

Tech, Addiction & AI, OH MY!

Provided by John K Kriger, MSM

WHO - What is Gaming Disorder?

“Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behavior (“digital-gaming” or “video-gaming”) 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, and continuation or escalation of gaming despite the occurrence of negative consequences.

For gaming disorder to be diagnosed, the behaviour pattern must be of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning and would normally have been evident for at least 12 months.”

<https://www.who.int/features/qa/gaming-disorder/en/>

“The description of a proposed Internet Addiction Disorder (IAD), also called problematic or pathological Internet use, is based on the criteria for substance dependence or pathological gambling.

IAD is characterized by an individual’s lack of control over his or her use of the Internet, resulting in marked distress, preoccupation, mood changes, tolerance, withdrawal, and functional impairments of social, occupational, and academic performance.”

<https://www.psychiatry.org/patients-families/addiction/what-is-addiction>

Habit, Dependence or Addiction?

<https://www.kqed.org/mindshift/50510/teens-and-tech-distinguishing-addiction-from-habit>

“Dr. Nicholas Kardaras is the author of the 2016 book *Glow Kids: How Screen Addiction Is Hijacking Our Kids*.... There are brain-imaging studies of the effects of screen time, he says. And he also has treated many teens who are so wrapped up in video games that they don't even get up to use the bathroom.”

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“Regardless of the problem, "We feel the issue is best conceptualized as a 'habit' over an 'addiction,' " Bishop says. "When teens think about their behavior as a habit, they are more empowered to change."

Labeling someone an addict, essentially saying they have a chronic disease, is a powerful move. And it may be especially dangerous for teens, who are in the process of forming their identities, says Maia Szalavitz.

Szalavitz is an addiction expert and the author of *Unbroken Brain: A Revolutionary New Way Of Understanding Addiction*. Based on her experience with drug and alcohol addiction, she thinks grouping kids together who have problems with screens can be counterproductive. Young people with milder problems may learn from their more "deviant peers," she says. For that reason, she would encourage families to start with individual or family counseling.

“Different habits demand different approaches to treatment. People who have problematic relationships with alcohol, drugs or gambling can choose abstinence, though it's far from easy. Those who are binge eaters, however, cannot. They must rebuild their relationships with food while continuing to eat every day.” AI Generated Article - Took 10 Seconds to Write Following Request, “

Indicators of “tech addiction”. If it Causes Problems, It’s a Problem!*

- Anxiety
- Addiction
- Depression
- Arguments
- Sleep issues
- Social isolation
- Physical problems
- Neglect of self-care
- Loss of diverse interests
- Decreased regular socialization
- Abandonment of responsibilities

Associations Between Screen-based Media use and Brain White Matter Integrity in Preschool-Aged Children

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2754101>

Stanford Persuasive Technology Lab

<https://www.vox.com/2018/8/8/17664580/persuasive-technology-psychology#:~:text=Tech%20companies%20use%20%E2%80%9Cpersuasive%20design,like%20Facebook%20and%20Twitter%20use>

Beware of Supernormal Stimulus ...

“An artificial stimulus that produces in an animal a response that is stronger than would be evoked by the natural stimulus it resembles. For example, in some birds incubation behaviour is stimulated by the presence of an egg, and the larger the egg the stronger the stimulus; in such birds a very large artificial egg may be incubated in preference to a much smaller real egg. “

<https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100543339>

Stimuli : How Primal Urges Overran Their Evolutionary Purpose, by Deirdre Barrett, W.W.Norton and Company, 2010. <https://www.enhancingmylife.blogspot.com>

Tobacco Advertising

“The tobacco companies knew”...”cigarette smoking was a cause of cancer by the late 1950s.”

The tobacco companies funded research, “to obfuscate and prolong the debate about smoking and health.”

Cummings KM, Brown A, O'Connor R. The cigarette controversy. *Cancer Epidemiol Biomarkers Prev.*

2007 Jun;16(6):1070-6. doi: 10.1158/1055-9965.EPI-06-0912. PMID: 17548665. [https://](https://pubmed.ncbi.nlm.nih.gov)

pubmed.ncbi.nlm.nih.gov

3 Levels of AI

1. Artificial Narrow Intelligence, also called narrow, AI

- Machine learning to solve a particular problem or issue used in Netflix, virtual assistance, face, recognition, etc.

2. Artificial General Intelligence

- Can learn skills and obtain new information as it is provided to it
- Computers can share information across networks to build information capacity
- ChatGPT3 and IBM Watson would fit into this category

3. Artificial Super Intelligence

- Machines begin to exceed human learning and capacity

19 Technologies of People Tracking

<https://behavioranalyticsretail.com/technologies-tracking-people/>

Schools Use AI In Multiple Ways

Generative AI

- Creates text content and differentiation
- Write code
- High potential for plagiarism

Predictive AI

- Recognize patterns in data to form forecasts of anticipated outcomes
- Permit educators to proactively intercept missteps
- Assesses learning and projects interventions

To Assist Administration

- Personalized tutoring
- Accelerating grading efficiency and consistency
- Aid in repetitive administrative functions
- Facilitating administrative, teacher and parent communications

Potential Benefits and Risks of AI In Education

Teach.org

AI is Coming to Schools, and if We're Not Careful, So Will It's Biases

Developers must intentionally build AI systems through a lens of racial equity if the technology is going to disrupt the status quo. We've already seen the risks of using biased algorithms in the courtroom: Software used to forecast the risk of reoffending incorrectly marks Black defendants as future criminals at twice the rate of white defendants.

“AI can be helpful for parents by providing tailored recommendations based on their child's behavior and development, assisting in monitoring, sleep patterns, and tracking location, and offering real-time support through chatbots.” blog.familytime.io

Technology Offers a “virtually unlimited social stimuli, both positive and negative.

Every notification, whether it is a text message, a “like” on Instagram, or a Facebook notification, has the potential to be a positive social stimulus and dopamine influx.” <http://sitn.hms.harvard.edu/flash/2018/dopamine-smartphones-battle-time/>

“Many dedicated students think they can divide their attention in the classroom without harming their academic success – but we found an insidious effect on exam performance and final grades.”

– Arnold Glass, professor of psychology, Rutgers University–New Brunswick

<https://news.rutgers.edu/cellphone-distraction-classroom-can-lead-lower-grades-rutgers-study-finds/20180723#.XEnplc9Kh-U>

Negative Impact of Online Learning

- Lack of focus
- Increase social isolation
- Increased vulnerability & access to online dangers
- Lack of experience working w/others and in a teams
- Poor communication skills may development unnoticed
- Group learning is lacking
- May not stimulate sustained interest
- Decreased participant interaction
- Lack of face-to-face communications w/ peers & teachers
- Potential lack of learning process discipline, including a daily schedule & attending school

Dangers of Distracted Parenting

<https://www.theatlantic.com/magazine/archive/2018/07/the-dangers-of-distracted-parenting/561752/>

The Impact was Particularly Strong in the Youngest Children.”

“Each hour a day of video content infants (age 8 to 18 months) watched per day was associated with a significant decrease in language acquisition.

Marci,C.D., Re-wired: Protecting Your Brain in the Digital Age, 2022, Harvard University Press, Cambridge, MA

U.S. Surgeon General Vivek Murthy on Youth Mental Health

U.S. Surgeon General Vivek Murthy and the nation's pediatricians are calling youth mental health a "crisis" and an "emergency." In October 2021, teachers told pollsters that children's mental health was their top concern. Eighty percent of parents in a more recent poll are worried about their own kids' well-being. <https://www.npr.org/2022/03/15/1086054482/covid-school-shutdown-biggest-impacts>

Teenage Girls Are Considering Suicide At An Alarming Rate

Between 2011 and 2021, the rate of teenage girls considering attempting suicide increased from 19% to 30%.

The same was true for 45% of LGBTQ+ individuals and 14% of boys.¹

Centers for Disease Control and Prevention. Youth Risk Behavior Survey. 2023.

It could be simple to blame the COVID-19 pandemic for the increase, as the latest results were taken one year after it began. According to Dr. Courtney Conley, EdD, NCC, a licensed counselor with her own practice, “The pandemic limited the opportunity that young girls had to form a healthy sense of self. They didn’t have access to peers, school sports, activities, and all those other in-person interactions. They leaned even more towards media, social media, and other fabricated sources to form their identity.”

<https://www.verywellmind.com/how-can-we-reduce-suicidal-ideation-in-teenage-girls-7369511>

How Social Media Can Harm Your Body Image

“For the first time in human history, we’re carrying around devices that we use to take and share photographs,” says facial plastic and reconstructive surgeon Patrick Byrne, MD. “That has led to an obsession with appearance as it appears on a screen, which has fundamentally changed the challenges people face.” <https://health.clevelandclinic.org/social-media-and-body-image/>

None of Your Photos Are Real

“This is part of the trade-off. Nothing is given freely. In our pursuit of perfection, of always wanting to present the most optimal self, it can feel like AI is asking for the very thing we shouldn’t so quickly give over: the substance of our lived realities.”

<https://www.wired.com/story/google-pixel-8-artificial-intelligence-photos/?>

[bxid=64240ba8039dc5790002ba10&cndid=73397546&esrc=BX_Multi1st_DailyExi&source=Email_0_EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_content=WIR_Daily_101623&utm_mailing=WIR_Daily_101623&utm_medium=email&utm_source=nl&utm_term=P1](https://www.wired.com/story/google-pixel-8-artificial-intelligence-photos/?bxid=64240ba8039dc5790002ba10&cndid=73397546&esrc=BX_Multi1st_DailyExi&source=Email_0_EDT_WIR_NEWSLETTER_0_DAILY_ZZ&utm_brand=wired&utm_campaign=aud-dev&utm_content=WIR_Daily_101623&utm_mailing=WIR_Daily_101623&utm_medium=email&utm_source=nl&utm_term=P1)

(CNN) US teens spend an average of more than seven hours per day on screen media for entertainment, and tweens spend nearly five hours, a new report finds -- and that doesn't include time spent using screens for school and homework.

Researchers analyzed data from more than 1,600 students age 8 to 12 and teens 13 to 18 about their relationship with media. They compared current results to the 2015 study.

53% have their own smartphone by age 11, and approx.70% by age 12. Smartphone ownership increased from 24% in 2015 to 41% in 2019. The increase was 67% to 84% among teens. One in five 8-year-olds, has their own smartphone.

“Despite the creative opportunities technology offers, young people devote very little time to creating their own content.”

[https://www.cnn.com/2019/10/29/health/common-sense-kids-media-use-report-wellness/](https://www.cnn.com/2019/10/29/health/common-sense-kids-media-use-report-wellness/index.html)

[index.html](https://www.cnn.com/2019/10/29/health/common-sense-kids-media-use-report-wellness/index.html)<https://www.cnn.com/2019/10/29/health/common-sense-kids-media-use-report-wellness/index.html>

“Teens who spend five hours per day on a device are 71 percent more likely to have a risk factor for suicide”. <https://psmag.com/news/smartphones-present-a-siri-ous-problem>

FBI Cyber Seduction Indicators

Available at: <http://www.fbi.gov/stats-services/publications/parent-guide>

1. Your child spends large amounts of time on-line, especially at night.

Computer-sex offenders spend large amounts of time on-line, particularly in chat rooms.

Children on-line are at the greatest risk during the evening hours. While offenders are on-line around the clock, most work during the day and spend their evenings on-line trying to locate and lure children or seeking pornography.

2. You find pornography on your child's computer.

Pornography is often used in the sexual victimization of children.

Sex offenders often supply their potential victims with pornography as a means of opening sexual discussions and for seduction.

Child pornography may be used to show the child victim that sex between children and adults is "normal."

3. Your child receives phone calls from men you don't know or is making calls, sometimes long distance, to numbers you don't recognize.

While talking to a child victim on-line is a thrill for a computer-sex offender.

Most want to talk to the children on the telephone, engaging in "phone sex" with the children and often seek to set up an actual meeting for real sex.

With Caller ID, they can readily find out the child's phone number.

Some computer-sex offenders have even obtained toll-free 800 numbers

Your child receives mail, gifts, or packages from someone you don't know.

As part of the seduction process, it is common for offenders to send letters, photographs, and all manner of gifts to their potential victims.

Your child turns the computer monitor off or quickly changes the screen on the monitor when you come into the room.

A child looking at pornographic images or having sexually explicit conversations does not want you to see it on the screen.

4. Your child becomes withdrawn from the family.

Computer-sex offenders will work very hard at driving a wedge between a child and their family or at exploiting their relationship. They will accentuate any minor problems at home that the child might have. Children may also become withdrawn after sexual victimization.

5. Your child is using an on-line account belonging to someone else.

Even if you don't subscribe to an on-line service or Internet service, your child may meet an offender while on-line at a friend's house or the library. Most computers come preloaded with on-line and/or Internet software. Computer-sex offenders will sometimes provide potential victims with a computer account for communications with them. <http://www.fbi.gov/stats-services/publications/parent-guide>

Grooming Methods

- Unconditional support
- Validation of beliefs
- Encouragement to distrust
- Encouraging isolation
- Guidance in finding confirming data
- Covert guided manipulation “This is what I did when that happened...”

When Should Children Get Phones?

Delay ALAP (As long as possible)

The use & type of phone should be compatible with the mental age & maturity of the person using it
It's the parent's phone, not the child's

Set family rules, applicable to everyone, as to when & where it's used (Ex. During meals, etc.)

Openly check use history & chats at least weekly

Phone use is based on positive behaviors & combined with interpersonal interaction

Recommendations

Have meals at a consistent time as often as possible

Take family walks at a regular time, with all members included

Create predictable sacrosanct routines (Bed time, meal time, study time, quiet or reading time, game night, etc.)

Maintain and institutionalize consistent times

Make time for open conversations with your children

Engage and make time for doing a puzzle together, cooking dinner or read a book together

Be interested in them and then just listen. Ask what was the “most fun thing you did today, did anything make you mad today, what are you proud of from today, who made you feel good today, or ask what their dream is for tomorrow.

<https://www.gse.harvard.edu/news/22/02/harvard-edcast-negative-effects-remote-learning-childrens-wellbeing>

Make a written agreement with your family as to when and where tech will be used.
Rather than continually checking messages, schedule & check messages 4 - 6 times per day.

Include Brain Builders

- Juggling
- Journaling
- Board games
- Sign language
- Finger painting

More Recommendations

Children 3+ should keep electronic recreation to < 2 hours per day
Stop all computing 1 - 1.5 hr. before bed
Use electronics as a reward, combined w/facetime to positively modify behaviors
Silence and turn off notifications
Keep tech out of sight
Use search bar instead of scrolling through apps or websites
NO phones, games or computers in bedrooms
Engage in reading, board games & non-electronics
For special needs children, limit hand held games to short rewards of no more than 20 min.
Ban texting, iPod use, and phone use at meals
Build tolerance for less stimulating activities when reducing tech use
Anticipate a reaction; this is an addiction!

Exploring the Benefits and Challenges of AI

In an attempt to better understand AI and ChatGPT I went on the ChatGPT site and asked the following question; " Can you write me an article on the danger of AI for Children?"

In under 10 seconds, I received the following response:

"Certainly, here's an article on the hazards of AI for children:"

****Title: The Hidden Hazards of AI for Children: Protecting the Digital Generation****

In today's digital age, Artificial Intelligence (AI) has become an integral part of our lives, influencing how we work, interact, and learn. While AI holds immense potential, there are growing concerns about its impact on children. As children increasingly engage with AI-driven technology, it is crucial to explore the potential hazards and take steps to protect the youngest members of our digital society.

****1. Privacy Concerns:****

One of the primary hazards of AI for children is the potential invasion of privacy. AI algorithms often collect vast amounts of data to personalize content and recommendations. When children interact with AI-powered devices, such as smart toys or educational apps, their personal data is at risk. This information can be exploited, and children may not fully understand the consequences of sharing their data.

****2. Influence on Behavior:****

AI has the ability to shape children's behavior through personalized content and recommendations. While this can be beneficial for learning, it can also have negative effects. AI algorithms can unintentionally create "filter bubbles," where children are exposed only to content that reinforces their existing beliefs. This can limit their exposure to diverse perspectives and hinder critical thinking.

****3. Cybersecurity Risks:****

AI-powered devices can be vulnerable to hacking and cyberattacks. When children use these devices, their personal information and even their physical safety can be compromised. Hackers could gain access to home security systems, smart toys, or even autonomous vehicles, potentially putting children at risk.

****4. Unintentional Bias:****

AI algorithms can perpetuate bias and stereotypes. If not properly designed and monitored, AI can inadvertently teach children discriminatory or harmful beliefs. This issue is especially concerning because children are in their formative years, and exposure to biased AI can reinforce stereotypes and negatively impact their future attitudes.

****5. Addiction and Screen Time:****

AI-driven apps and games are often designed to keep users engaged for longer periods. This can lead to excessive screen time for children, which has been linked to a range of physical and mental health issues, including obesity and poor sleep quality. AI can unintentionally contribute to this problem.

****6. Lack of Emotional Understanding:****

AI, no matter how advanced, still struggles to fully comprehend and respond to human emotions. Children may interact with AI chatbots or virtual assistants, but these interactions cannot replace the emotional connection they form with real humans. Relying too much on AI for emotional support can hinder a child's ability to develop empathy and meaningful social relationships.

In conclusion, while AI offers numerous benefits and opportunities, it also presents significant hazards when it comes to children. To protect the digital generation, it is essential for parents, educators, and policymakers to be vigilant. This includes setting clear boundaries on screen time, ensuring the privacy of children's data, and promoting media literacy to help children critically evaluate AI-generated content.

As AI continues to evolve, responsible development and usage are critical to ensure that AI enhances, rather than endangers, the well-being of our youngest digital citizens. By acknowledging the hazards and taking proactive measures, we can provide a safer and more enriching digital environment for children.