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Access Denied: The Challenges of Technology Use for Children with Special Needs

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Children with special abilities can refer to a wide range of talents, skills or developmental differences that distinguish them from other normal kids. These capabilities can be intellectual, creative or physical, and sometimes are connected with situations or exceptional traits like gifted children, children with learning disabilities but exceptional skills like dyslexia, ADHD or autism, children with savant syndrome, children with physical abilities and children with Autism Spectrum Disorder (ASD) and special skills. Supporting children with special abilities requires recognizing and nurturing their strengths while helping in areas where they might face challenges.



Picture 1: Special needs children

By using technology, it can greatly assist children with special abilities by offering

tools and resources that enhance their learning, development and independence. Whether they are gifted, have learning differences, or possess specific talents, technology can provide tailored solutions that align with their needs.

Technology can be a tremendous asset for children with special abilities, it also presents certain challenges. These issues can arise from the children's unique needs, the limitations of technology or the environment in which the technology is used. Here are some key challenges:

- i. Issues in accessibility – the technology has limitations in design and inconsistent standards. Some technologies are designed with accessibility in mind and it is difficult for children with special abilities to use it effectively. Example features for voice commands may not cater to all needs.
- ii. Cost and affordability – many advanced assistive devices and software can be expensive. It also limits access for families and schools with limited budgets.
- iii. Training and support needs – children, parents and educators require training to use assistive technologies effectively.
- iv. Digital divide – inequality in access to technology based on their

- socioeconomic status, geography and education level. Families who are living in rural areas may struggle to obtain the necessary devices or Internet access.
- v. Relying on technology – managing the screen time can become crucial for these children to develop other skills or adapt to situations when they are completely dependent on these technologies.
 - vi. Privacy and security concerns – many assistive technologies and apps collect personal data, and it raises concern about their privacy and data security. Children with special abilities also can be at risk for online bullying or exploitation.
 - vii. Sensory overload and distraction - for children with sensory processing disorders, such as those on the autism spectrum, certain digital environments may be overwhelming. Bright lights, loud sounds, or fast-moving visuals can cause sensory overload and anxiety. Technologies, particularly those with interactive or gaming elements, can become a source of distraction rather than an educational tool. Children with attention disorders may become overly fixated on games or apps which can detract from their learning.

- viii. Emotional and social challenges - technology can facilitate connections, contributing to social isolation if children spend more time using devices than interacting or playing with their friends. It also can lead to frustration in these children if they face technical difficulties, especially when the device fails to meet their needs.



Picture 2: Using educational technology in special needs education

By addressing these challenges, it can help to maximize children's special abilities with the new technology. It also helps the community to create an inclusive environment where all children can thrive and achieve their full potential no matter if they are normal or have special abilities.

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