

ADDICTION TO DIGITAL TEHNOLOGY, A PROBLEM OF CONTEMPORARY SOCIETY

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ABSTRACT: *Addiction to Digital Tehnology, A Problem of Contemporary Society.*

The amount of time spent on digital technology has increased considerably, especially among young people, who spend up to half their day using technology. Digital technology is beneficial as long as it is not overused and does not take over an individual's entire existence. Once established, digital addiction has long-term negative effects on a person's life and requires specialized treatment.

The study aims to analyze various aspects of digital technology use among young people, with a focus on the effects it can have. The participants in the study were pupils and students (bachelor and master) studying in Bucharest, but living both in Bucharest and in different parts of the country, in rural and urban areas. The qualitative research was carried out in Bucharest and consisted of 27 semi-structured interviews and three focus groups.

Over time, the excessive use of digital technology can lead to major changes in the health and behavior of young people: reduced communication skills, a tendency to isolate themselves, increased fatigue, anxiety, problems with attention, irritability, headaches, excessive eye strain and even visual impairment, insomnia, sadness, depression, low self-esteem, superficial assimilation of information, problems with memory and/or language, etc. Digital technology addiction can therefore be considered a public health problem with disastrous long-term effects.

Keywords: *digital technology, digital addiction, public health.*

Introduction

Technology is omnipresent in our lives and this is something normal to a certain extent, because digitization means progress. The digital world is a world that offers many opportunities, the variety of options is large: the latest news, information we are interested in, social networks, favorite video games, online shopping, etc. Many young people spend a lot of hours in front of the computer every day, especially if they work in fields such as IT, online marketing, graphic design. Others use computer time as a way to relax, connect with friends, socialize and make new acquaintances.

Even though the use of technology helps us to stay informed, carry out our daily activities and develop our skills, it is very important to distinguish between digital addiction and time spent on the computer as a form of entertainment, information, etc. Once established, digital addiction has long-term negative effects on a person's life and requires specialized treatment. As young people, teenagers and children spend most of their time in front of computers, computer addiction affects them most. Parents are often unaware of the symptoms and consequences of excessive computer use and very few of them know what their children are doing online.

Addiction "is a compulsive desire to engage in a particular type of behavior or to consume a particular type of substance, even if the person is aware that this leads to negative consequences. Addiction affects the brain and can lead to compulsive behavior"¹.

«Controlled use of a device has no negative consequences, while excessive use of digital technology influences physical and mental health, sleep, communication, adaptation, and relationships with others, as well as schoolwork»². As a person spends more and more hours at the computer, in the long run, the ability to self-control the urge to sit in front of the screen will decrease. When family, social, personal, educational or professional life of the young person is affected, one can speak of digital addiction. This addiction "is installed when a person uses intensely, prolonged, uncontrolled internet in a pathological sense, being unable to use the Internet

1 <https://www.reginamaria.ro/utile/dictionar-de-afectiuni.../> (accessed May 12, 2023).

2 Baciu, Adina, Brândușa, *Medical and social consequences of digital addiction*, vol. *Medical Anthropology*, Bucharest, The Publishing House of Romanian Academy, 2020, p. 131.

effectively, correlating with disinterest in the outside world, with the rejection of people, followed by the installation of isolation and loneliness”³

Methodology

The study was carried out between March and June of 2023 and aims to analyze various aspects of digital technology use among young people, with a focus on the effects it can have. The participants in the study were pupils and students (bachelor and master) studying in Bucharest, but living both in Bucharest and in different parts of the country, in rural and urban areas.

The approach chosen was a qualitative one, as it aims to analyze the subject in depth. The qualitative research was carried out in Bucharest and consisted of 27 semi-structured interviews and three focus groups. Interviews were conducted face-to-face and the average interview duration was 42 minutes. Between 9 to 10 people participated in each focus group and the average duration was 1.38 minutes. Issues discussed were time spent in a day using the phone/tablet/computer; the information searched on the internet; the rank that digital technology holds in their personal life; changes in behavior as a result of using digital technology; the impact digital addiction can have; preventive measures etc.

Inclusion of participants in the study was on a voluntary basis, following written, informed and freely expressed consent. The study complied with the ethical rules of scientific research, respecting at all times the principles of anonymity and confidentiality, with subjects being able to withdraw at any time during the study.

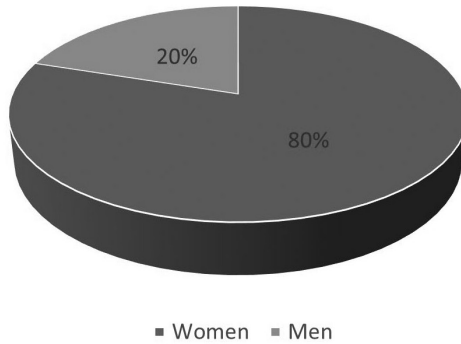
Results

The age of the participants in the study ranged from 18 to 51 years, male (19.7%) and female (80.3%), from both urban and rural areas, with secondary, high school and university education.

Even though participation in the study was voluntary, we tried to have participants of different ages in order to get a wider range of opinions and information. Thus 75% of the interviewees and focus group partici-

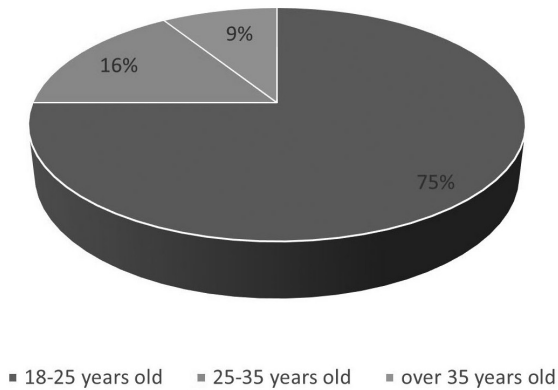
3 Yellowlees, P.; Marks S., "Problematic Internet use or Internet addiction?", *Computers in Human Behavior*, Science Direct, 2007, 23 (3), 1447–1453. doi:10.1016/j.chb.2005.05.004

Gender distribution



pants were in the 18-25 age group, 16.07% were in the 25-35 age group and 8.92% were over 35 years old.

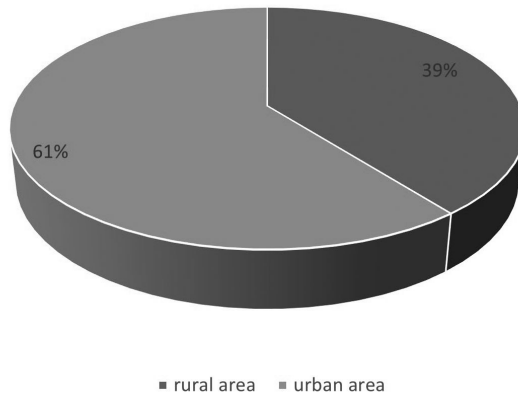
Distribution by age groups



In terms of background, most of the participants in the study came from urban areas (60.71%), while 39.29% were from rural areas.

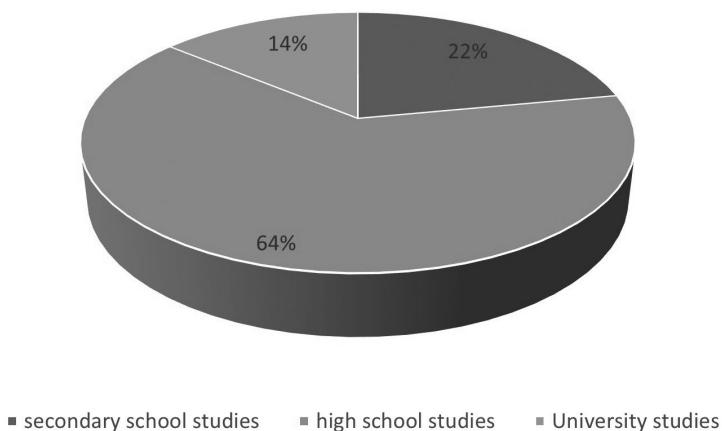
Concerning the education completed at the time of participating in the survey, most of the respondents have completed high school and are currently attending a university (64.3%), some have a bachelor's degree and are attending a master's program (14.3%), and 21.4% of them are about to complete high school.

Distribution by environment of origin



Digital technology is playing an increasingly important role in our lives, especially in the lives of children and young people. They spend many hours a day either in front of the computer, using their phone, tablet or watching TV shows/movies. Most of the time the stated purpose is to communicate, get information or relax. From the discussions with the participants in the study, they use technology on average between 4 and 12

Distribution according to the followed studies



hours a day. "I use devices about 10 hours a day: TV- between 30 min-1 hour (news), phone-30 min mail + social media (Instagram) 30 min, laptop 7-8 hours, 4-7 job (Upwork+Photoshop, Illustrator)". (master student, 36 years old). Another respondent states that he uses phone, tablet, computer, TV around 11-12 hours a day. "On the computer I watch shows or movies, on TV I watch cooking shows, these are my favorites, I use the tablet to watch funny videos on YouTube, and I use the phone to play games or go on social media" (student, 20 years old).

"I spend about 2 hours on my phone and 5 hours on my laptop. I use my laptop for studying and my phone for socializing and entertainment. Sometimes I use Netflix, Facebook and Google to search for information" (student, 27 years old).

With the development of technology, digital addiction has become a problem among young people and beyond, replacing other methods of relaxation. «The phone can show us how long we've been using a certain app and much more. For example, my average is 7-8 h a day. I often waste time on social media ... I only use the TV when I want to watch series or movies. If I find a movie of series that I really like, I put my phone away and spend a few hours in front of the TV» (student, 22 years old).

Most of the participants in the study use their phone, tablet, computer for personal purposes (to check email, access social media, access YouTube, to get information) and TV to watch movies, various shows, news, etc. "I use it for news, checking email, WhatsApp, Instagram, Facebook, YouTube" (master student, 35 years old). Others are forced to use the laptop/computer at work "I spend 9 hours a day in front of the computer, because my work requires it. I work in video game production and I can't even cut down on this program" (student, 21years old).

Some of the participants in the study are aware of the negative effects that excessive use of digital technology has on their physical and mental health, which is why they have taken some steps to limit the time they spend on their phone or computer. "Most of the time I listen to music (Spotify YouTube), various podcasts (Spotify), read (Read Era), spend time on social media for maximum one hour (Facebook, WhatsApp), because I have set an alarm for my phone to notify me on time spend on the phone" (master's student, 48 years old). Others say they have given up watching TV, in order to use the time relaxing in other ways (reading, going for walks, meeting with friends). "I gave up watching TV 9 years ago, so I don't

spend time watching it” (female student, 26 years old). “I don’t watch TV, I don’t even have one in the room where I live” (female student, 23 years old).

The amount of time spent on digital technology has increased considerably, especially among young people who spend even half of their day using technology. Our whole lives have been taken over by technology, we rarely do activities that don’t include technology anymore, perhaps also because we are offered so many benefits through it.

In terms of changes in time, in terms of time spent on digital technology, the majority of participants in the study felt that the more time they spend using their computer/tablet/phone, the more information they discover and the more they move from one piece of information to another, the more they lose track of time. The more technology advances, the more young people are captivated. “The time spent surfing the internet increases day by day. This change has come about due to the evolution of gadgets and the need of digital technology in daily activities” (student, 21 years old).

Games are also a source of personal time waste. “The excitement of always moving to another level of the game leads to losing track of time, so I would end up spending 2-3 hours just on that game” (student, 22 years old). One study participant believes that “obsession with games is common among young people. Those who don’t have a social life, or who don’t want friends and like solitude focus their attention on their favorite video games. Others refuse to leave the house so they can play video games, being addicted to them” (student, 20 years old).

The telephone and internet connection has conquered space and time. Apparently, we gain time and benefit from using this technology. “I’ve become addicted to my phone, if I forget it at home it makes me uncomfortable, I’m constantly checking where my mobile phone is. This device is symbolic, it’s the proof of the links between me and my family and friends. Email is efficient and useful ... There are two aspects, one is beneficial because I feel that people that are in other countries are closer to me, but it is also a delusion, an illusion because the time spent communicating online would be much better spent if we spent it with our relatives or friends” (Master’s student, 51 years old).

The arrival of new apps and social platforms has increased the time spent on the phone. “Since I started using my smart phone, I’ve increased my using time due to the emergence of various apps and social platforms

where I stay in touch with friends. I also use my phone a lot for paying bills, rent, online shopping etc.” (Master’s student, 27).

Unfortunately, the time spent on digital technology tends to increase more and more. Using technology becomes a vice over time. “I think using technology is an addiction and the more I use it the more time I spend using these devices” (student, 18 years old).

Time spent in cyberspace increased during the Covid 19 pandemic, due to the shift of work activities online. For many young employees it has become the natural working environment over time. “In recent times, culminating in the SARSCOV 2 pandemic, more than 75% of professional activities have ‘moved’ online, leading to an increase in time spent in cyberspace” (Master’s student, 47 years old).

A small proportion of respondents (4 people) believe that there has been no change in the amount of time spent in front of the computer or phone. “I haven’t noticed any change” (female student, 18 years old).

The overuse of digital technology can lead to major changes in young people’s behavior over time, as confirmed by most of the participants in the study. Most talk about decreased ability to communicate when face-to-face meetings occur, tendency to isolate and anxiety about normal socializing. “I found myself more or less consciously postponing or avoiding face-to-face meetings without having a good reason, even gatherings with close friends” (student, 26 years old). Another respondent considers that “relationships with people around us have changed, communication has started to be lacking, too little time left to deal with the really important things in our lives. Our freedom will depend on our phone” (student, 24 years old).

Technology has taken over the way young people relate to each other, with some focusing on their phones even when meeting friends. “For a while now, because of my phone, I don’t pay enough attention to the people around me because I keep my eyes on the screen. When I go out with friends instead of socializing, they only focus their attention on the apps on their phone. It can be considered a drug that is allowed” (female student, 19 years old). Others prefer to use the phone to communicate, at the expense of direct interaction. “I’ve become more and more comfortable, with phone communication supplanting the visits I used to make more often, lack of time being the general excuse” (Masters student, 31 years old).

Prolonged time spent using digital technology can lead to feelings of extreme fatigue, anxiety, attention problems, irritability, headaches, exces-

sive eye strain and even visual disturbances, insomnia, sadness, depression, low self-esteem, mood swings, shallow assimilation of information, memory and/or language problems, etc. “When I spend a lot of time on the phone, my vision usually blurs, and in rare cases, I get migraines. In my opinion, these changes are mainly due to the fact that the light emitted by the screens of the devices we use is not at all healthy, and if we are exposed to it for a long time, I think it can have side effects, mainly on our eyesight” (master student, 25 years old).

Other testimonies of respondents even refer to depression caused by the use of digital technology. “I even noticed a certain depression, a state of anxiety when I didn’t receive messages or likes, or when I saw certain posts in which people were happy or rather mimicked that happiness all for the likes and my life seemed meaningless. I would post certain pictures just to create a false impression, which at the moment seems to me to be a hypocrisy present in these virtual spaces” (student, 26 years old).

Some participants in the study believe that the use of digital technology has advantages as well as obvious disadvantages. “After a long time spent in the digital world, I tend to be more tired and irritable, I often experience headaches and blurred vision, but at the same time access to the internet gives me a sense of security and control over my personal life” (female student, 18 years old). Another respondent also states that “access to digital technology gives me the security to solve problems at any time of the day” (student, 29 years old).

One study participant says there have been major changes in her own life, but also in those around her. “I think technology is very important, even indispensable at the moment, but it is also very important how we use it. As a teenager I was addicted to social media, it was taking over my life, my identity and well-being was strongly related to it ... On the other hand, through digital technology, I met wonderful people and a healthy content of information that helped me to change my perspective and now I use this technology in a beneficial way” (Master’s student, 28 years old).

Technology is becoming more and more exciting, attracting people of different ages, with more and more time spent in front of devices, and this can affect mood, leading to sadness and even depression. “I’ve noticed that it affects my mood, depending on what I’m watching on my phone or TV, it influences my mood and I’ve also noticed that it causes addiction.

When we get bored, or want to get away from a conversation we tend to use our phone" (Master's student, 46 years old).

A small proportion of respondents (5 people) believe that no changes in their behavior have occurred with the use of digital technology "I haven't noticed any changes" (student, 19 years old).

The survey participants' view of the onset of digital technology addiction was that it generally represents an acute need to be involved in online activities, ignoring everyday life, deeply affecting social life. The majority of people addicted to technology, use time spent on their phone/tablet/laptop as a means of relaxation and associate, over time, the use of a device with a state of well-being, with a way of breaking away, for a few hours, from reality "Like any addiction, digital addiction is also an attempt to treat or hide anxiety, depression, etc. Initially it is gratification, amusement, it temporarily cancels loneliness, and with time it becomes compulsive, with invariably damaging long-term consequences" (Master's student, 28 years old). Another respondent considers that "we can talk about digital addiction when we end up spending more time in front of a screen than in nature, or interacting face-to-face with people around us" (student, 18 years old).

Another participant in the study states that "addiction sets in when the person no longer has control over the behavior in relation to the addictive object, i.e. the behavior becomes compulsive (no longer directed by reason, but by the impulse based on obtaining pleasure) instead it is reason that decides what is useful and necessary at that moment, which brings a lucid control over the behavior, for example, I take the phone in my hand and I look at it not because I have something useful, necessary and real to do, but because I want to see who has wrote to me, or who has done what, and in this way I use up my psychic energy unnecessarily" (Master's student, 37 years old).

Children's addiction to digital technology can have disastrous effects on their perception of reality and their need to socialize with their peers "Some children find it difficult to make the transition from the virtual world to the real world and are exposed to a lot of risks. Stopping these activities causes frustration, because the addict finds it very hard to realize they have an addiction, and even if they are aware of it, it is difficult to accept it. His world consists only of that digital world, what is beyond it is meaningless" (student, 23 years old).

On the other hand, digital technology promotes inactivity and can be associated with obesity. “Digital technology has become accessible at the touch of a button, the answer is a second away, which is why we don’t have to make an effort to get what we want” (student, 21 years old).

Addiction to digital technology can be considered a public health problem because “technology addiction leads to isolation and depression with serious consequences (even suicide) in the long term - online sex addiction, addiction to strictly online relationships, replacing up to 100% those in real life (e.g. the hikikomori phenomenon started in Japan), compulsive online shopping, addiction to computer games, information overload and compulsive searching and information (e.g. symptoms=>hypochondria), etc.” (master student, 36 years old).

Some of the participants in the study believe that the mental health of young people addicted to digital technology can be severely affected, “which can lead to the imbalance of today’s society” (female master’s student, 48 years old). For children, the consequences of technology addiction can be much more serious. “Children who are exposed early to TV, tablets, phones develop autism and big problems with communication and perception of reality” (female student, 24 years old).

Digital addiction is the disease of society and we see its impact all around us, but more devastating effects will be visible in the years to come, because adult generations have not “grown up” with technology, while new generations are exposed to technology from the first months of life.

Numerous arguments were put forward by respondents in favor of the idea that digital addiction is a public health problem. “As people end up spending an extreme amount of time in front of screens, they will spend less and less time outdoors, which leads to a weakened immune system and thus more frequent illnesses. The light produced by screens can also cause eyesight defects” (student, 18 years old). “The use of technology is alienating us from each other and is a public health concern because it increasingly causes sedentarism, anxiety, agoraphobia, lack of human qualities such as empathy, compassion, solidarity, kindness, modesty, realism, etc.” (student, 20 years old).

Regarding the preventive measures that could be implemented, the participants in the study believe that it would be beneficial “tougher regulation of social networking platforms, games, betting platforms, news sites, along with the training of attitudes and values of personal life of young

people to determine their social and professional development outside the virtual space (at school and at home), the development of effective communication skills in personal and professional life” (Master’s student, 36 years old).

Other respondents believe that the first steps should be taken by parents, imposing a strict screen time schedule on children. It is important that children are involved in educational and leisure activities that they enjoy (playing sports) but without the use of technology. “I believe that imposing a regime on the possibility of using digital technology would significantly reduce the time allocated to this activity. Parents should avoid too frequent exposure of young children to technology, looking for hobbies to replace it” (pupil, 18 years old).

Some participants in the study say that an effective means of prevention would be information campaigns, through media channels and in schools, organizing information workshops for adults on how it affects their personal lives and those of their family members. “First of all, prevention measures can be taken by implementing prevention programs in schools, but I think it would be effective if family members could participate in these programs because education starts from home. Just as there are advertisements and banners showing the effects of alcohol or cigarettes, there should also be advertisements showing the effects of this “new drug” on the brain” (Master’s student, 28 years old).

Conclusions

The amount of time spent on digital technology has increased considerably, especially among young people, who spend up to half their day using technology. Digital technology is beneficial as long as it is not overused and does not take over an individual’s entire existence. Unfortunately, digital addiction has become a problem among children and young people, replacing other methods of relaxation. The more technology advances, the more young people are hooked.

“The Internet and the mobile phone have changed people’s lives, but questions about the negative effects of their use have arisen since the end of the last century. Internet addiction, due to its devastating impact on users, society, and its rapid spread that is difficult to control, has become a globally recognized problem in recent years. However, its neurobiological

mechanism is not yet fully known. Numerous studies have been done that demonstrate the existence of abnormalities in the brain, but these aspects are still being studied.”⁴

Most technology addicts use their phone/tablet/laptop time as a means of relaxation and over time associate using a device with a sense of well-being, a way of breaking away from reality for a few hours. Addiction sets in when the person no longer has control over their behavior in relation to the addictive object, the behavior becomes compulsive.

Over time, the excessive use of digital technology can lead to major changes in the health and behavior of young people: reduced communication skills, a tendency to isolate themselves, increased fatigue, anxiety, problems with attention, irritability, headaches, excessive eye strain and even visual impairment, insomnia, sadness, depression, low self-esteem, superficial assimilation of information, problems with memory and/or language, etc. Digital technology also promotes inactivity and can be associated with obesity. Digital technology addiction can therefore be considered a public health problem with disastrous long-term effects.

In terms of preventive measures, an effective means of preventing addiction to digital technology would be information campaigns through media channels and in schools, organizing information workshops for adults on how it affects their personal lives and those of their family members. Authorities could also decide on mandatory warning labels for digital apps and services.

Preventive measures should be taken by every parent, imposing a strict screen time schedule on children and offering them pleasant leisure alternatives. “Parents can only mitigate the effects of internet addiction if they have sufficient information about the online programs their children access.”⁵

Maintaining close relationships with parents and friends, organizing outdoor activities, developing awareness programs and constant emotional support can be effective ways of preventing digital addiction.

4 Baci, Adina, Brândușa, *Medical and social consequences of digital addiction*, vol. *Medical Anthropology*, Bucharest, The Publishing House of Romanian Academy, 2020, p. 136.

5 Baci, Adina, *Adicția digitală – fenomen antropologic al secolului actual*, [*Digital Addiction – an anthropological phenomenon of the present century*], vol. *XIV-Anthropology of III-rd Millenium*, 2020, p.46.

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Webography

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