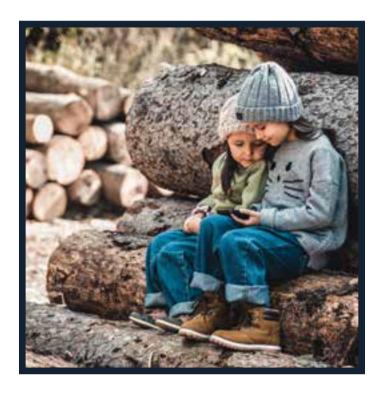


What Parents Need to Know About the Metaverse



What's in this guide?



Introduction



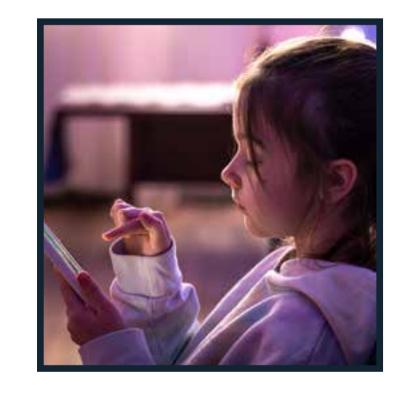
What is the Metaverse?



The Benefits



The Risks



Protecting Your Kids



Sources & Citations

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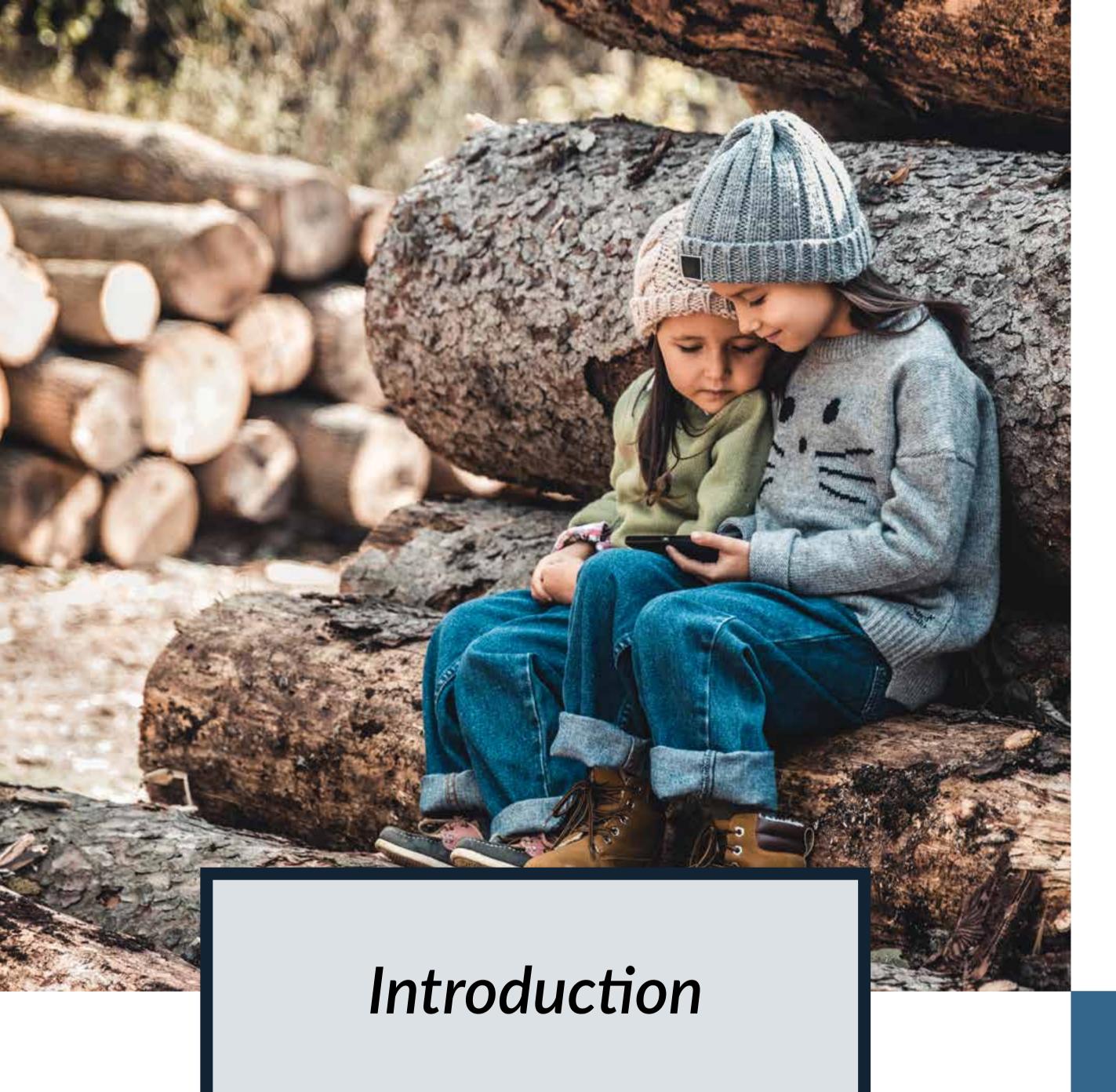












As a parent, it's difficult to keep up with the rapidly changing industry of advancing technology. Every day, there seems to be a new breakthrough that's equally exciting and terrifying.

How are parents supposed to keep up with potential dangers, and isn't it easier to just throw up our hands in frustration and ignore the whole internet?

Well, maybe. But that doesn't mean it's the option that will keep our kids safe.

While there will always be someone emphasizing the extremes around any parenting or digital safety topic, it's possible to find a balance between caution and complete online freedom.

In this guide, we're going to talk about the metaverse and how you can be aware of its benefits and risks.

The metaverse is a broad topic that is constantly fluctuating in the way that it is thought about and explored. While there are numerous paths of study we could follow, this guide is dedicated to an overview of what parents need to know about the metaverse regarding the safety of their children.

As always, we encourage our fast fiber internet customers to investigate and conduct their own research, using our guide as a launchpad for curiosity and education.

What is the Metaverse?

If you've heard multiple different definitions of the metaverse, they're likely all contributing factors of everything it encompasses.

It's important to remember that the metaverse goes beyond virtual reality (VR) headsets and science fiction-style digital landscapes. Most of the ways that the metaverse is represented in our day-to-day lives barely scratch the surface of what in-depth research predicts for the future.

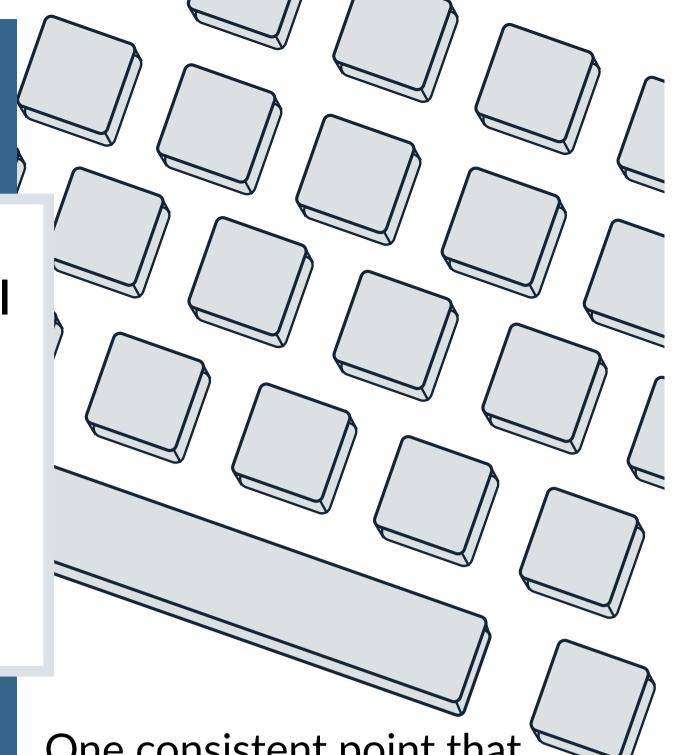
One source describes the metaverse in this way:

"The metaverse has the potential to extend the physical world using augmented and virtual reality technologies allowing users to seamlessly interact within real and simulated environments using avatars and holograms."

The idea of virtual reality is tracked all the way back to Stanley Weinbaum's fictional short story, Pygmalion's Spectacles, which poses the idea of a story, or what we may call an alternate reality, that you can fully exist in, including taste, smell, touch, and sound.

While movies have been playing with this idea of virtual realities for decades (i.e., Tron, The Matrix, Ready Player One), it's necessary to consider the very real implications of a rising metaverse, apart from what media has suggested in the past.

Another source explained the metaverse as "a restructuring of the web in such a way that you step into it and interact."



One consistent point that studies and articles make is that the nature of the metaverse is transformative; meaning, whatever enters the metaverse, be it business, gaming, or social interactions, cannot go unchanged by its virtual environment.

The metaverse presents itself as less of a landscape for our routine digital activity, and more as a dimensional network that will influence whatever it touches.

Other sources echo the certainty that there isn't much the metaverse won't eventually impact if we give it the access.

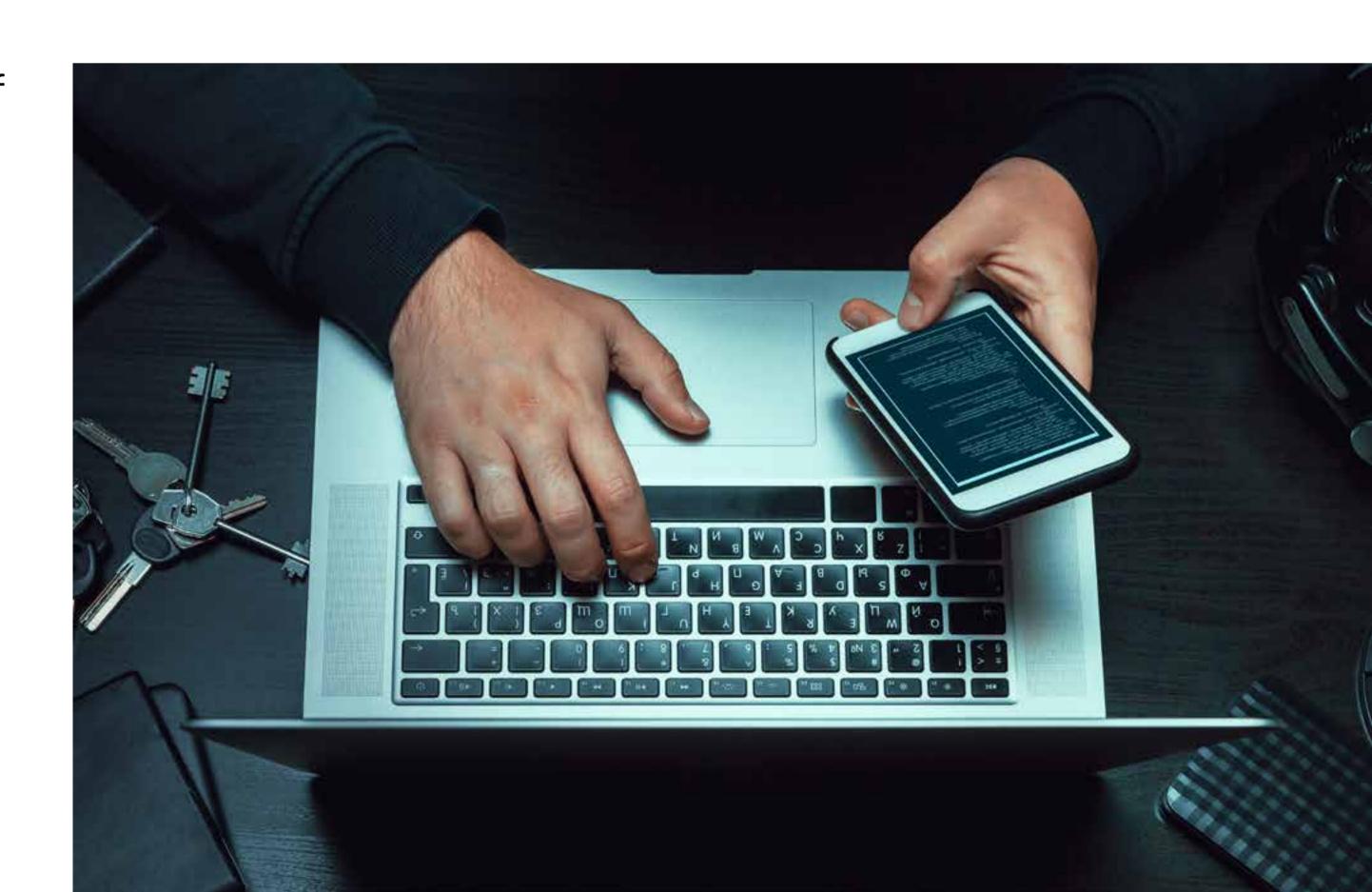
If you want to learn more about how VR may work at

scale in the future, there are many studies about current breakthroughs, and the expected impact on a variety of industries, as well as educational tools. We'll mention a few, but we encourage independent research beyond this overview.

When addressing the various industries that the metaverse will influence, <u>this source</u> noted, "The distinct lines between physical and digital are likely to be somewhat blurred from current perceptions."

There's an abundance of fascination surrounding the future possibilities of emerging metaverse technology. It's an exciting and fast-moving digital world, but parents should be careful to understand the negative implications that could affect their families.

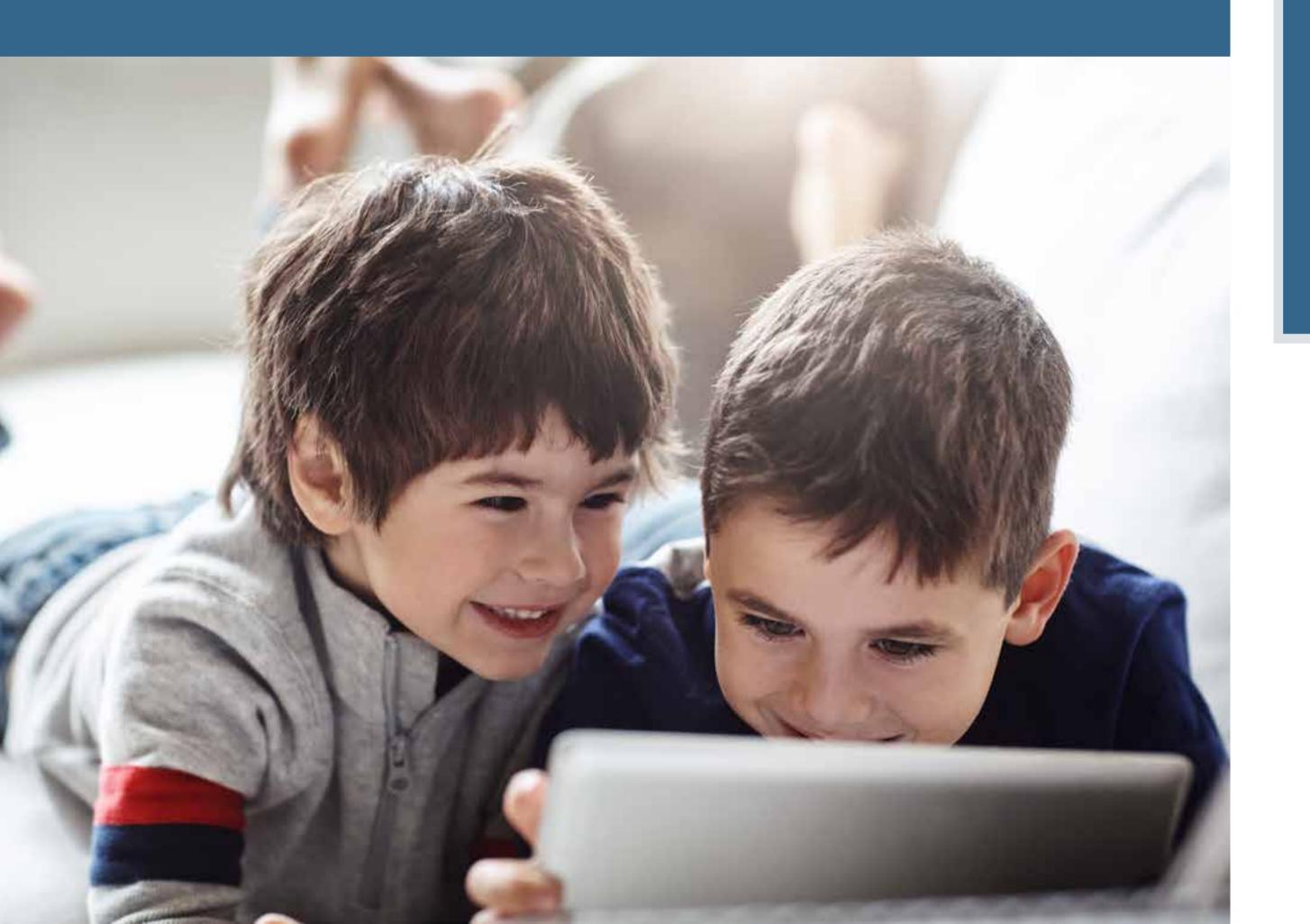
To misquote a classic line, as greater technological power is pushed into our hands, we must respond with greater technological responsibility.



Benefits of the Metaverse

Before considering some of the risks, let's talk about the positive influence the metaverse is already having on education and child development.

You can think of the metaverse like any groundbreaking technology: As much danger as it carries, it's still paving the way for significant growth and creating new, fast ways to solve problems that will be accessible to even more people.



Screen Time

While screen time has a remarkably negative reputation, this is one of the many subjects that tends to push the extremes.

The truth is somewhere in the middle, as it often is within the digital world.

Over time, the metaverse is likely to change the way kids interact with their devices. While this poses new risks, it also allows room for more active and creative online engagement.



"With the metaverse, screen time shifts from a relatively static act of scrolling and clicking to an immersive experience stimulating each of our senses."

- Jackson Greer,
What Parents Should Know about the Metaverse

This transition blurs the line between our online and offline worlds, but it also provides an opportunity for empowering experiences that would be impossible offline.

"People with health conditions or impairments that prevent them from participating in sport as fully as they would like are able to become e-Sports champions. People who suffer from anxiety can find a way to socialize in a way that feels more manageable for them. In this sense, virtual worlds can already be levelers, or at least, they can alter conventional measures of success," Victoria Baines explained. "Our current concerns over young people's screen time may come to seem quite quaint as more and more of us feel embodied in digital spaces," Baines added.

Although she seems optimistic about the possibilities of such virtual freedom, she also adds, "Our current responses to digital addiction may need to evolve to provide adequate psycho-social support to those who may not want to leave the Metaverse."

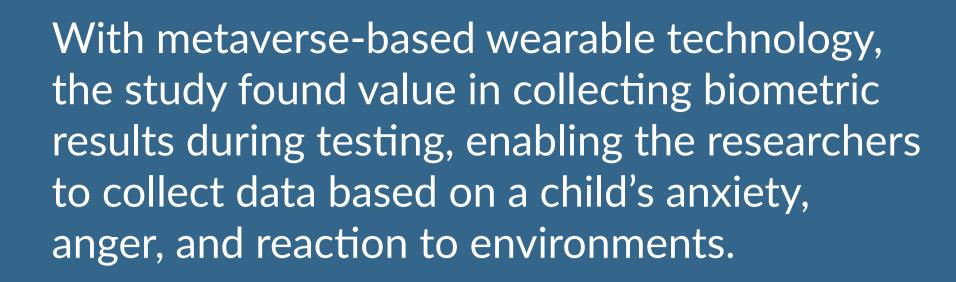
ASD Training Programs

As of 2022, around 1 in 100 children in the world were recorded to be diagnosed with autism spectrum disorder, or ASD. According to an analysis by Autism Speaks, this statistic reveals a sharp increase in the last 10 years.

Assistive technology and devices have historically been significant tools for various barriers that ASD can pose, but the metaverse may take virtual assistance programs to a new level.

This controlled trial conducted on 7-12-year-olds with ASD in March-May 2022, aimed to develop a metaverse-based program that helps train children with ASD in social interaction abilities. The program was modeled after the offline PEERs program, which teaches kids essential communication skills.

"If the program is conducted using metaverse rather than simply delivering education on the internet, it is possible to provide not only theoretical content but also practice using actual peer groups, thus enabling metaverse-based education programs."





This led to predictions of a child's future actions, and the researchers claimed that this kind of data will help alleviate anxiety early in a stressful situation and problematic behavior in children with ASD.

The authors of the study also predicted that using offline technology in a metaverse setting will be just as effective in social training efforts as it is in an offline environment.

Metaverse Physical Therapy

Another benefit the metaverse can bring to childhood wellbeing is metaverse physical therapy, or MPT. As the metaverse expands and becomes more accessible, programs for child rehabilitation are expected to grow.

One MPT program in development is designed to help pediatric patients with cerebral palsy. The discussion of the trial noted that their testing was the first study, to their knowledge, on metaverse-based physical therapy rehab that could be self-managed by cerebral palsy patients.

In summary of their findings, the study claimed, "We demonstrated that MPT was effective in improving gross motor function and cardiopulmonary function and perceived COVID-19 transmission risk. Clinically, our results provide encouraging evidence that MPT is more effective than CPT in the management of children with CP."

These and similar findings will guide physical therapists as they work to design an efficient physical therapy model for children with cerebral palsy, which will prove especially helpful for those who do not have access to physical therapy facilities and resources.

The MPT program applied in this study used a video game-style physical therapy method, making the rehabilitation more appealing to children, and concluded that physical exercise was more enjoyable in the virtual environment.

Online Education

A significant common theme in these benefits of the metaverse is newfound access to essential programs and services through a virtual environment.

Certain experiences like ASD training and MPT programs cannot be replicated on a device screen, due to the lack of an immersive environment.

In addition to these specific examples, parents should also be aware that online education will likely be greatly influenced by the metaverse. This partnership between the metaverse and online learning environments could make the process of basic education more advanced than ever.

Metaverse-based online education could provide new opportunities and experiences for many kids who don't have access to them offline. For kids learning from home, the metaverse hints at the possibility for each student to have their own interactive virtual space, which could help them block out distractions and spark curiosity in brand new ways.

Knowing the Risks

It's next to impossible to cover all the potential risks that come in the wake of something as broad and complex as the metaverse. We're going to discuss a few categories, to get you started on your own research as a prepared parent.



Data Privacy

One of the prominent concerns about kid-centered metaverse platforms is the neglect of data privacy. As a parent, it's important to know that age verification is not a reliable way to prevent kids from accessing online platforms and content designed for an adult audience. So far, developers of metaverse-based platforms have not announced a more accurate way to verify a user's age before they're given access to adult content.

Because of how expansive and uncontrolled the metaverse is, kids will suddenly be facing an entirely new onslaught of digital dangers. The metaverse allows for more identity customization than we've ever seen, and this will give user's digital footprint a personal trademark. Data trackers will have more access than ever to our personal details.

"Organizations and nations are not fully prepared to deal with the privacy and security issues facing the metaverse," one source warned, explaining the shortage of metaverse experts, "Due to the newness and complexity, monitoring the metaverse and detecting attacks on these new platforms is also more challenging than on current platforms."

Online Safety

In the <u>Augmented and Virtual Reality Policy</u>
Conference of 2021, a group of industry leaders in VR technology organizations discussed the future of extended reality (XR) and how risks should be addressed amidst the innovations driving metaverse developments forward.

"Until some of these foundational questions are answered, there will be uncertainty about how we define the future of XR," said Liz Hyman from the XR Association.

In the 2022 AR VR Policy Conference, Christina Jackson from Meta said, "If the metaverse is supposed to be likened to the internet, we're not just talking about moderating first party experiences. We're talking about what governance looks like."

Whatever governance looks like in the future of the metaverse, safety must be at the forefront of our minds as parents of future metaverse users.

A combination of caution, fear, and thrill hovered around Mark Zuckerburg's announcement of Facebook's Horizon World. However, according to a study conducted in March of 2022, 55% of internet users in the United States had heard nothing at all about Horizon, 19% hadn't heard much, 18% had heard some, and only 8% reported hearing a lot about the platform.

For the incline of online safety risks this platform initiates, it's astonishing how little most of U.S. internet users know about it.

Essentially, Horizon is a virtual world where users can construct their own reality, create whatever kind of life they want, and hang out with anyone else on the platform. While fictionalized avatars and digital universes are nothing new, Horizon offers a way to step more fully into its alternate reality than any other role-play game.

Will Oremus from The Washington Post reported deep concern among experts over the young audience that Horizon Worlds attracted at its launch: "In a largely self-moderated virtual world, the company is inadvertently creating a hunting ground for sexual predators," he said. Oremus also pointed out that children aren't technically allowed on the app, and yet they were among the first users of Horizon, accessing it through their parents' VR headsets.

Although Horizon wasn't well received by many users, and is now declining in what little popularity it had, similar worlds are likely to follow. No matter what form the metaverse takes, data privacy should always be among the first questions we ask.

Sarah Gardner is the vice president of external affairs at Thorn, a tech nonprofit working to protect kids from sexual abuse with accelerated victim identification.

In her field of work, she sees instances of abuse and learns about the nature of online predators through shocking, but necessary research.

According to Gardner, when a new online platform emerges, sexual predators are often the first to arrive on the scene.

"They see an environment that is not well protected and does not have clear systems of reporting.

They'll go there first to take advantage of the fact that it is a safe ground for them to abuse or groom kids," said Gardner.

Mental Health

There has been hope that the metaverse will help people control external fears, from arachnophobia to social anxiety.

While virtual-based therapy has great potential for success within individual cases, there is no guarantee that it will improve our overall mental health. Most negative influences on mental health come from an internal struggle, like insecurities or depression. Studies on the effectiveness of virtual reality's efforts to improve mental health are too few to offer a consensus.

One study did conclude the following about this relationship:

"Emerging studies present the potential correlation between metaverse activity and increased behaviors of aggression and disassociation from reality. The fear is that not only will metaverse activity increase loneliness, but it could also increase aggression." - Greer

Perhaps the metaverse will absorb our daily lives or make us long for experiences we cannot have in the real world, increasing dissatisfaction. Or maybe it won't. These are all studied factors, not proven facts, to keep in mind as we move forward into an unknown virtual territory.

How Do I Protect My Kids?

Kosciusko Connect seeks to educate and inform our internet users of the risks and benefits associated with rising tech. Through this pursuit, please keep in mind that you know your family and children best, including what they may be most susceptible to online.

There are always ways to help protect kids and equip them to navigate online worlds with healthy conversations and critical thinking skills.



Awareness and Education

Staying "in the know" about relevant innovations and dangers of the metaverse will go a long way in helping your family stay protected. Be sure to make your knowledge contagious as you do your research with reliable sources and up-to-date information.

Here are a few starting places we recommend...

Thorn Blog

FBI Safety Resources

Common Sense Media on the Metaverse

Gadget Lab: Weekly Tech News

Online Safety in the Metaverse

Conversation

If you're feeling overwhelmed about managing your kids' tech use and knowing what could be endangering them in the future, remember that the internet is not new, and neither is virtual reality.

Although the metaverse may allow worldwide access to new forms of content and communication, the same could be said of the internet long before your kids were even born.

A great way to help your family stay safe online is to sit down and have honest, open-ended conversations about their digital lives. Choose asking inquisitive questions over reading the scariest parts of this eBook out loud to them. Get curious about why they enjoy doing what they do online and ask if you can play that newest game or watch their favorite YouTube channel with them. If they're open to sharing their screens with you, that's a good sign they'll be transparent about dangerous interactions they encounter in the future.

How to Navigate Kids' Tech Use

Sean Herman on Digital Literacy and Data Privacy

"It's really important to have these conversations before the metaverse becomes an actual thing and not just a buzzword we like to say a lot," said a speaker from the 2022 AR VR Policy Conference.

Monitor Their Online Activity

No matter how much you trust your kids, there are countless dangers on the internet that kids could be vulnerable to without ever realizing it.

If you become aware that your child isn't as safe online as you hoped, continue to research the apps and websites they frequent, and spend time in conversation with them.

Setting boundaries and monitoring online activity doesn't have to be secretive or even a big deal.

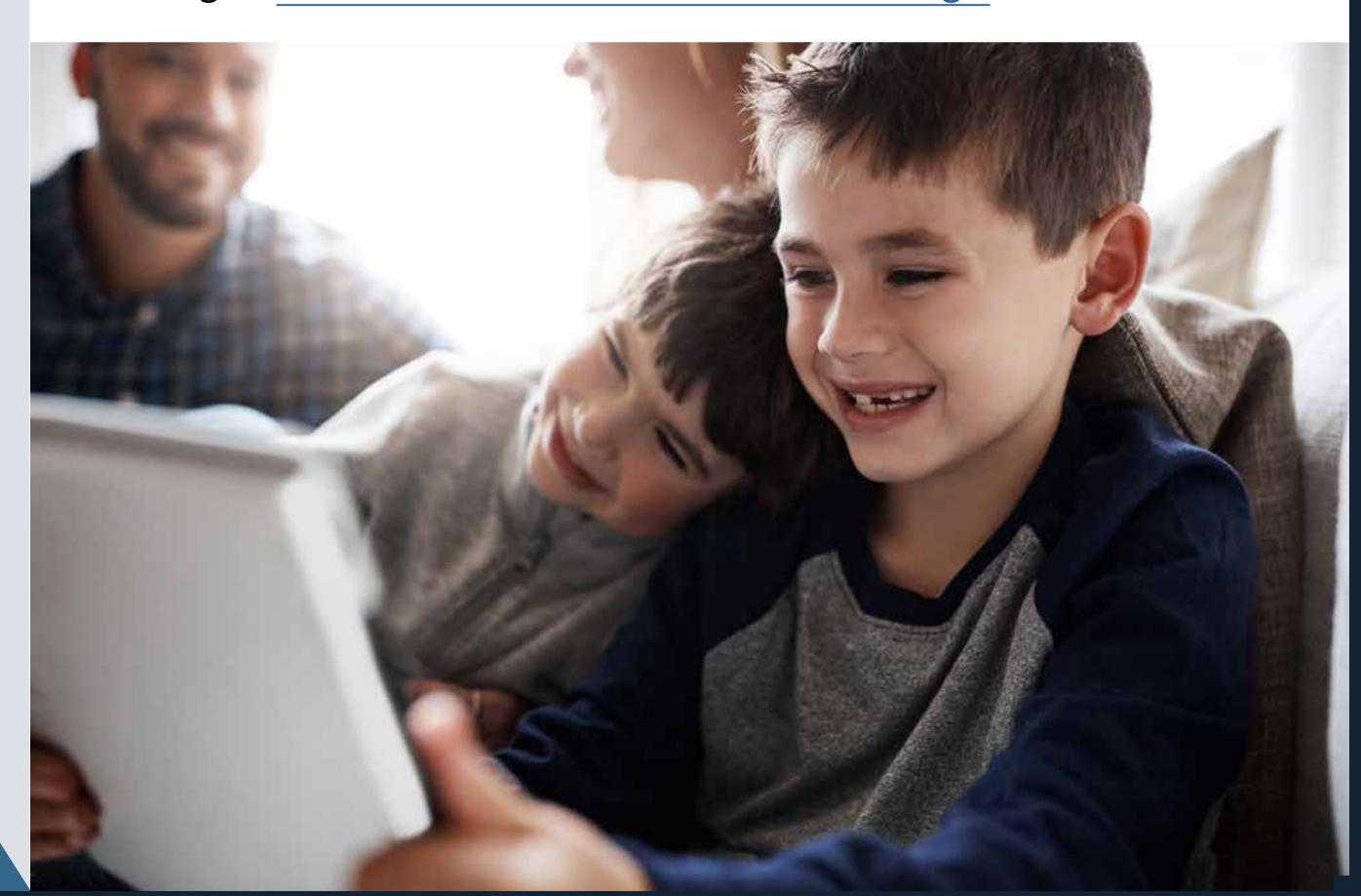
Let your kids know that you're monitoring their devices and blocking inappropriate content or digital threats from their devices. Wondering how to do that? We can help.

Guardian Protection is an effective and thorough network security tool that offers user-friendly control features from your Kosciusko Connect app. With Guardian, you can see what your child is accessing online, block certain apps and websites, and set screen time limits on their devices or a particular app.

Call us at 574-269-0327 to sign up for Guardian for just \$12.95 a month.

"No amount of regulation or moderation could substitute for the role you can play in your children's life." -Greer

Thank you for reading our Kosciusko Connect eBook! If you'd like to learn more about staying safe online and helping your kids thrive in a digital age, you can find more advice on our blog at kosciuskoconnect.com/about-us/blogs.



Check out our sources...

Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy

History of VR – Timeline of Events and Tech Development

What Parents Should Know about the Metaverse

What is the Metaverse?

New study shows increase in global prevalence of autism

Development and Application of a Metaverse-Based
Social Skills Training Program for Children With Autism
Spectrum Disorder to Improve Social Interaction:
Protocol for a Randomized Controlled Trial

Therapeutic Effects of Metaverse Rehabilitation for Cerebral Palsy: A Randomized Controlled Trial

Public Policy for the Metaverse: Key Takeaways from the 2021 AR/VR Policy Conference

The Augmented and Virtual Reality Policy Conference, 2022

Share of internet users in the United States who have heard about Horizon Worlds as of March 2022

Kids are flocking to Facebook's "metaverse." Experts worry predators will follow.

Searching for a child in a private world: Thorn VP of External Affairs speaks at TEDxWarwick

