Digital Parenting and your Autistic Child.

Part 2: Not All Screen Time is Created Equal

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Family Online Safety Institute

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Not All Screen Time is Created Equal

Our children are growing up with technology all around them – they are digital natives that will never fully understand the world without screens. For children with Autism Spectrum Disorder, their predilection for screen time makes them a greater risk for technology addiction and online retreat. Our job is to keep them safe, learn their habits, online and off, and guide them to make the right choices in the virtual world. Let's teach them the proper etiquette and pitfalls that internet use and screen time can play in their lives.

Perseverating & Tips for Autistic Brains

In the real world, to communicate you have to read body language, social cues, understand and provide feedback, and engage in back and forth volleys of conversation. That's hard work for people with autism. It's much easier to connect with a screen, including talking to people online instead of in person.

Children on the autism spectrum often seem to get 'stuck' on certain topics or interests, and in today's digital world, it's often around video gaming. When kids get fixated on something it's called 'perseverating'. It's when their brain gets stuck on just one topic and they can't seem to get off of it.

Perseverating & the ASD Brain
Whether it's playing a game, talking about a topic, or asking for something they want, they cannot get it off their mind and tend to only discuss that one interest. They get hyper focused on one thing and are just stuck there. Perseverating is very common with children with autism and sometimes other children as well. Often children get stuck on their games because it's fun and easy for them to play and they don't have to try hard to interact like they do in real life.

Avoid Addictive Entertainment
Because of its addictive nature, gaming should be limited. Children that are addicted will not want to get off the games, may even soil themselves to avoid getting up to use the bathroom while gaming, or refuse to eat unless it's at their computer desk. They may refuse to interact with peers and make friends because they only want to play video games. This can become a detriment to them in the long run, because it's important to learn how to communicate and socialize in order to survive in our world. While it's okay to spend some time in fantasy games, it's even more important to learn life lessons and social skills.

Set Limits

To help reduce the addiction of screen time, set limits on the time the child can play games and watch TV or You-Tube. Also limit what they are playing or watching.

Encourage Social Play

Encourage more social play. To start, have a friend over to play the games with them – for a limited amount of time, and also have them spend some time playing interactively with other toys/games, outside play, etc. Enroll the child in activities, even if they are resistant at first, that encourages team work, social interaction, and communication/play.

Expand Offline

If your child likes Pokémon video games, have them play Pokémon cards with a peer or join a Pokémon club at school. If your child likes Lego games, have them build with actual Legos, and join a social group that plays with Legos (many libraries, toy stores, and even schools offer these groups).

Tailor Activities

Even if your child is resistant to anything non-gaming related they likely will eventually participate/enjoy other activities if you insist on it, firmly but nicely. Maybe the child can earn a reward such as if they participate in soccer practice today, then they can have an extra 10 minutes on the computer, for example.

Screen Time Trends & Attitudes

Adults and children spend the majority of their lives online – with repercussions and effects that are, in many cases, too early to measure. Because the rapid growth of technology and digital use is outpacing the rate of research, we find ourselves in uncharted territory.

For ASD, ADD and ADHD children, this worldwide prevalence of screen time makes the monitoring and moderating digital use even more important. According to Victoria Dunkley, M.D., "a brain with autism has inherent characteristics that screen time exacerbates. In truth, these impacts occur in all of us, but children with autism will be both more prone to experiencing negative effects and less able to recover from them."

Children and adolescents are now consuming media more than ever before. Over the past decade, according to the **Brookings Institution**, the average eight to eighteen–year old's consumption of media has:

"Digital screens are now an inextricable part of modern childhood."
–Psychological scientist
Dr. Andrew Przybylski, Oxford University's Internet Institute research fellow & professor
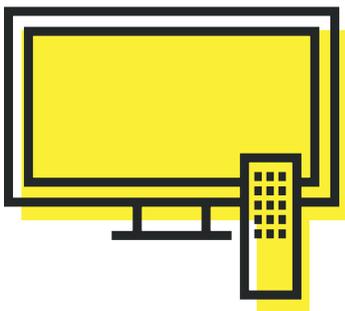
Increased the amount of time spent watching TV by **38 minutes a day.**
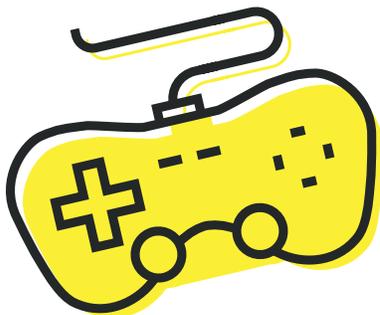
Increased time spent playing video games by **24 minutes a day.**

Increased time spent on computers by **27 minutes a day.**
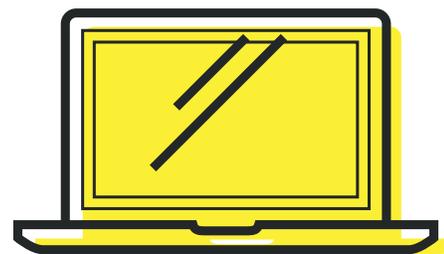
Look at Total Screen Time

Because there are now more types of media available than ever before in history, most researchers are beginning to think in terms of "**total screen time**" rather than focusing just on television, video games, or computers.

61% of teens said they wanted to see if their online posts are getting likes and comments.

36% of teens said they wanted to see if their friends are doing things without them.

21% of teens said they wanted to make sure no one was saying mean things about them.

**53**% of tweens – kids 8 to 12 – have their own tablet

67% of teens have their own smartphones

Mobile devices account for 41% of all screen time for tweens and **46**% for teens.

Dr. Przybylski, a psychological scientist at Oxford University, reports that screen time has a "sweet spot", where it is not harmful and may even benefit teens' well-being by providing opportunities to develop social connections and skills. In general, the points at which screen time turn potentially harmful are when they exceed the following daily averages, as outlined in Dr. Przbylski's study published in the **Psychological Science Journal**. His study findings show that on weekdays, teens' benefits of screen time peaked at:

About **1 hour and 40 minutes** of video-game play per day.
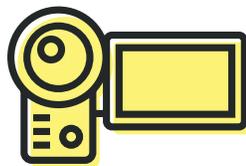
About **3 hours and 41 minutes** of watching videos per day.

About **1 hour 57 minutes** of smart-phone use per day.
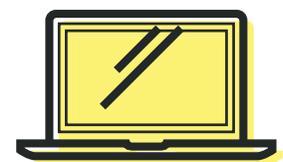
About **4 hours and 17 minutes** of using computers per day.

Source: Psychological Journal

Impact of Media for ASD Kids

Since kids and adults alike are spending the bulk of their free time outside of school and work on screens, the media's influence over children seems ever-present. For children on the autism spectrum especially, there are even greater risks associated with the use of digital devices and increased screen time.

Victoria Dunkley, M.D., explains, "Individuals with autism are typically **highly attracted to screen-based technology** and are not only at increased risk for developing video game and other technology addictions, but are more likely to exhibit symptoms with smaller amounts of exposure."

Since children on the spectrum are more prone to technology addictions, they should use digital devices with regulation. Parents can use filtering software to block specific categories of content and keywords which may trigger obsessive behavior and in addition to filtering, it is recommended that families manage their ASD child's online time by using a scheduling program or device.
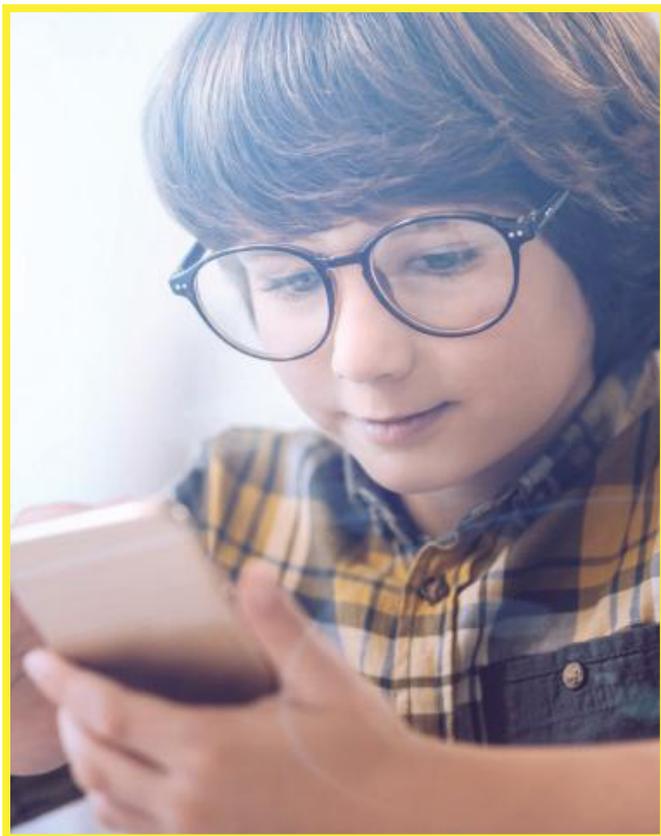
Why You Should Set Screen Time Limits

Since the ASD brain is hyper sensitive to screens and susceptible to an addictive atmosphere, it's crucial to limit the amount of time your child spends on their computer, tablet or phone. As mentioned in Scientific American, "Setting limits on the amount and content of children's media is generally effective at reducing time on TV and video games and at reducing violent media exposure" – which is important to keep your ASD, ADD or ADHD child safe, happy and healthy.

Douglas Gentile, a research scientist, educator, and Associate Professor of Psychology at Iowa State University states from a recent study that, **"Children whose parents set more limits on the amount and content of media were now getting more sleep, had gained less weight (lowering their risk of obesity), were getting better grades in school, exhibited more helpful and cooperative social behaviors in school, and were less aggressive with their peers (as seen by the classroom teachers)."**

Parents need to be on the forefront of their child's media consumption and digital use. Learn the platforms your child is using, understand their habits and moderate their screen time. The American College of Pediatricians reiterates, "It is crucial that all parents become media educated. Parents should be aware of program ratings and monitor programs that their children watch and software that allows the adult to block undesirable programs is also a helpful tool."

Tech Addiction & Electronic Stimuli: How to Understand, Measure and Moderate

You've tried your best but no matter what you do, your child's favorite activity is to spend all day on their smart phone or tablet. If bribery, discipline, and intervention has not worked, it's time for you to face the truth: your child may have a tech addiction.

Understanding how ASD brains interact with screen usage is a focus of Dr. Victoria Dunkley's research. She calls the side effects from pervasive use of digital devices and screen exposure "Electronic Screen Syndrome", which includes tech addiction, hyperarousal and dysregulation. She states that, "screen time – particularly the interactive kind – acts like a stimulant, not unlike caffeine, amphetamines, or cocaine. Children with autism are often sensitive to stimulants of all kinds, whether pharmaceutical or electronic."

Understanding Your Own Habits

Examine Your Own Tech Usage
How much time do you use screens and tech around your children? They will learn from what they see, not just what you tell them to do. Breaking your child's tech habit begins with working on your own.

Overuse of Smart Phones
With so many families exchanging land-lines for smart phones, many of us now feel we need 24/7 access to our phones. Take stock of how often you use and rely on your phone and other devices and think about which are not necessary.

The Myth of Boredom
Research has shown that boredom is linked to creativity. If you or your children are struggling to be creative, to solve problems and to think outside the box, you may be spending too much of your down-time on your devices.

Setting Boundaries

Tech addiction often takes place among all the members of a family, but here are a few suggestions to help keep everyone in check with their tech use.

1. Create places and times that are tech free in your home.
Stay true to one big rule: NO phones or tablets while you're eating. Instead, after dinner snacks can be a time to turn off the TV and read together.

2. Turn off the Wi-Fi.
This is an easy way to create "tech free" times in your home, depending on how your system is set up. You can also limit your phone's data plan rather than have an unlimited package.

3. Optimize their screen time.
Your family members are going to be on tech, so do your best to encourage educational activities that engages the whole family or in some way boosts a skill.

4. Create tech-free family activities to do regularly.
A daily walk after dinner is something we do together whenever the weather is nice. Sunshine and fresh air can positively counteract too much screen time.

5. Create boundaries for using tech.
Create a list of what your children must do before they turn on the TV, gaming device, tablet or phone. This can include crafts, chores, play time and time outside or get creative with it. Be specific about the rules for earning screen time and just as clear for losing screen time due to bad behaviors.

6. Filter & monitor digital habits.
Filtering keywords and websites is crucial for children on the spectrum, since triggers are specific to each individual and their preferences. Spend some time monitoring your child's online activity so you can learn what their digital habits are and identify any red flags in their behavior.

Creating a Screen Time Reward System

Setting boundaries and clear time limits are ways to effectively guide your child with digital use. More importantly, choosing a behavior goal to reward is a way to tailor an effective reward system to your specific child. Set clear, realistic goals and build on those gradually over time. For example, Lauren Elder, PhD, clinical psychologist and Assistant Director of Dissemination Science at Autism Speaks suggests:

Step 1:
Choose a behavior you want to increase that is appropriate for your child's skill level. This may be something simple like playing nicely with a sibling, or something more complicated like getting ready for school independently.

Step 2:
Break down the behavior into small chunks that you can reward. For example, if you want your child to play nicely with a sibling, you may break down the behavior by rewarding your child for every minute he plays without hitting. Over time you can increase the demands, to two minutes without hitting, then five minutes without hitting before he gets the iPad.

Step 3:
Make sure you're consistent. Whatever step your child is on, he should get the reward each time he does what he's asked. He should also not get the reward at other times. Over time you can add in more behaviors that can earn time on the iPad.

Offer a Substitute Behavior

Natural consequences are punishments directly related to that behavior – like taking away a plate of food if you child is throwing their dinner – however, for special needs children and kids on the spectrum, the natural consequences may not be seen as punishments. For many neurotypical children, being sent to isolation in their room would be a punishment. However, for spectrum kids, being in isolation is usually preferred, therefore this would not be seen as a punishment or reaction to bad behavior.

Video Games and Your Child

A recent study conducted by psychologist Mica Mazurek found that **those with ASD spent 60% more time playing video games and watching TV than the combined time of all non-screen activities.** Both male and female participants spent considerably more time playing video games than their typically developing siblings.

Moderate to Avoid Addiction

The negative effects of video game play are typically related to 'excessive' amounts of time spent playing, so it helps to understand what those limits are. Kids with ASD are especially prone to video game addiction, oftentimes for the very reasons that video games can be beneficial, because the world of a video game is predictable, patterned, and controlled.

Experts recommend that children spend no more than one to three hours playing per day. Of course, there are other indicators that your child may be spending too much time playing, such as a slip in grades, neglecting household duties or developing a sedentary lifestyle.

Parents should also monitor their child's behavior -- are they acting more aggressive after playing, are they using offensive language? These are also indicators that it may be wise to limit the amount of time your child is spending playing video games.

Problem Solving

Game play introduces children to a problem, in which they have to find a solution. Players have to continue trying different approaches to solving the problem before they are rewarded by reaching a new level or getting past a section of the game. All of this problem solving is accomplished by focusing amidst distractions within the game. For players on the autism spectrum, it requires learning one pattern then tinkering and adapting that pattern

> Video games provide a **controlled, safe environment** for children with ASD to develop these processing skills, as they are not **bombarded** with stifling social stimuli.

to advance past the next level, which offers a new challenge. Learning to adapt to new criteria and obstacles is a crucial skill for any developing child, but for kids with ASD, video games are more predictable and stable than human interaction, allowing them to focus on skill building. Of course, children still need to develop social skills by interacting in social settings, but the valuable possibility to learn problem solving and flexible thinking skills in a safer video game environment should not be discounted.

Learning to Lose

Failure at one point or another is inevitable. Losing teaches a lesson of deeper importance: perfection is impossible. Kids learn that they are imperfect and they will screw things up and that the only path forward is adjustment and perseverance.

Forming Social Bonds

Games provide a topic of conversation with other players, a common bond to talk about for kids with ASD that often struggle with thinking of things to talk about.

Incorporating Tech into Learning

There are apps for a wide range of functions and there are a substantial number that prove helpful for kids, parents, guardians, and teachers of children with Autism Spectrum Disorder (ASD). Here are a few app examples from an ever-broadening list.

First Then Visual Schedule: First Then is one of the many visual planner apps on the market. It provides users with a structured, customizable daily schedule to display events of the day, routines, and specific steps that need to be taken to complete an activity. For kids on the spectrum, First Then could offer access and much needed daily structure from a mobile device.

A Present for Milo: A Present for Milo is an easy to read interactive story app that follows a cat on an adventure through a house. Readers tap on objects on each page to interact with them and this combination of sounds, pictures, and simple, sound-out words is touted as especially beneficial to the learning of comprehension skills for children on the spectrum.

Alpha Writer: Alpha Writer is an app that teaches simple reading and spelling using pictures and phonetics. Kids choose a picture and must choose the letters to spell the word that matches the picture as it is sounded out by the speaker, helping to develop verbal skills.

How to Choose Educational Apps

Many apps claim to be educational, but that's not always the case. In fact, according to the American Academy of Pediatrics, "very few of the commercially available apps found in the educational section of app stores have evidence-based design input with demonstrated learning effectiveness."

If you're not sure if an educational app is right for your child, try asking these three questions:

1. Does it encourage time-outs?

When choosing educational apps for your child, there are a few questions you should ask. First, do they have built-in limits to encourage kids to take a time-out from playing? Many children, on the spectrum or not, have difficulty tearing themselves away from apps and games that are, inherently, designed to keep them playing for as long as possible. For kids on the spectrum, frequent time-outs are even more crucial.

2. Is the app distracting?

Educational apps should be engaging and exciting for kids to play, but not so distracting that they lose value that could diminish their comprehension. Question whether the features add value.

3. Does it encourage real-life interaction?

Educational apps should encourage some type of real-life interaction, whether it's conversation or engaging with peers. Assisted play between parent and child is another way to encourage real-life interaction, while using educational apps.

Connected Toys

Connected toys may seem like a thing of the future, but they have been around since Teddy Ruxpin and other talking toys of the 1980s. Since these toys are "connected" and many use high tech computer chips and wireless networks to function, parents need to know a few things before purchasing.

First and foremost, always do your research before purchasing. Understand which toys may have privacy concerns, the ability for exposure to strangers or other vulnerabilities. Before purchasing a connected toy, you should have answers to all the questions below and feel confident in the quality of your answers.

- Does the toy connect to the internet?
- What are the privacy settings for the device?
- Where does the data go? Who can view it?
- Can I have access to the data?
- How long is the data saved for and where?

- What age is this toy/device intended for?
- Does it use Wi-Fi?
- Does it allow password protected settings?
- Can my child talk to strangers with this device?

Integrated "smart" toys are growing in the marketplace and these toys are a promising area of exploration to engage and educate kids with ASD in a customizable manner. Here are a couple smart toys that could prove useful for children on the spectrum.
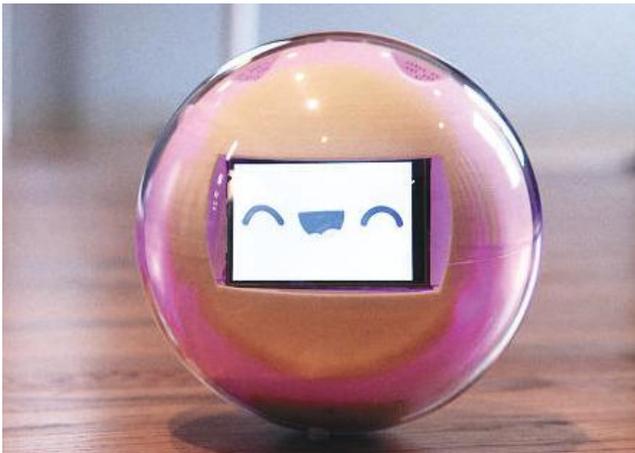
Leka: Leka is designed with the specific goal of being a companion for autistic children. Many of Leka's functions are customizable to meet the unique needs of each child it interacts with. The screen displays facial expressions and connects to a mobile app so the child can play educational games with Leka.

Romibo: Romibo is another robot designed to communicate and connect with kids on the autism spectrum. The furry blue robot socializes and asks questions to kids to engage them and build confidence in their social skills. Because it is a robot and more predictable than a human, interaction is much easier and less intimidating for kids with ASD.

> **!** It is important that interactions with robots and smart toys do not replace social interactions. They should instead serve to sharpen social skills and give kids the confidence to engage more richly the world around them.

Virtual and Augmented Reality

Virtual and augmented reality systems are pioneering new methods of treatment and education for kids and young adults with autism. Virtual reality (VR) immerses the user in a virtual world, entirely separated from their surroundings. Augmented reality (AR) does not create a disconnected world, as virtual reality does, but adds to the current setting.

Autism Glass Project:

Stanford University researchers and developers began the Autism Glass Project, a therapy software that runs on Google Glass. Autism Glass is a facial recognition software that acts as a breed of real-time flashcards, giving the user cues to teach them what emotion they are seeing. Autism Glass is real-time, providing the user with cues of the emotions of real, moving people as they interact. Testimony and feedback from trial parents indicates the project has been effective in teaching social skills and emotional recognition for kids on the spectrum.

It is important that interactions with robots and smart toys do not replace social interactions. They should instead serve to sharpen social skills and give kids the confidence to engage more richly the world around them.

Digital Assistants

Your child may already be on a first-name basis with Apple's Siri, Microsoft's Cortana, Google's Google Assistant, or Amazon's Alexa, also known as the "Fab Four" of personal digital assistants.

Accenture recently polled 25,996 internet users worldwide, ages 14 and older, to ask them about the usage of voice-enabled digital assistants. The age range of 14 to 17-year-olds was the most active age group to regularly use digital assistants and also scored the highest for responders who just started using digital assistants.

Digital assistants can only be intuitive to our needs if we grant them access to listen to our private conversations, know the websites we visit, the apps we spend time on, or the store and restaurants we visit. The more data they collect on the user, the better they can be taught to guess what the user wants to know.

And now digital assistants are no longer just for adults. The largest tech convention, CES (Consumer Electronics Show), was packed with digital assistants created just for kids. Two of the most popular DA's for kids are:

C-Way's **"Memoo"** allows parents to connect with an app on their phone and program how they want their child to interact. If getting your child up for school is an issue, set the "Memoo" to be an alarm, followed by a check of the weather, and a reminder of items to make sure are packed in backpacks. Parent-approved music can also be played if the family has a Spotify account. "Memoo" can even be programmed to read a favorite bedtime story or play a favorite game. In addition, a two-way messaging feature is available for contacts that are pre-approved by a parent.

"Aristotle" by Nabi's artificial intelligence can identify individual children from their voices to grant age-appropriate tasks. "Aristotle" can play white noise while your child sleeps, has a camera to serve as a visual baby monitor, reads stories with sound and light effects, can teach second-language lessons and play games. Every parent at some point will need to decide how involved they want the presence of voice-activated digital assistants in their children's lives.

Digital Contract for Your Family

☐ Tablet   ☐ Computer/Laptop   ☐ Phone   ☐ Game Console ☐ Connected Toy

You Agree To:

☐ Only watch videos/visit websites that my parents approve.

☐ Not download anything without permission first.

☐ Only spend ____ minutes on the tablet/phone/computer/game each day.

☐ I can use the devices between the hours of _____ only.

☐ Tell a parent if I see something that makes me feel uncomfortable.

   _____ rooms are off-limits for using any device.

☐ Ask permission before purchasing anything online.

☐ All devices should charge overnight in _____.

☐ I promise not to use any devices during breakfast, lunch or dinner.

☐ I won't let screen time distract me from homework and my favorite hobbies,
   like _____.

☐ Not share any personal information or photos without approval.

We Agree To:

☐ Watch along with my child & interact while they view videos and apps.

☐ Keep family meals unplugged.

☐ Be a good digital citizen and teach my kids to do the same.

☐ Not text and drive.

☐ Review privacy settings with the family.

☐ Keep all device passwords.

☐ Turn off all screens _____ minutes before bedtime.

_____   _____
_____   _____
(Parent/Guardian Signature)   _____
                                       _____
                                       (Child Signature)