The Rise of Loneliness Among Young People: Exploring the Impact of Digital Media

Roman Globokar*
roman.globokar@teof.uni-lj.si
https://orcid.org/0000-0003-0045-497X

David Kraner**
david.kraner@teof.uni-lj.si
https://orcid.org/0000-0001-7394-6508

Marko Weilguny***
marko.weilguny@teof.uni-lj.si
https://orcid.org/0009-0003-4711-294X

The article explores the increasing prevalence of loneliness among young people, focusing on digital media's role in shaping their social experiences. Drawing from historical, psychological, and sociological perspectives, the authors argue that loneliness is not merely physical isolation, but a deeply subjective feeling tied to perceived disconnection from meaningful relationships. Two key hypotheses frame the analysis: the displacement hypothesis (digital media replaces face-to-face interaction and increases loneliness) and the stimulation hypothesis (digital media enhances existing relationships and reduces loneliness). The impact of digital media depends largely on its usage—active versus passive engagement—and the user's underlying social needs. The article presents findings from a 2022 survey of 654 Slovenian secondary school students. A quarter of respondents reported frequent or constant feelings of loneliness. Students who reported greater loneliness also had more difficulty socializing and were less willing to give up social media use, suggesting a possible dependence on digital interaction as a substitute for real-life connection. The authors emphasize the importance of subjective perceptions of loneliness, arguing that standardized

---

*   Roman Globokar, PhD, Assoc. Prof., University of Ljubljana, Faculty of Theology, Department of Moral Theology; Address: Poljanska 4, SI-Ljubljana, Slovenia.

** David Kraner, PhD, Assist. Prof., University of Ljubljana, Faculty of Theology, Department of Pastoral and Proclamation Theology; Address: Poljanska 4, SI-Ljubljana, Slovenia.

*** Marko Weilguny, MA in Philosophy and Sociology of Culture, doctoral student in theology; Assist., University of Ljubljana, Faculty of Theology, Institute of Bioethics; Address: Poljanska 4, SI-Ljubljana, Slovenia.

scales often fail to capture this. They advocate for more attention in educational settings to support students experiencing deep loneliness – especially those who may not reach out or appear isolated.

Key words: *digital media, education, loneliness, social isolation, youth.*

Introduction****

Studies in various areas show that loneliness is on the rise among people in modern society.[1] Despite increasing digital connectivity, more and more people feel socially isolated, with negative consequences for their well-being and their mental and physical health. Loneliness is also a major social problem with a negative impact on the economy, politics and even the outcome of elections. According to some analyses, loneliness enables the rise of populist politics on a global scale as people seek belonging and security.[2] The feeling of loneliness is linked to the feeling of being invisible, unheard and unimportant.

Various studies have shown that loneliness has increased since the end of the last century. One of the leading researchers in this field, John Cacioppo, notes that in 1980, 20% of people in America felt lonely at any given time, and 10 years ago this figure had risen to 40%. »As many as 80% of those under the age of 18 years report feelings of loneliness at some point.«[3] An article from 2018 summarising various surveys around the world confirms that young people between the ages of 18 and 35 feel the loneliest.[4] The famous BBC Loneliness Experiment from 2018 also showed that 40% of 16–24-year-olds feel lonely, while the proportion of over-75s who feel lonely is 27%. Interestingly, the feeling of loneliness decreases linearly with age: the youngest feel the loneliest and the oldest feel the least lonely.[5] Fardghassemi and Joffe cite other research confirming that younger adults were the group most affected by feelings of loneliness

---

[1] Cf. Rebecca NOWLAND, Elizabeth A. NECKA, John T. CACIOPPO, Loneliness and Social Internet Use: Pathways to Reconnection in a Digital World?, *Perspectives on Psychological Science*, 13 (2018) 70-87, https://doi.org/10.1177/1745691617713052; Noreena HERTZ, *The Lonely Century: coming together in a world that's pulling apart*, London, Sceptre, 2020; Manfred SPITZER, *Einsamkeit: Die unerkannte Krankheit*, München, Droemer Verlag, 2018.

[2] Cf. Hertz, *The Lonely Century...*, 3-18.

[3] Stephanie CACIOPPO, John T. CACIOPPO, Do You Feel Lonely? You are Not Alone: Lessons from Social Neuroscience, *Frontiers for Young Minds*, (11.2013), https://doi.org/10.3389/frym.2013.00009 (30.06.2025).

[4] Cf. Nowland, Necka, Cacioppo, *Loneliness and Social Internet Use...*, 70.

[5] Cf. BBC, *Who feels lonely? The results of the world's largest loneliness study*, https://www.bbc.co.uk/programmes/articles/2yzhfv4DvqVp5nZyxBD8G23/who-feels-lonely-the-results-of-the-world-s-largest-loneliness-study (30.06.2025).

even before the COVID-19 pandemic.[6] Our research focuses primarily on the extent to which digital media use influences young people's feelings of loneliness. We will first present the theoretical basis of our research and then present the results of a survey we conducted among young people in Slovenia.

1. Definition of Loneliness

To get a very nice historical perspective on loneliness, we can refer to an article by one of the most distinguished current researchers of the phenomenon, Fay Bound Alberti.[7] Loneliness, as we understand it today, is not a timeless emotion but a historically constructed concept. Before the 19th century, loneliness was not considered an inner emotional struggle, but rather a physical solitude that was often seen as neutral or even positive – a state sought out by religious figures, poets, and philosophers for reflection. Around 1800, however, the industrial revolution and urbanization disrupted close-knit communities and led to a change in how isolation was perceived. Under the influence of Romanticism and individualism, loneliness was understood as a psychological burden and not just a condition of life.

In the late 19th and early 20th centuries, psychology and sociology began to pathologize loneliness, linking it to mental illness, social dysfunction, and even suicide.[8] Over time, loneliness became a medical and psychological issue, especially in the mid-20th century when studies linked loneliness to stress, depression, and physical health risks. In the 21st century, loneliness has been labeled a global epidemic and is influencing public health policy, such as the appointment of a Minister for Loneliness in the UK (2018). The rise of social media and the COVID-19 pandemic have further intensified debates and reinforced loneliness as a problem to be treated rather than a natural human experience.

---

[6] Cf. Sam FARDGHASSEMI, Hélène JOFFE, The causes of loneliness: The perspective of young adults in London's most deprived areas, *PLoS ONE* 17 (2022) 4, e02646381, doi: 10.1371/journal.pone.0264638. However, it is essential to emphasize that during the COVID-19 pandemic, when children and young people were missing social contact, the digital world proved to be a way to help and connect them, even if there were concerns about the use of electronic devices in the past [cf. Mateja PEVEC ROZMAN, Tadej STREHOVEC, Religious Education and Pastoral Care in the Time of the COVID-19 Pandemic, *ET Studies*, 13 (2022) 1, 133-148, 140, https://doi.org/10.2143/ETS.13.1.3290785].

[7] Cf. Fay BOUND ALBERTI, This 'Modern Epidemic': Loneliness as an Emotion Cluster and a Neglected Subject in the History of Emotions, *Emotion Review*, 10 (2018) 3, 242-254, https://doi.org/10.1177/1754073918768876.

[8] It should be added that we are explicitly referring to the pathologization of loneliness. Additionally, the negative aspects of loneliness were recognized much earlier in history. Authors relevant to the study of punishment in the criminal justice system note that solitary confinement—though developed in the USA at the beginning of the 19th century—is a descendant of earlier forms of punishment by isolation, such as exile or ostracism (cf. Peter BALDWIN, *Command and Persuade: Crime, Law, and the State across History*, Cambridge, MA, The MIT Press 2023, 117-138, https://doi.org/10.7551/mitpress/13482.001.0001).

What is loneliness and to what extent does the feeling of loneliness change over time? Loneliness should be defined as the perception of not belonging, being isolated from society, and not being involved in meaningful social interactions. It is characterised by a lack of genuine interpersonal relationships and a feeling of unworthiness. Loneliness should not be equated with solitude. The experience of solitude is the experience of spending time alone with oneself, and such an experience can be very healing.[9] Feeling lonely, on the other hand, shows a lack of genuine relationships, intimate relationships, family and friendship ties, connections with colleagues, etc.[10]

2. Humans as social species

Human beings are social creatures; they need others in order to live a meaningful life. Based on neurological research, Stephanie and John Cacioppo came to the conclusion that in social species interdependence takes precedence over independence:

> »For a social species, including humans, to become an adult is not to become autonomous and solitary – it is to become a conspecific on whom others can depend. Whether we are aware of it or not, our brain and biology have been shaped to favour this outcome.«[11]

Belonging to someone, having strong interpersonal bonds, is therefore vital for the individual human being. According to their research, they are convinced that our neuronal, hormonal and genetic predisposition supports interdependence over independence.

John Cacioppo and his colleague William Patrick defined loneliness as »perceived social isolation«[12]. It is not an objective fact of isolation from social contacts, but a subjective feeling of a lack of relationships. We can be physically connected to others and still *feel* lonely. We experience emotional loneliness

---

[9] Cf. Janez VODIČAR, Holarhični model celostne resonančne pedagogike za novo katehezo [A holarchical model of holistic resonance pedagogy for a new catechesis], *Bogoslovni vestnik*, 82 (2022) 3, 691-704, https://doi.org/10.34291/BV2022/03/Vodicar.

[10] Petkovšek argues that human desires are largely shaped by mimetic processes in which individuals unconsciously orient their aspirations towards others. In the context of digital media, this dynamic often leads to frustration and a heightened sense of marginalisation as users measure their social worth against unattainable online representations [cf. Robert PETKOVŠEK, Spreobrnjenje želje v luči mimetične teorije [Conversion of desire in the light of mimetic theory], *Bogoslovni vestnik*, 82 (2022) 3, 590-595, https://doi.org/10.34291/BV2022/03/Petkovsek].

[11] Stephanie CACIOPPO, John T. CACIOPPO, Why may allopregnanolone help alleviate loneliness? *Medical Hypotheses*, 85 (2015) 6, 947-952, 947, https://doi.org/10.1016/j.mehy.2015.09.004.

[12] John T. CACIOPPO, William PATRICK, *Loneliness: Human nature and the need for social connection*, New York, WW Norton & Company, 2008.

when we do not *feel* connected. This situation is very dangerous for us because we are a social species. Social isolation, a state in which a person lacks a sense of social belonging, trust in others and fulfilling relationships, is associated with increased morbidity and mortality. A meta-analysis done by Holt-Lunstad and others shows that loneliness increases our odds of dying early by 45 % (living in a polluted environment increases the chance of premature death by 5 %, living with obesity by 20 %, and excessive alcohol consumption by 30 %).[13] Vivek Murthy, the Surgeon General of the USA, wrote in the introduction to a major publication on the epidemic of loneliness and isolation:

> »Loneliness is far more than just a bad feeling—it harms both individual and societal health. It is associated with a greater risk of cardiovascular disease, dementia, stroke, depression, anxiety, and premature death.«[14]

3. Stigmatisation of Loneliness

The big problem is that people do not talk about loneliness, because loneliness is stigmatised and attributed to the individual's inflexibility – the inability to enter into relationships. John Cacioppo has found that the main problem is that most people do not want to talk about loneliness. They do not want to share this experience because they are afraid of being stigmatised – of being seen as incompetent and inflexible. In his view, loneliness is a similar feeling to hunger or thirst. It is our body's reaction to a lack of certain vital substances that we need to live a fulfilled life. Just as thirst reminds us that we need to drink to avoid dehydration, loneliness reminds us that we need genuine interpersonal relationships and social inclusion if we want to be happy and fulfilled in our lives. Deepening loneliness becomes dangerous when we can no longer find our way to other people, when we convince ourselves that we are unwanted in society, or when we increase our fears of not being accepted and remain in loneliness because we do not dare to ask for help.[15]

We could argue that the stigma of loneliness in the digital age is related to the guilt of not being able to satisfy this basic need because there are enough tools available. If we compare loneliness to thirst, we could take this metaphor further. Before we had all the digital tools at our disposal, we might have had

---

[13] Cf. Julianne HOLT-LUNSTAD et al., Loneliness and social isolation as risk factors for mortality: a meta-analytic review, *Perspectives on psychological science*, 10 (2015) 2, 227-237, https://doi.org/10.1177/1745691614568352.

[14] OFFICE OF THE SURGEON GENERAL (OSG), *Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community*, Washington (DC), US Department of Health and Human Services, 2023, 4, https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf (30.06.2025).

[15] Cf. John T. CACIOPPO, *The lethality of loneliness* (09.09.2013), https://www.youtube.com/watch?v=_0hxl03JoA0 (30.06.2025).

problems connecting with other people. In this sense, we could justify ourselves for not being able to find someone to connect with. We can be thirsty when we find ourselves in a desert. But digitalisation has brought us all to the bar. We realise that there is an abundance of drinks around us, just as we have an abundance of ways to connect in the digital world, and if, despite all this, we feel that we are thirsty, we might consider that to be our own fault. We have the tools; we have the means, so if we are lonely, we are to blame.

Robert S. Weiss published a book back in 1973 entitled *Loneliness: The experience of emotional and social isolation*[16], in which he distinguishes between social and emotional loneliness. Social loneliness occurs when you feel that you lack a social network (e.g. friends, colleagues and neighbours). Emotional loneliness occurs when intimate relationships or close ties are missing (e.g. a partner or a close friend). On the one hand, someone can be socially very well connected but emotionally lonely. Some authors argue that this is one of the fundamental characteristics of the impact of digital technology on interpersonal relationships.[17] Conversely, another person can be without many social ties but have a strong intimate relationship. Weiss develops a multidimensional theory of loneliness and points out that emotional loneliness is more painful than social loneliness. Recent research shows the difference between younger and older generations: for younger people, social connections are more important, whereas for older people, emotional relationships are more meaningful.

> »While young adults aim to increase their social networks to alleviate social loneliness, they may neglect their emotional needs and, therefore, be at risk of experiencing emotional loneliness.«[18]

The question arises whether the use of social media is responsible for the increase in loneliness among young people, or, more precisely, what connection exists between the use of digital media and an increased feeling of loneliness. Fardghassemi and Joffe come to this conclusion:

> »With the increasing use of social media in contemporary culture and focus upon growing one's virtual friendship network or the number of 'friends' or 'followers' one may have on social technologies, young adults may be at risk of lacking depth and meaning in the quality of their online friendships and ultimately feeling emotionally lonely.«[19]

In the next section, we will look at the research findings on the link between the use of digital media and increased feelings of loneliness.

---

[16] Cf. Robert Stuart WEISS, *Loneliness: The experience of emotional and social isolation*, Cambridge, The MIT Press, 1973.

[17] Cf. Jonas MIKLAVČIČ, Ideal transparentnosti v digitalni dobi [The Ideal of Transparency in the Digital Era], *Bogoslovni vestnik* 83 (2023) 4, 825-838, https://doi.org/10.34291/BV2023/04/Miklavcic.

[18] Fardghassemi, Joffe, *The causes of loneliness…*, 2.

[19] *Ibid.*

4. Digital culture and interpersonal relationships

In today's digital civilisation, many aspects of life—from food and education to work, entertainment, and even socialisation—can take place without direct interpersonal contact.[20] This shift to virtual living raises critical concerns, particularly around the phenomenon of loneliness. While digital tools offer the convenience of remote interactions, they may also contribute to increased feelings of isolation.

Research has shown that digital media use has varying effects on loneliness across generations. For older adults, digital communication can reduce loneliness by fostering connections. However, among younger users, especially those who use social media extensively, studies show a correlation with higher feelings of loneliness. Relationships formed or maintained exclusively online tend to lack the depth and developmental richness of face-to-face interactions. In-person relationships require effort, vulnerability, and emotional investment, which are crucial for personal growth.

One of the core issues lies in how digital media bypass »meta-communication« – nonverbal cues like body language and tone – which play a crucial role in authentic communication. Without these, misunderstandings are more frequent and conflicts harder to resolve. Additionally, the permanence and shareability of online messages can lead to emotional harm, as a negative comment online may have a more lasting impact than a spoken criticism in person.[21]

Social networks, designed to facilitate connection, often paradoxically increase feelings of loneliness. The key distinction lies in how they are used. Users who substitute face-to-face contact with digital interaction tend to feel lonelier than those who use digital tools to supplement real-world relationships. A study by Primack et al. illustrated that people who use social media for over two hours daily are twice as likely to feel lonely, and those who log in frequently also report higher loneliness levels.[22] However, it remains unclear whether social media use causes loneliness or vice versa.

Two primary hypotheses emerge from the research. The »displacement hypothesis« posits that social media displaces direct human interaction, thus increasing loneliness, particularly among youth. Conversely, the »stimulation hypothesis« suggests that social media can enhance social ties by supporting

[20] Cf. Mateja CENTA STRAHOVNIK, Etika zmožnosti, priporočilni in pogovorni sistemi UI in doseganje dobrega življenja [Ethics of Capabilities, AI Recommendation and Conversation Systems and Attaining a Good Life], *Bogoslovni vestnik*, 84 (2024) 4, 771-781, 774-776, https://doi.org/10.34291/BV2024/04/Centa.

[21] Cf. Roman GLOBOKAR, *Vzgojni izzivi šole v digitalni dobi* [*Educational challenges for schools in the digital age*], Ljubljana, Teološka fakulteta, 2019, 76-82.

[22] Cf. Brian A. PRIMACK et al., Social Media Use and Perceived Social Isolation Among Young Adults in the U.S., *American Journal of Preventive Medicine*, 53 (2017) 1, 1-8, https://doi.org/10.1016/j.amepre.2017.01.010.

existing relationships and enabling new ones. Context is key: when social media is used actively to support real-life connections, it can be beneficial; passive or escapist use, however, tends to worsen isolation.[23]

Rebecca Nowland and colleagues stress that social media's effects depend largely on the intention behind its use. Active, relationship-enhancing use is a protective factor, while passive scrolling contributes to social withdrawal and loneliness. This insight underscores the importance of digital literacy and intentional engagement with technology.[24]

Recent research highlights differing impacts of social media on loneliness across age groups. A comprehensive review by Kusumota et al., covering studies in English, Spanish, and Portuguese from 2014 to 2020, shows that digital media significantly reduce feelings of loneliness and social isolation among older adults.[25] Benefits include improved contact with family, increased social interaction, a stronger sense of community, and emotional support. Over 63% of studies analyzed in this review reported positive effects of digital media on reducing isolation in older adults.

In contrast, a study by Zac E. Seidler et al. focusing on men reveals a different pattern among younger users. For men under 41.4 years, loneliness correlates with increased social media use, which in turn is linked to greater psychological distress. This suggests a negative feedback loop for younger and middle-aged males, where digital engagement might exacerbate emotional challenges rather than alleviate them.[26]

Further insights come from a UK survey titled *Teenage Loneliness and Technology*, which polled 2,005 teenagers (ages 13–16) and an equal number of parents.[27] Results show a significant perception gap: 48% of teens say that digital media reduces their loneliness, compared to just 26% of parents. Moreover, 51% of teens believe social media helps solve loneliness, while only 25% of parents agree. Alarmingly, one-third of teens report having no one to confide in. Interestingly, 28% of parents feel lonely often or sometimes, compared to 21% of teenagers. The most cited causes of loneliness are not digital in nature, but instead relate to money, self-confidence, friendship, and shyness.

---

[23] Cf. Roman GLOBOKAR, Impact of digital media on emotional, social and moral development of children, *Nova prisutnost*, 16 (2018) 3, 545-560, 551-553.

[24] Cf. Nowland et al., *Loneliness and Social Internet Use…*, 70.

[25] Cf. Luciana KUSUMOTA et al., Impact of digital social media on the perception of loneliness and social isolation in older adults, *Revista Latino-Americana de Enfermagem*, 30 (2022) e3526, 1-14, https://doi.org/10.1590/1518-8345.5641.3526.

[26] Cf. Zac E. SEIDLER et al., Virtual connection, real support? A study of loneliness, time on social media and psychological distress among men, *International Journal of Social Psychiatry*, 68 (2022) 2, 288-293, https://doi.org/10.1177/0020764020983836.

[27] Cf. TALK TALK, *Teenage Loneliness and Technology* (05.2019), https://www.internetmatters. org/wp-content/uploads/2019/05/TalkTalk-Teenage-Loneliness-Technology-Report_ FINAL-compressed.pdf (10.02.2025).

In the first part of our article, we highlighted the problem of loneliness in the digital context and summarized research studies showing the impact of digital media on the experience of loneliness. Based on these findings, the authors conducted our own research in selected Slovenian schools in 2022. We will present these results in the final part of the article.

5. Survey on loneliness among young people in Slovenia

5.1. Methodology

The survey was conducted between 7th and 25th November 2022 among 654 students (aged 16 to 18) from four secondary schools in Slovenia.[28] The students were informed about the aims of the study and data security and were told that their participation was voluntary. Whilst the results are not representative of all young people, they provide clear and relevant insights into this age group in an educational environment.

The survey was fully completed by 94.8% of respondents (N = 620), with a dropout rate of 5.2%. Dropouts were evenly distributed across demographic groups and expressed tendencies/responses, suggesting minimal response bias. Considering the length of the survey, this completion rate indicates strong participant engagement and data reliability.

The measures were developed for the specific purpose of the study. No general validated measures were used. The researchers were initially interested in how the internet affects student distraction in the last two years of secondary school. The following variables were examined: contact with social networks and chat services, loneliness, socialization/contact with peers, time for personal hobbies and homework, and engagement in volunteer activities. The results of the survey have already been published comprehensively.[29]

This presentation of the results has a narrower focus. The main research topics are self-reported perceptions of loneliness and self-assessed ease of establishing connections with others, as well as how these two variables relate to other variables. We also elaborate on some characteristics of different segments of the adolescent population.

---

[28] The research was conducted across all major statistical regions in Slovenia at the following grammar schools: Škofijska klasična gimnazija (Ljubljana-Šentvid), Gimnazija Želimlje (Želimlje), Gimnazija Antona Martina Slomška (Maribor), and Škofijska gimnazija Vipava (Vipava). All four grammar schools are a part of a network of Catholic schools that engaged the authors of the article to conduct the survey so that they might get some recommendations regarding the educational process as it pertains to some specific questions. The students included in the study were in the 3rd and 4th years of schooling.

[29] Cf. David KRANER, The internet, the problem of socialising young people, and the role of religious education, *Religions*, 14 (2023) 4, 1-15, https://doi.org/10.3390/rel14040523.

5.2. Results

Of the 654 students, 244 (37.5%) were male and 410 (62.5%) were female. This is a representative sample according to the structure of the student body at the 4 schools that participated in the study.

When asked how easy it was for them to socialize, the students were offered the options *very difficult*, *difficult*, *easy,* and *very easy*. You can see the results in Table 1. The majority of respondents (52.1%) found it easy to socialize. As we will show later, the ease of socializing proved to be one of the elements most strongly associated with perceived loneliness according to our study.

Table 1. The level of difficulty in establishing contact with others

Ease of making contact	Counts	% of Total	Cumulative %
Very difficult	21	3.2%	3.2%
Difficult	189	28.9%	32.1%
Easy	341	52.1%	84.3%
Very easy	103	15.7%	100.0%

Furthermore, we asked the students how often they feel lonely. The results are presented in Table 2 and further examined in the discussion section below. This single survey element represents an aspect often neglected in studies on loneliness, namely self-perceived loneliness.

Table 2. Self-perceived sense of loneliness

How lonely are you	Counts	% of Total	Cumulative %
Always completely lonely	16	2.4%	2.4%
Often completely lonely	148	22.6%	25.1%
Seldom completely lonely	399	61.0%	86.1%
Never completely lonely	91	13.9%	100.0%

The survey also examined the extent of internet use on both students' mobile phones and computers. The underlying assumption was that the extent of internet use might correlate with other factors, including perceived loneliness.

The answers offered to the students were ordinal and offered responses of not at all, 0–1 hours, 1–3 hours, 3–6 hours, and more than 6 hours. Results are presented in Tables 3 and 4. One could assume that there is a negative correlation factor and that students who use the internet more on their mobile phones use it less on their computers, and vice versa. However, as shown in the correlation matrix in Table 8 below, this is not the case. There is a weak positive correlation that is statistically significant. Spearman shows $\rho = 0.124$, with $p = 0.002$. Similarly, a Chi-Square test confirms this correlation ($\chi^2(16) = 125$, $p < 0.001$, Cramér's V = 0.222).

As there was no clear indication of the exact number of hours (with the offered ordinal responses), the task of gaining relevant insights from the combination of both telephone and computer internet use responses proved challenging. To find out which data set was more meaningful, we calculated the combined time spent on the internet by taking the medians of the individual responses and adding them together. It turned out that in terms of correlations with other questions, internet use via telephone was more similar to total time spent on the internet than internet use via computer. This is obviously also to be expected due to the fact that the respondents used the internet more via the telephone than via the computer. We have therefore used the information on internet use on the telephone for further analysis.

Table 3. Use of the internet via mobile phone

Use of internet on phone	Counts	% of Total	Cumulative %
More than 6 hours daily	44	7.0 %	7.0 %
3–6 hours daily	219	34.7 %	41.7 %
1–3 hours daily	293	46.4 %	88.1 %
Less than 1 hour	73	11.6 %	99.7 %
No access	2	0.3 %	100.0 %

Table 4. Use of the internet via a personal computer

Use of internet on computer	Counts	% of Total	Cumulative %
More than 6 hours daily	11	1.7 %	1.7 %
3–6 hours daily	43	6.8 %	8.6 %
1–3 hours daily	206	32.6 %	41.2 %
Less than 1 hour	354	56.1 %	97.3 %
No access	17	2.7 %	100.0 %

For the topic of this article, interesting discoveries emerge upon further examination of the willingness to refrain from using social media or chat applications, as well as opinions on the positive or negative effects of internet use on social relationships. These aspects are explored in more detail in the following section using bivariate and multivariate analyses.

In order to determine the correlation between the variables, we first analyzed Spearman's correlation coefficients in the correlation matrix in Table 8. In this way, we can determine that there is a moderate correlation between ease of socializing and perceived loneliness. The Spearman correlation shows a significant, moderately positive relationship ($\rho = 0.318$, $p = 0.001$), indicating that self-perceived loneliness increases as ease of socializing decreases.

There are moderate to high significant correlations between the perceived impact of internet use on the quality of personal relationships and relationships with classmates ($\rho = 0.542$, $p < 0.001$) as well as between the willingness

to abstain from social media and the willingness to abstain specifically from chat applications ($\rho = 0.452$, $p < 0.001$).

One element that we look at in more detail later is the correlation between using the internet on the phone and the willingness to refrain from social media or chat applications. Both correlations are significant at $p < 0.001$, and their respective ρ value are a moderate 0.371 for social media and a low to moderate 0.239 for chat.

We also tested for the nominal variable of gender to see if there was a relationship with loneliness or ease of socializing. Although we found that men report lower levels of loneliness and find it easier to socialize, these correlations are weak and/or not really significant. A Chi-Square test revealed no significant correlation between gender and reported loneliness ($\chi^2(3) = 7.44$, *p = 0.059*, Cramér's V = 0.107), while the correlation between gender and socializing is significant but still moderate ($\chi^2(3) = 14.1$, $p = 0.003$, Cramér's V = 0.147).

However, compared to Cramér's V of 0.147, an even higher value of 0.260 with a $p < 0.001$ is the assessed correlation between ease of socializing and perceived loneliness as indicated above. A Kruskal-Wallis test confirmed significant differences between the loneliness groups ($\chi^2(3) = 66.2$, $p = 0.001$), with a moderate effect size ($\epsilon^2 = 0.101$). Due to the limited scope of this article, this is the only further investigation we wish to conduct.

Contrary to expectations, Dwass-Steel-Critchlow-Flinger post-hoc pairwise comparisons showed that the greatest differences in ease of socializing occurred between those who were often completely lonely and those who were rarely completely lonely (W = 8.5, p < 0.05) and between often completely lonely and never completely lonely (W = 9.8, p < 0.05). Interestingly, the difference between always completely lonely and never completely lonely was smaller (W = 4.9, p > 0.05).

Table 5. Correlation between loneliness and social contacts

Pairwise comparisons – Ease of making contact		W	p
always completely lonely	often completely lonely	1.63	0.659
always completely lonely	seldom completely lonely	3.90	0.030
always completely lonely	never completely lonely	4.96	0.003
often completely lonely	seldom completely lonely	8.50	< .001
often completely lonely	never completely lonely	9.76	< .001
seldom completely lonely	never completely lonely	5.63	< .001

To investigate this phenomenon in more detail, we analyzed the correlations between the willingness to abstain from social media and chat applications and the self-perceived degree of loneliness. Pairwise comparisons presented in Table 6 revealed that people who stated that they were always completely lonely were significantly less willing to abstain from social media compared to all

other groups: often (W = 4.526, p = 0.008), seldom (W = 4.871, p = 0.003), and never (W = 4.966, p = 0.003). No significant differences were observed between the often, seldom, and never lonely groups (p > 0.05).

Table 6. Correlation between loneliness and involvement in social activities

Pairwise comparisons – Giving up social media		W	p
always completely lonely	often completely lonely	4.526	0.008
always completely lonely	seldom completely lonely	4.871	0.003
always completely lonely	never completely lonely	4.966	0.003
often completely lonely	seldom completely lonely	0.347	0.995
often completely lonely	never completely lonely	1.516	0.707
seldom completely lonely	never completely lonely	1.459	0.731

Another interesting observation is that all respondents would find it easier to do without chat applications than social media. But what could be revealing in this situation is again the post hoc analysis, which shows the same, but less pronounced and less significant, result.

Table 7. Correlation between loneliness and attachment to social networks

Pairwise comparisons – Giving up chat		W	p
always completely lonely	often completely lonely	3.622	0.051
always completely lonely	seldom completely lonely	4.075	0.021
always completely lonely	never completely lonely	3.594	0.054
often completely lonely	seldom completely lonely	-0.174	0.999
often completely lonely	never completely lonely	0.350	0.995
seldom completely lonely	never completely lonely	0.571	0.978

5.3 Discussion

The data on self-reported loneliness is slightly lower compared to other studies we have already mentioned in the paper. The BBC 2018 showed 40% loneliness among 16–24 year olds. We can also examine a geographically and educationally similar study on loneliness at the Carinthia University of Applied Sciences in Austria from 2021, in which 31.7% felt lonely and 4.8% felt severely lonely.[30] Those who stated that they are often or always completely lonely represent a quarter of the respondents in our survey.

There is an important indication of the incomparability of the self-perceived individual items of this survey with validated questionnaires. The 8 most commonly used, internationally developed and validated questionnaires contain

---

[30] Cf. Andrea LIMARUTTI, Marco Johannes MAIER, Eva MIR, Exploring loneliness and students' sense of coherence (S-SoC) in the university setting, *Current Psychology*, 42 (2023) 9270-9281, https://doi.org/10.1007/s12144-021-02016-8.

Table 8: Correlation Matrix

		How lonely are you	Ease of making contact	Use of internet on phone	Use of internet on computer	Giving up social media	Giving up chat	Chores	Organised activities	Internet and your relations	Internet and classmates
How lonely are you	Spearman's rho	—									
	df	—									
	p-value	—									
Ease of making contact	Spearman's rho	0.318 ***	—								
	df	652	—								
	p-value	<.001	—								
Use of internet on phone	Spearman's rho	0.180 ***	0.096 *	—							
	df	629	629	—							
	p-value	<.001	0.016	—							
Use of internet on computer	Spearman's rho	0.025	0.017	0.124 **	—						
	df	629	629	629	—						
	p-value	0.525	0.668	0.002	—						
Giving up social media	Spearman's rho	0.080 *	-0.000	0.371 ***	0.031	—					
	df	626	626	626	626	—					
	p-value	0.046	0.992	<.001	0.431	—					
Giving up chat	Spearman's rho	0.042	-0.028	0.239 ***	0.089 *	0.452 ***	—				
	df	623	623	623	623	623	—				
	p-value	0.293	0.486	<.001	0.026	<.001	—				
Chores	Spearman's rho	-0.046	-0.081 *	-0.044	-0.072	0.007	0.040	—			
	df	618	618	618	618	618	618	—			
	p-value	0.251	0.044	0.272	0.073	0.867	0.316	—			
Organised activities	Spearman's rho	-0.035	-0.085 *	-0.076	-0.095 *	-0.046	-0.052	0.192 ***	—		
	df	618	618	618	618	618	618	618	—		
	p-value	0.388	0.034	0.057	0.018	0.257	0.193	<.001	—		
Internet and your relations	Spearman's rho	-0.050	-0.113 **	0.049	0.150 ***	0.031	0.185 ***	0.063	-0.043	—	
	df	618	618	618	618	618	618	618	618	—	
	p-value	0.210	0.005	0.221	<.001	0.442	<.001	0.115	0.281	—	
Internet and classmates	Spearman's rho	-0.107 **	-0.065	0.122 **	0.097 *	0.148 ***	0.150 ***	0.021	-0.074	0.542 ***	—
	df	618	618	618	618	618	618	618	618	618	—
	p-value	0.008	0.106	0.002	0.015	<.001	<.001	0.603	0.065	<.001	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

between 11 and 60 items (with the most widely used UCLA's Loneliness Scale, with 20 items, having a shorter version with 3 items). The average number of items is 29, as Marlies Maes et al. note in an incredibly comprehensive article comparing these measures:

> »Strikingly, all loneliness scales contained items that fail to reflect the subjective nature of loneliness. That is, loneliness arises when people perceive a discrepancy between their actual and desired social relationships.«[31]

Although not validated and comparable, our single survey item on loneliness examined precisely the self-perceived subjective feeling, the aspect that is often missing or neglected in scientifically validated loneliness scales. Our questionnaire was developed with the specific aim of research co-operation and the usefulness of the results for the 4 participating schools – the validity and scientific comparability of loneliness with other developed measures was therefore not the main focus. What we would definitely like to advocate, however, is the need to include subjective, perception-testing survey items in the more scientifically validated scales.

The pairwise comparisons for different levels of self-perceived loneliness in the ease of making contacts, presented in Table 5 of the results, indicate that the transition from often to rarely or never lonely has a stronger effect on social contacts than the extreme ends of the loneliness spectrum. These results call into question the assumption of a linear relationship between loneliness and social contact and may indicate a non-monotonic patterns that require further investigation.

We can hypothesize that individuals who are always completely lonely experience a sense of resignation or hopelessness, leading to a lower perceived difficulty in socializing due to a lack of social effort or the expectation of rejection. In contrast, those who are often completely lonely may experience high levels of social anxiety and fear of rejection, resulting in the highest perceived difficulty. This indicates a non-linear relationship where difficulties in socializing are highest in the middle of the loneliness spectrum.

There are clear limitations to this hypothesis, as both the limited sample within the observed cohort of always lonely respondents and the ordinal nature of the perceived levels of loneliness warrant some caution. However, further examination of the loneliest cohort is worthwhile, as can also be seen by the results of the analysis of respondents' dependence on social media. These results suggest that the loneliest people are particularly dependent on social media and may use it as a substitute for real-life interactions. In contrast, the other

---

[31] Marlies MAES et al., How (Not) to Measure Loneliness: A Review of the Eight Most Commonly Used Scales, *International Journal of Environmental Research and Public Health*, 19 (2022) 17, 10816, https://doi.org/10.3390/ijerph191710816.

groups appear to have more similar and less dependent patterns of social media use.

This could support the hypothesis that the highly lonely respondents do not see social media as a substitute for meaningful interpersonal relationships, but rather as a substitute for an unfulfilled need. We recognize that this hypothesis has significant limitations, as further research is needed to assess self-perceived loneliness using validated measures and to extend the study to include a larger sample of the most lonely individuals. Nevertheless, we can make a case for paying particular attention to those who already perceive themselves as severely lonely. Further surveys in this direction could provide even more insights and an even stronger call to devote educational attention to reaching and accompanying those who are lonely, as they may not be able to truly reach out to themselves.

Conclusion

Going back to the thirst metaphor, perhaps we need to alleviate the guilt. Perhaps we need to realize that not everyone has a taste for what the bar has to offer. We need to pay some attention in educational settings to educating the students as well as the teachers that not everyone has the same ease connecting, and that those who cannot are not 'guilty' but may need our special attention. To continue with our metaphor, someone who cannot consume a drink on his own needs the help of another to enable him to quench his thirst. Those who feel completely lonely are probably not able to get out of their situation on their own, even though they may be surrounded by many people. In educational institutions, it is therefore important for educators to be attentive to such persons and to involve them in genuine interpersonal relationships. Those extremely lonely might not even attempt to make contact, and they might not even want to try too hard in doing so. Our research provided some scientific data pointing us exactly in this direction.

Doing so – reaching out, trying to get to those on the brink – we might even have to fight a type of scientific data validation bias that would tend to characterize loneliness as an objective fact, a summation of various measurable and identifiable indicators rather than a self-perception all too subjective and immeasurable.

Roman Globokar* – David Kraner** – Marko Weilguny***

Porast usamljenosti među mladima: Istraživanje utjecaja digitalnih medija

Sažetak

U članku autori istražuju rast učestalosti usamljenosti među mladima, usredotočujući se na ulogu digitalnih medija u oblikovanju društvenih iskustava mladih. Polazeći od povijesne, psihološke i sociološke perspektive, autori tvrde da usamljenost nije samo prostorna odvojenost (fizička izoliranost), već dubok subjektivan osjećaj nedostatka smislene povezanosti (odnosa) s drugima. Dvije ključne hipoteze uokviruju analizu: hipoteza o istiskivanju (digitalni mediji zamjenjuju interakciju licem u lice i povećavaju usamljenost) i hipoteza o stimulaciji (digitalni mediji nadograđuju postojeće odnose i smanjuju usamljenost). Utjecaj digitalnih medija uvelike ovisi o njihovoj upotrebi – aktivnom nasprem pasivnom angažmanu – i temeljnim društvenim potrebama korisnika. U članku autori iznose nalaze istraživanja provedenog 2022. godine na 654 slovenska srednjoškolca. Četvrtina ispitanika navela je da ima česte ili stalne osjećaje usamljenosti. Učenici koji su naveli da imaju osjećaj veće usamljenosti također su imali više poteškoća sa socijalizacijom i bili su manje spremni odustati od uporabe društvenih medija, što ukazuje na moguću ovisnost o digitalnoj interakciji kao zamjeni za povezanost u stvarnom životu. Autori naglašavaju važnost subjektivne percepcije usamljenosti, tvrdeći da je standardizirane skale često ne uspijevaju *uhvatiti*. Zalažu se za više pozornosti u obrazovnim okruženjima da bi se podržalo one učenike koji doživljavaju duboku usamljenost – posebno one koji se ne obraćaju drugima ili se čine odvojenima (izoliranima).

Ključne riječi: digitalni mediji, društvena izolacija, mladi, obrazovanje, usamljenost.

(*na hrv. prev.* Stjepan Štivić)

---

*   Izv. prof. dr. sc. Roman Globokar, Sveučilište u Ljubljani, Teološki fakultet, Katedra moralne teologije; Poljanska 4, SI-Ljubljana, Slovenija; e-mail: roman.globokar@teof.uni-lj.si.

** Doc. dr. sc. David Kraner, Sveučilište u Ljubljani, Teološki fakultet, Katedra za pastoralnu i navjestiteljsku teologiju; Poljanska 4, SI-Ljubljana, Slovenija; e-mail: david.kraner@teof.uni-lj.si.

*** Marko Weilguny, univ. dipl. fil. i soc. kulture, doktorand na teologiji; Sveučilište u Ljubljani, Teološki fakultet, Institut za bioetiku; Poljanska 4, SI-Ljubljana, Slovenija; e-mail: marko.weilguny@teof.uni-lj.si.