Technology Addiction

Recognizing and Treating Today's Pervasive Threat

Stand in a line, go to an airport, even glance over to the motorist next to you at a traffic light. You'll see a common sight these days. People scrolling through their smartphones. Go just about anywhere and the ubiquitous presence of technology is evident as an entrenched part of global life in the 21st century. While there are benefits to being connected and using tech tools to stay informed, book appointments, be entertained, and fill up downtime, excessive dependence can possibly threaten mental health.

News channels blast the latest updates on smartphones and laptops with 24/7 news alerts resulting in increased stress and even a desensitization[1] to reports of crisis after crisis. With the constant buzzing of phones, the brain can reach a saturation point and hit overload and as a result, gloss over the true impact of the information or even threaten to render individuals impervious to its meaning. In a survey[2] after the 9/11 attacks, media consumption was studied to understand the effects of watching the attacks repeatedly on TV. Psychologists found that those who watched more than one hour of TV news associated with the attacks exhibited more signs of posttraumatic stress symptoms than those who did not.

Yet, with almost 7 billion mobile smartphones[3] in use worldwide, it is easy to see how device availability has increased access to and dependence on the Internet. The problem however is even bigger than smartphones. Technology (tech) addiction is the broader term that encompasses technology and application overuse and includes gaming, social media, binge watching TV shows, and a variety of behaviors that can become problematic for individuals when used compulsively.

Tech addiction becomes a salient concern when an individual begins to experience negative consequences from technology overuse. Mental health professionals believe that it is especially concerning when individuals rely on technology to regulate their emotions. Understanding the standard benchmarks for addictive behaviors is generally a good way to determine the severity of an individual's reliance on technology. When someone wonders if they have a problem, Sierra Tucson clinicians recommend asking the following questions:

- How much time are you spending using technology?
- What kind of impact is it having on your family and your social life?
- Is it affecting your work?
- Is it getting in the way of other goals?
- Do you wish you could cut back?
- Have you tried to cut back and haven't been able to?
- Are you able to relax and unwind in other ways?

[1] https://www.niemanlab.org/2022/04/your-brain-on-red-alert/

[2] https://escholarship.org/uc/item/65w-3g7n0

[3] https://explodingtopics.com/blog/smartphone-stats#smartphone-top-picks

Answers to these questions help to inform whether somebody is utilizing technology in healthy or unhealthy ways. It is important to note that while technology use isn't inherently negative, it is best to get a sense from each individual of how they are utilizing technology, what need it fulfills for them, and how it is affecting other areas of their life.

Is Technology the Problem or Merely a Symptom?

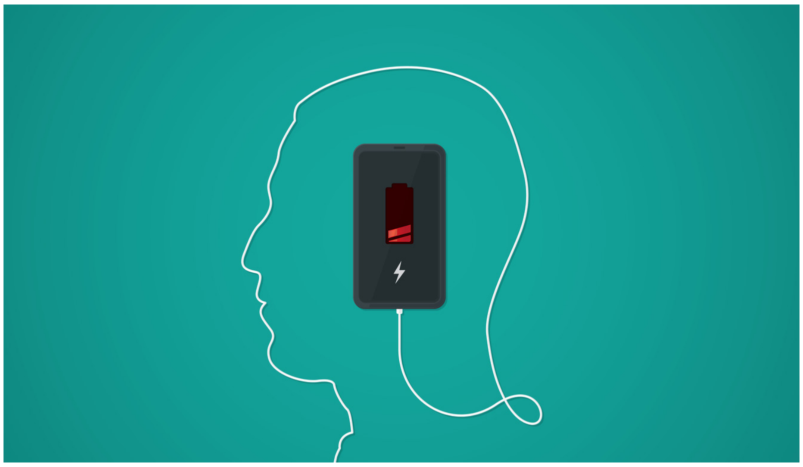
Beyond the surface, the deeper question when it comes to problematic tech use is to uncover what needs the individual is striving to fulfill. Addictions are personal and unique to everyone, which is true whether the addiction is to a substance or is associated with a particular behavior. Understanding what someone dependent upon technology is trying to achieve can uncover clues to their specific issues and consequently, how it impacts them. Pertinent questions include:

- Is the individual using technology as an escape or a disassociation from real life?
- Are they just trying to turn their brain off and past time?
- Are they somebody who is using gaming, for example, to act out on aggressive impulses that they can't express in other areas of their life?
- Is somebody playing games to solve puzzles to achieve a feeling of being rewarded or in order to relish the feeling of being smart or clever because they're not getting enough of that fulfillment elsewhere?
- Have they tried to set limits on usage and were they successful?
- Are they losing sleep or experiencing mood changes?
- Are people telling them they have a problem?
- Are they feeling like they're moving forward in life?
- Do they feel like they're growing and continuing to be on a on a positive trajectory?
- Have they lost interest in other things that they used to enjoy?
- Do they have other ways to relax and unwind?
- Do they have other means of achieving relaxation or are they reliant on it?
- What happens if they don't binge watch every night? What happens if they don't game every night? How does that affect them?
- What's life like when they try to stop?

What are the tech devices/behaviors that can lead to tech addiction?

- Smart phones
- Virtual reality
- Binge watching
- Gaming systems

While at first glance, the idea of tech addiction may not seem as dangerous as other forms of addiction, understanding that there are broad ramifications can be eye-opening. For example, an individual who is in front of a screen gaming multiple hours a day is likely missing out in other areas of life. They may be neglecting work or occupational responsibilities, not tending to family or social obligations, or severe addiction can prevent them from enjoying other hobbies, achieving goals, or missing opportunities for educational or personal growth.



Many individuals who view their technology use as a harmless way to whittle away at their free time may not be aware that they often lose track of time. While it may feel like just a matter of minutes scrolling through social media feeds, or watching consecutive Netflix shows, these behaviors can eat up hours, swallowing up large chunks of someone's day. Personal development can suffer in these situations since individuals thrive when meeting a wide range of goals, or when participating in social engagements, enjoying new experiences, or interacting with their pets or family.

In addition, what once created feelings of satisfaction and provided rewards on a biochemical level, when done excessively, can begin to feel hollow. Overuse can deplete the sense of satisfaction they once got from these activities. While tech addiction can seemingly suck in individuals innocuously, there may come a point when there is a realization of the time wasted, opportunities missed, or when obligations are forgotten – all of which may bring them to the reality that there is a problem.

Society has a high tolerance for tech use. After all, tech is often seen as a necessary way to stay in contact or to understand what is going on in the world. Hence, it may not seem immediately apparent when tech addiction problems arise. On the positive side, being distracted by technology allows individuals to let off some steam, wind down and relax after a long day, or help them manage emotions such as anxiety or anger. It also allows individuals to do things they cannot do in real life. Playing a game, like Candy Crush for example, can help someone feel smart or clever.

On the negative side, total tech immersion can infringe on individual's lifestyles to the point where relationships with family or friends suffers. For some it offers a way to check out of "real life" and use technology to escape as a form of self-medication. Taking it too far can mean they are using technology or gaming to regulate their emotions at the expense of ignoring the underlying problem of whatever it is that is creating their anger, anxiety, frustration, or any other emotion that they are trying to regulate. As a result, by avoiding real life, these struggles can fester and grow. Predatory games for example can exacerbate some underlying conditions, becoming an echo chamber for anger, rage, and hatred.

Being ultra-aware of when tech usage has become excessive and how it affects relationships and obligations – whether issues with family members, missing events, or neglecting school or work duties – is an important first step when realizing that something needs to change. Shifting from binge watching, gaming, or endless social media scrolling to a healthier balance of tech interaction with other activities, requires an awareness that reliance on technology is resulting in negative implications in multiple areas of life. Elevating tech overuse to a serious issue that requires real attention and conversation can help prompt the action necessary to move forward.

Technology is healthy when:

- It is a shared experience and brings families together
- It increases social connections
- It brings further understanding about your children's interests or motivations

Seeking Help

As in many addictions, too often individuals reach a breaking point where life begins to fall apart before they are ready to seriously confront the problem. Individuals can come to that realization on their own or when a family member alerts them to the severity of the problem. For some the problem is illuminated when they lose their social connections, fall short of their goals, or when they find that they are no longer connecting with the things that would otherwise motivate and reward them.

With a high societal threshold for technology usage, there is increasing technology dependency making it more difficult to recognize when excessive usage has escalated to addictive. Recent statistics quote that five to ten percent of individuals are addicted to social media and spending too much time in the virtual world rather than enjoying the real one.

The goal in treatment is to help individuals realize that by substituting technology for life experiences, they are missing out on fully living and that there is a way forward to balance tech use and everyday life. A formalized treatment plan can begin to normalize tech habits and help to further conversations in recognizing and addressing the addiction. The most important element in treating technology addiction is to identify the underlying issue behind the behavior, beginning with understanding how a person is using technology and what its use fulfills for them.

At Sierra Tucson, treatment planning for tech addiction starts with creating a clinical picture of the resident and what is driving the addiction. The goal is to probe further to understand the function tech use is serving for them and what ultimately can be done to decrease their reliance. If excessive gaming is the struggle, for example, residents in treatment may be asked to articulate:

- What game do you play?
- What role do you play within that specific game?
- What are the traits and qualities of that character?
- How do they interact within the environment?
- How do you relate to other people within the context of that game?
- If facing a challenging situation or handling a frustration how would this person that you're pretending to handle the situation?
- How is that character the same as you?
- How is the character different than you?

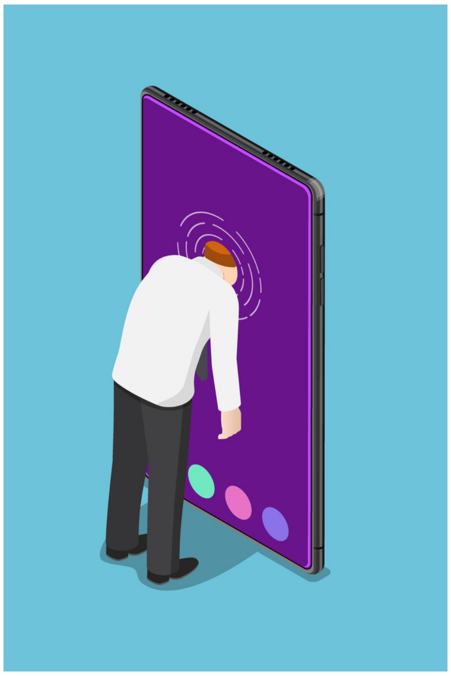
Creating a psychological profile of each residents helps uncover the motivations and rewards an individual receives in using technology excessively. Clinicians use this gathered information to create an effective treatment plan designed to work through the resident's unique challenges to help reach a successful conclusion. This depth of understanding helps the resident to build certain actions into their daily life to decrease their reliance on technology. For example, individuals who may derive a sense of satisfaction from being competitive with others, may need to build opportunities in their daily life to enjoy some friendly competition to fulfill that need. Creating that understanding can help the individual get the same effect without the need to turn to excessive gaming.

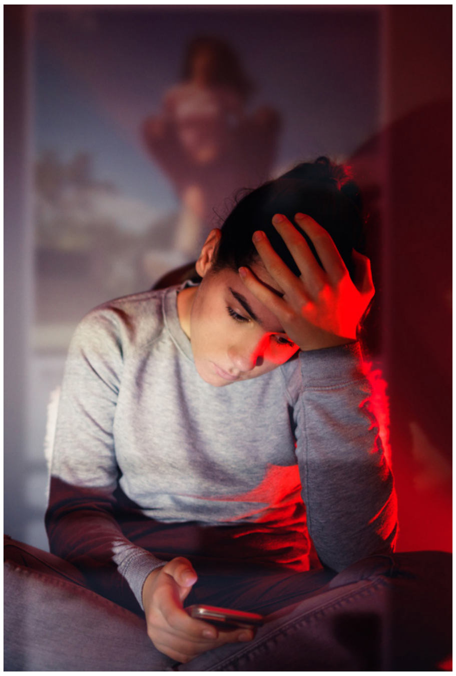
> “Our brains are easy to trick. Human brains are really good at prioritizing the short term in favor of disregarding the long term. The quick fix that tech provides can lead us to susceptibility to tech addiction. It is an addiction that can feel great in the moment, but in the long term it is useless and a waste of time.”
> -- Sierra Tucson clinician

Who is at risk?

While some individuals tend to be more susceptible to technology addiction, whether because of genetics or temperament, the prevalence of technology in society overall means that virtually anyone is at risk of dependence. Technology is continually becoming more sophisticated and designed to be appealing, thereby becoming increasingly addictive. Games and programs that focus on rewards and recognition motivate users to become further engaged and to increase their usage thereby leading to addictive and compulsive behaviors. Companies profit from individuals elevating their dependence on technology, specifically devices, games, and applications.

The pervasive nature of the technology and the fact that it is imbedded in individuals’ everyday lives makes it hard to escape. While individuals can decide to limit the amount of scrolling they do on their phone, there’s little chance that they will give up their cell phone altogether. It is a product of modern life that will continue to endure. Very similar to how individuals with an eating disorder don’t have the choice to never deal with food again, abstinence from technology isn’t realistic either. With an eating disorder individuals have to learn how to eat in healthy ways. Similarly, in today’s world, individuals can’t eliminate technology from their lives, but instead need to establish limits and learn to use it responsibly to find the balance for healthy coexistence.





Social Media Use Patterns and Health Effects

Tech addiction can be driven by social media usage. A recent survey found that Americans now daily average 144 minutes[1] on social media, which is more time than is spent on eating, exercising, or engaging in direct socialization with others.[2] Since social media popularity has increased, the rate of social media addiction is now 5% to 10%.[3] Social media, communication overload, and the hyperconnectivity with peers and to media content can have negative effects [4]on both mental and physical health including:

- Higher levels of C-reactive protein (CRP), a marker of chronic inflammation
- Increase in somatic symptoms (pain, fatigue, and shortness of breath)
- More visits to the doctor or health centers
- Reduced sleep quality and amount and increase in likelihood of insomnia
- Higher levels of stress
- Increased perceived social isolation; 73% of heavy social media users report feeling lonely compared to 52% of light social media users
- Circadian rhythm disruption from blue light emitted from tech devices, creating slep pattern interruptions and contributing to depression

Technology's Pervasiveness on Mental Health[5]

- According to the American Psychological Association[6], decreasing time on social media can reduce feelings of lonliness for adults (ages 18-22)
- Those who perceived more negative interactions online and were prone to social comparison had higher levels of anxiety and depression[7]
- Those who spend over 6 hours per day watching TV or using the computer are more likely to have moderate or severe depression levels[8]

CASE STUDY

A young man came to Sierra Tucson to seek help for compulsive gaming. He was highly competitive playing World of Warcraft. He gamed for approximately 16 hours a day without taking breaks. His meals were delivered to his front door, which he left unlocked so that the delivery person could conveniently deliver food directly to him at his desk.

While he enjoyed battling against other players, during treatment he discovered that playing the game was actually his way of working out anger and rage that he was unable to express in his real life. The game allowed him to vent his rage and act on it by exhibiting a pattern of domination over others by being rude and obnoxious to other game players.

His therapist began working with him to identify the source of rage in his life. Together they found that the contentious relationship he had with his family stemmed from the highly confrontational communication style that he had with his parents. He was unable to express himself to them without the conversation escalating. As a result, he often felt hurt and angry.

Through treatment, the goal became to create productive communication with his parents. The family committed to engaging in family therapy sessions to begin working on developing better communication to create more effective listening skills and to respect each other's boundaries.

As a result, the young man was able to decrease his reliance on the games and found alternative games that involved more cooperation with others. While he didn't quit gaming altogether, he set boundaries on how much time he spent gaming and reduced his participation from 16 hours a day down to two to three. As a result, his behavior was significantly less compulsive. In addition, he secured a job and began participating in daily family dinners for social interactions.

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[1] https://www.liebertpub.com/doi/10.1089/cyber.2021.0188#B1

[2] https://www.liebertpub.com/doi/10.1089/cyber.2021.0188#B2

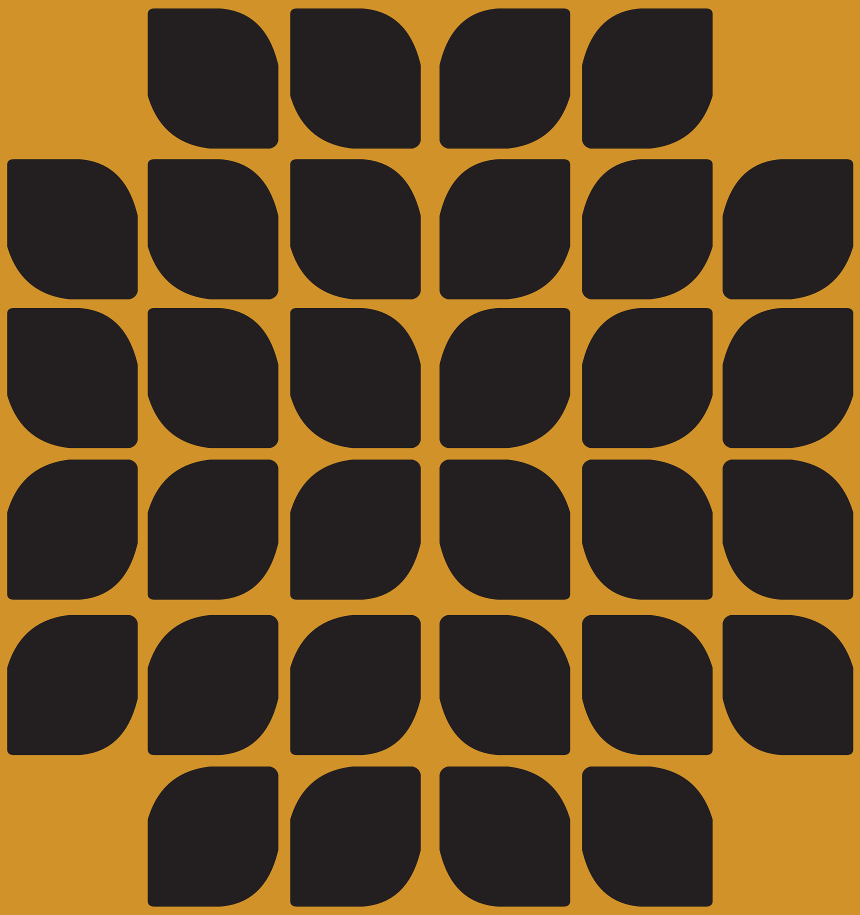
[3] https://www.addictioncenter.com/drugs/social-media-addiction/

[4] https://www.liebertpub.com/doi/10.1089/cyber.2021.0188#B1

[5] https://etactics.com/blog/negative-effects-of-technology-on-mental-health

[6] https://www.apa.org/monitor/2019/05/ce-corner-sidebar

[7] https://www.medicalnewstoday.com/articles/negative-effects-of-technology#psychological-effects

[8] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5574844/