

Autism Spectrum Disorder: NETWORK NEWS

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TECHNOLOGY

And

AUTISM

CONTENTS:

FEATURE ARTICLE
EXCLUSIVE EVENT
HOSTED BY THE COE
ASD: BARRY PRIZANT

1,2,3

COMMUNICATION
CORNER

TRY THIS

4

BEHAVIOUR TIP

5

TEACHER TIP
WEBSITES

6

HEAR ALL ABOUT IT
MEMBERS OF THE ASD
TEAM

7

Technology has become an integral part of daily life and it can be beneficial to an autistic individual. For example, technology may facilitate social interactions that would otherwise be difficult, and it is not uncommon for someone with ASD to be highly tech-savvy and even enjoy computer-based instruction. According to several studies¹, many autistic individuals have a natural love for technology and a favorable attitude toward utilizing computers to study. This affinity is largely due to the fact that working on the computer offers experiences that are predictable and structured, which, in turn, allows individuals with ASD to maintain their routines and repetitive behaviors without interfering with their comfort.

Without a doubt, technology has fundamentally altered our world. It has eliminated the necessity of face-to-face social interaction while providing us with access to nearly limitless information and opportunities for knowledge and communication. Not surprisingly, technology has also improved education and skill development for children and teens with autism. However, it is not without its drawbacks. Autistic children and teenagers are impacted by technology in both positive and negative ways.

SAVE THE DATE:

MARCH 27, 2023



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Ph.D., CCC-SLP

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HUMAN

A DIFFERENT WAY
OF SEEING AUTISM

BENEFITS OF TECHNOLOGY FOR CHILDREN AND TEENAGERS WITH AUTISM:

Emotional and Sensory Regulation³

Autistic children and teens can benefit from the regulatory effects of technology. Repetitive and predictable activities are calming and regulating for autistic individuals, and these effects can often be found in many tech-based activities (e.g., ABCYa, NetMath).



Access to Support

Social media platforms such as Instagram and TikTok provide access to other autistic individuals. Historically, autistic children and teens were limited to finding support within their in-person social community. However, in the last two decades, technology has allowed access to this support to be exponentially broadened resulting in an increase in the opportunities for connection and solidarity available to autistic individuals.

Inclusion in Niche Communities

Previously, autistic individuals with specific, niche interests may have struggled to find others with shared interests. The popularity and ubiquity of the internet have allowed communities to form based on virtually any interest imaginable. What would once have been a solitary pursuit can now be shared with like-minded others.



Virtual Social Interaction^{1,3}

In-person social interactions can be fraught with stress and tension for autistic individuals. The opportunity to connect socially with others in a structured, technological environment can drastically reduce these stresses.



DRAWBACKS OF TECHNOLOGY FOR CHILDREN AND TEENAGERS WITH AUTISM:

Electronic Screen Syndrome

According to Westby (2020), "screen time increases stress, induces overarousal, causes emotional dysregulation, and produces overstimulation" (p. 235). Therefore, due to their greater vulnerability to emotional regulation issues, such as: a) a tendency to be over- or under stimulated, b) poor self-soothing skills, and c) exaggerated stress reactions, autistic individuals are "more at risk for electronic screen syndrome." (p. 235).



Fragile Attention System³

Overexposure to screens has the potential to disrupt attention and reduce a child's availability for other activities. The decision of whether or not to allow autistic children screen time before school should be made with this possibility in mind.

Sleep Disturbances

Melatonin, which regulates sleep patterns, is deficient in many autistic children^{1, 6}. In fact, some studies estimate that up to 80% of children with ASD struggle with sleep¹. Spending too much time staring at a screen for extended periods of time can suppress melatonin production significantly, causing sleep disturbances.

Impaired Social Skills²

Even though social interactions can occur online, important aspects of in-person social interaction (e.g. learning to read non-verbal language and sense emotional tone) are missing when relying on technology for communication. For a child with autism, excessive screen time can further impede these types of social skill development.

Anxiety

Autism and anxiety disorders are frequently found together³. Although technology can often reduce anxiety in children with autism, excessive screen time (>1 hour for 2-4 years old; >2 hours for 5-17 years old per day)⁷ is known to be harmful to all children⁴. For example, high levels of screen time increase the risk of both anxiety and depression in all children, but those with autism may be at even greater risk because they are more prone to anxiety and more likely to have obsessive-compulsive traits⁵.



Cyberbullying and Exposure to Unsafe People

Online exposure to bullies or people with malicious intent is a major risk for children and teens with autism, who may be more easily duped into doing something they shouldn't due to naivete, missed social cues, or poor social communication. They may also be more readily misled into thinking they are conversing with a "friend" when they are actually interacting with someone whose intent is to harm them. Making connections online is risky because of the prevalence of online

predators. According to research⁵, people with disabilities are 16 % more likely to be cyberbullied, so safeguards must be put in place to ensure that they have healthy online interactions.

Hyper-reactivity to Sensory Input³

Some websites and computer games produce flashing lights, loud sounds and other sensory outputs that could cause children with ASD to become over-stimulated.



COMMUNICATION CORNER⁴



Students with communication challenges now have more options than ever to support their communication skills. Many students now have access to Augmentative and Alternative Communication (AAC) on an iPad. Speech-Language Pathologists assist schools and parents in helping our students learn to communicate using AAC.

The Podcast “Talking with Tech AAC Podcast” hosted by Speech-Language Pathologists Rachel Madel and Chris Bugaj is an excellent resource to help Speech-Language Pathologists, other professionals, and parents keep informed about relevant research and updates in the area of AAC. Through interviews with clinicians, parents, researchers, and AAC users this Podcast offers discussions on many topics related to complex communication needs.

Try This!

SOCIAL MEDIA ACCOUNTS TO FOLLOW

Our easy access to many social media platforms (e.g., TikTok, Instagram), allows us to follow people and/or accounts which can inspire us and, when used appropriately, can also educate us! If you are searching for tips, tricks and new information, be sure to check out the following Instagram accounts:

@autismdietitian Brittyn Coleman

A registered dietitian and autism nutrition specialist who provides food-related tips and hacks all for children of all ages.

@theautismhelper Sasha Long

Sasha Long is a Board Certified Behavior Analyst who provides amazing resources and activities for students on the spectrum.

@bohospeechie Katja Piscitelli

Speech and Language Pathologist Katja offers wonderful information and ideas on play-based and strength-focused interventions for parents, caregivers and educators.

@21andsensory

21 and Sensory, is the work of Emily, a graphic designer and an illustrator, who is also on the spectrum. Emily uses her aesthetically pleasing posts to discuss autism and, more specifically, sensory processing.



How ASD Behaviours Can Affect Technology Usage⁵



In general, children with ASD behave, interact, and communicate differently than other children. When it comes to technology, some autistic individuals have a tendency to engage in compulsive, repetitive activities that may involve repeatedly loading the same image or website, playing the same game, or performing a computerized task over and over. So, on the one hand, the rapid influxes of imagery or activity technology provides can feed compulsive habits, potentially leading to addiction to specific video games, photos, or websites. However, on the other hand, the internet can be beneficial due to the quick, predictable stimulation it provides serving as a soothing factor to those requiring repetitive sensory input to cope with stress.

Since technology and computer use can be so beneficial to children with ASD, they should not be completely eliminated to avoid the risks. Instead, it is better to allow access to technology while using best practices to develop a set of guidelines, such as:

- 1 Establish internet usage limits. As compulsive internet use may be more common in people with ASD, it is best to set a time limit for screen use. For example, limit online time with a timer or make technology available only at certain times of the day (e.g. after dinner).
- 2 Establish ground rules for device use. The rules should be brief and to the point, and children should be aware that if they break them, they may temporarily lose their online privileges. Some rules might include: no communicating with strangers on social media, or only certain websites are permitted.
- 3 Monitor and discuss online time. Being aware of child's online activity is critical, so check in frequently and review usage history on a regular basis. It is critical to communicate openly with the child about time spent online. Talk about what the child or teen did while online, what they learned, or who they talked to.
- 4 Websites with potentially addictive or inappropriate content should be blocked. The internet has many sites that can be particularly addictive, such as those focused on gambling or pornography. An extra effort should be made to protect a child with ASD from this type of content. To prevent access to these websites, use internet safe search settings and third-party parental control software. Discuss the dangers of this type of content with your child and teach them to notify you if another child encourages them to access the content on unprotected devices.
- 5 Utilize technology to supplement in-person social interaction. Technology provides many social opportunities, but it should never be the sole source of social interaction for a child with ASD.

TEACHER TIP



We all know that creating clear expectations and structuring the school day helps students adapt and thrive in the learning environment. Visual schedules are the best way to give students that structure. Instead of using a physical laminated cardboard class schedule, consider using Google Calendar. Obviously if a personal visual schedule is needed for a specific student, this would not be an option. This class schedule can be posted on the smartboard and can be referred to regularly between activities and before transitions. The advantages are that you can easily make changes to your schedule and include specifics without having to print another hard copy with new items. You can also make recurring events so that you can have your typical day set-up well in advance. In order to create an appointment schedule in Google, simply:

- On a computer, open **Google Calendar**.
- At the top left, click **Create**.
- Click **Appointment** schedule.
- Enter a title.
- Set your appointment duration.
- Set the date and time of your appointments.



For more information about using this function, visit:

<https://support.google.com/calendar/answer/10729749?hl=en>



WEBSITES & REFERNCES



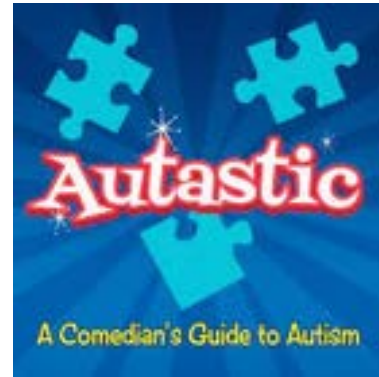
- 1) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6832622/#B13-sensors-19-04485>
- 2) <https://eden2.org/blog/technology-and-autism-the-good-and-bad>
- 3) <https://autismspectrumnews.org/technology-safety-guide-for-parents-of-children-with-autism/>
- 4) <https://www.talkingwithtech.org/>
- 5) <https://autismspectrumnews.org/technology-safety-guide-for-parents-of-children-with-autism/>
- 6) Westby, C. (2021). Screen Time and Children with Autism Spectrum Disorder. *Folia Phoniatr Logop*, 73, 233-240. doi: [10.1159/000506682](https://doi.org/10.1159/000506682)
- 7) <https://www.quebec.ca/en/health/advice-and-prevention/healthy-lifestyle-habits/healthy-screen-habits-among-youth>

ASD TEAM MEMBERS



~~READ~~ HEAR ALL ABOUT IT: AUTASTIC

As demonstrated on the podcast flyer, Autastic features two comedians, who each have their own personal relationship with autism. Kirk has a teenaged autistic son in Sweden, and Graham has an autistic adult brother. Both autistic individuals exhibit different levels of functioning, which makes it interesting to hear each



comedian's perspective on their loved one and how they make sense of various issues surrounding their autism, such as independent living, finding and keeping a job, navigating social relationships, and worries about the future. The show involves weekly updates from Kirk and Graham, an "in the news" segment, and other related discussion topics. From time to time, we also hear interactions between Graham and his brother, as well as between Kirk and his son, which can be comical and heartwarming, as well as sometimes heart wrenching.

The two comedians obviously also add their brand of humor to the episodes, which introduces some levity to even the most difficult subjects. A prime example is a recent show (Dec. 2: Should autism have 2 names?), in which the duo review an opinion piece written by a mother with a son with profound autism (<https://www.spectrumnews.org/opinion/viewpoint/its-time-to-embrace-profound-autism/>). She argues that the needs and voices of the more severely autistic individuals are becoming increasingly invisible, evidenced by the recent movement to see autism as simply a neurodivergent condition, rather than a serious disorder that requires significant intervention.

To listen to all episodes, the podcast can be downloaded on Apple Podcasts and many other platforms:

<https://podcasts.apple.com/ca/podcast/autastic-a-comedians-guide-to-autism/id984750988>

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