



# Effects of Technology and Social Media on Childhood and Adolescent Social Development

Emma Huang



## Abstract

One of the most prominent conflicts in the 21st Century is the increase in usage of the Internet and AI and how they should be integrated into society. These forms of entertainment and assistance have become increasingly accessible to the general people, including still-developing children and adolescents in primary and secondary education. As these forms of technology have evolved and strengthened, school systems have adjusted to fit them into the curriculum, often at the cost of education. Particularly in elementary schools throughout the United States, teaching has come to be assisted by mediums that can lead to a shorter attention span. As students continue to develop and learn, their lack of ability to reason discourages reading, leading to a decrease in literacy rates. Not only that, but with growing technology comes increased social media usage as well. While technology in general has beneficial aspects in school, social media can be disruptive to learning environments and lead to cyberbullying. The relationships between these factors demonstrate the path of deterioration of education and society, and urge for further analysis and research.

## Introduction

Society's relationship has fluctuated significantly throughout the decades. With the rise of technologies such as artificial intelligence (AI) and social media, children and adolescents still in vital stages of learning and development are exposed to shortcuts and other information that is sold to them as "helpful." However, in reality, it is impairing their ability to analyze and respond to adversities that come their way, whether it be digital or physical, intellectual or emotional.

The problem arises when children are still young, in their first few years of elementary school. Traditional forms of learning such as workbooks and student-teacher conversations have been either replaced with or largely taken over by short videos and online games, which claim to be educational but, frankly, are purely entertainment. For example, these didactic media have infiltrated the lives of children to the point where many of them are addicted to screens. Additionally, their attention spans are adapted to these 30-second to 6-minute intervals, which is usually how long the video or game lasts (Duan et al. 2022). Over time, they lose the ability to concentrate on a task, discouraging them from doing things as simple as playing outside to more novel activities, such as reading or writing.

With the decrease in reading comes an inability to feel for others. When failing to relate and sympathize with characters, the ability to do so with real people closes in on itself as well. In today's society, interacting with each other face-to-face has become less pertinent than with previous generations, with much of our communication being done online. In comment sections on almost any post, it is easy to find brutal, often unnecessary remarks and quips. The self-perceived need for basic empathy has drastically declined, resulting indirectly in a relationship with the decline in literacy.

Additionally, because of this lack of ability to process information, many students have turned to assistive technology such as artificial intelligence engines. Not only are they often unaware of or apathetic to the ethical ramifications, but the ability to analyze and process information can decrease as well. The overwhelming use of AI can then be traced back to primary education, where students were taught with the aforementioned methods, and suffer from said consequences. Furthermore, the rise of technology comes with more digital forms of entertainment as well, such as social media. Children and teens still in vital stages of development are using screens all day, and are exposed to radical or even inane content and comments from opposing ends of all spectrums, which they then believe is acceptable for them to post as well. Not only does this result in an uncivilized community within the platform, but higher screen time can also lead to cyberbullying or more severe forms of hatred, according to ScienceDirect. However, there are positive aspects to technology in schools as well. Particularly during COVID and after, technology has been essential in many schools, making material more accessible and adaptable.

As such, I argue that the social media aspect of technology has a negative relationship with how children and adolescents develop emotionally, while educational technology can help foster learning. Additionally, higher usage of social media can lead to cyberbullying, hindering emotional growth. This leads me to my question: What influence does technology and social media have on the social development of children and adolescents? Additionally, how does higher usage of technology and social media lead to cyberbullying, and how does that stunt emotional growth? Throughout this paper, different sources will be analyzed and examined to determine the general effect that technology has on emotional and social development in children and adolescents, how it affects our daily lives, and what we can do to further explore this subject.

## Literature Review

### *Socialization in Minors*

Technology's impact on socialization has been one of the leading causes of the decrease in face-to-face human interaction. In a study conducted by Gokel, the relationship between smartphone addiction (SA), insomnia, and social skills among youth were examined, and it was hypothesized that SA is positively correlated with insomnia and negatively correlated with social skills (Gokel 2025). He utilizes a cross-sectional or descriptive correlation study and measures the aforementioned variables, assessing social skills and social anxiety. The results of the study confirm the hypothesis, demonstrating the

detrimental effects that technology has on several aspects of social health among students. As technology usage increases, these problems will become more prominent, and will only spread to more of the population. If an increasing number of students are deprived of in-person interactions, they struggle with developing social skills that are essential to proper development of the brain, stunting learning.

Additionally, in a study conducted by Deeba and colleagues, it was found that children who spend four or more hours online often exhibit aggressive behavior towards their peers (Deeba et al. 2020). They used a descriptive and correlational research design and conducted a self-structured questionnaire, using the Statistical Package for Social Sciences (SPSS). The conclusions demonstrated that as gadget use increased, children interact less. While they do sometimes do so virtually, it has mainly led to limited indoor activities and less active community engagement, and almost always aggressive behavior when interacting with technology is interrupted. These hostile habits interfere with children's ability to act in a socially acceptable manner, which can lead to trouble making friends and will stunt emotional growth.

#### *Technology in Schools*

The introduction of technology into classrooms has been a revolutionary part of the 21st Century, but not entirely beneficial. In a paper by Strom, she discusses the many shortcomings of technology in educational environments, and its negative effects on both teachers and students (Strom 2021). Without the proper training, educators cannot properly integrate these tools into education without impairing some aspect of the children's learning curve. The goal of the paper was to find a correlation between technology use and negative impacts on students and educators. In Strom's analyses of other papers, she identifies a clear link between adverse mental health effects and student technology usage, arguing that there is an urgent need for policy changes to establish limits on screen time. For example, educators and parents should firstly educate themselves on the detrimental effects of too much technology. Technology should not be administered to young students as something to distract and entertain them, but rather to help them learn and absorb information.

The increased usage of technology among students also leads to quicker access to social media, skyrocketing the rates of cyberbullying incidents. A paper by Bauman and colleagues suggests that the increase of technology is directly correlated to increased cyberbullying (Bauman et al. 2013). Results concluded that cyberbullying specifically targets individuals who already suffer from low self-esteem and possibly even depression, which can lead to suicide, particularly among female students. Female students mainly face hurtful comments and rumors, while male students face threats of physical harm (Vogels 2022). While some may argue that the simplest solution is to simply switch the screen off, these problems are unavoidable when they are coming from a classmate, and when technology is more permissible in today's education, the hatred can come even in a learning environment. Not only will the victim's education be jeopardized, but they could face serious mental health issues down the road, negatively impacting the way their brain develops and responds to social adversities.

#### *The Effect of Technology*

Emotional intelligence is crucial in a well-functioning society. In a study conducted by Piccerillo and Digennaro, the relationship between emotional intelligence and screen time is measured through 1109 students from Italian lower secondary schools (Digennaro and Piccerillo 2024). The researchers sent out Trait Emotional Intelligence Questionnaires – Child (TEIQue-CSF), which they then assessed using a standardized scale to measure compulsive and excessive use patterns. It was concluded that there was significant negative correlation between emotional intelligence and problematic social media use, suggesting that adolescents with higher EI would have less issues with social media usage, while those with higher social media usage would have lower EI. Arguably, this study emphasizes the negative effect of social media on young adults still in crucial stages of development, which can not only stunt emotional growth but impact ability to socialize and interact with others as well. However, because this study was conducted in Italy, it cannot be generalized to the United States, much less the rest of the world, as education systems and social habits are different across the globe. Nonetheless, the general idea that social media tends to have a negative impact on emotional intelligence still stands.

Additionally, higher usage of technology at a young age can lead to social isolation. In a study conducted by Fitzpatrick and colleagues, it was found that for every additional hour of television in children, there was a 7% decrease in classroom engagement (Fitzpatrick et al. 2010). The study began with assembling a group of approximately five-month-old children, who the researchers would check on later in the fourth grade to measure their development. Their teachers were asked to fill out a Social Behavior Questionnaire, measuring to see if the children displayed aggressive behavior, bullied others, or were the victims, as well as classroom engagement. Ultimately, the researchers concluded that the children who had 4 or more hours of screen time per day at age 1 were nearly three times more likely to have trouble with communication later on compared to those with less than one hour of screen time. By studying the correlation between exposure to screens and desire to participate in class, it is evident that there is a negative relationship between the two. Arguably more imminent than potential socialization and emotional regulation issues is the more immediate threat of cyberbullying. In a paper by Englander, she described how more than 24% of adolescents reported a prevalence of victimization over a lifetime, while 41% reported being cyberbullied in their four years of high school (Englander 2019) (Ybarra et al. 2009).

Additionally, Englander adds that 40% of children reported having cell phones by third grade, 50% in fourth, and 60% in fifth grade (Englander 2019). The percentage compared to that of four years ago had risen by over ten percent, demonstrating not only a dramatic increase but, combined with Fitzpatrick's study, could contribute to the falling rates of concentration and participation in elementary school classes. Englander concludes that there is a need for further research and to push for more technological training. The studies she pulled from were averaged with worldwide data, making almost all of it applicable to children and adolescents globally.

## **Analysis**

### **Case Study: Private vs. Public Schools**

To further explore the relationship in how social media and technology affect students' development, the difference in how different types of schools handle technology must be acknowledged as well. Public and private schools have different stances on how to educate children, as well as different resources and demographics. To fully grasp the difference between how technology affects private and public schools, we need to understand the differences in education styles, which fluctuate depending on the funding they receive, their required curriculums, and how they approach technology and social media.

Firstly, the main difference between public and private schools is the source of funding. Public schools are tax funded and based on property taxes, so the resources that certain schools can access depends greatly on the wealth of a certain area. Private schools, however, are funded by tuition, endowments, and donations, and while not all private schools are the same, they typically consist of similar demographics. In a study conducted by Bass, the California Education Technology K-12 Voucher Program was analyzed to examine the impact that technology has on student learning and proficiency (Bass 2021). It was concluded that the schools that received the funds for technology experienced positive impacts on student proficiency. However, the schools that witnessed these impacts stated that it was not the technology that helped, but rather that having the money from the voucher allowed them to allocate it towards other areas of learning. Furthermore, in a study conducted by Selwyn, it was determined that technology does not directly lead to better education (Selwyn 2016). Therefore, it can be concluded that in Bass's research, the reason the schools witnessed an increase in proficiency was not because of technology accessibility, but rather having the money. Thus, because private schools typically receive more money, they are more likely to have higher proficiency levels, not needing the boost from technology.

Additionally, public schools are obligated to follow a state-mandated curriculum, while private schools have more flexibility with what and how they teach. This therefore allows private schools to have more fluctuations in their methods of teaching as well. In statistics reported by the National Education Center for Educational Statistics, it was found that, during COVID, 45% of public schools reported assigning digital devices for at-home learning, compared to 20% of private schools. Linking those

findings to a paper written by Anders and colleagues, which found that the percentage of As given to students during this time rose 30% for private schools as opposed to 20% for public, it is evident that the lack of technology is correlated with, if not directly related to, the rising grades (Anders et al. 2022). More importantly, however, is the difference in the ways technology affects students in private schools as opposed to students in public schools. In an article written by Scott and colleagues, it is stated that approximately 47% of students in public schools report having been a victim of cyberbullying, as opposed to less than 20% of private school students (Scott et al 2022). Not only are private schools less reliant on technology, but because of their independence, their students suffer less.

The effect cyberbullying can have on the process of emotional maturation in developing children and adolescents is severely detrimental. Firstly, when analyzing the difference in technology's presence in different school systems, it is important to note the distinction between educational technology and social media. Educational technology is used in schools and educational environments, and is used to propel learning material. However, social media refers to platforms meant for connecting colloquially. In schools, access to technology is limited or expanded depending on the school district, the surrounding environment, and the state government (for public schools). Some schools require students to pay for their own devices, which raises the issue that many students cannot afford it, thus setting them up at a disadvantage against their peers. Social media is accessed privately in the students' own devices, and is mainly used for entertainment purposes — and is where most cyberbullying takes place. In a study conducted by Adams and colleagues, it was noted that private school students were found to be using social media more than their public school counterparts, and noted increased grade drops (Adams et al. 2016). However, about half of both the private and public school students surveyed believed that with increased screen time came decreased abilities in school, with performance dropping in spelling and reading.

In another study conducted by Al-loughani and colleagues, on private school students, it was discovered that cyberbullying does have a detrimental effect on the well-being of its victims, even when many students claimed they did not believe it to be dangerous (Al-loughani et al. 2022). Through analyzing this study, it is evident that private school students, though unaware of it, can be suffering from cyberbullying and not even realize it. In applying this study to all students, the claim can be made that students who have access to social media may be victims or perpetrators of cyberbullying and not be aware of it, whether they attend public or private school. By analyzing the difference between public and private schools, it is easier to understand why they differ in technology and social media usage, and why some differences, such as the amount of students who have access to technology, exist. The biggest step both schools should take is to improve how technology and social media are approached in schools, and how to ensure that students have equal access to them and are using them safely.

## **Conclusion**

Properly understanding the workings of social media and technology are crucial as advancements in these areas continue to grow. In the introduction, I argued that the social media aspect of technology has a negative relationship with how children and adolescents develop emotionally, and therefore socially and intellectually. Additionally, I argued that higher usage of social media can lead to cyberbullying, hindering emotional growth. Throughout my research, I find that social media is deemed as something that affects students negatively, while educational technology, particularly during COVID, was and is beneficial for both schools and students. As developments continue to change the technological field, it becomes necessary to be able to point out the differences between social media and technology as a whole. While educational technology can help bolster learning, social media in schools generally has a negative effect on students. Not only does it act as an outlet for cyberbullying, which can have detrimental effects on developing children, but it can cause more general problems as well, such as lower grades and less time spent interacting with peers.

Therefore, I find that while technology is often beneficial, social media impacts the social development of children and adolescents negatively. Higher percentages of cyberbullying correlate directly with increased social media usage, between both public and private schools. Most students



report having witnessed or been a victim of cyberbullying, which has become more and more common of a problem as social media becomes more accessible.

Through the studies analyzed, it is evident that education has reached a pivotal point and educators must now learn how to properly handle technology in learning settings. Schools in New York, California, Florida, and Virginia have implemented phone bans where students are not allowed to access their cellular devices unless for medical reasons or emergencies, and countries such as Australia, China, France, and the UK have social media bans in certain schools as well. While completely cutting students off from their phones may not be effective, it demonstrates a step taken towards more supervision over technology. If schools and staff do not implement regulations to help guide the usage of technology and social media schools, more students will fall victim to cyberbullying and loss of interest in education. Therefore, policing these issues is a cardinal need that will greatly affect posterity.

## References

- Al-loughani, S., & Al-Shammari, E. T. (2022). Factors influencing the spread of cyberbullying among adolescents in private schools: Kuwait. *International Journal of Innovation and Learning*, 32(3), 262-282.
- Anders, Jake & Macmillan, L & Sturgis, P & Wyness, G. (2021). Inequalities in young peoples' educational experiences and wellbeing during the Covid-19 pandemic.
- Bass, Brittany. "The Effect of Technology Funding on School-Level Student Proficiency." *Economics of Education Review*, vol. 84, Oct. 2021, p. 102151, <https://doi.org/10.1016/j.econedurev.2021.102151>
- Bass, B. (2021). The effect of technology funding on school-level student proficiency. *Economics of Education Review*, 84, 102151.
- Bauman, Sheri, et al. "Associations among Bullying, Cyberbullying, and Suicide in High School Students." *Journal of Adolescence*, vol. 36, no. 2, Apr. 2013, pp. 341–350, <https://doi.org/10.1016/j.adolescence.2012.12.001>.
- Englander, Elizabeth. "Childhood Access to Technology and Cyberbullying." *Journal of Pediatrics and Pediatric Medicine*, vol. 3, no. 2, 1 Mar. 2019, pp. 1–4, <https://doi.org/10.29245/2578-2940/2019/2.1136>.
- Gokel, Omer. *The Effects of Technology Addiction on Social Skills*. 2025, papers.ssrn.com/sol3/papers.cfm?abstract\_id=5463457, <https://doi.org/10.2139/ssrn.5463457>.
- Holfeld, Brett, and Bonnie J. Leadbeater. "The Nature and Frequency of Cyber Bullying Behaviors and Victimization Experiences in Young Canadian Children." *Canadian Journal of School Psychology*, vol. 30, no. 2, 6 Nov. 2014, pp. 116–135, <https://doi.org/10.1177/0829573514556853>.
- Mashrah, Hind Talal. "The Impact of Adopting and Using Technology by Children." *Journal of Education and Learning (EduLearn)*, vol. 11, no. 1, 1 Feb. 2017, pp. 35–40, [journal.uad.ac.id/index.php/EduLearn/article/view/5588](http://journal.uad.ac.id/index.php/EduLearn/article/view/5588), <https://doi.org/10.11591/edulearn.v11i1.5588>.
- Mingle, Jeffrey & Adams, Musah. (2015). Social Media Network Participation and Academic Performance In Senior High Schools in Ghana. *Library Philosophy and Practice*. 2015.
- Mustafaoğlu, Rüstem, et al. "The Negative Effects of Digital Technology Usage on Children's Development and Health." *Addicta: The Turkish Journal on Addictions*, vol. 5, no. 2, 20 Aug. 2018, pp. 13–21, [www.researchgate.net/profile/Rustem-Mustafaoglu/publication/325263798\\_The\\_Negative\\_Effects\\_of\\_Digital\\_Technology\\_Usage\\_on\\_Children's\\_Development\\_and\\_Health/links/5b027b564585154aeb061acf/The-Negative-Effects-of-Digital-Technology-Usage-on-Childrens-Development-and-Health.pdf](http://www.researchgate.net/profile/Rustem-Mustafaoglu/publication/325263798_The_Negative_Effects_of_Digital_Technology_Usage_on_Children's_Development_and_Health/links/5b027b564585154aeb061acf/The-Negative-Effects-of-Digital-Technology-Usage-on-Childrens-Development-and-Health.pdf), <https://doi.org/10.15805/addicta.2018.5.2.0051>.
- Pagani, Linda S., et al. "Prospective Associations between Early Childhood Television Exposure and Academic, Psychosocial, and Physical Well-Being by Middle Childhood." *Archives of Pediatrics & Adolescent Medicine*, vol. 164, no. 5, 1 May 2010, [jamanetwork.com/journals/jamapediatrics/fullarticle/383160](http://jamanetwork.com/journals/jamapediatrics/fullarticle/383160), <https://doi.org/10.1001/archpediatrics.2010.50>.

Piccerillo, L., & Digennaro, S. (2025). Adolescent social media use and emotional intelligence: a systematic review. *Adolescent Research Review*, 10(2), 201-218.

Qutoshi, S. B., Deeba, F., & Khan, S. (2020). The impact of technological gadgets on the socialization of children at early childhood developmental stage. *Journal of Development and Social Sciences*, 1(3), 55-66.

Selwyn, N. (2016). *Is technology good for education?*. John Wiley & Sons.

Strom, Amanda. "The Negative Effects of Technology for Students and Educators." *Master's Theses & Capstone Projects*, 1 July 2021, [nwcommons.nwciowa.edu/education\\_masters/326/](http://nwcommons.nwciowa.edu/education_masters/326/).

Stuart, J., Scott, R., Smith, C., & Speechley, M. (2022). Parents' anticipated responses to children's cyberbullying experiences; Action, Education and Emotion. *Children and youth services review*, 136, 106398.

Vogels, E. A. (2022). Teens and cyberbullying. *Pew Research Center*, December, 15.

Yaseen, Muhammad. "The Impact of Technological Gadgets on the Socialization of Children at Early Childhood Developmental Stage | Journal of Development and Social Sciences (JDSS)." *Jdss.org.pk*, [jdss.org.pk/article/the-impact-of-technological-gadgets-on-the-socialization-of-children-at-early-childhood-development-stage](http://jdss.org.pk/article/the-impact-of-technological-gadgets-on-the-socialization-of-children-at-early-childhood-development-stage).

"Is Technology Good for Education?" *Google Books*, 2016, [books.google.com/books?hl=en&lr=&id=XLtQDAAAQBAJ&oi=fnd&pg=PT4&dq=does+having+more+tech+equal+better+education&ots=Fp4i4FrgsF&sig=o2EWdotITdNV9HpanbJTrVBAmzM#v=onepage&q=does%20having%20more%20tech%20equal%20better%20education&f=false](https://books.google.com/books?hl=en&lr=&id=XLtQDAAAQBAJ&oi=fnd&pg=PT4&dq=does+having+more+tech+equal+better+education&ots=Fp4i4FrgsF&sig=o2EWdotITdNV9HpanbJTrVBAmzM#v=onepage&q=does%20having%20more%20tech%20equal%20better%20education&f=false). Accessed 10 Jan. 2026.

"Guarda Navigating Emotions and Screens: Emotional Intelligence as the Key to a Balanced Digital Life for Teens." *Inclusiveteaching.it*, 2026, [inclusiveteaching.it/index.php/inclusiveteaching/article/view/135/154](http://inclusiveteaching.it/index.php/inclusiveteaching/article/view/135/154). Accessed 10 Jan. 2026.