

A Critical Analysis on Loneliness and Connection in our Digital Age

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Abstract

The technology boom of the late 1990s into the early 2000s saw great advancements in the way we see and use technology. From this period onward, access to the internet and even ownership of a technological device or smartphone became more common among the general public. Before we knew it, access to all sorts of information and access to each other became readily available at the click of a button. In many ways this helped foster a greater sense of connection among many, with physical barriers no longer preventing family members who live miles away from each other to stay in touch or young adults being able to find communities of people online that shared their interests that they may have had trouble finding in their own hometowns. So, with all of these possibilities for connection available, why has there been a common trend of loneliness and disconnection, especially among the youth who've grown up in the technological age? Can technology be seen as the catalyst for this trend or are there other societal changes at hand that have played a bigger role? And what can be done to mitigate or counteract such experiences? In my thesis I will explore these questions, drawing from literary texts and various academic sources to support my claims. I will also be exploring if and/or how themes such as identity, relationships, and development have any relationship to these questions.

Keywords: Psychology, loneliness, connection, digital addiction, adolescence, psychological needs, mental health

Loneliness and Connection in our Digital Age

What Is The Loneliness Epidemic?

The ‘loneliness epidemic’ has become a popularized buzzword in recent years, being referenced throughout articles, news stations and even podcasts. But what exactly does it mean, where did this term come from, and why is it important? In May of 2023, U.S Surgeon General Vivek Murthy issued a new General Advisory announcing that we are experiencing an epidemic of loneliness in the United States. While this was definitely exacerbated by the onset of the Covid-19 pandemic, the findings in the report showed that higher levels of loneliness were still prevalent among the general population, as “approximately half of U.S. adults reported experiencing measurable levels of loneliness” with young adults experiencing some of the highest rates of it (Office of the Assistant Secretary for Health (OASH), 2023). According to the American Counseling Association, mental health workers have noticed this trend as well. Amy Lasseter, a licensed counselor based in Georgia, shared that “about 80% of her clients are currently suffering from loneliness in some capacity, and she believes the number has increased over the past few years.” (Cooper, 2023).

Conceptualizing Loneliness

But if we are claiming that we are currently experiencing a loneliness epidemic, how exactly are we defining loneliness? Various definitions have been proposed throughout research. In some cases, it’s been described as “a complex mental excitement which is generally experienced in the form of an unpleasant feeling of stress due to lack of connection or

commonality with others” (Bandari et al., 2019). In other literature, it’s been characterized as “a mental, unpleasant, and distressing phenomenon that is the result of inconsistency between individuals’ expected level of social relations and the real level of connections that is exercised” (Bandari et al., 2019). It’s even been defined as simply instances “when an individual’s social network undergoes a qualitative or quantitative loss” (Bandari et al., 2019). However a common thread includes loneliness being seen as a subjective experience, that often occurs when there is some discrepancy between the reality of one’s social bonds and the expectations they hold for them, or the quality of one’s social bonds and the levels of intimacy they encompass.

Loneliness also doesn’t always equate to physically being alone. Sociologist Ray Oldenburg addresses this in his 1989 book ‘The Great Good Place’, which explores how third places or informal public gatherings are a cornerstone of building well-functioning, healthy relationships and supporting communities. He states “There is a great difference between intimacy and affiliation, and there is no substituting one for the other. We need both. Lacking intimacy, affiliation becomes little more than a means of dulling the sense of emptiness in our lives. Lacking affiliation, intimacy becomes overburdened even as it risks the dullness of restricted human contact” (Oldenburg, 1989, p. 63). Affiliation has more to do with connecting to others and creating bonds or relationships, but Intimacy refers to the deeper bonds and familiarity we hold with others. As Oldenburg stated, both are important and can balance each other out. This explanation can also provide insight into why an individual can have many acquaintances, and have their need for affiliation fulfilled, but still experience loneliness in the presence of those people. Overall, this can be due to a lack of intimacy.

Author Noreena Hertz explores this as well in chapter four of her book ‘The Lonely Century’. The book takes a look at how we’ve become more disconnected as a society, drawing

from research and a series of interviews. The beginning of chapter four followed Frank, a thirty two year old who had just moved to Manhattan a few years prior for better job opportunities. He describes his difficulties with forming acquaintanceships with neighbors in his apartment building because “despite having lived in the building for a couple of years, it wasn’t “just that no neighbor knows my name” but that “each time I pass them in the corridors or elevator it’s as if they’ve never seen me before.” (Hertz, 2021, p. 66). He found that the “cold anonymity” he felt in his apartment building seemed to reflect his experience in the city overall, characterizing New Yorkers as having “Heads in their phones, Fitbits monitoring their pace, grimaces or game faces on, the city felt to him unrelenting, hostile, and harsh.”(Hertz, 2021, p. 66).

Hertz gives some reasoning behind this, explaining that being “overwhelmed by the hustle and bustle of the city, its noise and the constant bombardment of visual stimuli, the propensity for city dwellers even before the coronavirus was to effectively socially distance—not physically but psychologically—by creating our own personal walking cocoons whether by covering our ears with headphones, wearing sunglasses, or burying ourselves in the isolation of our phones.” (Hertz, 2021, p. 69). This example speaks to the tendency for some people to feel more lonely in big cities, because even though physically they are rarely alone, the lack of social connection between people can feel isolating. Loneliness occurs not just as a result of a low quantity of social bonds or relationships, but a lower quality of them. This is largely due to the hustle and bustle found in metropolitan areas, and Hertz makes the point that this is likely also a result of neoliberalism.

Surgeon general Murthy stated “Given the significant health consequences of loneliness and isolation, we must prioritize building social connection the same way we have prioritized

other critical public health issues such as tobacco, obesity, and substance use disorders. Together, we can build a country that's healthier, more resilient, less lonely, and more connected.” (Office of the Assistant Secretary for Health (OASH), 2023). It's been made evident that this 'loneliness epidemic' is a critical issue, and it's important to understand why this is. But we must first examine how the current state of our world contributes to, or takes away from, this problem. There is no doubt that we are currently experiencing a digital age. We live in a time of rapid technological change and advancement, and its presence is seen in almost every aspect of our lives. So if technology helps us spread more information and acts as a bridge of communication, why do we feel more disconnected now than before? Let's start by examining the role of technology in our daily lives and how its use has grown rapidly in the past decade.

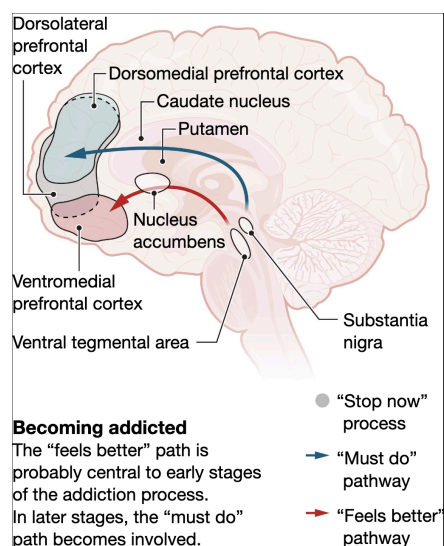
Factors Contributing To Loneliness Epidemic: Technologies Role in Our Daily Lives

We live in a world surrounded by screens. Most of us wouldn't dare leave our house without at least our cellphones. It's now commonplace to use our laptops or ipads in professional and academic settings. Our devices have become central to our lives, for our own amusement but also for very practical reasons. They allow us to get more done in a day, multitask more efficiently, and bring more convenience to our lives. We can check emails on our morning commute, catch up on the phone with a friend while driving, or send text messages while getting groceries. Aside from its convenience, technology has also made more aspects of our life enjoyable. Without a doubt, these advancements have changed the way we live our lives. But this hasn't come without its own set of issues.

Technology's & Its Adverse Effects

Recent research has found striking similarities between brain activity when using addictive drugs and brain activity accompanied with online addictive behaviors (Brand, 2022).

The brain's natural reward system is wired to reinforce behaviors. From an evolutionary standpoint, it helps reinforce behaviors that aid survival. Small bursts of the chemical dopamine are released that encourage us to repeat the same action in the future. Addictive substances or habits can cause our brains to release this burst as well. But certain addictive substances can cause dopamine to flood the reward pathway higher than a natural reward would. And as substance use increases, sensitivity to dopamine decreases, leading to tolerance. An article in the *Science Journal* explored this phenomenon, and found that “The internet applications that are often used problematically deliver pleasure and enable the reduction of negative mood. These responses show parallels with the effects of addictive drugs on the brain’s reward system. Additionally, compulsive usage patterns may develop.”(Brand, 2022).

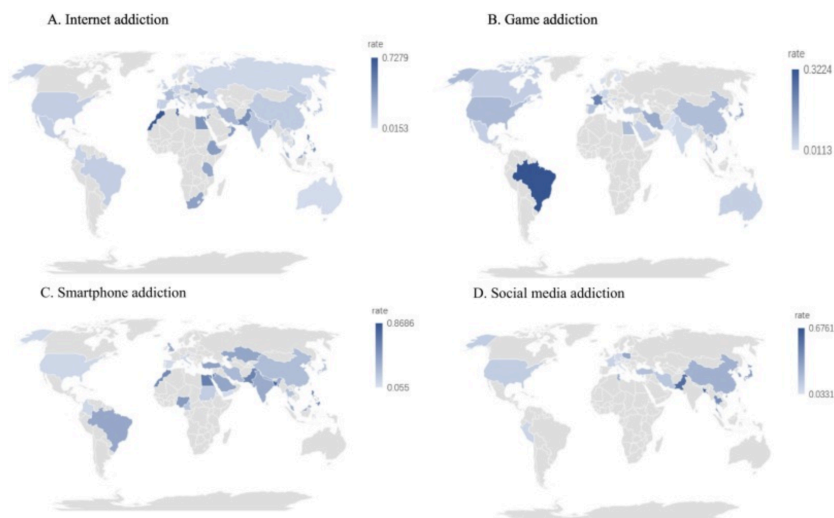


So in other words, researchers claim that some parallels are found because addictive use of internet applications can target the same reward systems as addictive use of substances do, and continue to reinforce the behavior. This can also encourage “avoidance of negative moods, which is also known from substance use (e.g., using alcohol to cope with stress).” (Brand, 2022).

An article published in *Frontiers in Psychiatry* journal sought to examine the prevalence of internet addiction as well in conjunction with academic burnout and loneliness. A

cross-sectional questionnaire survey was conducted among a population of Chinese college students. They administered the Chen Internet Addiction Scale questionnaire, the University of California at Los Angeles Loneliness Scale Version 3 and The Adolescent Student Burnout Inventory to measure each of these components. Researchers concluded that correlations existed between internet addiction and academic burnout among college students. They also found that loneliness “partially mediates the relationship between Internet addiction and academic burnout.”(Gu et al., 2023).

Another study published in the Clinical Psychology review looked at the prevalence of digital addiction among a general population. Researchers constructed a meta-analytic review, utilizing studies from resources including PubMed, Embase, Cochrane Library, and PsycINFO that were all published before October 31, 2021 and fell under the established criteria. The criteria only included studies that were “peer-reviewed journals, used a validated tool to assess digital addiction, and passed the qualify assessment.” (Meng et al., 2022). Overall, the systematic review included “498 articles with 507 studies” while the meta-analysis included “495 articles with 504 studies” (Meng et al., 2022). Results from these studies showed geographical variation among digital addiction levels. Low to middle class income countries specifically showed to have a “higher burden of digital addiction” and a “higher prevalence of digital addiction was found in Eastern Mediterranean region” (Meng et al., 2022). Males also showed higher reports of internet and game addiction when compared to females.



The COVID-19 pandemic also seemed to worsen reports of digital addiction.-Students' academic engagement, for example, changed during COVID-19 in relation to forced solitude or loneliness. Researchers conducted a mixed-methods study among 228 college students, collecting sets of both qualitative and quantitative data " (Hendrick et al., 2023). The main themes that emerged included relatedness, loneliness, and academic engagement. The analysis showed that academic engagement was impacted by both "(a) 'basic need satisfaction and frustration' of relatedness in life" and, "(b) feeling (emotionally) lonely". Feelings of frustration surrounding relatedness were also prevalent and seemed to overlap with "the effects of loneliness" (Hendrick et al., 2023).

The findings from the qualitative and quantitative data seemed to support one another and overall results indicated that "students' academic engagement suffered from the loss of a shared physical space and from uncertainty about university policies." (Hendrick et al., 2023). These findings help convey how much of a role internet use has in our society today, because prior to the boom of the digital age, these mechanisms with internet addiction were not found, or at the very least they were not as prevalent.

Research covering the effects of the Covid-19 pandemic showed that when we are missing some level of social connection or interaction, this has impacts on our mood and overall-satisfaction. But this goes on to impact performance, with research specifically highlighting its impact on academic performance in previous study. So what does this say about digital engagement often being used as a substitute for social interaction today? Especially among generations who were brought up in the digital age and didn't have the same childhood experiences as the boomer or millennial generation. These generations didn't have as much of an easy access to technology, and more specifically, they didn't have as easy of an access to the internet or to computer games. They were forced to play with other kids or at the very least opt for an activity such as reading or drawing if they were playing alone.

How does this impact the first generation of so-called 'Ipad kids' and the way in which their social skills and needs develop? These advancements may help give some reasoning as to why we are seeing trends like the "loneliness epidemic" today. Our access to technology has impacted to some extent the way we socialize and the frequency in which we may socialize in general. And the internet, or social media in particular, attempts to replace or recreate this sense of connection. On some level it works, because you have access to people and communities you never did before. You can network and interact much quicker and more easily with individuals past geographical barriers than if you were to try in person.

But this can't replace the sense of relatedness one gets from being an active member of a community where you interact with others physically and frequently, or forming more fulfilling bonds and relationships in person. So overall, technology has a larger role in our lives often for more practical purposes and out of convenience. But its role has also increased drastically

because of its addictive nature. It's made our lives easier in some ways, but as shown in the research findings above, it also has social and emotional implications. The data has shown how technology can add to feelings of loneliness overall, despite it also being a vehicle for connection.

Factors Contributing To Loneliness Epidemic: Lack of Third Places

Third Places, or the lack thereof, is also another contributing factor to the lack of connection people seem to be experiencing. Sociologist Ray Oldenburg first coined this term in the 1980s. Third places can be described as spaces that “that foster community and communication among people outside of home and work” (Jeffres et al., 2009). These spaces can range from libraries or public parks to cafe's and hair salons, but overall they describe “the broad collection of physical places, inhabited spaces, facilities, built infrastructure, neighborhood environments, streetscapes, organizations, and institutions that facilitate social connection among people” (Finlay et al., 2019). They serve as environments where “people can meet, express themselves, relax, play, and build community, often at little material cost or personal effort”, in ways that aren't centered on work or productivity (Finlay et al., 2019).

These spaces can inspire interactions with others in our communities outside of the people we already live or work with. They also are meant to be already built into our neighborhoods and accessible in a way that doesn't require driving long distances to reach it. This is what differentiates third spaces, and allows them to be resources that facilitate connection at little cost or personal effort, because “instead of simply moving through them, people purposefully occupy and connect to these key sites of daily life” (Finlay et al., 2019). In

other words, third places allow or even encourage people to linger, especially without feeling rushed or being expected to overspend.

Why Do We Care?

Why should we care about the impacts of loneliness? For starters a sense of belonging and relatedness are a part of our basic psychological needs. This is highlighted in Maslow's hierarchy of needs (Mcleod et al., 2024), one of the most critical and influential additions to the world of motivational psychology. The five stage model proposes that at the base level, we have a physiological need for things like food, water, rest, and shelter. Moving upwards we have a need for safety and security, belongingness and love, self-esteem needs, and a need for self-actualization. Maslow believed that all of these facets were important to living up to our full potential. From an evolutionary perspective, not fulfilling this need also poses a threat to our survival. It impacts our sense of well-being and also explains why we experience physical and psychological symptoms in response to feelings of isolation.

In addition to being part of our basic psychological needs, connection and belonging also impact our motivation. Self Determination Theory (University of Rochester Medical Center) is a theory of motivation developed by psychologist Richard Ryan and Edward Deci. They observed that when the 3 basic psychological needs are satisfied (autonomy, competence, and relatedness), people are more intrinsically motivated to complete or carry out tasks. Relatedness refers to our need to feel connected to others and establish meaningful relationships.

A central developmental task for adolescents and young adults is building connection and intimacy. During the late 1940s, psychoanalyst Erik Erikson developed a psychosocial theory

that would go on to be a critical contribution to the field of developmental psychology, and have impacts on other disciplines as well. Erikson's Theory of Psychosocial Development outlines the eight stages that we expect to pass through from the time we are born up until death.

Stage	Ages	Basic Conflict	Important Event	Summary
1. Oral-Sensory	Birth to 12 to 18 months	Trust vs. Mistrust	Feeding	The infant must form a first loving, trusting relationship with the caregiver, or develop a sense of mistrust.
2. Muscular-Anal	18 months to 3 years	Autonomy vs. Shame/Doubt	Toilet training	The child's energies are directed toward the development of physical skills, including walking, grasping, and rectal sphincter control. The child learns control but may develop shame and doubt if not handled well.
3. Locomotor	3 to 6 years	Initiative vs. Guilt	Independence	The child continues to become more assertive and to take more initiative, but may be too forceful, leading to guilt feelings.
4. Latency	6 to 12 years	Industry vs. Inferiority	School	The child must deal with demands to learn new skills or risk a sense of inferiority, failure and incompetence.
5. Adolescence	12 to 18 years	Identity vs. Role Confusion	Peer relationships	The teenager must achieve a sense of identity in occupation, sex roles, politics, and religion.
6. Young Adulthood	19 to 40 years	Intimacy vs. Isolation	Love relationships	The young adult must develop intimate relationships or suffer feelings of isolation.
7. Middle Adulthood	40 to 65 years	Generativity vs. Stagnation	Parenting	Each adult must find some way to satisfy and support the next generation.
8. Maturity	65 to death	Ego Integrity vs. Despair	Reflection on and acceptance of one's life	The culmination is a sense of oneself as one is and of feeling fulfilled.

Each stage involves our different sets of needs, and the influences during that time that will go on to shape our behavior. According to this model, Stage 6 is the Intimacy vs Isolation stage. This early adulthood period begins - from around 19 or 20 years of age to around 40 years of age. The stage prior focuses more on Identity formation, so by this stage we are beginning to focus more on building intimate and healthy relationships. This isn't limited to only romantic partnerships, and extends to friendships as well. Erikson believed that an inability to do this can often result in feelings of isolation among young adults. He brings forth the idea that the ability to form healthy bonds and relationships during this time is critical as one grows into adulthood.

Why Do We Care: How This Impacts Young Adults

It's been established in the earlier paragraphs that our access to technology has impacted how we socialize with others and our ability to form quality bonds. We also understand that this inability to form quality connections in real life compared to digitally, can lead to more feelings of isolation. So what does this mean for adolescents who grew up during

the boom of the internet? Author Sherry Turkle examines this in the book 'Alone Together: Why We Expect More from Technology and Less from Each Other', as she navigates "the networked life" and its effects on intimacy, identity and privacy for both adolescents and adults (Turkle, 2017, p. 169).

In chapter 10, Turkle explores the dynamics of a generation heavily dependent on technology, and how this impacts the formation of their identities. She specifically focuses on the unique perspective of adolescents, as "their stories offer a clear view of how technology reshapes identity because identity is at the center of adolescent life" (Turkle, 2017, p. 169). The chapter follows Audrey, a shy sixteen-year-old girl who uses the internet and texting to hide some of her shyness. Audrey describes how online she's able to be the more outgoing version of herself, putting on a performance when she so pleases. She explains how it gives her the freedom to showcase the ideal version of herself, stating "You can write anything about yourself; these people don't know. You can create who you want to be. You can say what kind of stereotype mold you want to fit in" (Turkle, 2017, p. 191).

She also explains how she prefers the protection of texting over phone calls. Audrey explains how texting offers her less commitment and seemingly more control:

Nothing will get spat at you. You have time to think and prepare what you're going to say, to make you appear like that's just the way you are. There's planning involved, so you can control how you're portrayed to this person, because you're choosing these words, editing it before you send it. . . . When you instant-message you can cross things out, edit what you say, block a person, or sign off. A phone conversation is a lot of pressure.

You're always expected to uphold it, to keep it going, and that's too much pressure. . . .

You have to just keep going . . . "Oh, how was your day?" You're trying to think of something else to say real fast so the conversation doesn't die out.

Turkle compares classic therapy styles that once shielded the patient from the counselor to encourage honesty and "facilitate free association", to describe why teens may feel more protected, and "less burdened by expectation" when typing behind a screen (Turkle, 2017, p. 188). It's easy to see why teenagers who are shy or who experience some levels of social anxiety may opt for this option as well. They get to express themselves and share their thoughts with others in a way that may feel safer. This comes with advantages and disadvantages however. While "the advantage of screen communication is that it is a place to reflect, retype, and edit", the disadvantage is that it can also be treated as "a place to hide" (Turkle, 2017, p. 187). This is especially harmful for adolescents because this is a time where they should be building better communication skills. It also becomes much harder to get out of these habits as they get older, if they've already established them earlier.

In chapter 11, Turkle delves further into the relationship we have with technology, interviewing a variety of individuals who use online virtual worlds and video games as an escapism to their daily lives. She gives the example of a 26-year-old programmer named Joel. He had aspirations to be an artist growing up but opted for a more secure and practical career. He joined 'Second Life', an online virtual reality game, as he was searching for more of a creative outlet. Joel had heard about a group of developers and "artistic people who used the Second Life programming language to construct extraordinary and irreverent virtual architecture and art installations." (Turkle, 2017, p. 215). In all, he wanted "a place to explore his potential as an artist and a leader. In real life, he does not feel confirmed in either." (Turkle, 2017, p. 213). But in

the virtual world, he is able to live out this fantasy of himself, and find a community of like minded individuals. Turkle states:

In online worlds and massively multiplayer online role-playing games, you have virtuosity and fantasy—and something more: your performances put you at the center of a new community with virtual best friends and a sense of belonging.

It is not unusual for people to feel more comfortable in an unreal place than a real one because they feel that in simulation they show their better and perhaps truer self. With all of this going on, who will hold a brief for the real?

Using online worlds to express other sides of oneself or even as a form of escapism, isn't always bad on its own. But Turkle goes on to then explain instances where it can be. She gives the example of the psychological phenomena of 'acting out' versus 'working through'. 'Acting out' encompasses behavior where you take real life issues or conflicts, and address them in the virtual. Turkle explains however that this behavior breeds "much repetition and little growth." Another way to look at it, is using the virtual world to alleviate negative feelings from the real world, but going nowhere further. When we are 'working through' on the other hand, we use "the materials of online life to confront the conflicts of the real and search for new resolutions" (Turkle, 2017, p. 214). Turkle gives the example of a man who's shy in real life first practicing standing up for himself in virtual reality, as this "can sometimes help people develop a wider repertoire of real-world possibilities." (Turkle, 2017, p. 223).

Later in the chapter we see Joel show an example of 'acting out', while he describes how making or receiving phone calls causes him to feel "impatient and fidgety" (Turkle, 2017, p. 217). He describes calls as "too much interruption" and shows preference for instant messaging instead, which is the primary mode of communication in the virtual world he plays (Turkle,

2017, p. 217). On Second Life, Joel feels freer to communicate effortlessly and without pressure, but in real life he does not work towards improving his problem with phone conversations. In this way he is using the online platform as a bandage and avoiding his real life conflict.

Turkle shares that those who enjoy online games and virtual worlds have questioned if she has any personal strife against these platforms. But she explains that she finds nothing wrong with the games themselves but rather the intention we have when we use it. She states there is a difference between “looking to games for amusement” versus “looking to them for a life” (Turkle, 2017, p. 226). Turkle says “on networks, including game worlds, we are together but so lessen our expectations of other people that we can feel utterly alone. In both cases, our devices keep us distracted. They provide the sense of safety in a place of excluding concentration” (Turkle, 2017, p. 226). Overall, Turkle uses this chapter to frame our relationship to technology as two-sided, in that it offers us a false sense of companionship, and allows us to avoid the demands or expectations of real life relationships.

In chapter 12, Turkle talks about online confessional sites as another “Internet performance zone” where there isn’t proof that all statements made there are true, but they are “true enough for writers to feel unburdened and for readers to feel part of a community” (Turkle, 2017, p. 230). Confessing something anonymously online can provide a great sense of relief for some. It can allow people to share something that’s been weighing on their mind or stop ruminating on things in their head, with the protection of anonymity. Turkle argues however, that unlike confessions done in real physical places, the anonymity of online confessions sometimes allow people to avoid consequences. She states:

Confessing to a friend might bring disapproval. But disapproval, while hard

to take, can be part of an ongoing and sustaining relationship. It can mean that someone cares enough to consider your actions and talk to you about their feelings. And if a face-to-face confession meets criticism, we have some basis for evaluating its source. None of this happens in an online confession to strangers.

One says one's piece, and the opinions of others come as a barrage of anonymous reactions.

She also goes on to give the example of Darren, a sixteen year old boy who's part of a strict and religious Vietnamese family. Darren explains how his parents make all of the important decisions in his life for him, from where he will go to college to what career he will follow in the future. Although he is unhappy with this he reluctantly obeys but turns to online confession sites to vent. He was first introduced to these sites by a few of his friends. When asked more about why he and his friends opt to use the site instead of turning to each other for support, he explains "We put our secrets up, and we just want to show it to a stranger, not a friend but a stranger." (Turkle, 2017, p. 232).

From his point of view, sharing certain feelings amongst each other would be too shameful, but sharing them with a stranger allows them a sort of emotional distance.

With these examples Turkle demonstrates how although these sites can act as a catharsis for some, it can also be used to avoid intimacy or any potential uncomfortable reactions that may arise if we were to share these things in real life. She also explains how In this way, anonymous online confessions are also used for avoidance in instances where we need to take personal responsibility and apologize or make amends.

Turkle makes the statement that "Communities are places where one feels safe enough to take the good and the bad. In communities, others come through for us in hard times, so we are willing to hear what they have to say, even if we don't like

it.”(Turkle, 2017, p. 232). Here, she makes an important point about the growth and character building that occur in real life relationships as opposed to online ones. A natural part of developing intimacy and building stronger relationships is learning how to navigate conflicts with others. This is especially important during adolescents, because we take the skills we develop during that time period regarding relationships into adulthood. While online communities have some benefits, this also shows why they cannot act as a substitute for real life connections. We are able to bypass uncomfortable conversations with people during online interactions, in a way that we can't in real life.

While technological advancements have implications for all age groups and influence loneliness for all groups of people, the impacts on adolescents are particularly troublesome, because they are experiencing these impacts during a critical period in their development. This is especially true as it relates to building connections and relationships with others. For older generations, they may have experienced some of their childhood and early adulthood without these advancements, so they have a better understanding of building social bonds . But for adolescents and young adults, they only know the world as it is today, with technology and the internet being central to their lives.

Why do we care: physical health implications

Loneliness is extremely taxing on the mind, body and spirit. It affects our stress systems. The Surgeon General's advisory on loneliness addresses its poor health implications, arguing that socially connected people live longer and stating “among initially healthy people tracked over time, those who are more socially connected live longer, while those who experience social

deficits, including isolation, loneliness, and poor-quality relationships, are more likely to die earlier, regardless of the cause of death.” (OASH, 2023, p. 24). When looking at cardiovascular disease, the data showed that social isolation is linked to a higher risk of morbidity from these diseases:

A synthesis of data across 16 independent longitudinal studies shows poor social relationships (social isolation, poor social support, loneliness) were associated with a 29% increase in the risk of heart disease and a 32% increase in the risk of stroke.

Additionally, research showed links with childhood social isolation and leading cardiovascular risk factors “such as obesity, high blood pressure, and blood glucose levels in adulthood.” (OASH, 2023, p. 26). The advisory also highlighted a statement from the American Heart Association, determining that “social isolation and loneliness are common, yet underrecognized, determinants of cardiovascular health and brain health.” (OASH, 2023, p. 26). Some of these findings are due to the fact that markers of social isolation such as living alone or having a lack of social support can have an impact on speed in which one gets help in emergency situations, as “people who are less socially connected, particularly those living alone, may be less likely to make it to the hospital, increasing their risk of dying from a cardiac event” or “a heart attack is less likely to be fatal for people living with others or who have more social contacts, perhaps because of the immediate response and availability of help during the event.” (OASH, 2023, p. 26).

These findings can also be explained by the role loneliness plays in patients adhering to care treatments or adopting better health and disease management skills. Strong social support along with access to health information is shown to aid individuals

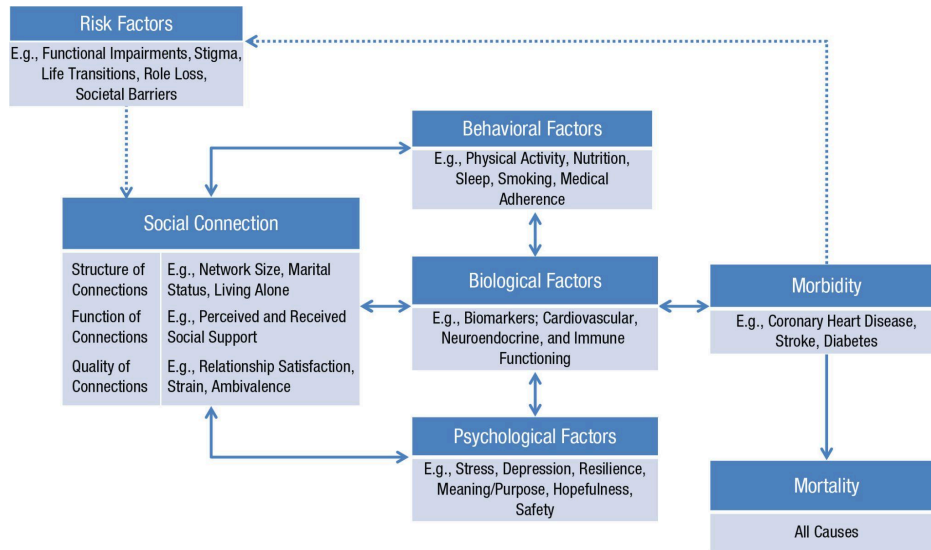
in following treatments to manage cardiovascular disease or preventative care to avoid it.

The advisory found that:

Regular participation in two or more social or community-based groups; emotional and informational support from family, friends, professional contacts, community organizations, and peer groups; and frequent network interactions may improve hypertension management, including following treatment recommendations and long-term lifestyle adjustments.

Similar outcomes were observed among diabetic patients, as having supportive and involved family members helped facilitate better self care practices which further improved the overall health and management for those diagnosed with type 1 and type 2 diabetes. More specifically, a meta-analysis of 28 studies observed that “social support from family and friends was significantly associated with better self-care, particularly blood sugar monitoring.” (OASH, 2023, p. 26).

A model published in an article titled *The Major Health Implications of Social Connection* helps demonstrate the connection between social connection and its influence on physical health, by showing the direct and indirect pathways between social connection and risk factors of morbidity and mortality. The Solid lines are meant to show “directional influences of social connection on morbidity and mortality” while the dotted lines “indicate the influence of morbidity on social connection.” (Holt-Lunstad, 2021).

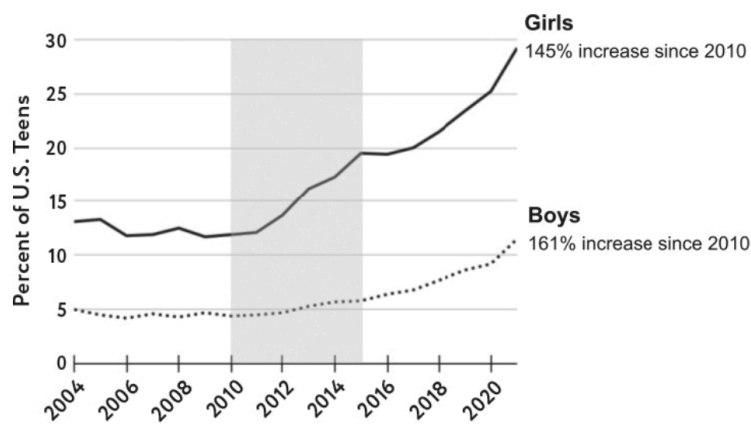


Why do we care: mental health implications

Aside from its physical health implications, loneliness affects our self confidence and our sense of identity. It impacts different aspects of our well-being, including our mental health. Loneliness is also considered a key indicator of depression and anxiety. In *The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness*, Social Psychologist Jonathan Haidt explores this, while investigating some of the changes in our society that have led to a rise in mental illness among the youth. Haidt opens the book describing the changes in technology that have largely shaped the development of Gen Z, or those belonging to the generation born after 1955 (Haidt, 2024). He expresses “By designing a firehouse of addictive content that entered through kids eyes and ears, and by displacing physical play and in person socializing, these companies have rewired childhood and changed human development on an unimaginable scale” (Haidt, 2024, pg. 3). He argues that this rewiring of childhood is one of the leading causes of a surge of mental health issues among adolescents. Between 2010 and 2015, there seemed to be a spike in mental illness rates in some countries, but less of an effect was seen among older generations. Haidt poses the question “Why was there a

synchronized international increase in rates of adolescent anxiety and depression” (Haidt, 2024, pg. 22)

Haidt presents one figure from the U.S National Survey on Drug Use and Health, looking at the percentage of teens between the ages of 12 and 17 in the U.S who reported having at least one major depressive episode within the past year. The shaded area of the graph shows where there seems to be a significant increase, beginning primarily in 2012.

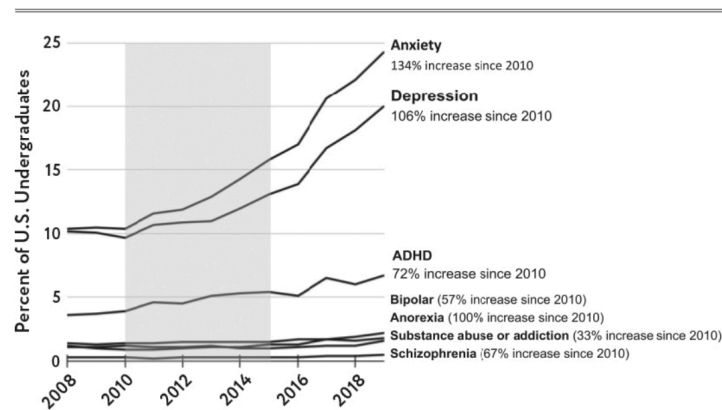


Although the increase for girls appears to be much greater, Haidt notes that the rate among boys started lower than the rate for girls, so “the increases were similar for both sexes, relatively 150%” demonstrating that “depression became two and a half times more prevalent” (Haidt, 2024, pg. 24). Haidt points to another potential cause of this, explaining that across different demographics like age, culture, and country “girls and women suffer higher rates of internalizing disorders, while boys and men suffer from higher rates of externalizing disorders” (Haidt, 2024, pg. 25). Meaning that while anyone of either sex can experience both types of disorders, the differences in prevalence rates for both sexes can explain the discrepancy seen in the chart.

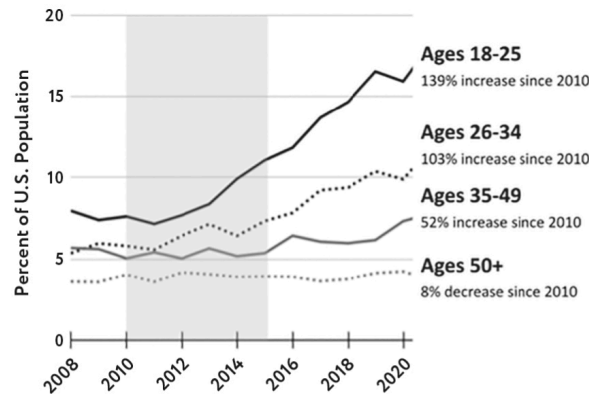
In another figure, Haidt highlights the higher rates of anxiety and depression specifically among college students, demonstrated by a graph from the American College Health

Association. In comparison to the five other diagnoses, the lines for depression and anxiety start higher and have increased more rapidly since 2010. This data alone shows the prevalence of these two disorders among undergraduates, and supports the idea that there has been a spike in mental illness among the youth, especially within the last few years.

Mental Illness Among College Students



Haidt also presents another figure looking at Anxiety prevalence by Age from the U.S National Survey on Drug Use and Health. These results show that the surge in cases is “concentrated in Gen Z, with some spillover to younger millennials” (Haidt, 2024, pg. 26). The graph shows that the age 18-25 seemed to have the most dramatic increase over the course of a few years, with ages 24-34 coming in second, and age group 35-49 only increasing slightly. Age group 50 and up had very different results, with a slight decrease in reported anxiety levels after 2010.



Haidt notes that “our evolutionary advantage came from our larger brains and our capacity to form strong social groups, thus making us particularly attuned to social threats such as being shunned or shamed. People— and particularly adolescents—, are often more concerned about the threat of “social death” than physical death.” (Haidt, 2024, pg. 28). He goes on further to explain some of the cognitive effects of experiencing prolonged or chronic anxiety, explaining how it impacts our ability to think as clearly and puts “people into states of unproductive rumination and provoking cognitive distortions” including “catastrophizing, overgeneralizing, and black-and-white thinking” (Haidt, 2024, pg. 28).

Depression is “also accompanied by disordered thinking, including an inability to concentrate, dwelling on one’s transgressions or failings (causing feelings of guilt)” or physical symptoms including weight loss or gain, irregular sleep patterns and feelings of fatigue. Haidt emphasizes that feeling more socially disconnected also increases the likelihood of becoming depressed, and being depressed often comes with a disinterest in seeking social connection (Haidt, 2024, pg. 29). This is similar to the repetitive cycle seen with anxiety, where “distorted thinking patterns often elicit uncomfortable physical symptoms, which then induce feelings of fear and worry, which then trigger more anxious thinking” (Haidt, 2024, pg. 28). In both of these

cases, a lack of social connection often makes symptoms worse but the symptoms themselves encourage social withdrawal, and discourage individuals from seeking out connection.

What Can We Do?

Even though learning about the impacts of loneliness on our minds, bodies, and spirits, can sometimes feel discouraging, there are ways to mitigate these experiences. In response, Surgeon General Murthy presented 6 Pillars to strive for that he believes will help address the loneliness epidemic and foster a greater sense of connection in our society. Pillar 1 starts by addressing the built environment. This includes community programs from volunteer organizations to religious groups and physical elements of a community like libraries, parks, green spaces. The aim is to address how supporting these developments can help foster social connection.

Pillar 2 focuses on the role policymakers and government play, by enacting policies that either help or hinder social connection. This is especially crucial with policies regarding things like public transportation, housing, and education. Pillar 3 addresses education in the healthcare sector, and aims for making sure both health care providers and patients are informed about the physical and mental health benefits of social connection, and the risks associated with isolation. This pillar also emphasizes ensuring that this information is spread within the medical system and within community-based organizations.

Pillar 4 looks at technology but more specifically, using it in ways that minimize harm. This includes continuing to enforce safety standards, like age-related restrictions on certain sites. This also includes promoting healthy social connection and discourse in online environments. Pillar 5 focuses on promoting education on an individual level, by continuing to inform ourselves and others about the impacts of social disconnection. This also includes promoting and funding

research on this topic, especially to address any current gaps in the literature. Finally, pillar 6 addresses our cultural norms and the ways that we engage with one another. This calls us all to bring these conversations on social connection to people in our communities, schools and workplaces. These pillars address issues across a variety of sectors and show that fostering a greater sense of connection in our society is not an individual battle. It's going to require contributions from all aspects of our community. In all, these findings can be a source of hope and show us where we have the potential for improvement as a whole.

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