

# Technology Addiction: Impact, Treatment, and Legal Implications for Schools

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James Bylund, Psy.D., ABSNP  
Elizabeth Estes, Education Attorney

## Introductions

James Bylund, Psy.D., ABSNP - Owner of Discovery Education Specialists, a non-public agency providing psychological and mental health services to schools and Bylund Neuro-Ed Clinic where he works as an LEP providing neuro-educational evaluations and consultation services.

Elizabeth Estes, J.D. - Education Attorney, Atkinson, Andelson, Loya, Ruud & Romo; Founder, Breaking Barriers California

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## What is Technology Addiction?

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## A Continuum of Problem Overuse

Internet Gaming Disorder (DSM-V)

Gaming Disorder (ICD-11)

Electronic Screen Syndrome (Victory Dunckley, M.D.)

Excessive recreational screen use

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## What Counts as Screen time?

All screen activities provide unnatural stimulation

That means TV, computers, video games, smartphones, iPads, tablets, laptops, e-readers, etc.

Content (e.g. violent video games) is not as important as total time in front of a screen - even scrolling through pictures on a phone can be harmful to a developing nervous system

Interactive (i.e., interface with the device) screen time causes more dysfunction than passive screen time

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## Is This Really a Disorder?

Kimberly Young, Ph.D. coined the term "internet addiction" in 1995

But things changed with the advent of the iPhone and iPad - i.e., internet went mobile

She also developed the Internet Addiction Test (IAT)

China was the first nation to declare internet addiction as a clinical disorder and labelled it as the number 1 public health risk for young people

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## Diagnostic and Statistical Manual - 5th Edition

The DSM-V included *Internet Gaming Disorder* as a "condition for further study", meaning it is not yet an official diagnosis but there is a call for further research for possible inclusion in future editions of the DSM

*Internet Gaming Disorder* is part of a larger class of non-substance/behavioral addictions

Behavioral addiction is still a highly controversial topic

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## Internet Gaming Disorder Criteria

Repetitive use of internet-based games, often with other players, that leads to significant issues with functioning. **Five of the following must be met within the last year:**

1. Preoccupation or obsession with Internet games.
2. Withdrawal symptoms when not playing Internet games.
3. A build-up of tolerance—more time needs to be spent playing the games.
4. Has tried to stop or curb playing Internet games, but has failed to do so.

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5. A loss of interest in other life activities, such as hobbies.

6. Continued overuse of Internet games even with the knowledge of how much they impact a person's life.

7. Lies to others about his or her Internet game usage.

8. Uses Internet games to relieve anxiety or guilt—it's a way to escape.

9. Has lost or put at risk an opportunity or relationship because of Internet games.

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## World Health Organization - Gaming Disorder

Defined in the ICD-11 as a *pattern of gaming behavior characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, ... despite negative consequences.*

Based on review of available evidence and consensus of experts around the world

Will bring increased awareness to health professionals about the disorder, prevention, and treatment

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## So How Big is the Problem?

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## A Look at the Numbers

97% of American children between the ages 12 - 17 play video games (and the # is rising)

80% of teens check their phone at least once an hour

Average daily smartphone use - 3 hours (over a lifetime equates to 11 years)

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## More Numbers

Kaiser Family Foundation (2010) estimated children between 8 and 18 spend 7.5 hours a day in front of screens! (does not include 1.5 hours a day of texting and half hour talking on smartphone).

The non-profit Common Sense found teens average 9 hours a day of recreational screen time and tweens average 6 hours

Does not include school related activities, talking on phone, or texting

More time than they spend in school or sleeping!

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## And Some More Numbers

And, only 3% of screen time is content creation (v. passive consumption)

In 2009, Douglas Gentile at Iowa State estimated 12% of boys and 8% of girls engaged in pathological video game use. The numbers are likely much higher today.

What is the opportunity cost? What skills could they otherwise be developing during that time?

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## A Look at the Impact

The more television a child watches between ages 1 and 3 years, the greater likelihood they will have ADHD at age 7 years

Children between the ages of 10 and 15 years who play video games 3 or more hours a day are less satisfied with their lives, feel less empathy towards others, and less likely to deal with emotions appropriately... More on this later

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## Why Are Screens So Addictive? The Neurological Impact

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## The Addictive Nature of Technology

"It's the medium, not the message" - Dr. Victoria L. Dunckley

Technology is designed to be irresistible (e.g. colors, fonts, tones, feedback/rewards, social engagement)

Provides immediate gratification (i.e., release of feel-good chemicals - dopamine)

Addresses deep psychological need in the short-term that outweighs damaging long-term consequences (social, educational/work, physical)

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## Neurological Effects - Dopamine Pathways

Screens activate reward circuitry in the brain (i.e., dopamine pathway), resulting in feeling of intense pleasure (most critical element in addiction)

Nearly identical to neural activation caused by addictive substances

Every virtual gunfire, every text, every tweet is accompanied a squirt of dopamine

Brain develops a tolerance, and greater stimulation is required to achieve the same pleasurable feelings.

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## Neurological Effects - Stress Response

The sensory overload, triggers neurological survival mode (i.e., activation of sympathetic nervous system; the fight or flight response)

Increased cardiovascular activity, increased alertness, selective memory, suppression of non-essential body functions

Associated adrenaline release has an addictive quality but chronic activation of stress response has significant adverse consequences

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## Effects of Excessive Screen Use

Repeated overstimulation and chronic stress wreaks havoc on a young person's brain

Symptoms include irritability, depression, rapidly changing moods, excessive tantrums, low frustration tolerance, poor self-regulation, disorganized behavior, oppositional defiance, social immaturity, poor eye contact, insomnia or nonrestorative sleep, and learning difficulties

Irritability and poor executive functioning are hallmarks of excessive recreational screen use

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## Neurological Effects - The Frontal Lobes

Chronic exposure to addictive substances or behaviors reduces capacity of the prefrontal cortex, responsible for impulse control and decision making

Excessive screen time may damage myelination process, atrophying neural pathways (paying attention, experiencing empathy, discerning reality)

As little as one week of violent video game play has been shown to lessen activation of left inferior frontal lobe and ACC (2011 U of Indiana study) - areas involved in regulating emotions and aggressive behaviors (also returned to baseline after a week w/out video game play)

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## Neurological Effects - Sleep Cycles

The optic nerve transmits input to the pineal gland whose job includes regulating sleep-wake cycles through release of melatonin (triggered by darkness)

The blue light emanating from tech devices reduces production of melatonin

Our brain is tricked into thinking it's daytime!

Poor sleep quality is linked to depression, reduced growth hormone, and impaired brain function (attention, memory, mood regulation, school/work performance)

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## What Makes Tech So Addicting? The Psychological Impact

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## Video Games and Never Ending Tribal Missions

Massively Multiplayer Online Role Playing Games or MMOs (e.g., World of Warcraft - WoW) are highly addictive

Social - e.g., players band together to form guilds - and the game never stops

Players emotionally invest in their character and bond with fellow players

Games provide steady dose of small rewards (e.g., sounds, flashing lights, praise) creating dopaminergic effect

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## Group Membership

Humans are wired to form social bonds

Group membership was an evolutionary necessity (i.e., group members survived)

Being rejected feels like a "social death penalty"

Massively multiplayer online games provide a sense of belonging

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## Adverse Impact on Social Development

Devoid of opportunity to sit face-to-face and engage with another person - even with webcams people do not make eye contact because camera and gaze are not aligned

Without sufficient opportunity to engage socially, children may not sufficiently develop these skills (i.e., "critical periods")

Humans develop empathy and understanding through face-to-face interactions

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## Almost (But Never Quite) There

Vygotsky - motivation and development are spurred by working within "zone of proximal development" - i.e., just beyond current abilities

"Ludic loop" - brief thrill from completing a task followed by a new challenge

A sense of progress (e.g., product of labor, effort, and growing expertise) but never complete

"Near wins" are tremendously addicting

There is no "stop point", the game never ends. This creates psychological tension because we want to finish what we start

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## Social Media and the Quest for "Likes"

Our brains release far more dopamine when receiving rewards at unexpected (v. predictable) rate/inconsistent feedback

Slot machines are the perfect example of this

"Likes" make social media unbelievably addictive because of variable rewards

Looking for the next big hit (likes, regrams, shares, comments, etc.)

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## The Mismeasure of Man

We are endlessly driven to compare ourselves to others (i.e., our "self-worth")

"Social comparison" - the link between social media use and increased depression

Use of social media is correlated with increased feelings of isolation, mood disorders, and other mental health problems (anxiety, depression, etc.)

"Online disinhibition effect" - more likely to "say" something hurtful when you don't have to look the person in the eye (e.g., bullying)

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## A Sense of Escape

Escapism is a major factor associated with gaming addiction (i.e., inability to deal with life stressor leads to sense of need to "escape")

Don't like school

Don't feel like you fit in

Don't have friends

Don't like the way you look

Feel empty, alone, depressed

Don't get along with your family

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## How Does Excessive Recreational Screen Time Impact Child Development?

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### Neurological Effects

We have the same brains that were geared for hunting and gathering 10,000 years ago

Neural development can be disrupted by both understimulation and overstimulation

Bright lights, supernatural colors, fast movement, loud noises, vividness, screen size all contribute to sensory overload

Neurological changes resulting from video game play associated with rapid reaction to novel stimuli, but also distractibility and poor impulse control

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### So Called "Educational" Games

No conclusive evidence of educational or developmental benefits, but increasing evidence of adverse neurological impact

Interactive nature of screen devices is a major factor in hyperarousal

Stress related reactions may override any potential benefit

Reduced human (i.e., parent - child) interaction (i.e., attachment, social skills, emotional regulation)

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### Screen Time Leads to Poor Social Engagement

Social engagement is key to human survival, both individually and as a species (protection, attraction, bonding)

Engages eyes, voice, facial muscles, heart, lungs, digestion

Effective social engagement requires balance and flexibility in autonomic nervous system (ANS) functioning

Chronic stress can lead to hypervigilance (i.e., anxiety, irritability, aggression) as well as poor social engagement

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### It Develops Spatial Abilities, Right?

Minecraft is the best selling videogame of all time (more than 100 million registered users...though FortNite may have more now)

Stimulating, hyper arousing, and hypnotic grip on young children

The child never knows which strike of the pickaxe will discover the gold or diamonds (i.e., variable ratio reward schedule)

Dopamine floods the brain and triggers and addictive cycle (i.e., the more one gets, the more one needs)

How can something so arousing to the nervous system be educational?

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### Effects Mimic Psychological Disorders

Attention Deficit/Hyperactivity Disorder

Mood Dysregulation

Social Anxiety

Autism Spectrum Disorder

Depression

Aggression

Yet screens are often used either as rewards for children with disabilities or to pacify them as raising children with disabilities is exhausting

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## Rise in Child Disorders

ADHD diagnoses increased nearly 800% between 1980 and 2007, accompanied by a sharp increase in prescription of psychotropic meds

Bipolar disorder increased 40-fold between 1994 and 2003 (in part leading to a new diagnosis - disruptive mood dysregulation disorder)

Disruptive Mood Dysregulation Disorder (DMDD) - chronic irritability with frequent and severe temper outbursts

**Chronically irritable children are often in a "wired and tired" (hyper aroused by video games yet sleep deprived)**

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## Screens, Depression, and Anxiety

Despite being "connected", young people feel lonelier than ever

2018 Pew Research Survey found 56% of teens associated the absence of their cell phone with at least one of the following emotions: loneliness, anger, and/or anxiety

This was after just 10 minutes without their phone

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## Screens, Depression, and Anxiety

The more a child hides behind a screen, the more socially awkward they tend to become

Children don't learn how to "read" subtle changes in body language - leads to impaired empathy and ability to develop relationship with others

Physical contact matters\*

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## The Rise in Suicide

Children using tech more than 5 hours a day show pruning in regions of the brain responsible for impulse control

2014 study found pathological gamers and heavy social media users struggle with emotional regulation

A 2011 study found teens engaged in excessive recreational screen use experienced higher levels of sadness, suicidal ideation, and suicidal planning

Death by suicide has tripled over the last decade

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## Case Closed on Aggression

American Medical Association, American Pediatric Association, American Academy of Pediatrics, the American Psychological Association, the American Academy of Family Physicians, and American Academy of Child and Adolescent Psychiatry agree...

**...There is overwhelming evidence of a causal connection between media violence and aggressive behaviors in some children**

...The potency of interactive media (e.g., video games) is much stronger than other forms of entertainment (e.g., television, movies)

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## Case Closed on Aggression

Violent media certainly isn't the only variable, but it may act as an amplifier

**...less impulse control, desensitization, dehumanization, repeated firing of neural networks associated with stress and aggressive behaviors**

Social Learning Theory - we learn by observing models (our neural networks fire in patterns that "mirror" those we are observing)

With video games, the child is both the actor and the observer

Learning strengthened by dopaminergic effect of video games

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## What the Experts Say

When asked how his kids liked the new iPad, Steve Jobs said, "They haven't used it. We limit how much technology our kids use at home."

Chris Anderson, former editor of Wired magazine, said he limits his children's screen time because "we have seen the dangers of technology firsthand. I've seen it in myself. I don't want to see that happen to my kids."

Alan Eagle, a Google Executive, said, "At Google and all these places, we make technology as brain-dead easy to use as possible. There's no reason why kids can't figure it out when they get older."

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## Opportunities Lost

Youth will spend an estimated 10,000 hours playing video games by the time they are 21

And, this is just the time playing video games, not other tech use (e.g., watching others play video games)

In the US, the time spent gaming is 8 times higher for boys than girls (who spend more time on social media), and excessive video game play may have greater neurocognitive impact (1 in 5 boys now carry a diagnosis of ADHD)

By comparison, it takes about 4,800 hours to earn a college degree

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## When Kids Are Off Screens

*Engaging in activities that nurture synaptic growth...*

Playing with Legos	Writing
Playing outside/experiencing nature	Cooking
Playing music	Drama
Drawing	Being bored is healthy... Fosters observation, patience, and imagination
Martial arts and other sports	

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## What is the Impact on Learning and School Performance?

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## No Evidence of Improved Learning Outcomes

**There no independent research showing educational technology improves learning**

Any research suggesting it does, is funded by those in the ed-tech industry

Those in the ed-tech industry point to "engagement" but that is not the same as improved learning outcomes.

e.g., children are heavily engaged with Fortnite but they are not learning

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## Technology and Attention

**Multi-tasking is a myth. We cannot simultaneously divide our attention between two tasks**

50% of teens are on social media while doing homework

> 50% of teens are watching television

60% of teens are texting while doing homework

76% of teens are listening to music while doing homework

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## Technology and Attention (cont.)

Multitasking is terrible from the standpoint of our ability to process information

Multitasking slows us down and increases the likelihood of us making mistakes

Primary (active) v. Secondary (passive) attention

Retention of information and problem solving only occur when primary attention is activated for the task

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## Technology and attention (cont.)

Multitasking activates different regions of the brain than focused attention. For one, focused attention activates the hippocampus, involved in the storage of information in long term memory, while secondary attention does not

What one is doing is multi-switching, continuously switching the narrow spotlight of attention back and forth between tasks

Inefficient and increases the time spent of tasks by 40%

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## Technology and Attention (cont.)

David Strayer from University of Utah found people who multitask are more "impulsive, sensation seeking, overconfident in their multitasking abilities, and they tend to be less capable of multitasking."

Dr. Nass from Stanford found those who chronically multitask have poor working memory, are easily distracted, activated larger regions of their brains for irrelevant tasks, and are terrible multitaskers

Multitasking has also been shown to increase heart rates and stress levels

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## Technology and Memory

Deep learning occurs when new learning is meaningfully connected with prior knowledge

The mind tends to discard random bits of information

Children and youth tend to consume information online at a shallow level, accessing what they need at the moment and quickly forgetting it

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## Technology and Problem Solving

Children and youth use tech to think for them

The foundation of problem solving is imagination (i.e., imaging something that does not yet exist)

Today, "video games are replacing children's imaginations" - Dr. Susan Greenfield.

Because video games do not require imagination, those regions of the brain are not activated and strengthened.

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## Technology and Problem Solving (cont.)

Boredom leads to increases in creative thinking, both quantity and quality

Digital natives do not allow themselves to be bored. Every moment is filled with music, videos, games, or social media from the time they wake up to the time they go to bed

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## Technology and Social Development

Dr. Barbara Fredrickson at UNC at Chapel Hill found a person's ability to develop friends, at a biological level, is diminished the more time they spend on screens at the expense of face-to-face interaction

Dr. Patricia Greenfield found heavy screen use impacts a young person's ability to process others' emotions

Tweeting, texting, snapping lack nonverbal cues that are central to face-to-face interaction

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## Technology and Social Development (cont.)

Every minute spent on screens comes at a cost including less time engaged in face to face interaction with others (and less time being physically active, completing homework, and developing new skills)

Douglas Gentile and colleagues found heavy game users were far more likely to suffer anxiety, depression, social phobias, and lower school performance than moderate gamers

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## Technology and Academic Achievement

Over the last decade, males have experienced an increase in dropout rates (30% more likely to drop out than female students) and decreases in reading scores, college admissions rates, and college completion rates

The London School of Economics found school wide cell phone bans lead to a 6.4% increase in test scores across the board and 14% improvement among lower achieving students

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## How Are Schools Involved?

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## Is Tech Enhancing Or Replacing Instruction?

Textbooks and assignments are moving online (remember how multi-tasking impacts attention and learning)

Districts are moving to put a device in the hands of every learner

Encouraging use of cellphones and iPads in class to "enhance" learning

Between 09-10 and 15-16 school years, the percent of schools that prohibit cell phones dropped from 90% to 66% (National Center for Educational Statistics)

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## Is Tech Enhancing or Replacing Instruction?

Online testing

Web-based remedial instruction and credit recovery

Inadvertently encouraging students to stay up late at night to "turn in" assignments before the deadline (e.g., by midnight)

Electives and clubs (e.g., "e-sports") that encourage screen use

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## What are the Legal Considerations?

Rapidly growing research shows excessive screen use contributes to poor physical, developmental, academic, and mental health outcomes for youth

Movement underway to place warning labels on screen devices and keep interactive screens out of the hands of young children

Internet gaming disorder recognized as a mental health disorder

Schools increasingly use screen devices in instruction and assessments

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## What Are the Potential Legal Considerations?

Will this open schools to challenges for contributing to screen overuse disorders?

What responsibilities will schools have to address such disorders?

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## Potential Legal Considerations?

Section 504 and the Americans with Disabilities Education Act require schools to accommodate students with qualifying conditions

Will these conditions result in a need to evaluate eligibility under Section 504 and the ADA?

If so, will they result in determinations students are eligible for accommodations?

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## Potential Legal Considerations?

The Individuals with Disabilities Education Act includes 13 qualifying criteria

Will such conditions require consideration under the IDEA for eligibility?

If so, what might the eligibility category be?

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## Laws and Lawsuits in the Area of Tech Addiction are on the Rise

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## Potential Legal Considerations?

OCTOBER 7, 2019

EPIC GAMES FACING FORTNITE ADDICTION LAWSUIT FROM PARENTS

Filed on behalf of 10 and 15 year old

Claims Fortnite as addictive as cocaine because of known and intended dopamine release by makers of game

Claims company did not warn consumers about the possibility of addiction

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## Potential Legal Considerations?

December 11, 2017

FRANCE BANS MOBILE PHONES IN SCHOOLS

July 2019

CALIFORNIA GOVERNOR SIGNS NEW LAW ALLOWING SCHOOLS TO BAN SMARTPHONES AND ASKING ALL SCHOOLS TO DEVELOP SMARTPHONE POLICIES TO LIMIT OR PROHIBIT USE AT SCHOOL

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## Potential Legal Considerations?

February 7, 2018

EX-GOOGLE EMPLOYEE CALLS TECH ADDICTION AN EXISTENTIAL THREAT AND CALLS FOR REGULATION

Founded Center for Humane Technology to fight tech addiction and seek regulation of tech companies to develop products to be addictive

Seeking to realign technology to society's best interests

Started Truth About Tech: How Tech Has Kids Hooked

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## Potential Legal Considerations?

Technology Addiction Lawsuits Are On the Rise in the Employment Context and Best Practice Manuals Are Being Designed to Enhance "Digital Well-Being" - Offering employee education, deploying filtering software, limiting internet access, offering counseling

January 7, 2007

TECHNOLOGY ADDICTION LAWSUITS: WILL THEY SUCCEED? UNTIL THERE IS A CLEAR ANSWER, EMPLOYERS NEED TO TAKE STEPS TO PREVENT EMPLOYEES FOR MISUSING OR OVERUSING THE INTERNET

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## What Can Schools Do To Address The Problem?

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## Design School Environments for Digital-Wellbeing

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## Consider The Pros and Cons of Tech

Despite much hype, there is as of yet no evidence that screen media in the classroom enhances learning or brain development

The evidence suggests it hampers both

Virtually all positive findings are industry funded

Reading is slower and both recall and comprehension decline when using and e-reader v. reading a book suggesting the brain does not process the information in the same way.

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## Assess How Tech is Used and the Outcomes

Assess how and how often technology is being used in the classroom

Consider all students and the potential impact (e.g., use of technology as a reward for students with moderate to severe disabilities)

**Discuss and consider both sides of the debate when making decisions about the use of technology in the classroom**

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## Questions to Ask

How does use of technology improve academic outcomes (i.e., over traditional/analog methods)?

What independent research do we have to support tech in this way?

How does use of technology enhance social and behavioral development (e.g., opportunities for meaningful, face-to-face, social interaction)?

Does use of tech foster real collaboration?

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## More Questions to Ask

Does tech simplify the lesson or make it more complex (i.e., creating more barriers to access)?

Does tech support instruction or replace it?

Does tech enhance creative thinking and problem solving (i.e., why)? Or is tech used to solve problems for them (i.e., who or what)?

How can we enforce distraction free classroom (i.e., no phones)?

How can families opt students out of screen-based instructional activities

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## Prevention and Intervention

**Consistently educate parents, staff, and students about the importance of healthy technology use and the negative impact technology can have**

Encourage development/use of family tech use plans

**Consider technology use as of part pre-referral and intervention process as well as special education evaluations (e.g., school refusal behavior)**

Not necessarily in determining eligibility but in helping team understand factors impacting school performance and supporting intervention

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## Section 504 and IDEA

Collaborate with parents to address the unique needs of each student with a disability (e.g., screen fasts)

Providing accommodations for student with co-occurring screen overuse disorders (e.g., copies of traditional textbook and other device free accommodations)

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## Educationally Related Mental Health

For students requiring school based mental health services with co-occurring internet addiction, incorporate evidence-based treatments for IA

- Psycho-education
- Motivational Interviewing
- Mindfulness and other self-regulation protocols (e.g., HRV biofeedback)
- Cognitive Behavioral Therapy
- Social skills training
- Lifestyle planning/coaching

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## What Does Assessment and Treatment Look Like?

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## Psychological Assessment of Problematic Internet Use

Internet Addiction Test (IAT)

Brief Internet Game Screen - For Parents (BIGS-P) - <https://www.restartlife.com/test/brief-internet-game-screen-for-parents-bigs-p/>

Greenfield Video Game Addiction Test (GVGAT)- <https://virtual-addiction.com/greenfield-video-game-addiction-test-qvqat/>

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## Key Areas of Focus in Assessment

<b>Preoccupation</b>	Does your son/daughter spend a lot of time thinking about recreational screen activities when they're not online, or planning when use screens next?
<b>Withdrawal</b>	Do they feel restless, irritable, moody, angry, anxious, or sad when attempting to cut down on or stop recreational screen time, or when they're unable to?
<b>Tolerance</b>	Is there recreational screen time increasing and/or are they playing more exciting games, or using more powerful equipment, to get the same enjoyment?

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## Key Areas of Focus in Assessment

<b>Reduce/Stop</b>	Are they unable to cut back even though they know they should?
<b>Giving up other activities</b>	Have they lost interest in other recreational activities (e.g., hobbies, hanging out with friends) in favor of screen use?
<b>Continue despite problems</b>	Do they engage in recreational screen activities despite the negative consequences (e.g., poor sleep, late/truant from school, money, arguments with others, or other important duties)?

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## Key Areas of Focus in Assessment

<b>Deceive/cover up</b>	Do they lie to family, friends, or others about the amount of time they spend engaged in recreational screen activities or keep them from finding out?
<b>Escape negative moods</b>	Do they engage in recreational screen use to escape or forget other personal problems, or to relieve feelings of guilt, anxiety, helplessness or depression?
<b>Risk/lose relationships/opportunities</b>	Have they risked or lost significant relationships, educational, or other opportunities because of recreational screen use?

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## Treatment Protocols - South Korea

IA has been a major social and political concern since 2000

Government initiatives have funded educational, counseling, and therapeutic services

Research and training provided by the Korean Youth Counseling and Welfare Institute

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## Treatment Protocols - South Korea

All students screened in grades 4, 7, and 10

Follow up assessment using the CBCL and YSR completed for high risk students

Individual and group counseling provided to those with high risk symptoms

Referrals to mental health agencies for follow up assessment and treatment if needed

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## Treatment Protocols - South Korea

### Adolescent Counseling Protocol

Initial Phase (Sessions 1 - 3) Building rapport, assessment and motivational interviewing

Middle Phase (Sessions 4 - 10) For stimulation seeking clients - self regulation training; or depressed clients - CBT or depression; clients with poor social skills - social skills training; for all client - changing irrational thoughts about internet use, time management training/planning, identifying replacement activities, developing coping skills

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## Treatment Protocols - South Korea

Final Phase (Sessions 11 - 12) Creating a supportive environment, planning for relapse, and evaluation

Concurrent parent education counseling also provided throughout Psycho-educations; therapeutic goal setting; strategies for supporting self-regulation, depression, and social skills; behavioral strategies; communication skills for parent-child conflict; planning for relapse

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## Treatment Protocols - Germany

International research has shown cognitive behavioral interventions to be effective in treating problematic internet/gaming use.

In Germany, Wolfling et. al. 2013 introduced a cognitive behavioral manual for treating internet addiction and internet gaming disorder that has been shown (pilot studies) to reduce time online and psychosocial distress

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## Treatment Protocols - Germany

Sessions 1 - 3: Introduction, contract, and goals Outline program, rapport building, discuss attempt at abstinence from internet use, identify individual goals, develop contract, self-monitoring

Sessions 4 - 12: Triggers and factors maintaining problem internet use Evaluate abstinence attempt, analyze self-monitoring forms, identify individual factors giving rise to and maintaining problem internet use

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## Treatment Protocols - Germany

Sessions 13-15: Identify resources and establish alternative strategies. Review abstinence from internet/gaming use, discuss alternatives to abstinence (i.e., Healthy use), document resources

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## Treatment Protocols - Spain

Programa Individualizado Psicoterapeutico para la Adiccion a las Tecnologias (i.e, The PIPATIC Program)

(Individualized Psychotherapy Program for Addiction to Information and Communication Technology"

Developed for youth ages 12 - 18 years

Comprised of 6 therapeutic modules each, comprising of specific sub-objectives

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## The PIPATIC Program

Module 1: Psychoeducation and Motivation Use of Motivational Interviewing and psycho-education to bring awareness to the problem and develop motivation towards change

Module 2: Addiction Treatment as Usual Use of CBT to understand relationship between thoughts and maladaptive behaviors, and restructure distortions and irrational beliefs

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## The PIPATIC Program

Module 3: Intrapersonal Establish identity/self-image, including relationship to technology, as well as self-regulation strategies

Module 4: Interpersonal Develop interpersonal communication skills and assertiveness

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## The PIPATIC Program

Module 5: Family Develop effective communication skills, establish limits, work on strengthening family bonds

Module 6: Creation of new lifestyle Reinforce positive changes, promote new social activities, develop plans

Conclusion and follow up Assess improvements, promote efficacy, identify resources outside of counseling relationship

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## CBT for Internet Addiction (Kimberly Young)

Phase 1: Behavior Modification Establish baseline of internet use (e.g., time, activity, antecedent events, emotions, duration, outcome), and identify triggers

Remove evidence of problematic internet/technology use (e.g., removing video games, social media accounts, apps, devices).

Set clear time management goals for using technology

Set up filtering software to limit internet access

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## CBT for Internet Addiction (Kimberly Young)

Phase 2: Cognitive Restructuring Addressing maladaptive cognitions such as overgeneralization, selective abstraction, magnification, and personalization - all associated with problem internet use

Work with client to challenge irrational thoughts that perpetuate problem internet use

Identify major problems/consequences of problem internet use and challenge denial that a problem exists

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## CBT for Internet Addiction (Kimberly Young)

Phase 3: Harm Reduction Therapy Identify and treat co-existing factors associated with problem internet use - personal, situational, social, and psychiatric.

Problem internet use often addresses a psychological need and if the need isn't addressed, relapse is likely.

Work with client to raise awareness of needs that lead to problem internet use and identify healthier ways of meeting those needs.

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## reSTART

Founded by Dr. Hilarie Cash in Seattle in 2003

reSTART was the first rehab center devoted to tech addiction in the US

Views internet addiction as a "structural problem" and not a disease

Address feelings of loneliness (without judgement)

Teach coping skills

Reduce screen time among all household members (i.e., meaningful "offline" conversations)

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## What Do Protocols Have in Common?

Assessment of extent and impact of internet/ gaming use Mindfulness and/or other distress/ self-regulation strategies

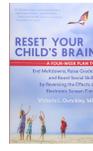
Assessment of co-occurring mental health disorders Social skills development

Psycho-education on impact of problem internet use Cognitive behavioral interventions

Motivational Interviewing Developing a "new normal" Planning/preparing for future pitfalls (i.e., relapse)

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## Recommended Readings

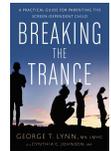


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Joe Clement and Matt Miles



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Thank You!!!

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