

The Practical Manifestation of the Dangers of Online Space Through A Generational Lens

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Abstract

Today's accelerating pace of digitalisation will require new skills and competences for all economic actors. Operating in the online space has many risks in addition to its advantages over the physical space. It is therefore essential that we equip ourselves with the knowledge to be able to identify and filter these risks and threats in order to succeed in the digital world. The youngest age group is the most exposed to these risks, mainly the young people of generation Z and alpha. They are the ones who spend most of their time in the online space on various social media platforms and platforms. This substitution of online space for physical space has introduced new concepts such as cyberbullying, or cyberbullying. Freedom of expression, which is the main attraction of these platforms, can cause a lot of damage to the lives and self-esteem of individuals, but especially young people. Everyone who lives and works in the online space needs to be educated about these effects and how to protect themselves against them. The verbal abuse, defamation and harassment that we often experience can sometimes reach a level that needs to be addressed. The aim of our study is to examine the views and experiences of different generations in relation to exclusion, humiliation or abuse in the online space and their basic attitudes towards dealing with these situations. Based on the results of the primary research presented in this study, we want to give direction to the educational system or even to awareness-raising campaigns carried out by non-profit organisations, as to which age group or generation should be prepared for similar situations, showing them effective and appropriate solutions.

Keywords: *Online Behaviour, Cyberbullying, Problem Solving, Generations.*

Introduction

The rapid development of digital technology has radically transformed the way we interact and access information in society (Parviainen et al, 2022). The spread of the internet and social media has not only created new opportunities, but also brought new types of challenges, especially for young people. The emergence of new technologies such as artificial intelligence, big data, blockchain, virtual reality and robots have created a new paradigm shift (Cham et al, 2022). Digitalisation is not a state but rather a process (Martinez, 2019). In this process, the actors are building digital capabilities that enable them to respond to environmental changes in a much more flexible and efficient way. In fact, digitalisation is also about digitalisation, digital adaptation and digital technologies. Active participation in the online space has become an everyday reality for generations Z and alpha, who often represent a larger share of online communities than any previous generation (Wang & Jiang, 2024). Alongside the benefits of the online world, such as fast communication and easy access to information, a number of threats have also emerged. The revolution in communication networks and information technology is contributing to the development of different sectors, industries and consumer behaviour worldwide. This puts the emphasis on connecting users even more, not only in terms of communication, but also in terms of shopping or everyday activities. This will enhance interactions between individuals (Oztemel, & Gursev, 2020; Chang et al, 2022).

Anomalies in the digital space, such as cyberbullying, can have a serious impact on young people's psychological well-being and social integration. The anonymity of online interactions and the lack of boundaries create new opportunities for individual attacks and exclusion. Traditional social norms and rules are often not directly applicable in the online space, posing new challenges for young people and professionals alike. Generational differences in the digital world affect the user experience in different ways,

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so it is important to understand how different age groups react to online bullying and similar negative phenomena (Garai-Fodor & Huszák, 2024).

Literature Review

According to Kollár, "security, as a basic need and motivation, is present in the life of all living beings, but in human societies it results in particularly complex phenomena." (Kollár, 2024). In our view, this complexity stems from the fact that people seek not only physical, but also psychological and social security in all domains. In recent years, the term 'cyber' has been used to describe almost everything related to networks and computers, especially in the field of security (Ottis & Lorents, 2010; Kollár, 2018). As the pace of information and computing development accelerates, the term 'cyberspace' plays an increasingly important role in our daily lives. Unfortunately, the concept of cyberspace, like many other computing and information technology terms, lacks a uniform and objective definition. According to Ning et al, cyberspace is the digital world based on traditional physical, social and mental spaces (Ning et al, 2018). In Mészáros' approach, the term cyberspace is defined as the online space separated from the physical world where computers communicate with each other (Mészáros, 2001). This perspective highlights the technological aspect of cyberspace, where the flow of information and online communication define its functioning. Online communication also extends the reach of networks, allowing for more connections (Wellman, 2001). In his publication, Ottis proposed the following definition: "cyberspace is a time-dependent set of interconnected information systems and the human users who interact with them." (In his view, cyberspace is an artificial environment created and used by humans. If there were no human users, cyberspace would become dysfunctional and eventually disappear altogether (Ottis & Lorents 2010). It is widely recognized that individuals engage in aggressive behavior for a variety of reasons, and understanding the diverse motivations behind such actions is crucial for explaining their development and associated factors. The triggers that drive traditional forms of aggression may also manifest in aggressive behaviors online. However, no existing tools have been developed to specifically assess this hypothesis. Creating a reliable measure is essential to advancing research on the underlying reasons adults commit acts of cyber-aggression and to exploring the extent to which the motivations for cyber-aggression align with or differ from those associated with traditional, face-to-face aggression (Wrangham 2018; DeMarsico et al, 2022). Today, virtually every system faces cybersecurity threats, putting not only individuals but entire systems at risk (Borky & Bradley, 2018; Safitra et al, 2023). Cyberbullying has become a significant concern in connection with adolescents' use of social media (Mitsu & Dawood, 2022). While the structural features of social media platforms often facilitate the storage and retrieval of aggressive online content, the specific nature and substance of such hostile posts have yet to be thoroughly examined (Young et al, 2018; Zhu et al, 2021).

The number of attacks in cyberspace is growing rapidly and the trend shows no signs of slowing down. Attackers use different methods, attacks can be directed against assets, data, people, depending on the skills, motivation and resources of the attacker (Čerget' & Hudec, 2023). The different perspectives point to the difficulty of developing a single definition that is universally accepted due to the complexity and diversity of cyberspace. Different approaches emphasise the importance and complexity of cyberspace, especially in the light of the widespread use of online communities. The role of online communities as a source of knowledge for decision-making makes it essential to understand how knowledge is created, shared and interpreted in these digital spaces (Wellman, 2001). Given the dynamically evolving nature of cyberspace, it is important to consider how online communities and information systems shape our everyday lives from different perspectives. Individuals in online communities actively seek and share information while continuously engaging in the creation and distribution of digital content (Tausczik & Huang, 2020). Online communities not only act as a source of information, but also provide an opportunity for users to actively shape the knowledge base of the community while sharing their own experiences and expertise. Today, the vast majority of users already use social media tools to varying degrees and they have become an integral part of their daily lives (Hwang et al, 2015; Majchrzak et al, 2013; McCrindle, 2009; Tolga, 2015). Digitalisation is a fundamental part of the everyday lives of the current generation, presenting them with both opportunities and challenges (Kraus et al, 2021). Different generations move in different ways in the online space, reflecting differences related to their age and technological socialisation. Older generations, such as Veterans and Baby Boomers, often find it harder to adapt to rapid technological change, while Generations X and Y are more

confident in their use of digital tools but face challenges in balancing work and personal life online. Generations Z and Alpha, on the other hand, are born into the digital world and it affects almost all aspects of their lives (McCrinkle, 2009; Strauss et al, 2000).

Young generations are already 'place-aware' and use 'technological language' in their communication. Technological proficiency helps them to use online tools and platforms more effectively to obtain and share information (McCrinkle, 2009; Garai-Fodor, 2022; Garai-Fodor, 2023). However, a continuous online presence poses a number of risks, such as privacy concerns, cybersecurity threats, cyberbullying, and negative effects on mental health. According to Wellman, above a certain size, the online community becomes a disorganized mass (Wellman, 2001). It becomes more difficult to exchange information effectively, which can lead to misunderstandings and conflicts (Aitzhanova et al, 2024). Governance and coordination become problematic, while the maintenance of community norms and values can be weakened. Anonymity can increase the incidence of negative behaviours such as trolling and cyberbullying, and false information can spread more easily. The definition of cyberbullying is based on the traditional notion of harassment, which involves aggressive, deliberate and repeated actions or behaviour against an individual or group who are unable to defend themselves easily (Olweus, 2010). According to this definition, harassment is intended to cause suffering to the victimised individual or group, while also being characterised by a power imbalance. According to Juvonen and Gross, cyberbullying is any act that someone does in cyberspace intentionally to humiliate or harm you (Juvonen & Gross, 2008). According to Langos, "cyberbullying is a negative by-product of the digital age" (Langos, 2012).

Today, cyberbullying has become a reality of the digital age, part of everyday life, especially in relation to children and young adults, who can suffer serious psychological and emotional harm. Cyberbullying is often first identified in adolescence, a period with an increased susceptibility to mental health disorders (Mills et al 2023). Cyberbullying can take many forms, including sending abusive messages and comments via social media platforms, instant messaging applications. It can include defamatory or humiliating posts, pictures or videos that inappropriately disclose the victim's name and personal information. It also includes the dissemination of personal information, the creation of fake profiles and the manipulation of social networks (Harmon, 2004; Reyns et al, 2011; Stratton et al; 2017; Feldman et al, 2008). Direct cyberbullying occurs when the bully directs electronic communication directly to the victim, i.e., seeks to have an immediate impact on the victim through the use of instant messaging, multimedia messaging, or email. In the case of indirect cyberbullying, the bully does not address electronic messages or content directly to the victim, but reaches them through a website, blog, or postings on a public area of social media (Brenner & Rehberg, 2009). Content posted on public platforms remains available indefinitely, can be publicly viewed, distributed, saved and later re-shared countless times (Langos, 2012). When considering direct and indirect cyberbullying, it is important to consider the intent of the bullying.

The impact of cyberbullying also includes more frequent negative mental and physical health consequences such as trauma, isolation, backlash against the perpetrator, sleep problems, eating disorders, reduced academic performance, dropping out of school, academic achievement, difficulties in maintaining healthy relationships, or inability to recover from the experience of cyberbullying (Gunther et al, 2016). In general, as the duration of the attack increases, so does the severity of its impact. On an emotional level, prolonged aggression not only affects short-term effects but also lasting mood changes. These effects can have a significant impact on the victim's physiological state and his or her relationships with the environment (Kopecký & Szotkowski, 2017). Important implications for tackling cyberbullying include: school policies and guidelines that can help to develop more effective prevention measures and intervention strategies; information for parents about the risks of online communication, which can also help to increase children's safety and parental awareness; and counselling for young people on how to prevent and deal with cyberbullying (Juvonen & Gross, 2008). Artificial intelligence may also be able to identify fraud attempts, detect attacks, hidden patterns and correlations that may go unnoticed during human investigation (Kollár, 2023).

Material and Method

In this paper, we present the partial results of a complex, multi-issue, pre-tested, standardised questionnaire research on negative treatment, exclusionary behaviour and abuse caused by online spaces. The research was conducted at the end of 2023 and conclusions were drawn from a total of 5067 evaluable questionnaires. The questionnaire research was preceded by an in-depth interview survey, during which experts were interviewed on the main themes of the questionnaire. The survey was conducted online. The part of the questionnaire presented in this study was based on the results of closed questions, where respondents could choose the most relevant to them and their situation from the options given in the questions. The questions were evaluated using SPSS software. The paper presents distributions and the results of the cross tabulation analysis for the three questions examined, based on the generational affiliation of the respondents. The column percentages of the cross tabulation analysis were used and the Pearson's Chi-square value and Cramer's V coefficient values were calculated and analysed. The generational affiliation of respondents is shown in the figure below:

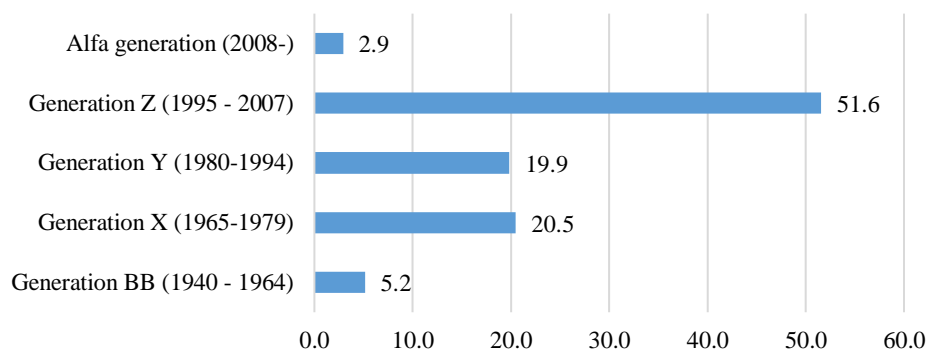


Figure. Distribution of the Sample

Source: Own Research, 2023, N = 5067)

Results

In terms of the views of the full sample of respondents on exclusionary and degrading treatment, we found that nearly 50% of respondents had never encountered such problems in the online space. The proportion of respondents who had encountered verbal exclusion or humiliation in the online space, although not every day, had already reached more than one third of the respondents. A positive message from the responses is that only nearly 15% of respondents who encountered this problem frequently or almost always took part in the survey.

Based on the column percentages of the cross-tabulation analysis, we also examined the generational picture. If we look at the same percentage by generation, we find that well over 50% of Generation BB and Generation X members have never encountered this type of problem. This is most likely because they do not spend as much time on the various social media platforms or have as extensive a network of contacts, and are more deliberate and careful in interacting with each other in any form of online space. It is interesting to note that as we move up in age in the sample, the proportion of respondents answering 'no' decreases. For Generation Z this is down to 40% and for Generation Alpha it is down to around 20%. On the other hand, the proportion of responses indicating this type of behaviour is increasing. It is young people in the alpha generation who are most frequently and most often confronted with forms of online abuse. More than 14% of our Generation Alpha respondents almost always feel the effects of cyberbullying. More than 14% of respondents in the alpha generation marked the strongest category, i.e. they almost always encounter this phenomenon, which is far above the responses of other generations. For the youngest age group, the option of rarely and often is also highly rated, far exceeding the responses of Generation Z overall. This means that the alpha generation is the one that needs the most attention from all stakeholders,

from family to school, to be better equipped to deal with such problems. The youngest generation is practically born and lives with their mobile phones in their hands. As a result, they are much more likely to encounter this problem, which they may not always be able to deal with properly due to their young age.

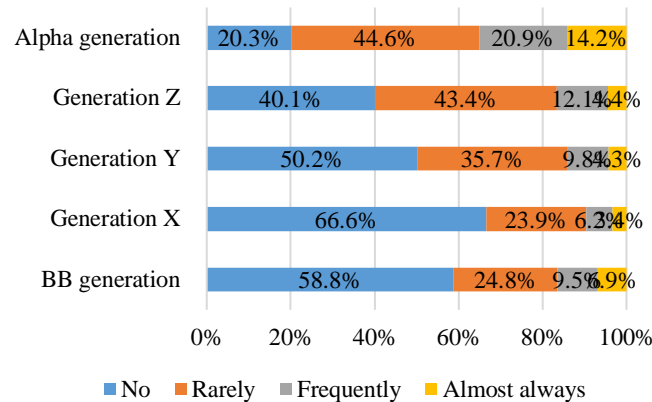


Figure. Prevalence of Humiliating, Exclusionary Treatment in the Sample By Generation

Source: Own Research, 2023, N = 5067)

In the following, the adjusted standardised residual values of the cross-tabulation analysis were considered. It was found that the alpha generation performed differently from the sample for virtually all values. This generation performed below the expected value for non-response and above the expected value for all other values. The reverse was the case for Generation X, and there were only two outliers for Generations BB and Z. Pearson's Chi-squared value suggests that generational affiliation has an impact on the likelihood of encountering exclusionary and humiliating situations. In terms of the strength of the relationship, however, we find that it is not strong.

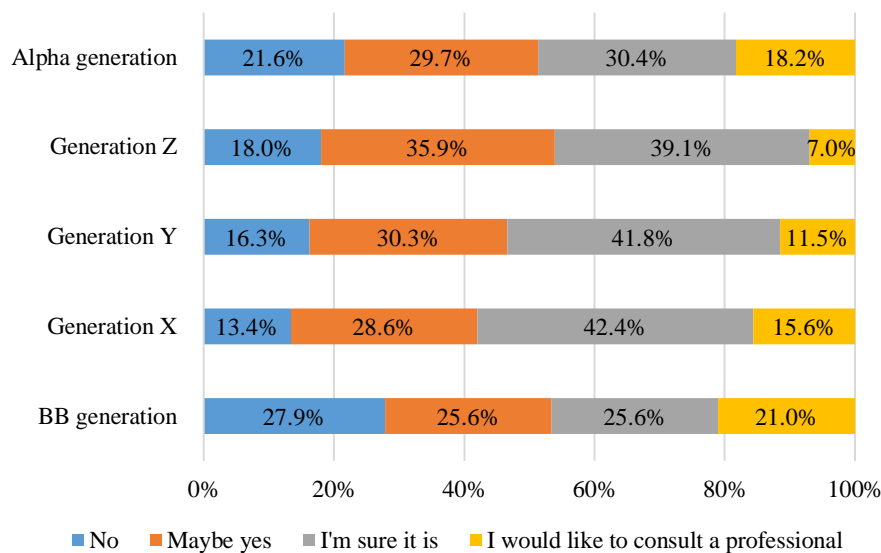
1. Table. Relationship Between the Prevalence of Humiliating and Exclusionary Treatment and Generational Affiliation

	BB gen	X. gen	Y. gen	Z gen	Alfa gen	Pearson Chi-square	Cramer's V
No	3,6	13,5	1,6	-11,5	-6,8	0,000	0,142
Rarely	-4,2	-9,8	-0,9	9,8	2,0		
Frequently	-0,6	-5,2	-0,8	3,7	4,2		
Almost always	1,8	-2,1	-0,5	-0,6	5,7		

Source: own research, 2023, N = 5067

We also wanted to know to what extent they would ask for help or share the problem with someone if they were verbally abusive or humiliating to the people in the sample. Across the sample as a whole, we found that nearly 40 per cent of respondents would definitely share this with someone, but only just under 11 per cent would go to a professional who could help them in a meaningful way. The proportion of respondents who might answer yes accounts for a third of the sample, and it is certainly worth noting that the proportion of respondents who would not seek any help in similar situations was a total of 17%. In terms of the generational breakdown, we found that the oldest generation is the generation that would definitely seek professional help in such a case, and surprisingly the alpha generation follows them with 18%. However, it is also surprising that Generation BB, the oldest generation, had the highest proportion of respondents who answered 'no', followed by Generation Alpha for the same response option. This is interesting because this

is why the distribution of their responses becomes very extreme. Respondents from the most mature generation had the strongest opinion on asking for help. More than 42 percent of Generation X respondents and nearly 42 percent of Generation Y respondents would definitely share this problem with someone in the hope of getting help. Here again, we find that the group most in need of education is Generation Alpha, and in parallel, Generation BB, who are of retirement age. In the first case, schools or online awareness-raising campaigns that can be integrated into the classroom can do a lot, while in the case of the oldest age group, the well-established Hungarian retirement academies can help, alongside family support.



3. Figure. Prevalence of Asking For Help in Cases of Humiliating, Exclusionary Treatment in the Sample By Generation

Source: Own Research, 2023, N = 5067

We also looked at how each generation performs in terms of the value of residuals. In this case, we found that generations BB and Z performed below the expected value in virtually all respects. Generation BB performed above the expected value for the two extreme responses, as shown in the previous figure, while Generation X performed below the expected value for the no response and the maybe yes response, and above the expected value for the other two responses. In the case of generation Y we did not see any differences, in the case of generation Z we only saw an above expected response rate for the maybe yes response, and in the case of generation alpha we only saw two outliers, with the definitely yes response below expected and the request for help from a professional above expected. In the present case, we also found that generational affiliation has an effect on the evaluation of the solution options, as shown by the Pearson's squared value. In terms of the strength of the relationship, we again did not find a particularly strong relationship with a clear existence of an effect.

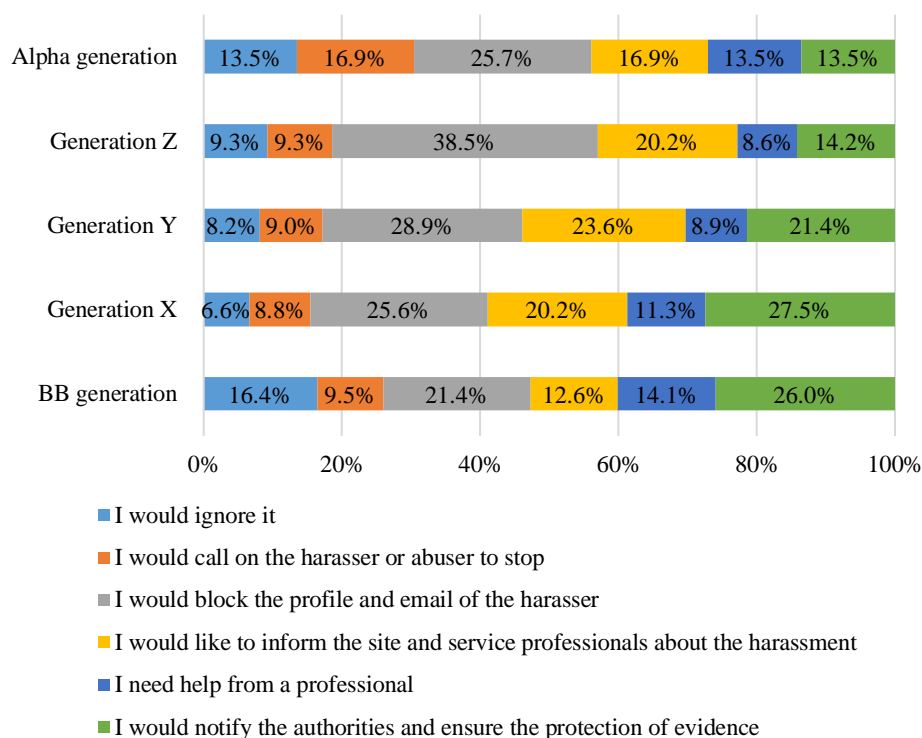
2. Table: Prevalence of Asking for Help in Cases of Humiliating And Exclusionary Treatment and the Relationship Between Generational Affiliation

	BB gen	X. gen	Y. gen	Z gen	Alfa gen	Pearson Chi-square	Cramer's V
No	4,6	-3,8	-1,0	1,3	1,4	0,000	0,102
Maybe yes	-2,5	-3,0	-1,7	5,2	-0,7		
I'm sure it is	-4,7	2,2	1,8	-0,4	-2,3		
I would like to consult a professional	5,5	5,7	0,9	-8,8	3,0		

Source: own research, 2023, N = 5067

We further explored and dissected the possible solutions based on the respondents' views. We wanted to find out what respondents in the sample would do if they or a relative or family member were harassed via any online platform. We found that respondents would most likely choose the quickest and easiest solution with the highest proportion, i.e. block the profile of the individual who was committing such an act. This proportion represents nearly a third of the sample. The other solution chosen by more people was to notify the site or service provider of this fact, and notifying the authorities of this problem was the third most popular. The response that they would not be aware of it was appreciated by a total of 9%, but the concern that they would seek help from a professional was only appreciated by a total of just under 10% of respondents. It is also noteworthy that only 9.4% of respondents opted for a peaceful solution.

In terms of the generational breakdown, we found that the BB generation is the generation that would be unaware of the harassment, but would be almost the highest in reporting it to the authorities. The same is true for Generation X, who have the highest percentage of people who would seek immediate help from the authorities, but the lowest percentage of people who would avoid the problem. Once again, this shows the generational maturity that we have seen in the other graphs. Generation Z responses were the lowest in terms of blocking the harasser's profile, and Generation Y and Alpha had mixed responses, with the vast majority of them also banning or contacting the authorities.



4. Figure. Operational Management of Degrading, Exclusionary Treatment By Generation

Source: Own Research, 2023, N = 5067)

Based on the value of the adjusted standardised residuals, we again see a number of deviations from the expected value. Generation BB performed above the expected value in terms of acknowledging harassment and asking for help from a professional and the authorities. We see below the expected value in terms of blocking and notifying the service provider. For Generation X, we see performance below the expected level for refusing to acknowledge, and the same is true for blocking, but above the expected level for notifying the authorities and getting a professional involved. For Generation Y, we see above-average performance for notifying the authorities and the service provider, but fewer respondents in this age group for blocking.

For Generation Z, we found roughly the opposite of the previous generation. More respondents were more likely to disconnect and fewer to seek help from a professional or authority. The most balanced generation was Generation Alpha, who only performed above expectations in terms of peaceful settlement. Here again, we found that generational affiliation had a clear effect on the evaluation of the resolution methods, and again we found that this relationship was not strong, with the lowest Cramer coefficient for the three questions we examined.

3. Table: Operational Management of Humiliating and Exclusionary Treatment and the Relationship Between Generational Affiliation

	BB gen	X. gen	Y. gen	Z gen	Alfa gen	Pearson Chi-square	Cramer's V
I would ignore it	4,3	-3,0	-1,1	0,7	1,9	0,000	0,101
I would call on the harasser or abuser to stop	0,1	-0,8	-0,4	-0,2	3,2		
I would block the profile and email of the harasser	-4,0	-5,4	-2,8	9,1	-1,8		
I would like to inform the site and service professionals about the harassment	-3,2	-0,1	2,8	-0,3	-1,1		
I need help from a professional	2,5	2,0	-0,8	-2,6	1,6		
I would notify the authorities and ensure the protection of evidence	3,0	7,9	2,2	-8,9	-1,7		

Source: own research, 2023, N = 5067

Conclusion

The research shows that different generations have very different perceptions of the different types of cyberbullying and the ways of dealing with it. We found that the oldest and the youngest age groups are the ones who are demonstrably at risk and in need of improvement in the three issues we examined. Older people are at risk of similar situations because of the newness of the digital space, while younger people are at risk because of a lack of knowledge. It is therefore very important to involve all levels of socialisation in awareness-raising, which is a priority, especially for the youngest. The role model of the family, the support of the education system and the involvement of civil society organisations in raising awareness are essential. It is certainly appreciated that we are becoming more aware and aware of the problems, and that more and more initiatives are being taken to reduce the number of victims of various forms of cyberbullying. The main message of our study is to give an idea of how to start such awareness-raising campaigns, which solutions need to be communicated and put into practice in order to ensure that all individuals, regardless of generation and age, can safely enjoy the benefits of the online space.

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