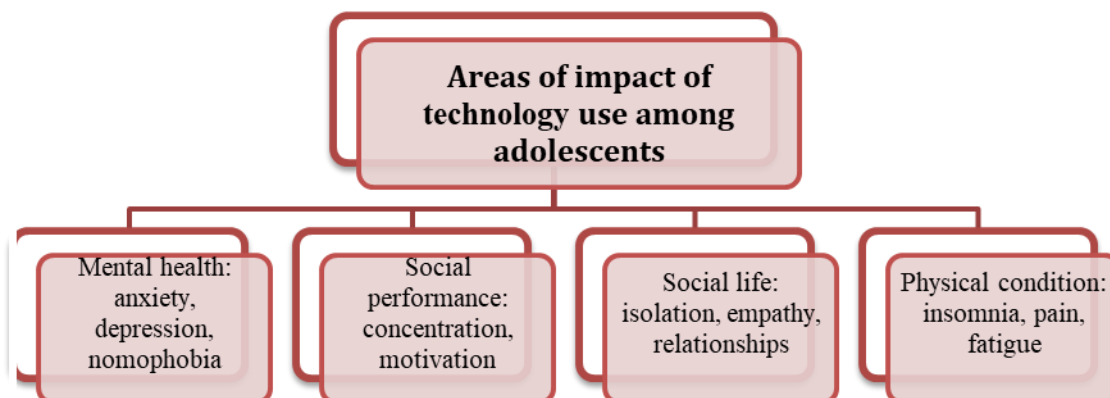


Figure 1. Areas of impact of technology use among adolescents

In addition to the dimensions identified in the figure above, there is also a growing tendency for adolescents to internalize their conflict with the digital environment. Young people not only spend a significant amount of time in front of screens, but also experience constant social pressure and comparison, fueled by social networks, where self-image is often artificially constructed and idealized. This pressure affects self-esteem, accentuates personal insecurities, and can lead to withdrawal behaviors and even episodes of depression [1,5].

With regard to family relationships, studies indicate a weakening of intra-family communication, caused by the replacement of quality time spent together with time spent online [2]. Adolescents are often absorbed by digital content, while parents, who are also often constantly connected to devices, no longer provide a consistent model for balanced use of technology.

The figure below shows a diagram of the behavioral, emotional, social, and cognitive/academic signs associated with the development of technology-dependent behavior among adolescents. These manifestations can vary in intensity and frequency, depending on the amount of time spent online, the level of self-regulation, and the support provided by family or school.

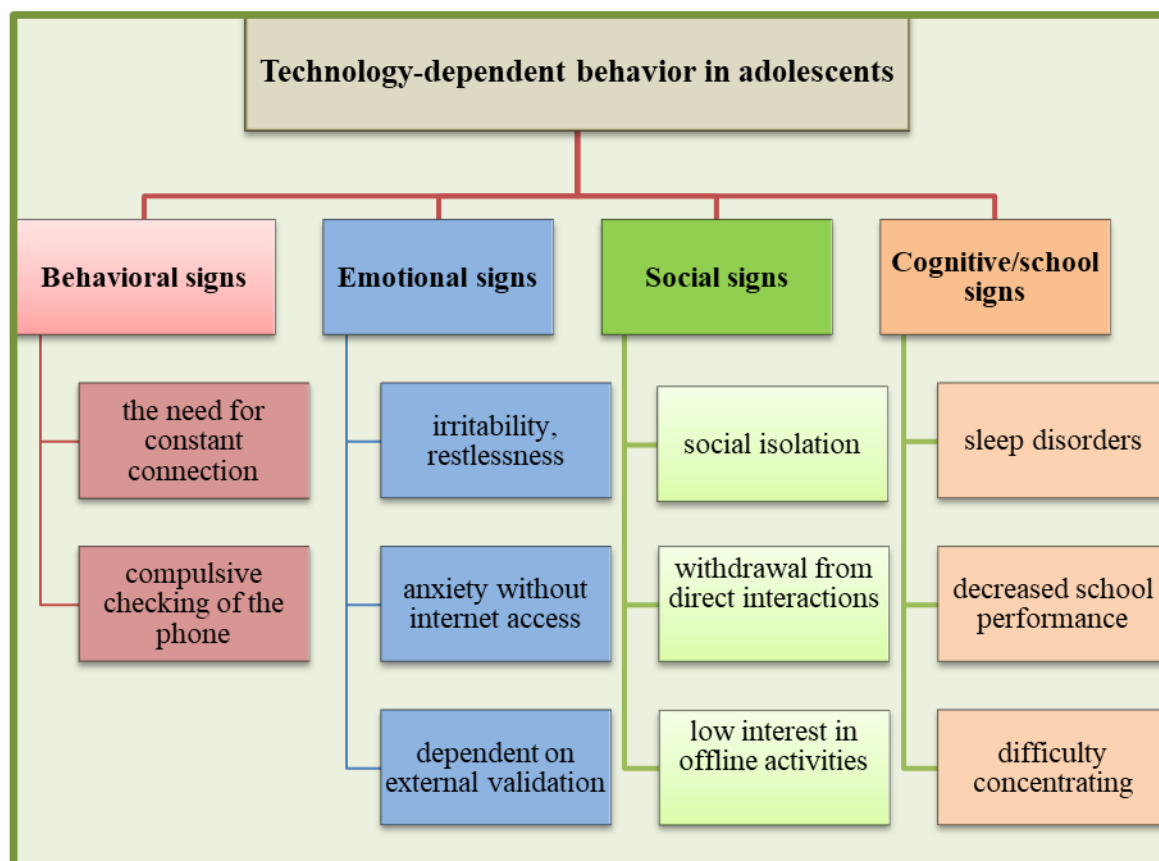


Figure 2. Technology-dependent behavior – categories and specific manifestations

Following an analysis of adolescents' digital behavior, a series of behavioral, emotional, and social signs associated with the onset of technology-dependent behavior can be identified. These include:

- the need for constant connection, manifested by compulsive checking of the phone;
- irritability, restlessness, or anxiety in the absence of internet access;

- sleep disorders caused by excessive use of devices, especially in the evening;
- decreased interest in offline activities (sports, reading, going out with friends);
- social isolation and withdrawal from direct interactions;
- declining school performance and difficulty concentrating;
- dependence on external validation through likes or comments [6,7,9,15].

According to the World Health Organization, such behaviors can be classified as behavioral disorders related to technology use, and "gaming disorder" is already officially recognized in ICD-11. Data shows that over 210 million people worldwide suffer from Internet and social media addiction [11,12,13].

Early recognition of these signs allows for effective interventions that can prevent the development of a real addiction. In this regard, the literature proposes several concrete solutions:

- ✚ Early digital education, through which adolescents can understand the impact of technology on mental health and behavior;
- ✚ Consciously limiting time spent online by setting clear intervals for device use;
- ✚ Involving parents and teachers, not only as authority figures, but as active partners in the process of shaping healthy digital behavior;
- ✚ Gradually replacing passive activities with active, creative, or outdoor activities;
- ✚ Using apps to monitor and self-regulate screen time (e.g., Forest, Digital Wellbeing, RescueTime);
- ✚ Creating technology-free spaces and moments that restore the balance between online and offline (family meals, reading, artistic activities, volunteering).
- ✚ Developing psychological counseling and emotional support programs in schools for at-risk adolescents [8].

The implementation of these measures must be adapted to the specific age, level of digital literacy, and family and educational context. Therefore, a collaborative approach between family, school, and specialists is required to transform technology from a potential risk factor into a beneficial educational and relational tool.

In this context, technology should not be perceived as an enemy, but as a powerful tool that, when used correctly, can support learning, personal development, and connection between people.

Digital education is becoming essential in schools and families, along with promoting a balanced lifestyle that includes offline activities, physical exercise, direct interactions, and moments of disconnection.

Therefore, the solution is not to eliminate technology from teenagers' lives, but to cultivate conscious, controlled, and balanced use that allows them to reap its benefits without becoming victims of it.

Technology is not harmful in itself, but it becomes a problem when it is used without control, without digital education, and without family or institutional support. Education for responsible and critical consumption of digital resources must become an essential component of the modern adolescent's education.

In this sense, the role of school and family is essential. Teachers must integrate technology into teaching and learning processes in an intelligent and balanced way, and parents must become models of responsible digital behavior, providing guidance and emotional support. Authorities should also support the development of educational programs for digital literacy, digital hygiene, and screen time management.

In conclusion, the use of technology among adolescents is a matter of balance, not prohibition. The key is not to eliminate technology, but to consciously and functionally

integrate it into everyday life, in line with the real needs of young people and the demands of today's digital society. Only through an integrated, interdisciplinary, and preventive approach can technology be transformed from a potential risk factor into a valuable tool for personal and professional development.

CONCLUSIONS

The use of technology among adolescents is a multifaceted phenomenon, in which advantages and risks coexist in a fragile balance. On the one hand, technology facilitates access to information, the development of digital skills, and rapid communication, which are essential aspects in an increasingly digitized society. On the other hand, excessive use and lack of adequate control can lead to addictive behaviors and emotional, social, and educational imbalances.

The results analysed in the paper indicate a clear link between time spent in the virtual environment and the emergence of symptoms such as anxiety, sleep disorders, decreased school motivation or social isolation. These effects are even more noticeable when there's no solid digital education and healthy ways to use technology at home and school.

To prevent the development of digital addiction, active involvement is required from all those involved in the adolescent's education—parents, teachers, school counselors, and educational decision-makers. Interventions should focus on developing balanced digital habits, promoting offline activities, and raising awareness of the negative effects of excessive use.

Technology is not harmful in itself, but it becomes a risk factor when used indiscriminately. An adolescent who is informed, supported, and educated to navigate the digital environment responsibly is more likely to turn technology into an ally for their own development, rather than an obstacle. Therefore, balance, education, and conscious supervision are the pillars of a healthy relationship between young people and technology.

REFERENCES

- [1]. **KUSS D.J., GRIFFITHS M.D.**, 2017, Social networking sites and addiction: Ten lessons learned, *International Journal of Environmental Research and Public Health*, 14(3), 311
- [2]. **LIVINGSTONE S., HELSPER E.J.**, 2007, Gradul de alfabetizare digitală și diferențele sociale, *New Media & Society*, 9(4), 671–696
- [3]. **RIDEOUT V., PEEBLES A., MANN S., ROBB M.B.**, 2022, Common Sense Census: Media Use by Tweens and Teens, 2021, Common Sense Media.
- [4]. **TAPSCOTT, D.**, 2009, *Grown Up Digital: How the Net Generation is Changing Your World*, McGraw-Hill
- [5]. **TWENGE J.M.**, 2019, *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy – and Completely Unprepared for Adulthood*, Atria Books
- [6]. *** **ALIAT SUCEAVA**, Dependența de internet. Available at: <https://clinica-aliat-suceava.ro/dependenta-de-internet/>
- [7]. *** **CODE SCHOOL CLUBS**, Cum recunoști dependența de internet la adolescenți. Available at: <https://codeschoolclubs.ro/dependenta-de-internet/>

- [8]. *** **DOC.ro**, Adolescenții singuri sunt susceptibili la dependența de internet – studiu. Available at: <https://www.doc.ro/consum-responsabil-prevenirea-dependentei/adolescentii-singuri-sunt-susceptibili-la-dependenta-de-internet-studiu>
- [9]. *** **EDUPEDU.ro**. 2024. Semnele dependenței digitale la copii și adolescenți. Disponibil la: <https://www.edupedu.ro/>
- [10]. *** **INTERNET ADDICTS ANONYMOUS**, Dependența de internet și tehnologie. Available at: <https://internetaddictsanonymous.org/ro/dependenta-de-internet-si-tehnologie/>
- [11]. *** **MEDICOVER ROMÂNIA**, Dependența de internet – este o dependență în sens medical? Disponibil la: <https://www.medicover.ro/despre-sanatate/dependenta-de-internet-este-o-dependenta-in-sens-medical,943,n,288>
- [12]. *** **ORGANIZAȚIA MONDIALĂ A SĂNĂTĂȚII (OMS)**, 2022. Gaming disorder în ICD-11. Available at: <https://www.who.int/news-room/questions-and-answers/item/addictive-behaviours-gaming-disorder>
- [13]. *** **REGINA MARIA**, Dependența de internet – boala secolului digital. Available at: <https://www.reginamaria.ro/utile/dictionar-de-afectiuni/dependenta-de-internet>
- [14]. *** **SFATULMEDICULUI.ro**, Dependența de internet – un fenomen în creștere. Available at: https://www.sfatulmedicului.ro/Educatie-pentru-sanatate/dependenta-de-internet-un-fenomen-in-crestere_20679
- [15]. *** **SEMNELETIMPULUI.ro**, Cum recunoști dependența de internet la copii și tineri. Available at: <https://semneletimpului.ro/sanatate/droguri/dependenta/cum-recunosti-dependenta-de-internet-la-copii-si-tineri.html>