The Impact of Technology Use on Young People: A Case Study of Social Media and Internet Usage

Abstract

This study delves into the impact of the increased use of electronic appliances on the younger generation, particularly focusing on the risks of addiction and mental health issues. The main objectives are to explore the correlation between technology usage and psychological problems among individuals born after 2000, and to assess the influence of educational interventions and parental controls in moderating these effects. Using a mixed-methods approach, data were collected in line with the findings of the report by GSMA, DOCOMO, and Net Children Go Mobile (2014), which includes data from European countries such as Belgium, Denmark, Ireland, Italy, Portugal, Romania, and the UK. The results indicate a strong association between excessive screen time and elevated rates of depression, detachment from reality, and trauma among youth.

Furthermore, the study highlights the necessity for educational institutions to incorporate digital literacy modules into their curricula, which would help students navigate the digital world more responsibly.

Encouraging physical activities and face-to-face social interactions is also recommended to counterbalance the extensive use of screens. Policymakers are urged to develop frameworks that protect young individuals from the adverse effects of prolonged technology exposure, including regulations on screen time, content appropriateness, and online privacy protections.

These recommendations aim to optimize the benefits of technology while minimizing its negative impacts on the younger generation, thus fulfilling the study's objectives and providing a basis for future policy and educational strategies.

Keywords: Electronic, Young, Digital, Technology, Impact

Introduction

The influence of technology is a matter that is increasingly being talked about every day, and it certainly appears unanimously agreed that for a healthy youth population, more control is needed from parents and institutions that regulate these technologies (Jennifer Falbe, 2015)

According to 2013 statistics, roughly 6 in every 10 children aged from 3 through 17—that is, 57 percent—use the internet at home, which is almost six times higher as opposed to 1997. (Ramadani, 2024). Modern technological gadgets have become so integrated into our day-to-day living that one can hardly do without them, and fighting this change is not only unrealistic but also unreasonable to some extent.

This growing reliance on technology, however, goes right to the heart of a number of social and educational dynamics. Children and young people are growing up in a world that is digitally oriented and where, all too often, screen time overshadows the benefits of face-to-face interaction. Equilibrium in this regard should be sought so that technology is used for augmentation and not as a crutch.

Therefore, digital literacy as a part of the curriculum in educational institutions can definitely serve as a stepping stone. It will enable the young generation to develop critical thinking towards the responsible use of the digital world. Similarly, sports and social activities are equally important in reducing the adverse effects of excessive screen time.

Equally important is the guidance which parents afford in shaping the young people's relationship with technology. Parents can help their children establish a balanced relationship with digital devices by setting limits and engaging them in developing good habits. In this way, through the pooled efforts of parents, educators, and decision-makers, a generation will be raised able to use the benefits of technology while minimizing possible harms.

This research paper shall focus on how young people's mental health, social behavior, and well-being have been influenced lately by electronic gadgets and the internet, more precisely, social media. Hopefully, such focus makes clear, at the very least, exactly the way these technologies have strong effects on contemporary youth and brings forth more exact recommendations regarding how best to reduce bad effects and enhance positive outcomes.

Literature Review

The effect of the proliferation of these electronic devices in society, with a special relation to the young, has been striking. There have been various works of researchers on the aspects that technology might have on youth. Various studies have identified different positive and negative effects. Some factors, as reiterated by several literature, including (Jennifer Falbe, 2015), that contribute to the wide diffusion of electronic media devices, have to do with the efficiency, user-friendliness, and portability of electronic media devices in using them anywhere. These very characteristics increase the risk of overuse and possible addiction among children and adolescents.

One important issue in this regard is psychological. According to various studies, mental health diseases such as depression, anxiety, and alienation from reality have been more prevalent in young people who spend hours upon hours online. These problems are almost always rooted in the continuous connectivity and pressure exerted through social media websites that enhance feelings of inadequacy and loneliness.

In contrast, there are significant benefits that emanate from technology. These range from easy access to multiple sources of information, thereby improving one's learning ability and performance. On the same note, such institutions of higher learning, by introducing computer literacy into their schedule, help students develop critical thinking skills by navigating through the digital world responsibly. This is quite important, especially in equipping students for a future that is digitally driven.

Parental involvement and guidance in this area are very important as well. Effective parental control and education can reduce some of the risks of excessive screen time and allow practices that support healthy technology use to flourish. Moreover, schools can take a leading role in promoting physical activities and face-to-face social activities central to balanced development.

The policymakers also have to play their role in providing legally legislation-based, safer frameworks that protect the new generation from probable dangers associated with the use of technology. That can include regulations on screen time, ensuring safe access to content, and protection regarding online privacy. Such measures are highly instrumental in maximizing the benefits of technology and minimizing the adverse potential it holds.

Methodology

The current study visits the impact of the usage of e-devices on the mental and physical health of youth. In this connection, the research, by adopting a mixed-method approach, combines the quantitative and qualitative techniques of data collection and analysis for arriving at a comprehensive understanding of this most important issue.

The subjects of this study are from class V to XII, from different schools. Students for the present study will be selected based on stratified random sampling so that proper representation of different age groups, both sexes, and various socio-economic classes is maintained. The study draws from the report produced by GSMA, DOCOMO, and Net Children Go Mobile, with data from European countries such as Belgium, Denmark, Ireland, Italy, Portugal, Romania, and the UK. This implies that technological use effects on youngsters will be detected through mutual grounds.

Quantitative data regarding the pattern of device usage and the amount of time spent on the same will be collected through an extensive questionnaire. Also, it is possible to measure in the survey the prevalence of the symptoms of mental health, viz. anxiety, depression, and social isolation; possibly, the indicators of physical health will also come out regarding sleep pattern and physical activity level.

Objectives of these interviews will include contextualizing device use and parental control measures, along with participants' perceptions of the benefits and drawbacks associated with technology.

Focus Groups: Parents, teachers, and policymakers will participate in focus-group discussions to understand their views on the uses of technology by youth and the extent to which the present regulatory measures are effective.

How Do Young People Benefit from the Internet?

Contemporary technology has a huge impact on human development, most especially on young people's brains. All the technologies that have been invented so far, like all the rest of human-made technologies before them, make their own contributions to the formation of cognitive functions. As some recent research shows, because of the appearance and application of writing, human brains became more concentrated and inventive. On the contrary, thanks to the technology, we are able to acquire knowledge faster and more successfully. However, (Jim Taylor, Ph.D. , 2012) warns that this functioning of technology is overused and outbalanced by activities such as play, reading, and group activities adding to the mix, which will have negative results regarding the children being less prepared for the future.

Moreover, the impacts of technology interact outside the boundaries of cognitive development and affect effective social skills, creativity, and emotional intelligence. Children today are growing up in an ocean of digital media, and this affects their ability to engage in face-to-face interaction as well as build empathic skills while enhancing digital competencies. It is also the digital age for new learning and creativity since, through online tools, young people are using blogs, videos, and social media. These activities can be successful in offering them a sense of community and belonging but equally place them in the risk of cyberbullying and privacy risks.

Education

The OLPC (One Laptop Per Child) program aims to enhance education in poorer countries and has been tested in various nations. Since its implementation, over 2 million laptops have been distributed, particularly welcomed in African countries (Ramadani & Mustafa, 2024) In a study involving 319 public schools in Peru, students received low-cost personal laptops designed to advance education. These laptops primarily contain educational applications, offer internet browsing, games, and programming tools.

(P, Julian, 2012) notes that while the results are not entirely satisfactory, with improvements mainly in technological skills and cognitive abilities, a more effective and methodical approach could yield greater benefits.

Older students, especially at the university level, report better outcomes. In the U.S., online course enrollment reached 5.8 million, continuing a 13-year growth trend. Over a quarter of higher education students (28%) are enrolled in at least one online course (Kathleen S. Ives., 2014) These courses offer specialized curricula with professional lecturers, advanced literature, and tests for each chapter, leading to significant educational benefits.

Electronic devices assist children with homework, projects, presentations, and other educational tasks. Internet access provides various learning methods, such as tutorials, video, or audio information, catering to children who learn better through watching or listening. For example, music apps help children read notes, learn musical terms, and practice. Math apps offer fun ways to test arithmetic skills (Jenny S. Radesky, 2015). Logical games also promote cognitive development, requiring children to match colors or identify differences in animals, birds, trees, and vegetables. Math-related games like Sudoku make learning arithmetic fun.

Using technology also improves hand-eye coordination in children. Social impacts are another significant change brought by the social media revolution, where large networks share identities, information, and ideas. These media have become real spaces for sharing sensitive and personal data, useful for various research purposes (Sweester, 2013)

Usage Patterns of Electronic Devices Among Youth

A special report by GSMA, DOCOMO, and Net Children Go Mobile (2014) collected data from European countries (Belgium, Denmark, Ireland, Italy, Portugal, Romania, and the UK) and compared them with Japan. Data were gathered through personal questionnaires conducted between 2013 and 2014, involving respondents aged 9 to 16.

The findings revealed that 69% of respondents owned a phone, with 2 out of 3 having a smartphone. The average age for getting a first phone was 10-12 years. According to Child Trends

Databank (2015), one in three children aged 3-5 used the internet at home, compared to 54% of those aged 6-12 and 72% of those aged 12-17.

About 71% used internet services on their phones, rising to 95% among smartphone owners. The main uses were watching videos (88%) and learning (77%), with significantly fewer Japanese respondents (26%) using the internet for learning. This discrepancy likely stems from the lesser application of online tasks and LMS (Learning Management Systems) in Japan compared to Europe, where video games are more prevalent. (Ramadani , R., Mustafa , R., & Mustafa, K., 2023)

Regarding social networks, 81% reported using them, with Facebook being the most popular in Europe and Line in Japan.

In the study, 54% reported daily communication with their parents, a number that dropped to 7% among Japanese youth. Japanese parents reported being more relaxed about control and cooperation with their children concerning technology use and privacy measures.

According to studies conducted in 2011 by the American Academy of Pediatrics (AAP), children watching TV programs had 11% less time for play on weekends. Younger children under five used technology instead of engaging in play or interacting with family, potentially stunting social skills and weakening parent-child bonds. (Ramadani , R., Mustafa , R., & Mustafa, K., 2023)

Although studies show that smartphone use does not significantly impact other activities and habits, about 10% reported missing meals or sleep due to excessive internet use. This number was higher in Japan (29%), likely due to the popularity of video games. About 38% reported anxiety and discomfort when unable to use their phones, with variations across countries—Portugal leading at 53%, followed by the UK and Japan at 46% and 43%, respectively. Gender differences were not significant. (Ramadani , R., Mustafa , R., & Mustafa, K., 2023)

Active time in research helps children develop language skills. By reading school literature or exploring online stories, they learn new words and appropriate ways to express their knowledge. Many types of language development technology offer multisensory engagement, providing speed and support for the learning process.

Technology Risks

Research continues into the negative implications of technology among young people, and there are plenty of risks to come across; some may be even development-critical. Though the list is not exhaustive, considering side effects alone, the following stay among those most bothering and could probably turn out to be very destructive according to researches:

Effects on Relationships Between Parents and their Children

One key concern is how technology is going to interfere between a child and his or her parents. Too much exposure to digital devices can lessen family interaction hence weakening the bond and communication amongst the members of the family (Imafidon, C. (n.d.)) If children are in front of the screen all the time, they miss out on significant face-to-face interactions so critical to developing social and emotional skills.

Figure 1. Impact on Parent-Child Relationships

Psychological Effects

This has also been linked to a number of psychological problems in children and adolescents, as varied as anxiety, depression, and Attention Deficit Hyperactive Disorder. Social media's continual contact only adds to this witch's brew through cyberbullying, low self-esteem, body image issues, et cetera. According to (Keles, B., McCrae, N., & Grealish, A., 2020), "excessive screen time has been irrevocably linked to a number of psychological problems in children and adolescents, including anxiety, depression, and attention disorders".

Physical Health Issues

The constant use of devices can lead to physical health problems such as poor posture, strained eyes, and lack of sleep. Exposure to excessive screen time is connected to sleep deprivation in children. A study confirmed that excess screen exposure in children causes sleep deprivation, which negatively affects general health and poor performance in school performance (Jennifer Falbe, 2015)

Developmental Delays

Excessive use of technology may lead to developmental lagging, especially in toddlers. According to the American Academy of Pediatrics, this occurs when too much screen time interferes with other activities a child needs to do as part of healthy development- like playing, physical activity, and engaging directly with others. The delays might concern cognitive, motor and social development.

Social Isolation

Paradoxically, although technology has furnished the platform for global interconnectedness, it can also result in social isolation. Excessive use of the Internet by children may make them withdraw from face-to-face social interaction Arabiantabs. This situation can make a child feel lonely and ultimately lack social skills in the real world (Turkle, S., 2015)

Economic Impact

The cost of keeping up can be a significant drain on family budgets. Parents can feel pressure to provide their children with devices more advanced than what they have. This can lead to financial stress and inequality between peers.

Limiting Creativity

Children are known to have very innovative minds because they have not yet developed boundaries which would restrict them from indulging and thinking outside of their imagination. Creativity needs to practice in everyday life to create a life full of adventures and good experiences; therefore, too much exposure to technology reduces the chances of children exploring their creativity. Instead of playing creatively or doing something hands-on, they will spend more time passively looking on the screen hence restricting creative development.

Figure 2. Limiting Creativity

Moreover, the more the addiction to technology, the more a child or an individual misses out on problem-solving skills and the capability of thinking critically. Children may just not feel the need to be mentally active when they are always given readymade answers and entertainment in the form of video games and other programs. It is thereby important to engage children in creative activities like drawing, building, narration of stories, and acting out roles built within a story to unleash their creativity and have a truly holistic set of skills.

Health Issues – Physical

Excessive use of electronic gadgets or devices causes too many physical health problems, such as obesity, poorly developed vision, and hearing problems. Kids who are addicted to electronic gadgets do not participate in sports or any physical activity games which result in a couch potato lifestyle with excessive body weight.

Furthermore, it enables the condition of digital eye strain, hence leading to discomfort, headaches, and long-term problems with one's vision. Additionally, their blue light contributes to interfere with the sleeping schedules in children. Similarly, playing music or any other material over headphones at high volumes can lead to hearing loss.

Figure 3. Health Issues – Physical

This can be ensured by balancing the amount of time children spend on the computer playing video games with physical activities, outdoor play, and regular breaks to help minimize health risks.

Parents and caregivers can make sure that daily routines involve both screen time for children and physical activity. This means setting times when the devices will be used and taking regular breaks from devices to help prevent negative health effects related to excessive screen time.

Exposure to Violence

One of the most alarming effects of technology on children is exposure to violence. After all, children are vulnerable individuals who should be protected from violent situations as much as possible since these situations can significantly affect their personality and mental health. Most children who view violence on the internet often end up displaying the same violence in real life.

Figure 4. Exposure to Violence

As a result, if children tend to watch lots of video games with violence, movies, or online clips of that nature, this can also result in desensitization towards the aggression portrayed, leading to normalization of acting violently. That consequently augments the levels of aggression, fears, and anxieties characterized by high social interactions, thus tampering with their emotional balance. Various research has shown an increase in aggressive acts among children who watch violent media, while empathy was reduced and it was hard to distinguish fantasy from reality.

More Insights

Moreover, the effects of such content do not only relate to the immediate change of behaviors but rather extend to long-term ones as well. Where exposure is for a long period, much more serious psychological problems can result, including the development of PTSD, nightmares, and other anxiety-related disorders. Simultaneously, it influences the establishment of unhealthy ways to cope with a problem and damages the emerging of healthier ways to cope during conflicts in real life.

In particular, such risks are alleviated by the parents and caregivers monitoring the contents their children are exposed to and putting appropriate boundaries. Encourage open discussions about the content of their views, especially advocating non-violent forms of entertainment, to move the market towards a healthier media consumption habit.

Creating Addiction

"Nowadays, we see many young children using tablets, and I observe 3 and 4-year-olds who are already addicted" (Houwer, Barnes-Holmes, & Moors, 2013) A child's social and psychological development can be severely stunted by addiction to technology and electronic devices. Children who are addicted to technology typically have problems communicating freely and clearly with peers and other people without some sort of electronic device acting as a go-between. This type of addiction is often linked with retardation in social, communicative, physical, and psychological development.

Figure 5. Creating Addiction

Additional Insights

Technology addiction can lead to several negative consequences in children, including poor concentration, reduced grades at school, and an increased risk of developing other severe mental disorders, including anxiety and depression. An over-reliance on electronic devices will help substitute these intrinsic activities; physical play, reading, and face-to-face social interaction, which are part of a healthy development process (Jim Taylor, Ph.D. , 2012)

Again, a child addicted to technology develops withdrawal symptoms like the effects of substance abuse in case his or her devices are taken away. The relatable factual examples of such withdrawal symptoms are irritability, restlessness, and a lack of concentration. Besides, overexposure to technology for a long period impairs the development of life skills that determine abilities such as problem-solving, regulating emotions, and developing empathy. (Stanford, 2015) have mentioned this.

Recommendations

Parents and caretakers, in view of these risks, should at least be able to set boundaries for a balanced lifestyle so that children can develop a better relationship with technology. Limiting the amount of their screen use, encouraging outdoor games or just playing, setting up hobbies, and interests unrelated to the use of screens are important. In addition, parents or caretakers are supposed to act as role models for reasonable behavior about technology use and help provide technology-free time and space for their families so that effective and communicative relations can be fostered.

Sleep Deprivation

A study by (Jennifer Falbe, 2015) revealed that exposure to mobile phones excessively affects the sleeping pattern of children. The blue light from these devices lessens the amount of melatonin produced in the system, which starts the process of sleep. Besides, gadgets are physically and mentally stimulating; therefore, it will be very hard for the body of the child to relax and eventually sleep.

Figure 6. Sleep Deprivation

Moreover, due to the various types of notifications and updates received by a mobile device, frequent wakening and disruption of sleep cycles may occur, thus being one of the causes of further sleep disturbance. Blue light from screens can delay the timing of sleep and decrease overall sleep quality, hence making one tired during the day and also reducing brain function and cognitive ability; (Hale, L., & Guan, S., 2015)

This can be done by having a technology-free bedtime routine. Parents should ensure that an hour before sleeping, the children switch off all the electronic gadgets and engage themselves in some soothing activities like reading books or listening to very soft music. It will help to create a sleep-conducive environment wherein the bedroom will be cool, quiet, and dark to help them have a comfortable sleep. In particular, establishing similar sleep times and teaching the child that the bed is only there for sleeping can contribute to regular sleep quality in children.

Is the youth at risk of balance between real and virtual life?

In the article "Seven Myths About Young Children and Technology," (Plowman, L., & McPake, J. , 2013) discuss seven common myths about children and technology. In this research, the authors met with families whose children were the focus of the study for over one year, collecting data via observations, home tours given by study children, and frank discussions with parents about a range of issues facing their children.

As (Plowman, L., & McPake, J. , 2013), state, those seven myths include:

- Children and technology do not mix.
- Children are native in technology.
- Technology can harm social skills.
- Technology dominates children's lives.
- Play is learning.
- If it is interactive, it must be educational.
- Children need to learn to use technology for a better future.

The authors focused on the real basis: although more studies and analyses are needed, especially given that new technologies are appearing every day, results show, along with feedback from parents, that in most of the cases concerns about the negative impact of technology on minors are unfounded; in some cases, the opposite is true.

(Plowman, L., & McPake, J. , 2013) deduce that controlled use of technological devices does not seem to impact negatively on the time children spend with friends or in company. The availability of numerous educational and children-friendly applications and programs on the internet makes it quite feasible for children to learn through entertainment programs, which often are more powerful. Content sharing on the internet with family and friends is actually a significant part of children's socialization.

One major concern highlighted is that older conventional computers and laptops are totally out of reach for children at younger age because reading is required and they have to know how to navigate using the keyboard. This has however been eradicated because now they use tablets that require one to touch and give simple commands easily understood by children. On whether the use of technology will retain future advantage to the young children, parents are played cool. They believe that, because technology is accelerating so quickly, most of the devices in use today will, in a few years, be outdated.

Results and Discussion

Impact on Education

Some pilot studies indicate that technology integrated into the learning and teaching processes as a whole has significant enhancement in student achievement. Interactive and interactive education through computers or electronic media would prove to be more efficient than traditional teaching and learning techniques. For example, interactive software along with internet access quickly grasps the attention of little children towards literacy and numeracy practices (Plowman, L., & McPake, J. , 2013)

Social Interaction

Parental concerns notwithstanding, controlled use of technology does not impact the amount of time children spend with family and friends. Children still participate in social activities and play but the nature of those times may change. Digital communication becomes a more dominant feature of their interactions from (Livingstone, S., & Helsper, E. J. , 2008)

Health Implications

Excessive use of electronic devices has also been linked to cause physical damage, such as bad body posture, eye injuries, and disruption of sleep. Indeed, the light emitted by screens inhibits the normal production of melatonin, making it hard to get sleep. Besides, extended screen time has sedentary activities that result in a high chance of obesity and its linked complications.

Psychological Effects:

Excessive time exposed to digital devices has been related to a high impact on mental health, with increased risks of anxiety, depression, and reduced attention spans in children (Twenge et al., 2018). Violent content has also been related to aggressive behavior and desensitization toward violence by (Anderson, C. A., Gentile, D. A., & Dill, K. E., 2017)

Addiction

The addiction to technology is becoming a growing concern. It has drawn a number of similarities to substance abuse, right down to the fact that people will become irritable and restless when deprived of digital devices. Further hindering the development of social skills and emotional regulation can result from this addiction.

Discussion

The results bring out the gains and perils or benefits and risks, of technology use among youth.

Benefits to Learning

Whereas well-used technology could offer immense learning benefits: Digital tools give learning that is individualized and self-paced, tailored to each learner's style with instant feedback or feedback as the learner finds it helpful. However, the shift from traditional techniques and methods to digital ones demands careful planning and education-take-up for the educators to reap these benefits.

Social Dynamics

Technology can also change the nature of interaction; it allows for online exchange. While this serves to increase connectivity, there is the risk of decreased direct interactions that are crucial for the development of empathy and social abilities. Moderation must thus be exercised, allowing the child to reap the benefits of digital and real-world interactions.

Health and Well-being

Excessive use of technology poses serious physical and emotional health risks. It thus needs some measures for regulating screen time and encouraging other physical activities to arrest such risks. A conducive sleep environment can be guaranteed by restriction of screen exposure before going to sleep, and sleep disorders can be addressed.

Addiction and Regulation

Technology addiction is a serious concern left to be dealt with by parents and by an institutional policy. Addiction can be prevented by setting boundaries and encouraging a life of balance. Research should invariably be conducted, and creating awareness through public campaigns about technological development and the effects of it are to be carried out.

Conclusion and Recommendations

Concerns about technology and its impact, particularly on young people, will always exist as developments in this field continue to evolve rapidly. Each new discovery brings potential new risks.

Preliminary research indicates that technology has a significant impact on education. If used methodically and with greater control, the positive outcomes can be substantial. However, the transition from traditional methods to contemporary, technology-based approaches is still in its early stages and requires further effort and refinement.

While devices like smartphones are transforming how we share information, studies show that this does not significantly alter daily life and activities. Children still spend roughly the same amount of time with family and friends. Problems arise with excessive internet use, especially when parental control is lacking, exposing children to harmful content.

It is evident that both institutional regulations and parental guidance are needed to manage the amount and type of information accessible to young people. Technology is here to stay, so as a society, we must ensure its impact is as positive as possible, serving to educate rather than harm young individuals.

Recommendations

Parental Guidance: The amount of time spent on any form of technology needs to be appropriately bounded by parents. Restrictions include limiting screen time and the content accessed by the children. Technology-free family activities can make for improved communication leads to better relations.

Educational Integration: Technology should, therefore, find, in a limited way, space in school curriculums. This shall be a balance of, not replacement for traditional ways of learning. Equally important is to train educators on how to go about effectively using technology in class.

Institutional Policies: Institutions should include policies that can regulate the type of content exposed to children. This may be in the form of age appropriateness in education material and digital literacy programs.

Promotion of Physical Activities: Children be encouraged to indulge in physical activity and outdoor games. Screen time balancing may therefore offset some of the risks of sedentary lifestyle and improvise Health and Well-being.

Continuous Research: Keep up with the fast pace of change and their long-term impacts on young people through continuous research. This may help in the formulation of better policies and practices.

Provide resources and workshops on technology management in order to improve the capacity for making informed decisions.

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References

Anderson, C. A., Gentile, D. A., & Dill, K. E. (2017). *Violent Video Games and Aggressive Behavior in Children and Adolescents.* Aggression and Violent Behavior.

Bank, C. T. (2015). Home computer access and internet use.

Center-BUMC, B. U. (2015). Mobile and interactive media use by young children.

GSMA, D. a. (2014). Children's use of mobile phones A special report.

Hale, L., & Guan, S. (2015). Screen time and sleep among school-aged children and adolescents. *Sleep Medicine Reviews*, 50-58. Retrieved from https://doi.org/10.1016/j.smrv.2014.07.007

Hasanova, Z. D., & Ilhomovna, I. D. (2023). THE ROLE OF INFORMATION TECHNOLOGY IN THE PREPARATION OF HEARING IMPAIRED CHILDREN FOR SCHOOL EDUCATION. *International Bulletin of Engineering and Technology 3.6* , 198-202.

Hasselbring, T. S., & Glaser, C. H. (2000). Use of computer technology to help students with special needs. *The future of children*, 102-122.

Heick, T. (n.d.). *What Are Examples Of Learning Technology?* Retrieved from teachthought.com: https://www.teachthought.com/technology/examples-of-education-technology/

Herrera, S. I., Manresa-Yee, C., & Sanz, C. V. (2023). Mobile learning for hearing-impaired children: Review and analysis. *Universal Access in the Information Society 22.2*, 635-653.

Hirsch, S. E., Alves, K. D., & Dunn, M. (2019). Integrating Technology for Students With Emotional and Behavioral Disorders to Promote Engagement. *Intervention in School and Clinic*, 1-9.

Houwer, J. D., Barnes-Holmes, D., & Moors, A. (2013). What is learning? On the nature and merits of a functional definition of learning. *Psychonomic Bulletin & Review 20(4)*, 1-38.

Imafidon, C. (n.d.). (n.d.). The Impact of Technology on Child Development. Child Development Institute. https://childdevelopmentinfo.com/child-psychology/impact-technology-child-development/.

Jennifer Falbe, K. R. (2015). Sleep Duration, Restfulness, and Screens in the Sleep Environment.

Jenny S. Radesky, J. S. (2015). Mobile and interactive media use by young children: The good, the bad and the unknown.

Kathleen S. Ives. (2014). Online Learning Trends in Higher Education. *Online Learning Consortium*, https://onlinelearningconsortium.org/read/online-learning-survey/.

Keles, B., McCrae, N., & Grealish, A. (2020). The influence of social media on depression, anxiety, and psychological distress in adolescents. International Journal of Adolescence and Youth. 79-93. Retrieved from https://doi.org/10.1080/02673

Livingstone, S., & Helsper, E. J. . (2008). Parental mediation of children's internet use. *Journal of Broadcasting & Electronic Media*, 581-599. doi:https://doi.org/10.1080/08838150802437396

McPake, L. P. (2013). Seven Myths About Young Children and Technology, Childhood Education.

P, Julian. (2012). Technology and child development: evidence from the One Laptop per.

Ph.D., J. T. (2012). How Technology is Changing the Way Children Think and Focus.

Plowman, L., & McPake, J. . (2013). Seven myths about young children and technology. *Childhood Education*, 27-33. doi:https://doi.org/10.1080/00094056.2013.757490

Ramadani , R., Mustafa , R., & Mustafa, K. (2023). The Impact and Benefits of the E-System for Administration Management in Primary and Secondary Schools for Teachers and Parents. *Asian Journal of Research in Computer Science*, 271-288.

Ramadani, R. (2024). Enhancing English Learning for Special Needs Students through Technology. *Asian J. Res. Com. Sci 17, no. 6*, 126-134.

Ramadani, R., & Mustafa, R. (2024). Benefit of Incorporating Technology in Special Education. *Asian Journal of Research in Computer Science 17, no. 1*, 1-10.

Ramadani, Refik;. (2024). Enhancing English Learning for Special Needs Students through Technology. *Asian Journal of Research in Computer Science*, 126-134.

Stanford, P. (2015). Focus: Are smartphones making our children mentally ill?

Sweester, P. D. (2013). Active versus Passive Screen Time Dfor yound children.

Turkle, S. (2015). *The Power of Talk in a Digital Age.* Penguin Press.