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Mind, Body, Firewall: Health and Security in Times of Continuous Connection

ABSTRACT

In the world of the digital era, we may observe increasingly younger generations growing up with digital technologies at their fingertips. Their increased usage among today's young adults raises concerns about the impact on their mental well-being, as high levels of connection are associated with dubious behaviour, low self-esteem, and depressive symptoms. In response to these findings, the concept of "social media detox" has emerged, which involves voluntarily limiting or completely discontinuing its handling in order to improve mind wellness. The study examines the results of the survey titled Slovaks in the Net 2023, bearing in mind Generations X, Y, and Z. The aim of the research was to explore how the amount of time spent online affects the physical and mental health of respondents across generations, and to identify their attitudes towards digital detox and online safety. The results showed that the negative consequences of electronically connected activities are present in all age groups. The outcomes support the need for educational and preventive strategies focused on digital hygiene and safe networked performance, while considering generational differences.

KEY WORDS

Digital Detox. Generation X. Generation Y. Generation Z. Health. Safety. Social Networks.

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1 Introduction

The cyberspace can be a region of inspiration, but on the other hand, various studies in the fields of marketing, psychology, and medicine point out that it also has an impact on our mental health. Therefore, there exists an increasing debate on the repercussion of the virtual realm on our health, as well as on vacation from gadgets. According to a study on the website of the United States (US) Federal Government's National Institute of Health, digital detox is defined as consciously and deliberately disconnecting from all smartphone-related activities for a certain period of time, which researchers consider effective in improving well-being (Ansari et al., 2024). Another study on the website of the National Institute of Health states that the excessive utilization of social media platforms and digital technologies, often caused by addictive scrolling, is associated with sleep disorders and obsessive-compulsive behaviour, while also exacerbating mental health concerns (Setia et al., 2025). In their study, Turel et al. (2018) point out that short-term abstinence from social media leads to a reduction in perceived stress, especially among excessive social media users. However, the question remains: how long should an offline retreat last in order to improve an individual's health? There is probably no universal response to this issue, and we must seek the resolution for everyone separately. The authors of a 2021 study found no evidence that withholding from social media for one day had a significant positive effect on mental welfare (Przybylski et al., 2021). The question then arises as to how long a digital detox should last in order to have a positive effect on a person's happiness. Therefore, in their study, Marciano et al. (2024) state that the effect of interventions and their duration vary depending on the type of the outcome, and the aftermath is influenced by sex, age, and contextual factors. Accordingly, it is not possible to adopt a universal policy on unhook from the digital realm, but investigation needs to be conducted in this area and each case has to be approached individually. In the following subchapters, we will focus on the theoretical basis of the impact of the online environment on mental health, as well as ditching the digital lifestyle.

1.1 Impact of the Digital Space on Human Health

The increasing prevalence of problematic Internet use has raised concerns about its adverse impact on the mental welfare of the Internet users (Ansari et al., 2024). The consequences of the online environment on mental health have become more prominent among researchers during the Covid-19 pandemic. Research workers have investigated the factors that influence mental wellness in the cyberspace. Significant factors included late-night online activities, continuous connectedness and the time spent offline, consuming pornography, and keywords associated with negative emotions, social activities, and personal matters (Zaman et al., 2020). Social media use is the second most common cause of disability among psychiatric disorders. A large body of bibliography attempts to demonstrate the links between social media exposure and mental illness (Zubair et al., 2023). Social media has significantly changed interpersonal communication, while fostering connectivity, and simultaneously also enabling the spread of disinformation. The uncontrolled dissemination of false narratives has a profound impact on mental health, contributing to the increased stress levels, anxiety, and paranoia induced by disinformation (Arora et al., 2025). Behaviour on social media also affects mental health. Several studies have suggested that peer feedback on social media plays an important role in the relationship between social media utilization and mental fitness (Voggenreiter et al., 2023). Younger people tend to spend more time on social media than other age groups and are more likely to be affected by their use of social media (Ahmed et al., 2024). Concerns about privacy, cyberbullying, and negative impacts on school attendance and mental health belong to the risks associated with social media use by this school-age generation (Khalaf et al., 2023). Social media operation is a time-consuming activity for children and adolescents. Health-care authorities have warned that excessive use of social

media can negatively affect the social, physical, and mental health of adolescents (You et al., 2022). In 2023, a study was conducted in the United Kingdom that examined the link between anxiety and social media exposure. The study was carried out among university students, and the results showed that social media reduced anxiety through positive experiences, social connection, and escape from reality. In addition, social media also increased anxiety through stress, comparison, fear of missing out, negative experiences, and procrastination (Anto et al., 2023). From this result, we can deduce that it is not only social network itself that have an impact on mental health, but also the content that social network users consume.

1.2 Digital Detox

Going undigital is gaining increasing attention as a self-management method to address the adverse effects of prolonged leisure-time use of information and communication technologies (Marx et al., 2025). Limiting social media use may have beneficial effects on smartphone and social media addiction, along with many other health outcomes/consequences (Coyne & Woodruff, 2023). In their study, Çakmak Karapinar et al. mention that it has been observed that students expressed the view that overcoming digital addiction with beneficial activities is a challenging but very rewarding experience. Students reported that the easiest applications for them during the process of taking a break from technology were not looking at anything during meals, engaging in a hobby, and using a wristwatch, while the most challenging applications were turning off notifications for mobile apps and leaving the phone in another room while sleeping (Çakmak Karapinar et al., 2024). One of the strategies that has received growing attention in recent years to counteract the negative consequences of digital stress is digital detoxification, which refers to temporarily or completely disconnecting from digital technologies (Stangl & Riedl, 2024). Digital detox is defined as the cessation of the use of electronic devices (e.g., smartphones), either completely or for specific subsets of smartphone use. However, it has been unclear whether power down interventions are effective in promoting healthy lifestyles in the digital age (Radtke et al., 2022). Social media occupies a large portion of consumers' daily time. In response, social media detoxification is on the rise, with consumers setting time limits or even taking complete breaks from social media (Kopka et al., 2025). Unhooking from the digital realm is closely linked to mental health. A study on women published in January 2025 found that clearing Instagram and TikTok feeds of appearance-focused content was a particularly promising approach to improving presentation satisfaction (Seekis et al., 2025). Once again, we find ourselves wondering whether the content we consume can make an impression on our emotional health. Is disconnecting from social media directly proportional to mental wellness? Although it is theoretically assumed that a social media detox affects well-being, live research on this issue has yielded mixed results. This raises the question of whether it has positive or negative effects on welfare and requires a synthesis of empirical evidence to determine whether engagement can improve happiness (Liu et al., 2025). This is described in a study by Lepik and Murumaa-Mengel, which examined how a five-day break from social media use affects the information behaviour of adult students (N = 42), based on theories of social time acceleration, reverse domestication, and social media literacy. Participants reported a mixture of negative emotions (anxiety, boredom, "fear of missing out") and positive feelings (calmness, relief from the absence of constant availability). Based on their findings, the authors propose a simple reflective tool for assessing information behaviour in the context of subjective perceptions of social time (Lepik & Murumaa-Mengel, 2019). With 4.8 billion users, social media is a significant part of everyday life, but few studies have examined subjective perceptions of its impact and experiences with "detoxification". A study of 208 British users (aged 18 – 28) found that despite being aware of the negative effects of excessive use, they were able to successfully go through long periods without social media, which had a positive impress on their sleep, mood, and productivity. The main reason for returning to these

platforms was a desire for social connection and information, not social media addiction itself, suggesting the potential for positive effects of “detoxification” (Robertson et al., 2023). Another study points to an increase in social media use among young adults being linked to dubious behaviour, low self-esteem, and symptoms of depression. A pilot study with 68 college students showed that voluntary periods of “social media detoxification” lead to positive mood changes, reduced anxiety, and improved sleep. The results suggest that detoxification is a well-known and widely used method among students to reduce the negative effects of social media, although its sways vary between individuals (El-Khoury et al., 2021). It will be an issue for social media experts, psychologists, doctors, and teachers to determine how to perceive and apply a balance between the real and digital worlds so that it does not significantly change the quality of a person’s mental health. This goal is a challenge that, according to the above-mentioned studies, will be the subject of lengthy research, also in connection with the changing habits of new and existing generations.

1.3 Digital Safety

Digital security plays an important role in both physical health and digital detox. We build our online identity on various platforms, where it can also be abused. In a study by Papaioannou et al. (2020), it is stated that users’ worries about privacy do not seem to be influenced by the amount of information they decide to disclose when forming their digital identity. Social networks provide communication with the opportunity of connecting with relatives and acquaintances, meeting new people, joining communities, chatting, exchanging photos, organizing events, and creating networks with others who are close to a real life; unfortunately, on the other hand, they also raise privacy and security issues (Mughaid et al., 2023). Digital safety relates to all generations, as everyone can be abused, whether in the form of financial fraud or luring different types of photographs. The University of Burgos conducted a study on the elderly people, whose results show that the older people want to learn how to use these tools safely and privately. This attitude towards technologies makes media literacy educational programs an essential practice in the field of lifelong learning (Casado Muñoz & Lezcano Barbero, 2018).

2 Methodology

The aim of the study is to examine the impact of time spent online on the physical and mental health of Slovaks across Generations X, Y and Z, and to identify attitudes toward digital detox and online space safety across these generations. The data used in this study is a part of a complex paid study entitled Slovaks in the Internet 2023, conducted by the agency Kantar. Data collection in Slovak households via an online questionnaire took place in June and July 2023. The extensive survey was administered to a representative sample of daily Internet users aged 15 – 65 (N = 1,533) and it took a total of 70 minutes to complete. It was divided into several shorter samplings in order to maintain high data quality. According to the nature of the data gathering, this is quantitative research in the form of a questionnaire survey, and we are working with secondary research in terms of data collection, as we already have existing purchased data. Secondary research is done as primary research, and since we had all the necessary data collected, it was not essential to proceed to carry out primary research. From the perspective of the research objective, we are working with descriptive research, which is suitable for collecting data on the market and customers, with questionnaires being the main tool used in descriptive research.

Demographic Profile of the Sample of Daily Internet Users Aged 16 – 65:

Sex was evenly represented, including 50% male and 50% female respondents. The age distribution of generations was in the following structure: Generation Z (aged 16 – 24) 18%, Generation Y (aged 25 – 44) 47%, and Generation X (aged 45 – 65) 35%, with the regional distribution being Bratislava (the capital city) 12%, Western Slovakia 40%, Central Slovakia 26%, and Eastern Slovakia 24%. The research was carried out on a statistically representative sample that reflects the structure of the entire Slovak population.

Gen.	Age	Share of the population in SR
Z	16 – 24	18%
Y	25 – 44	47%
X	45 – 65	35%

Table 1: *Demographics of the research sample*

Source: own processing, 2025, according to Kantar (2023)

In the presented study, we focus on one part of the survey, which deals with the issue of the impact of online life on health, digital detox, and security in the online space. The data was processed using **descriptive statistics** (percentages, average values, distribution according to demographic variables). Where appropriate, **comparisons between groups** were used (age, sex, region). The questionnaire was designed to meet the research objectives and enable systematic data collection. Its structure was divided into several logical parts. The introductory part contained information about the purpose of the research, the anonymity of the respondents, and instructions for completing the questionnaire, thus ensuring a clear understanding of the method of completion and the trust of the interviewees. The second part included socio-demographic questions regarding age, sex, education, employment, and place of residence. The purpose of this part was to allow for the analysis of the responses in terms of the basic characteristics of the answerers and to identify possible correlations with the main research variables. The main thematic part of the questionnaire was designed according to the research questions and focused on the attitudes, behaviour, and experiences of the informants. The questions related to attitudes ascertained the respondents' opinions on the researched issue, questions on conduct and habits examined the practical manifestations of the investigated phenomenon, and questions on experiences and evaluations captured the repliers' previous experiences and their subjective evaluation. The surveyed topics were selected on the basis of previous similar and existing research to make the questionnaire methodologically reliable and valid. The questionnaire was designed to provide answers to specific research questions. It ascertained what the interviewees' attitudes were towards the researched issue, how often and in what way they performed specific behaviours or activities, and whether there were differences in attitudes or behaviours between different groups of respondents according to age, sex, or education.

Research Questions

The investigation focused on examining the impact of online activities on the physical and mental health of respondents, as well as their behaviour in the area of digital safety and regulation of time spent online. The primary objectives of the research were defined to allow answering key questions regarding generational differences in the perception of negative impacts of the Internet, as well as respondents' motivation to consciously limit their time online.

Primary Objectives:

- **RQ1:** How does the amount of time spent online affect the mental and physical health of respondents across generations?

- **RQ2:** To what extent do respondents perceive the need to regulate their time online and how does this feeling differ between age groups and sexes?
- **RQ3:** What are the attitudes and conduct of Slovaks towards online safety and personal data protection?

Secondary Objectives:

- **RQ4:** What are the generational differences in the perception of negative consequences of online activities?
- **RQ5:** Which specific online activities are most often regulated (digital detox) and how do preferences differ between generations and sexes?
- **RQ6:** What are the respondents' experiences with online fraud and fake profiles and how do these experiences differ between generations?
- **RQ7:** To what extent do respondents use modern security methods (two-factor authentication, biometric verification) and how does their use differ across age groups?

Specifically, we investigated the impact of the amount of time spent online on the physical and mental health of respondents across generations (RQ1), how interviewees practice digital detox (RQ2) and their perception of the issue of their own safety on the Internet (RQ3).

Secondary research objectives broadened the perspective to more detailed aspects of digital behaviour. We focused on differences across generations regarding the negative impact of spending time online (RQ4) and we also analysed the activities that are most often subject to digital detox, again taking into account individual generations and sexes (RQ5). Other secondary objectives are linked to respondents' experiences with problematic – unfair activities in the online space (RQ6) and finally to the use of various security methods (RQ7), also with regard to the age groups of respondents.

This approach allowed for a comprehensive comparison of risk perception, awareness of negative impacts and active strategies for regulating digital behaviour between generations, while also taking into account gender differences.

3 Results

3.1 Impact of Online Life on Our Health

The first examined aspect was how the amount of time spent online affects our health. Respondents answered the following questions about physical fitness (how a person feels physically, whether they suffer from headaches, back pain, etc.) as follows (in %):

	Significant impact	Slight impact	No impact
Gen Z	11	42	47
Gen Y	7	40	53
Gen X	7	35	58
Total	7	39	54

Table 2: *Impact of time spent online on physical health*

Source: own processing, 2025, according to Kantar (2023)

The issue of mental wellness (level of stress, irritability) has also been investigated as follows (in %):

	Significantly affected	Slightly affected	Not affected at all
Gen Z	15	44	41
Gen Y	5	39	56
Gen X	5	28	67
Total	7	36	57

Table 3: *Impress of time spent online on mental wellness*

Source: own processing, 2025, according to Kantar (2023)

With decreasing age, the feeling of perceived dependence on the cyberspace increases linearly, as does the need to consciously regulate the time spent online. Generation Z are much more likely to admit that the length of time they have spent online over the past year has greatly affected their physical health and mental well-being. In contrast, Generation X seem to be relatively resistant to these pitfalls of the Internet.

Digital Detox

In relation to how much time we consume on the information superhighway and how these activities affect our well-being, the need to restrict time on the Internet, the so-called digital detox, was surveyed. 42% of all respondents admit that in the last month they tried to limit the time they spend on the Internet, of which 35% were men and 48% were women. As for generations, surprisingly, the most – up to 60% – are Generation Z regulating the time consumed online, from Generation X, it was 32% of the surveyed and from Generation Y, 41% of the interviewees.

Activities we try to restrict are as follows (all respondents): Facebook 22%, Instagram 17%, watching short videos (YouTube, on social networks) 17%, chatting (WhatsApp, Messenger) 12%, playing online and PC games 11%, online shopping 10%, TikTok 10%, reading news 9%, watching films, series and TV shows (Netflix, Voyo, HBO Max) 8%, searching and following matters related to interests and hobbies 5%.

The urge to confine time spent in the cyberspace is strongest among women and young Slovaks. The most common activity we want to reduce is the use of social networks, which for older generations is definitely Facebook, while the youngest Generation Z want to regulate their time spent on TikTok and Instagram.

The differences between men and women and between individual generations can be seen in Tables 4 and 5.

men		women	
Facebook	17	Facebook	27
Watching short videos (YouTube, on social networks)	15	Instagram	20
Instagram	15	Watching short videos (YouTube, on social networks)	18
Chatting (WhatsApp, Messenger)	10	Online shopping	14
Playing online and PC games	10	TikTok	13
Reading news	8	Chatting (WhatsApp, Messenger)	13
Watching films, series, and TV shows (Netflix, Voyo, HBO Max)	7	Playing online and PC games	12
Online shopping	7	Reading news	10
TikTok	7	Watching films, series, and TV shows (Netflix, Voyo, HBO Max)	9
Searching and watching matters related to interests and hobbies	5	Searching and watching matters related to interests and hobbies	5

Table 4: *Confining online activities – men vs women*

Source: own processing, 2025, according to Kantar (2023)

	Gen Z		Gen Y		Gen X
Instagram	41	Facebook	27	Facebook	15
Watching short videos (YouTube, on social networks)	32	Instagram	20	Watching short videos (YouTube, on social networks)	12
Facebook	28	Watching short videos (YouTube, on social networks)	18	Playing online and PC games	12
Chatting (WhatsApp, Messenger)	20	Chatting (WhatsApp, Messenger)	14	Online shopping	10
TikTok	17	TikTok	13	Reading news	8
Playing online and PC games	14	Playing online and PC games	13	Watching films, series, and TV shows (Netflix, Voyo, HBO Max)	8
Reading news	13	Online shopping	12	Instagram	7
Online shopping	11	Reading news	10	Chatting (WhatsApp, Messenger)	7
Watching films, series, and TV shows (Netflix, Voyo, HBO Max)	11	Watching films, series, and TV shows (Netflix, Voyo, HBO Max)	9	TikTok	5
Searching and watching matters related to interests and hobbies	6	Searching and watching matters related to interests and hobbies	5	Searching and watching matters related to interests and hobbies	5

Table 5: *Restricting online activities – generation-related approach*

Source: own processing, 2025, according to Kantar (2023)

3.2 Safety in the Cyberspace

Another area of research was the perception of safety in the digital space. According to the survey results, Slovaks generally declare that they really care about online security and that they are rather sensitive about their personal data. However, real online conduct shows that this is not always entirely true and that we share our personal data freely in exchange for some benefit or discount. Seven out of ten people say that they are very careful not to reveal more about themselves than is necessary.

Only 8% of the respondents are not concerned about the Internet security at all. The remaining quarter fall somewhere between these two extremes. They are cautious only when it comes to truly sensitive data, such as their birth security number or online banking.

What Dangerous Situations We Encounter Online

In recent years, the most common dangers are mainly related to the growth of the online circular economy and the boom in online marketplaces, such as Facebook Marketplace, or Vinted. Almost a third of people have encountered a fraudster when selling or buying on online marketplaces.

Other dangers lurk mainly on social networks. A quarter of Slovaks online are aware that they have been in contact with someone on social networks who turned out to be a fake profile, and a fifth have received indecent proposals because of their photos. These two types of experiences mainly concern younger women from Generation Z.

The pitfalls and dangers of the Internet differ greatly between age groups. Generation X, who do not use the Internet as intensively, are best at avoiding traps, and if it happens, they most often encounter threatening emails aimed at fraudulently obtaining money. Generation Y are more active on cyberspace and meet scammers mainly when buying or selling on online marketplaces. Generation Z, on the other hand, are exposed to many dangers through their activities on social

networks: one third are aware that they have been in contact with fake profiles, one fifth have been pressured to publish sensitive photos or videos or have faced indecent proposals. They have also most often encountered theft of photos or even their entire identity on social networks.

	total	men	women	16-24 years	25-44 years	25-44 years
I encountered a fraudster when selling goods on an online marketplace (Bazoš, Marketplace, Vinted)	31	28	34	34	37	21
Someone sent me a threatening email (I have your password, webcam images, etc.) and demanded money from me	26	31	20	15	27	30
I was in contact with someone on social media who turned out to be a fake profile	23	22	24	33	24	17
Someone obtained or attempted to gain my payment details (e.g., through a fake email "from the bank")	19	20	18	22	21	15
Someone stole my identity on Facebook, Instagram, and hacked into my account, e.g., changed my password	9	8	9	15	9	5
Someone took a photo of me on social media and used it to create a new profile	6	4	7	14	6	1
Someone misused my payment card, which I use for online purchase	5	5	6	5	5	7

Table 6: *Unpleasant situations that people have experienced on the Internet*

Source: own processing, 2025, according to Kantar (2023)

How We Can(not) Detect Online Cheaters

If we focus on the most common problem – buying or selling on online marketplaces – we find out that when a person came across a fraudster, they were able to immediately detect them (declaratively) in 65% of the cases and stopped communicating with them (in this regard, men are considered better “detectives”). One in five became suspicious during the sale or purchase and ultimately stopped the process in time and lost nothing (more often women). The remaining 14% did not detect the scammer and lost their money. What evidence convicted the fraudster? Most often, they were exposed by strange communication, clumsy communication, or incorrect Slovak language (6 out of 10 successful “detectives” considered this mistrustful). More than half became untrusting when the fraudster requested their payment details in advance. Approximately a quarter then even carried out their own investigative work, they checked the buyer’s profile or noticed that the website on which they were supposed to enter their payment details was suspicious/fake.

Openness and Perceived Security Risks of Various Login Methods

In recent years, there have been significant developments in the area of more convenient and secure login methods (using biometric confirmation, two-factor authentication, and so on). Our data shows that Slovaks are aware of and welcome these improvements, and that this has had a significant impact on their sense of security when shopping or making payments online. As we can see in Table 6, virtually everyone is familiar with two-factor authentication (password and verification), and 9 out of 10 use it at least sometimes, with one half using it regularly. One in three also uses a mobile banking key whenever possible, but almost a half do not use it at all (which may be caused by the fact that not every bank offers this option).

Fingerprint or facial recognition, which are available on most modern smartphones, have also been discovered by many users: more than a third of Slovaks already use them regularly online. For Generation Z, it is the most common way to log in, while in Generation X, it is not applied by nearly 6 out of 10. Those who use them, together with two-factor authentication, most often cite it as the most secure way to log in. The use of methods from the perspective of generations is shown in Table 7.

In recent years, there has also been a boom in the use of Google accounts (used at least occasionally by 85%) and Facebook accounts (used at least occasionally by three quarters). Slovaks understand these methods of logging in are no longer as secure (Table 8). However, convenience (especially when shopping in e-shops) often prevails, which is why we use these methods extensively.

	I use it almost always when possible	I use it occasionally	I know about it, but I don't use it	I don't know about it, have never heard of it
Username, password, and phone verification (text message, app)	48	38	11	4
Google account	43	42	13	3
FB account	42	34	21	3
By means of fingerprint or facial recognition (face ID)	35	19	36	10
Mobile banking key	30	26	25	19
eGovernment	5	8	22	64

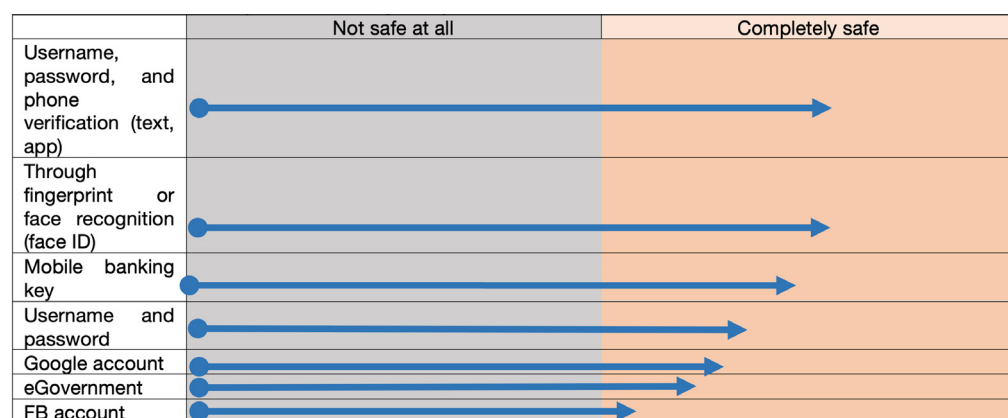
Table 7: Knowledge and use of login methods

Source: own processing, 2025, according to Kantar (2023)

	Gen Z	Gen Y	Gen X
Username, password, and phone verification (text message, app)	93	87	79
Google account	89	86	81
FB account	76	79	73
By means of fingerprint or facial recognition (face ID)	79	55	39
Mobile banking key	64	63	44
eGovernment	13	17	8

Table 8: Use of login methods – generational perspective

Source: own processing, 2025, according to Kantar (2023)



* respondents who are familiar with the given way of login

Table 9: Perceived security of different login ways

Source: own processing, 2025, according to Kantar (2023)

4 Discussion

In the following chapter, based on the research results, we will focus on evaluating the identified primary and secondary research questions.

RQ1: How does the amount of time spent online affect the mental and physical health of respondents across generations?

The results show that Generation Z feel the negative effects of online activities on mental and physical fitness in the most distinctive way. With increasing age, the perception of these impacts decreases. Generation X appear to be the most resilient. Younger people more often report stress, irritability, and sleep disorders.

The data obtained suggests that the perception of this impact is largely conditioned by age and generation. In terms of physical health, the largest proportion of respondents who report a significant negative impact of online activity come from Generation Z (11%). In this age group, as many as 53% report that the time they spend online has harmed them physically to some extent. However, with increasing age, the proportion of interviewees who are tentative to negative consequences decreases – in Generation X, as many as 58% of the respondents say that their physical health has not been affected at all. This trend may be related to the lower intensity of online activity among older age groups, but also to a different perception of the physical symptoms associated with a sedentary lifestyle. Even more pronounced generational differences were evident in the assessment of the impact of online activities on mental health. In Generation Z, up to 15% of the respondents said that their mental well-being had been strongly affected (compared to only 5% in Generations Y and X). As with the physical fitness, younger respondents are more likely to experience increased stress or irritability as a result of frequent Internet use. Generation Z grew up with digital technologies as part of their everyday lives, which brings benefits in terms of information and connectivity, but also increases the risk of digital addiction, social anxiety, and sleep disorders. Another interesting finding is that the feeling of needing to regulate time spent online is growing among younger respondents. This may indicate a certain degree of awareness of the negative consequences, which also opens up space for educational and preventive interventions focused on digital hygiene. Conversely, Generation X appear to be the most resistant to these influences, which may be related to a different way of using technology, a more stable work or personal background, or a lower level of exposure to social networks.

Regarding the related secondary research question (RQ4) on this issue, “What are the generational differences in the perception of the negative consequences of online activities?”, we can conclude that the generational differences in the perception of the negative consequences of online behaviour are significant. The youngest Generation Z show the highest levels of digital stress, fatigue, and need for regulation, while Generation X appear to be the most resilient.

RQ2: To what extent do respondents perceive the need to regulate their time online, and how does this feeling differ between age groups and sexes?

The endeavour to restrict the amount of time spent online is most pronounced among younger respondents and women. Up to 60% of the Generation Z attempted a digital detox in the last month, indicating a growing awareness of the impact of digital technologies on health and well-being.

The findings on the impress of online life on respondents' physical and mental well-beings logically raise the question of how we perceive these impacts and how we respond to them. As we indicated in the introduction to this study, one form of reaction is consciously and deliberately limiting the length of time spent on the cyberspace, also known as digital detox. The data shows that up to 42% of Slovaks have tried to limit their online activities in the last month. This relatively high proportion indicates that people are increasingly aware of the need to set boundaries

in the digital space. An interesting fact is that the willingness to regulate one's online time is higher among women (48%) than men (35%), which may be related to a more subjective perception of psychological discomfort or greater sensitivity to online social interactions.

In terms of age, Generation Z dominate again, with up to 60% of the respondents declaring an effort to reduce their time on the Internet. In the context of previous findings, this makes sense – young people spend the most time online, but at the same time they are also most aware of the negative effects of this behaviour on their health. Generation Y are trying to regulate their time online in 41% of cases, while the oldest generation, Generation X, are doing so in only 32% of the cases, which may again reflect both a lower level of digital overload and a lower motivation to change.

When it comes to specific digital actions that people try to limit, it is social networks and short videos that dominate – which is in line with trends in digital conduct. Facebook (22%), Instagram (17%) and short videos on YouTube or social networks (17%) are most often cited as dubious. The intergenerational differences are very pronounced, as follows:

- Generation Z most often limit Instagram (41%), watching short videos (32%) and TikTok (17%);
- Generation Y focus more on Facebook (27%) and Instagram (20%);
- Generation X try to limit Facebook (15%) and passive content viewing (Netflix, newscast, etc.) in particular.

There are also noticeable differences between the genders: women are more likely than men to limit Instagram, TikTok, online shopping and chatting – thus activities with significant social or emotional impact. Men, on the other hand, tend to more regulate gaming, reading the news, or watching films. These findings can be interpreted as a sign of growing digital self-reflection, especially among the younger generation. The pursuit of a digital detox is a potential reaction to the feelings of overload, dissatisfaction with oneself, or fatigue from social media. However, it may also be an attempt to regain control over one's own time and attention, which are often scattered in the digital environment.

Secondary research question (RQ5), "Which specific online activities are most often regulated (digital detox) and how do preferences differ between generations and sexes?", provides a summary finding: the most frequently restricted online actions are social networks (Instagram, Facebook) and short videos (TikTok, YouTube). There are differences between generations and genders – women more often restrict emotionally charged activities, while men restrict games and passive content consuming.

RQ3: What are the attitudes and conduct of Slovaks towards online safety and personal data protection?

Slovak men and women are aware of the importance of safety (70% are cautious), but comfort often prevails over caution. 8% are not interested in safety at all. There is a discrepancy between declared attitudes and actual behaviour.

While awareness of the negative impacts of online activities leads to efforts at digital detox, there is also a need to strengthen security habits in the cyberspace. The second part of our research results confirms that Slovaks are generally aware of the significance of the Internet security and the sensitivity of their personal data. However, there is a certain discrepancy between the declared attitude and actual behaviour – despite efforts to protect their data, many users are willing to share it in exchange for discounts or other benefits. Convenience and quick access to services often outweigh the risks associated with privacy protection. According to the results, up to 70% of the respondents are very careful about disclosing information, which suggests that there is a certain degree of caution. On the other hand, 8% of the Slovak people are not concerned about security at all, which is a significant risk, given the number of online threats.

The rest of the population is in a grey area, where the attention paid to security depends on the specific sensitivity of the data, such as birth security numbers or online banking details.

The most common dangerous situations are associated with buying and selling on online marketplaces, where almost a third of respondents have already encountered a fraudster. This problem is linked to the growth of the online circular economy and increasingly popular platforms, such as Facebook Marketplace, or Vinted. On the other hand, social networks pose a different kind of risk – a quarter of the surveyed have already had experience with fake profiles, while a fifth have been exposed to inappropriate suggestions because of their images. This type of danger is more prevalent among younger women from the Generation Z, reflecting their high activity on social networks and simultaneously their vulnerability to online harassment, which is also confirmed by differences across generations: Generation X, who are less active online, mainly come across threatening emails and scams related to obtaining financial resources, while Generation Y take more risks when shopping and selling online. Generation Z are exposed to the highest number of online threats, mainly on social media, where they encounter fake profiles, pressure on publishing sensitive materials and identity theft.

When it comes to detecting fraudsters, the results suggest that most people are able to recognize suspicious behaviour and terminate communication with the scammer (65% of the cases). This aspect is positive, but still approximately 14% of the respondents did not detect the cheaters and lost money. An important factor in identifying scammers is the manner of communication – clumsy Slovak language or strange requests for payment details appear untrusting. It is also interesting that a quarter of users try to verify content, for example by checking profiles or the legitimacy of the websites.

The answer to the secondary research question RQ6, “What are the respondents’ experiences with online fraud and fake profiles, and how do these experiences differ between generations?”, can be summarized as follows, based on the above results: experiences with online fraud and fake profiles are common, especially among younger women from Generation Z. Generation Y face risks when shopping and selling online, while Generation X mainly encounter phishing and finance-related fraud.

The developments in more secure login methods, such as two-factor authentication, biometric verification (fingerprint, facial recognition), or mobile banking keys, are viewed positively. Almost everyone is familiar with a two-factor authentication, and most people use it at least occasionally, with a half of the surveyed using it regularly. Biometric methods have already found a stable place, especially among the younger Generation Z (79%), who are more technologically savvy and open to new security methods. On the contrary, the older Generation X apply these methods less often (39%). On the other hand, although a large proportion of Slovaks are willing to log in via their Google or Facebook account, they are aware of the lower security of these methods. However, convenience often outweighs security risks, which may be the reason for their continued growth in use.

The results regarding the perceived security of different login methods clearly indicate a challenge for increased awareness and education of users about secure login methods and online conduct. Prevention and security habits should be a natural part of a digital life, as should privacy protection and distinguishing between convenience and risk. Simultaneously, it is also of importance to reflect generational differences in attitudes to security and to tailor-made measures and communication strategies to the specific needs of different age groups. For instance, the younger generation, who actively use social networks, should be better informed about the risks of fake profiles, fraud, and identity theft, while older people may need more support in recognizing phishing attacks and protecting their banking details. Similarly, it is also vital to emphasize that modern technologies offer a wide range of options for securing digital identity and data protection, but without sufficient information and active engagement from users, these tools remain unused or misused. Therefore, work in the field of digital security is essential, and its importance will only grow with the continuing digitization of society.

Secondary research question RQ7, “To what extent do respondents use modern security methods (two-factor authentication, biometrics) and how does their use differ across age groups?”, leads to the following conclusions: two-factor authentication and biometric security are most widespread among the younger Generation Z, who are more technologically savvy and flexible in adopting new security solutions. Older generations apply them less often, which points to the need for target education in the area of digital security.

5 Conclusions

The research has shown that the impact of online activities on physical and mental health is significantly influenced by generations. The youngest Generation Z spend the most time online, experience the most negative effects on mental and physical well-beings, and show the greatest desire for digital detox. Generation X appear to be the most resilient, which may be related to lower levels of digital overload and different ways of using technology. The findings also point to a growing urgency for regulation of online time and the importance of digital hygiene, especially among younger users. In addition to the psychological consequences, the study also focused on digital security – although most respondents claim to be cautious, there are still gaps in the way of conduct and prevention against fraud or misuse of personal data. In the future, it will be crucial to focus on educational and preventive activities that take generational differences into account, promote responsible online behaviour, and strengthen users’ security habits.

Limits of the study: it should be emphasized that the data obtained is based on the subjective self-assessment of respondents, which means a certain limitation of the research. Respondents could adjust their answers according to their own perceptions or socially desirable responses, which may have affected the accuracy and objectivity of the data obtained. This factor is important to consider when interpreting the results, especially when evaluating attitudes, opinions, and one own’s behaviour, where subjective perceptions may distort the actual situation.

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