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LONELINESS IN A CONNECTED WORLD: WHY DO YOUNG PEOPLE FEEL ALONE?

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Abstract. Although young people today are the most digitally connected generation in history, international data show that they are also among the loneliest. This article examines the paradox of "connected loneliness" and seeks to explain why adolescents and young adults feel alone despite constant online contact. Using an integrative review of peer-reviewed studies and major international reports published mainly between 2009 and 2025, the study synthesises evidence on the prevalence, causes and consequences of youth loneliness. According to the World Health Organization (2025), 20.9% of 13–17-year-olds and 17.4% of 18–29-year-olds report loneliness, the highest rates of any age group. The analysis identifies seven interrelated drivers, including the displacement of face-to-face interaction, passive social media use and upward social comparison, fear of missing out, shallow quantity-based relationships, "phubbing", life-stage transitions and hypervigilance to social threat. A conceptual model of the self-reinforcing cycle of connected loneliness is proposed, together with a step-by-step algorithm for identifying and reducing loneliness among university students, and evidence-based recommendations are offered for individuals, families, educational institutions, psychological services and policymakers. The article concludes that technology is not inherently isolating; loneliness grows when digital contact replaces, rather than supports, meaningful offline relationships.

Keywords: loneliness, social isolation, youth, social media, digital communication, social comparison, fear of missing out, belonging, mental health, social connection.

Annotatsiya. Bugungi yoshlar tarixdagi eng raqamli bog‘langan avlod bo‘lishiga qaramay, xalqaro ma’lumotlar ularning eng yolg‘iz yosh guruhlaridan biri ekanini ko‘rsatmoqda. Maqolada "bog‘langan yolg‘izlik" paradoksi tahlil qilinib, o‘smirlar va yoshlar doimiy onlayn aloqada bo‘lishiga qaramay nima sababdan o‘zlarini yolg‘iz his qilishlari yoritiladi. Asosan 2009–2025-yillarda chop etilgan ilmiy tadqiqotlar va xalqaro hisobotlarning integrativ sharhi asosida yoshlar yolg‘izligining tarqalishi, sabablari va oqibatlari umumlashtirilgan. Jahon sog‘liqni saqlash tashkiloti (2025) ma’lumotlariga ko‘ra, 13–17 yoshlilarning 20,9 foizi va 18–29 yoshlilarning 17,4 foizi yolg‘izlikni boshdan kechiradi. Tadqiqot natijasida yolg‘izlikning yettita o‘zaro bog‘liq omili aniqlangan, "bog‘langan yolg‘izlik"ning o‘zini o‘zi kuchaytiruvchi sikli modeli hamda oliy ta’lim muassasalari talabalari orasida yolg‘izlikni aniqlash va kamaytirish algoritmi taklif etilgan.

Kalit so‘zlar: yolg‘izlik, ijtimoiy izolyatsiya, yoshlar, ijtimoiy tarmoqlar, raqamli muloqot, ijtimoiy taqqoslash, FOMO, mansublik, ruhiy salomatlik, algoritm.

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Аннотация. Несмотря на то что современная молодёжь является самым «подключённым» поколением в истории, международные данные свидетельствуют о том, что именно она относится к наиболее одиноким возрастным группам. В статье анализируется парадокс «одиночества в подключённом мире» и раскрываются причины, по которым подростки и молодые люди ощущают одиночество при постоянном онлайн-общении. На основе интегративного обзора научных исследований и международных докладов, опубликованных преимущественно в 2009–2025 гг., обобщены данные о распространённости, причинах и последствиях одиночества молодёжи. По данным Всемирной организации здравоохранения (2025), одиночество испытывают 20,9 % подростков 13–17 лет и 17,4 % молодых людей 18–29 лет. Выделены семь взаимосвязанных факторов одиночества, предложены модель самоподдерживающегося цикла «подключённого одиночества» и алгоритм выявления и снижения одиночества среди студентов высших учебных заведений.

Ключевые слова: одиночество, социальная изоляция, молодёжь, социальные сети, цифровая коммуникация, социальное сравнение, FOMO, принадлежность, психическое здоровье, алгоритм.

INTRODUCTION

Never before have human beings had so many ways to stay in touch. A teenager in Namangan can send a voice message to a friend in Seoul, join a group chat with classmates at midnight and receive hundreds of reactions to a single photograph within minutes. Yet a growing body of research shows that this unprecedented connectivity has not protected young people from loneliness. On the contrary, the World Health Organization's Commission on Social Connection reported in 2025 that about one in six people worldwide is affected by loneliness, and that adolescents and young adults are the loneliest age groups of all (World Health Organization [WHO], 2025). As one of the Commission's co-chairs observed, even in a digitally connected world many young people feel alone.

This contradiction is not merely an emotional curiosity. Loneliness is now recognised as a public health concern comparable to other well-established risk factors. Large meta-analyses link it to depression, anxiety, poor sleep, cardiovascular disease and premature death (Holt-Lunstad et al., 2010, 2015), and the WHO (2025) associates loneliness with more than 871,000 deaths every year. In 2023 the U.S. Surgeon General went as far as describing the situation as an "epidemic of loneliness and isolation" (Office of the Surgeon General, 2023). For young people, who are building their identities, careers and first intimate relationships, chronic loneliness can shape the entire trajectory of adult life.

The **relevance** of the topic is therefore twofold. First, the generation that has grown up with smartphones is entering universities and the labour market, and their psychological well-being directly affects educational and economic outcomes. Second, countries with large youth populations and rapidly expanding internet access, such as Uzbekistan, face the challenge of ensuring that digital transformation strengthens rather than weakens human relationships.

The **aim** of this article is to explain why young people feel lonely in a hyper-connected world. To achieve this aim, the study pursues the following objectives: to clarify the concept of loneliness and distinguish it from social isolation; to summarise current international data on youth

loneliness; to identify the main psychological, social and technological drivers of loneliness among young people; to propose practical, evidence-based strategies for reducing it; and to develop an algorithm for identifying and supporting lonely students in higher education.

The **scientific novelty** of the study lies in integrating dispersed psychological, sociological and epidemiological evidence into a five-stage conceptual model of the self-reinforcing cycle of connected loneliness and in developing, on this basis, a practical screening-and-support algorithm adapted to higher education institutions. The **practical significance** of the work is that the algorithm and recommendations can be used directly by tutors, university psychologists, youth organisations and curriculum designers in Uzbekistan.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Defining loneliness

In scientific literature, loneliness is understood not as the objective state of being alone but as a subjective, unpleasant experience that arises when a person's social relationships are perceived as deficient in quantity or quality (Perlman & Peplau, 1981). The WHO (2025) adopts a similar definition, describing loneliness as the painful feeling caused by a gap between desired and actual social connection, whereas social isolation refers to an objective lack of social ties. The distinction is crucial for understanding young people: a student may have hundreds of online contacts and still feel deeply lonely, while another may spend much time alone without suffering.

Weiss (1973) further distinguished between **emotional loneliness**, which results from the absence of a close, intimate attachment, and **social loneliness**, which results from the lack of a wider network of friends and peers. This distinction helps to explain why digital communication may reduce one type of loneliness while leaving the other untouched: an active group chat can provide a sense of belonging to a network, yet it rarely replaces a confidant with whom one can share personal difficulties.

The need to belong and the evolutionary view

Baumeister and Leary (1995) argued that the need to belong is a fundamental human motivation: people need frequent, positive interactions within stable relationships of mutual care. When this need is frustrated, individuals experience distress. Building on this idea, Cacioppo and Patrick (2008) proposed an evolutionary theory in which loneliness functions like hunger or thirst — an aversive signal that motivates people to restore social bonds. However, when loneliness becomes chronic, it changes cognition: lonely individuals become hypervigilant to social threat, expect rejection and interpret ambiguous social cues negatively, which makes reconnection harder (Cacioppo & Hawkley, 2009).

Technology and loneliness: competing hypotheses

Research on the internet and well-being has developed around two competing hypotheses. The **displacement hypothesis** suggests that time spent online replaces more valuable face-to-face interaction, while the **stimulation hypothesis** holds that online communication can strengthen

existing friendships (Valkenburg & Peter, 2009). Nowland et al. (2018) reconciled these views by showing that the effect of the internet depends on how it is used: when it serves as a bridge to offline relationships, it can reduce loneliness; when it is used as an escape from social life, it tends to increase it. Turkle (2011) described the latter situation as being "alone together" — physically present with others but mentally absorbed in devices.

It should also be noted that the strength of the link between digital technology and well-being is debated. Orben and Przybylski (2019), analysing large adolescent datasets, found that average associations between technology use and well-being are small. Consequently, many scholars argue that the key issue is not the total amount of screen time but the type of activity, the content consumed and what offline experiences are displaced (Haidt, 2024; Nowland et al., 2018).

MATERIALS AND METHODS

The study is designed as an integrative (narrative) literature review combined with secondary analysis of published statistical data. Sources were selected from the Scopus, Web of Science, PubMed and Google Scholar databases, as well as from official reports of the World Health Organization, the U.S. Surgeon General and large international surveys. The search used combinations of the keywords *loneliness, young people, adolescents, social media, smartphone, social isolation* and *belonging*. Priority was given to peer-reviewed empirical studies, meta-analyses and reports covering large or nationally representative samples, published mainly between 2009 and 2025, while classic theoretical works were included to build the conceptual framework.

The methods of analysis, comparison, synthesis, generalisation, conceptual modelling and algorithmisation were applied. Quantitative indicators reported in the sources were compiled into comparative tables and visualised as Microsoft Excel diagrams; the identified causal mechanisms were integrated into a conceptual model; and the most effective intervention components were arranged into a step-by-step decision algorithm presented as a flowchart. Because the study relies on secondary data, the figures presented reflect the methodologies of the original surveys, which differ in age bands, measurement instruments (for example, single-item questions versus the UCLA Loneliness Scale; Russell, 1996) and time periods; comparisons are therefore interpreted with caution.

RESULTS

The scale of youth loneliness

The reviewed sources consistently show that loneliness is not primarily a problem of old age, as was traditionally assumed. Table 1 summarises the main international indicators.

Table 1

Key international indicators of loneliness among young people

Source and year	Sample / coverage	Key finding relevant to young people
World Health	Global survey data,	About 1 in 6 people are lonely; prevalence peaks at 20.9% among 13–17-year-olds and

Organization (2025)	2014–2023	17.4% among 18–29-year-olds; adolescent girls 24.3% vs. boys 17.2%.
Twenge et al. (2021)	≈1 million 15-year-olds, PISA, 37 countries, 2000–2018	School loneliness rose in 36 of 37 countries between 2012 and 2018, coinciding with mass smartphone adoption.
Meta-Gallup (2023)	Adults in 142 countries	Roughly 24% feel very or fairly lonely; young adults aged 19–29 report higher rates than adults aged 65+.
Hammond (2018), BBC Loneliness Experiment	≈55,000 respondents aged 16–99	40% of 16–24-year-olds felt lonely often or very often, compared with 27% of people over 75.
Kannan & Veazie (2023)	American Time Use Survey, 2003–2020	In-person time with friends among 15–24-year-olds fell by about 70%, from roughly 150 to 40 minutes per day.
Holt-Lunstad et al. (2015)	Meta-analysis of 70 prospective studies	Loneliness is associated with a 26% increase in the likelihood of mortality, confirming its long-term health cost.

Source: compiled by the author on the basis of the cited studies.

As Table 1 demonstrates, independent studies conducted with different methods converge on the same conclusion: young people report loneliness at least as often as, and frequently more often than, older adults. The PISA-based analysis by Twenge et al. (2021) is particularly important because it shows a simultaneous rise in school loneliness across almost all participating countries after 2012, the period in which smartphones and social media became nearly universal among adolescents. The decline in time spent with friends reported by Kannan and Veazie (2023) indicates that the change is behavioural, not only emotional.

Diagram 1 visualises the age gradient reported by the WHO (2025). Loneliness decreases steadily with age: from 20.9% among 13–17-year-olds to 17.4% among 18–29-year-olds, 15.1% among adults aged 30–59 and 11.8% among people aged 60 and over. In other words, teenagers are almost twice as likely to feel lonely as older adults, which overturns the traditional image of loneliness as a problem of old age.

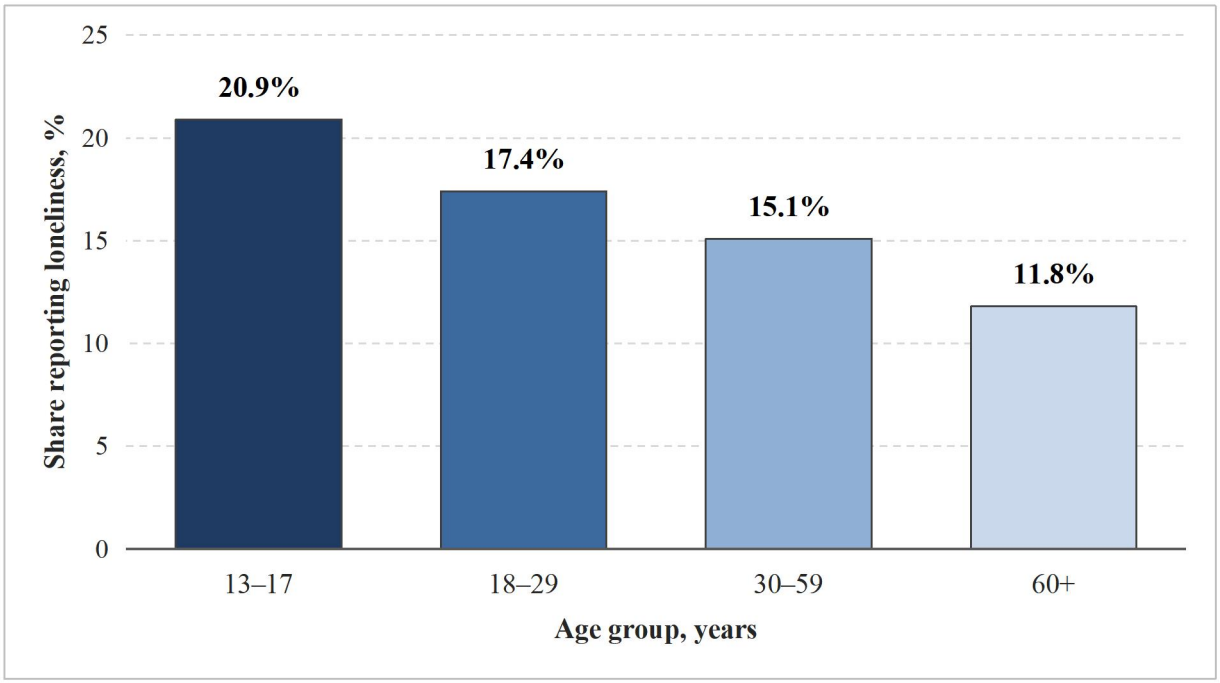


Diagram 1. *Prevalence of loneliness by age group, %*

Source: compiled by the author from World Health Organization (2025); survey data for 2014–2023.

Diagram 2 shows that youth loneliness is unevenly distributed. Among adolescents, 24.3% of girls report loneliness compared with 17.2% of boys, and the share of lonely people in low-income countries (about 24%) is roughly twice that in high-income countries (about 11%). Thus, gender and socio-economic conditions significantly modify the risk of loneliness.

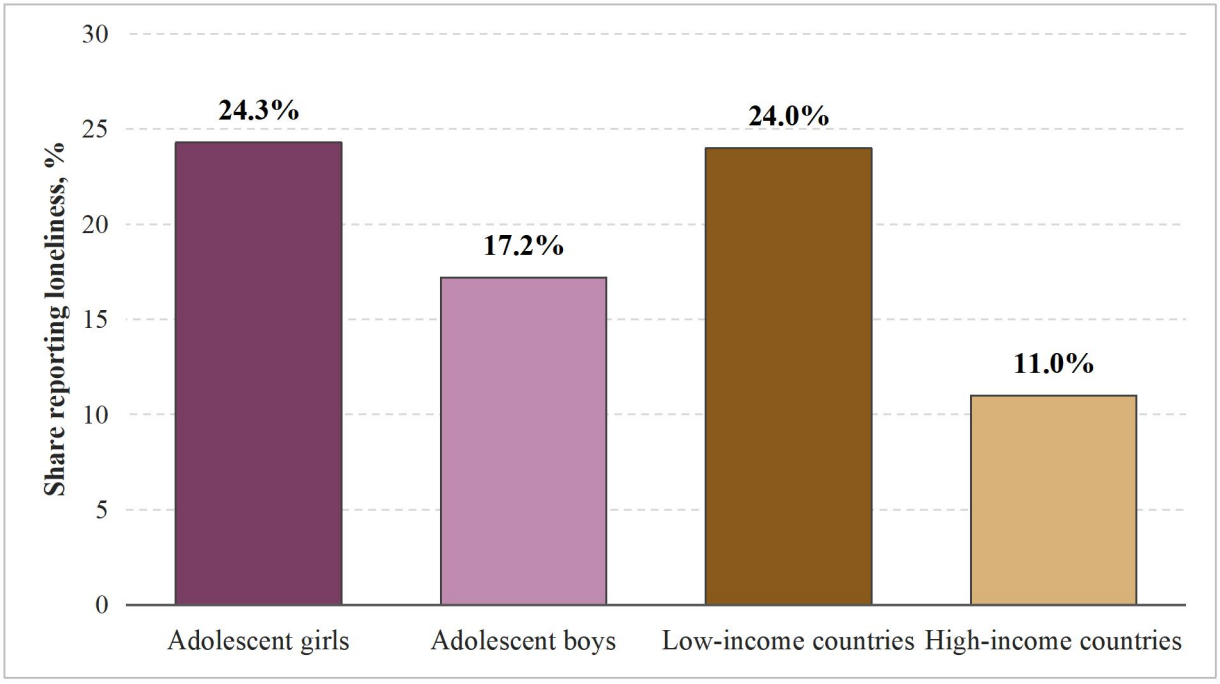


Diagram 2. *Loneliness by adolescent gender and country income level, %*

Source: compiled by the author from World Health Organization (2025).

Why do young people feel alone? Main drivers

The synthesis of the literature made it possible to identify seven interrelated drivers of loneliness among young people. They are presented in Table 2 together with their mechanisms and the main supporting evidence.

Table 2

Main drivers of loneliness among young people in the digital age

Driver	Mechanism	Supporting evidence
Displacement of face-to-face contact	Screen time replaces shared offline activities, sleep and unstructured time with peers.	Twenge, Spitzberg & Campbell (2019); Kannan & Veazie (2023)
Passive use and upward social comparison	Scrolling through peers' curated "highlight reels" triggers envy and the sense of being left out.	Verduyn et al. (2015); Kross et al. (2013)
Fear of missing out (FOMO)	Constant awareness of others' activities heightens perceived exclusion and compulsive checking.	Przybylski et al. (2013); Hunt et al. (2018)
Shallow, quantity-based connection	Many weak online ties are mistaken for intimacy; emotional needs remain unmet.	Turkle (2011); Weiss (1973); Primack et al. (2017)
"Phubbing" and divided attention	Phones interrupt in-person conversations, lowering their quality and satisfaction.	Roberts & David (2016)
Life-stage transitions	Moving to university, a new city or a first job dissolves old networks before new ones form.	Qualter et al. (2015); WHO (2025)
Hypervigilance to social threat	Lonely individuals expect rejection and avoid contact, which deepens isolation.	Cacioppo & Hawkley (2009); Hawkley & Cacioppo (2010)

Source: compiled by the author.

Displacement of face-to-face contact. Data from the Monitoring the Future survey, covering more than eight million American adolescents, show that the time teenagers spend with friends in person — going to parties, shopping or simply "hanging out" — fell sharply in the 2010s, while loneliness rose (Twenge, Spitzberg, & Campbell, 2019). Online interaction is not a full substitute: it lacks eye contact, touch, tone of voice and shared physical experience, which are central to the formation of trust.

Passive use and social comparison. Experimental and longitudinal research shows that passively browsing social media, as opposed to actively communicating, undermines affective well-being, largely by provoking envy (Verduyn et al., 2015). Using experience sampling, Kross et al. (2013) found that the more young adults used Facebook, the worse they subsequently felt. Social media present carefully selected moments of other people's lives; when young people compare their ordinary daily experience with these "highlight reels", they easily conclude that everyone else is more popular, happier and more connected.

Fear of missing out. Przybylski et al. (2013) described FOMO as a pervasive apprehension that others are having rewarding experiences from which one is absent. Social media make such experiences permanently visible. Primack et al. (2017) reported that young adults in the highest quartile of social media use had about two to three times greater odds of perceived social isolation than those in the lowest quartile.

Shallow, quantity-based connection. Online platforms emphasise the number of followers, friends and likes. However, according to Weiss's (1973) model, a large network cannot compensate for the absence of an intimate attachment. Turkle (2011) noted that constant messaging can create an illusion of companionship without the demands — and rewards — of real friendship.

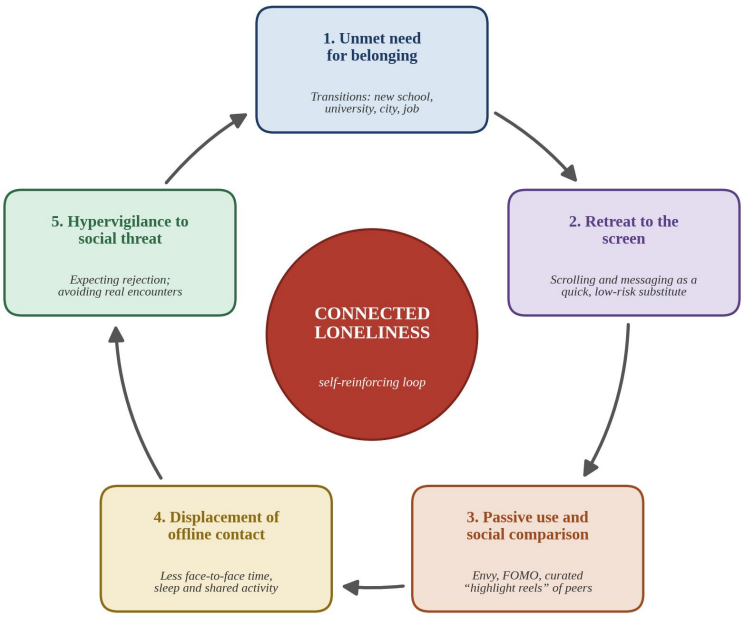
"Phubbing" and divided attention. Even when young people meet in person, smartphones often remain on the table. Snubbing a companion in favour of a phone, known as phubbing, has been shown to reduce relationship satisfaction (Roberts & David, 2016), so that physical presence does not guarantee emotional presence.

Life-stage transitions. Adolescence and early adulthood are periods of intense change: leaving the family home, starting university, moving to a new city and entering the labour market. Old friendships weaken before new ones are firmly established, and expectations of an active social life are particularly high, which widens the gap between desired and actual connection (Qualter et al., 2015; WHO, 2025).

Hypervigilance to social threat. Finally, loneliness is self-perpetuating. Lonely individuals become more sensitive to signs of rejection and more likely to withdraw, which in turn reduces opportunities for positive contact (Cacioppo & Hawkley, 2009; Hawkley & Cacioppo, 2010).

DISCUSSION

The results suggest that the loneliness of young people cannot be explained by technology alone or by individual personality traits alone. Rather, the drivers listed in Table 2 interact to form a self-reinforcing cycle, which the author conceptualises as **connected loneliness** (Figure 1).



Source: developed by the author on the basis of Cacioppo & Hawkley (2009), Verduyn et al. (2015), Twenge et al. (2019) and Nowland et al. (2018).

Figure 1. *Conceptual model of the self-reinforcing cycle of connected loneliness*

The cycle typically begins with an unmet need for belonging, often triggered by a transition such as entering university. The smartphone offers a quick, low-risk way to ease the discomfort, so the young person retreats to the screen. However, if this use is mainly passive, it exposes them to idealised images of peers, provoking social comparison and FOMO. Time online gradually displaces sleep, sport and face-to-face meetings, and the resulting lack of rewarding offline experiences increases sensitivity to rejection. The young person then avoids real encounters and seeks comfort online again, which closes the loop and deepens loneliness.

This model is consistent with the view of Nowland et al. (2018) that digital technology is neither good nor bad in itself. The same smartphone can either reinforce the cycle or break it, depending on whether it is used to replace or to organise real-life contact. It also helps to explain why the associations found in large datasets are modest on average (Orben & Przybylski, 2019): for some young people the cycle never starts, while for others — especially those already vulnerable — it becomes a powerful trap.

The gender difference shown in Diagram 2 deserves attention. Adolescent girls may be more exposed to appearance-based comparison on image-oriented platforms, while boys may be under-reporting loneliness because of social expectations. The income gradient, in turn, reminds us that loneliness is also a structural problem: poverty, limited public spaces and fewer opportunities for leisure reduce chances for meaningful contact (WHO, 2025).

Because the cycle has several links, it can be interrupted at several points. Table 3 summarises evidence-informed strategies at different levels.

Table 3

Evidence-informed strategies for reducing loneliness among young people

Level	Recommended actions	Evidence base / expected effect
Individual	Set daily limits on social media (≈30 min); replace passive scrolling with active, one-to-one communication; schedule regular offline meetings.	Limiting use for three weeks reduced loneliness and depression (Hunt et al., 2018).
Family	Device-free meals and evenings; open conversations about online experiences; parental modelling of balanced phone use.	Reduces "phubbing" and strengthens perceived support (Roberts & David, 2016).
University / school	Peer-mentoring for first-year students; clubs, volunteering and group projects; screening for loneliness by tutors and psychologists.	Group-based and social-skills programmes are effective for youth (Eccles & Qualter, 2021).
Psychological services	Cognitive-behavioural programmes that correct maladaptive social cognition (expectation of rejection).	Most effective intervention type in meta-analysis (Masi et al., 2011).
Digital platforms and the state	Design that rewards active rather than passive use; digital literacy curricula; national strategies on social connection.	Recommended by WHO (2025) and the U.S. Surgeon General (2023).

Source: compiled by the author on the basis of the cited studies.

The experiment by Hunt et al. (2018), in which students limited their use of three popular platforms to about 30 minutes per day for three weeks, is especially encouraging: participants showed significant reductions in loneliness and depression compared with a control group. At the same time, the meta-analysis by Masi et al. (2011) demonstrated that interventions addressing maladaptive social cognition — the tendency to expect rejection — are more effective than those that merely increase opportunities for contact. This finding matches the final link of the cycle in Figure 1 and indicates that psychological support is as important as limiting screen time.

Algorithm for identifying and reducing loneliness among students

To translate these findings into practice, the author proposes an algorithm for the early identification and reduction of loneliness among university students (Figure 2). The algorithm combines brief screening, risk-based differentiation of support and repeated assessment, so that limited psychological resources are directed to those who need them most.

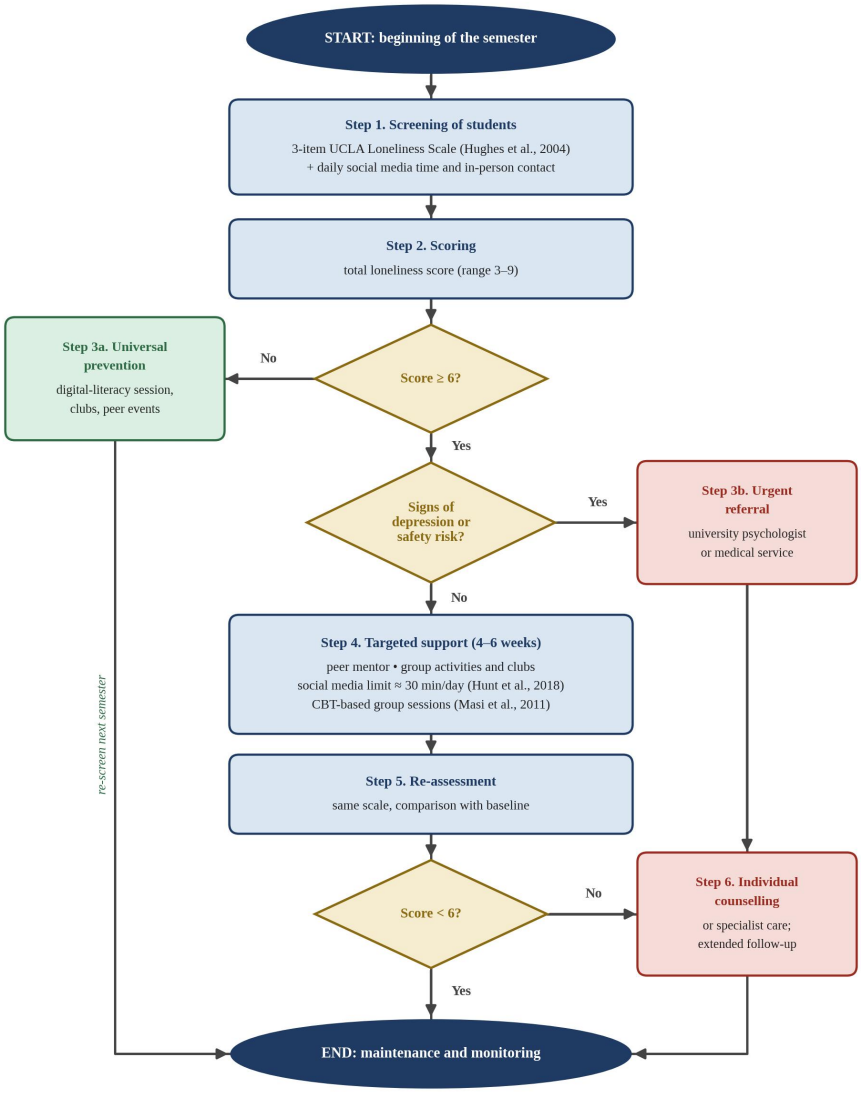


Figure 2. *Algorithm for identifying and reducing loneliness among university students*

Source: developed by the author on the basis of Hughes et al. (2004), Kroenke et al. (2001), Masi et al. (2011), Hunt et al. (2018) and Eccles and Qualter (2021).

Step 1 — Screening. At the beginning of each semester, students complete the three-item UCLA Loneliness Scale, which asks how often they feel that they lack companionship, feel left out and feel isolated from others (Hughes et al., 2004). The scale is short enough for mass surveys and is supplemented by two questions about daily social media time and the frequency of in-person meetings with friends.

Step 2 — Scoring. Each item is scored from 1 ("hardly ever") to 3 ("often"), giving a total of 3–9. In population research, a score of 6 or higher is frequently used to identify respondents who are lonely; an institution may adjust this threshold after piloting the procedure on its own students.

Step 3 — Differentiation. Students scoring below 6 receive universal prevention (Step 3a): digital-literacy sessions on passive scrolling and social comparison, invitations to clubs and peer events, and re-screening in the next semester. For students scoring 6 or above, the psychologist checks for signs of depression or risk to personal safety, for example with the PHQ-9 questionnaire (Kroenke et al., 2001). If such signs are present, the student is referred without delay to the university psychologist or medical service (Step 3b).

Step 4 — Targeted support. Other students at risk join a four-to-six-week programme that includes a peer mentor, participation in group activities, a voluntary limit on social media use of about 30 minutes per day following Hunt et al. (2018), and group sessions based on cognitive-behavioural techniques that challenge the expectation of rejection (Masi et al., 2011).

Steps 5–6 — Re-assessment and follow-up. After the programme, the same scale is administered again. If the score has fallen below 6, the student moves to maintenance and routine monitoring; if not, individual counselling or specialist care with extended follow-up is offered (Step 6). Because every branch ends in monitoring, the algorithm forms a closed cycle of continuous support rather than a one-off intervention.

For higher education institutions in Uzbekistan, including philological faculties where students actively use foreign-language media, these findings have practical implications. Peer-mentoring for first-year students, language clubs, debate societies, volunteering and collaborative projects can turn the university into a space of real belonging. Teachers and tutors can be trained to notice signs of withdrawal, and digital literacy courses can teach students to recognise the effects of passive scrolling and social comparison.

The study has several limitations. It relies on secondary data collected with different instruments and age categories, and most large-scale longitudinal studies were conducted in high-income Western countries. Much of the evidence on social media is correlational, so the direction of causality is not always clear: loneliness may lead to heavier use as well as result from it. Empirical research on loneliness among Uzbek youth, using validated instruments such as the UCLA Loneliness Scale, is therefore an important direction for future study.

CONCLUSION

The analysis confirms that loneliness among young people is a real and widespread phenomenon rather than a moral panic. International data show that adolescents and young adults report the highest rates of loneliness of any age group, and that school loneliness increased in almost all countries in the decade of mass smartphone adoption.

Young people feel alone in a connected world not because they lack contacts, but because the quality of their connection often does not match their needs. Seven interrelated drivers — displacement of face-to-face contact, passive use and social comparison, fear of missing out, shallow quantity-based relationships, phubbing, life-stage transitions and hypervigilance to social threat — form a self-reinforcing cycle of connected loneliness.

This cycle can be broken. Conscious and active use of technology, device-free time in families, supportive university communities, psychological programmes that address fear of rejection and national strategies for social connection can together help young people transform digital connectivity into genuine human closeness. The proposed algorithm offers universities a

simple and low-cost tool for identifying lonely students early and providing them with differentiated support. Ultimately, technology should serve as a bridge to other people, not as a wall between them.

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