

The Tech Exit For Schools

Key Actions to Protect Students from Digital Harms



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Introduction

In this digital age, schools and educators are grappling with how to protect students from the harms of digital technology while still preparing them to use these technologies appropriately as they become adults. As tech companies push screens and AI integration into the classroom, these questions have become all the more pressing. In this memo, we offer the top five most important actions that schools and educators can take to protect children and create a school culture that is ideal for student learning and flourishing.

Five Key Actions for Schools

1 Enact a bell-to-bell phone ban.

The Research

The research is conclusive: Phones need to exit the school day. When schools ban smartphone use, collecting students' phones from the first bell to the last bell, they see improvements in a range of areas: bullying, discipline issues, mental health, healthy socializing, and grades and test scores (particularly among the lowest-achieving students).

A study from Norway found that schools with phone bans had significantly lower rates of doctors' visits for psychological symptoms and diseases among girls; reduced bullying among both boys and girls; and improved GPA, test scores, and likelihood of being on an academic high school track among girls (in Norway, high school programs are either academic or vocational). These positive effects were strongest among girls from households with a lower socioeconomic status.

U.S. school districts that were early implementers of bell-to-bell phone bans have reported similar positive outcomes. Orange County Public Schools in Florida experienced improvements in student engagement and social interactions and reduced incidents of bullying and discipline issues.¹ South Portland, Maine; Charlottesville City, Virginia; and Forest Hills Public Schools near Grand Rapids, Michigan, have all reported decreases in behavioral incidents and bullying, as well as positive benefits for students, after banning phones.

Research shows that along with improving behavioral and mental health outcomes, smartphone bans boost students' academic performance. A London School of Economics study in 2016 found that student performance in high stakes exams significantly increased after counties adopted smartphone bans. Once again, these increases were strongest among the lowest-achieving students.² Following a ban on phone use, schools' test scores improved overall by 6.4 percent—but for underachieving students (those in the bottom quartile of prior achievement), the effect was doubled. Their average test

scores rose by 14 percent. These findings suggest that the presence of phones has particularly detrimental effects on the most vulnerable students and that restricting phone use can reduce educational inequalities. So how can schools design and enforce bell-to-bell phone bans for the best outcomes?

Steps to Take

- **Establish a bell-to-bell policy with top-down enforcement:** The most crucial aspect of any phone ban is that it is bell-to-bell; students must not be able to access smartphones for the entire school day for these policies to be effective. Access to smartphones during passing periods and recess will undermine a phone ban. A chief benefit of bell-to-bell phone bans is protecting the student social environment from the deteriorating effects of smartphones, including the bullying that is so prevalent when children use phones during breaks. Bell-to-bell bans that are enforced from the top down also relieve teachers from the burden of policing students' phone use.
- **Decide where the phones will go:** Some schools may ban phones from school premises altogether, requiring students to leave them at home. Other schools may ask students to hand in their phones upon arrival, collecting them again only at the end of the school day. Schools can also require students to keep phones in a secure location like a central phone locker or to use Yondr pouches during the day.
- **Make clear that phones should be out of students' possession entirely:** Ideally, phones should be not only out of sight but out of students' possession (i.e. not in their pockets, backpacks, or desks). A University of Chicago study in 2017 found that "the mere presence of one's smartphone may impose a 'brain drain' as limited-capacity attentional resources are recruited to inhibit automatic attention to one's phone, and are thus unavailable for engaging with the task at hand."³ Studies show that the stricter the ban, the better the results. The study out of Norway mentioned above found that the positive impact on girls' grades, GPA, and test scores was largest among middle schools that banned students from bringing their phones to school and schools where students handed in their phones before classes started, and weakest in schools with more lenient policies. A study conducted in the UK found that national exam results were one or two grades higher in secondary schools with "effective bans" (categorized as not having phones on school premises or having students hand them in for the whole school day) than in schools with more lax policies.⁴ This discrepancy occurred despite the fact that schools with effective ban policies also had higher proportions of students from households with a lower socioeconomic status. Requiring students to place their phones in pouches or lockers during the school day so they are physically inaccessible can also make it easier to enforce bans.

- **Enforce significant consequences for violations:** Phone use restrictions must have significant, immediate consequences for violations that are consistent and visible enough to act as a deterrent. In Orange County, Florida, the consequence for a first offense is confiscation, but it can escalate to detention or even suspension for repeated offenses. The principal of Timber Lake High School in Orlando, Florida, said there were hundreds of phone confiscations during the first few weeks of the school’s phone ban, but once students realized the policy was being enforced, they stopped violating it.⁵ At one middle school in Connecticut, taking out one’s phone leads to an automatic detention. Strict enforcement has made the policy effective, and the school is seeing positive results.⁶

Bell-to-bell phone bans are an effective and cost-free way to improve outcomes for students. Eighteen states and the District of Columbia have now passed laws to ban phones from bell to bell in their public school systems. Schools need not wait on their state or district to pass a policy but should start implementing phone bans on their own. For more information on getting phones out of schools, see the Ethics and Public Policy Center (EPPC)’s [policy memo](#) and brief FAQ [resource](#).

2 Eliminate (or significantly decrease the use of) one-to-one educational screens.

The Research

The EdTech revolution made bold claims about how individual Chromebooks and iPads could personalize and accelerate student learning. But has it delivered on its promises? As more data emerges, it becomes clearer that “one-to-one” devices in the classroom have not improved outcomes—and in many cases have made them worse.

In 2022, math scores for the lowest-performing students hit levels last seen in the 1970s, while their reading scores were lower than the first year the data was collected, in 1971.⁷ Some of this decline may be attributable to the COVID-19 pandemic and school closures, but that does not explain why scores have declined since 2012.⁸ In fact, test scores have continued to decline rather than rebounding since the pandemic ended, with reading scores reaching a new low in 2025. The data shows that the United States has been in a learning recession since 2013. What has driven this decline?

In 2012, the U.S. Department of Education and Federal Communications Commission released a *Digital Textbook Playbook* to encourage schools’ “transitions to digital learning,” and schools began to adopt Chromebooks and iPads for students’ use.⁹ Outside of schools, smartphones became ubiquitous among tweens and teens and teen social media use began to rise dramatically around 2013. Now, new studies are questioning the push for “digital learning” in the 2010s. A study from the University

of California, Los Angeles in 2020 examined the impact of a one-laptop-per-child program.¹⁰ It found that increasing children’s access to computers and the internet did not improve educational outcomes such as the number of years of education or enrollment in postsecondary education. “Despite a notable increase in computer access, educational attainment has not increased; the schooling gap between private and public school students has persisted, despite closing the technology gap,” the study concluded.

Countries that have invested heavily in computers have seen “no noticeable improvement” in their results for the Programme for International Student Assessment (PISA) tests, according to a report by the Organisation for Economic Co-operation and Development (OECD).¹¹ Andreas Schleicher, the OECD’s education director, said, “If you look at the best-performing education systems, such as those in East Asia, they’ve been very cautious about using technology in their classroom. Those students who use tablets and computers very often tend to do worse than those who use them moderately.” A review concurred, finding that initiatives to expand access to computers “do not improve K-12 grades and test scores.”¹² According to one study, even small daily amounts, defined as 30 minutes, of digital device use in the classroom are negatively related to reading comprehension scores.¹³

While smartphone bans benefit the lowest-achieving students, EdTech-induced learning loss appears to especially *harm* the lowest achievers. The three major educational assessments—National Assessment of Educational Progress (NAEP), Trends in International Mathematics and Science Study (TIMSS), and PISA—have all revealed growing “achievement gaps” between high-achieving and low-achieving students.¹⁴ This is true across multiple disciplines. The data from all three of these assessments show that the achievement gap in mathematics has widened over the past decade, a trend that began before the pandemic. The lowest-performing students show the steepest declines. NAEP data on reading scores, particularly in eighth grade, shows a high–low gap as well. While the scores of students at or above the 75th percentile in reading stayed relatively the same, scores of students at or below the 25th percentile declined since 2017.¹⁵ Finally, TIMSS data shows a high–low gap in science scores in eighth grade, particularly between 2015 and 2019.¹⁶ Thus, despite the heavy investment by governments and schools in one-laptop-per-child policies, the lowest performers are falling even further behind. One of the best steps schools can take to improve educational outcomes, especially for the lowest performers, is to remove the screens.

It is also important for schools to resist the increasing push to integrate AI into the classroom. A study titled “Your Brain on ChatGPT” by the MIT Media Lab found that while large language models (LLMs) such as ChatGPT and Claude offer some “immediate convenience” to essay writers, they also incur “cognitive costs.” In the study, LLM users consistently underperformed at neural, linguistic, and behavioral levels.¹⁷ Similarly, a study of undergraduate students enrolled in a creative thinking and problem-solving course concluded, “For those who are still developing divergent thinking skills and lack creative confidence, there is a danger of AI hindering human thinking,

as some participants expressed difficulty in coming up with ideas beyond what the AI offered, showing a concerning potential for cognitive fixation and reduced self-efficacy.”¹⁸ A third experiment revealed “a detrimental association between ChatGPT use and university students’ creative writing abilities.”¹⁹

Schools should be especially cautious about incorporating AI into subjects where students need to retain information and develop critical thinking skills. Studies show that critical thinking, problem-solving, and memory skills are undermined when students outsource their own thinking to AI tools. One study found that use of ChatGPT is correlated with procrastination, memory loss, and poor cumulative grade point average.²⁰ In a field experiment involving nearly one thousand students, Wharton School researchers found that access to ChatGPT-based tutors initially improved student performance, but once access was taken away, the students performed worse than those who never had access. The researchers concluded that students attempt to use AI as a “crutch” and that access to these technologies can “harm educational outcomes.”²¹ Another study found a “significant negative correlation between frequent AI tool usage and critical thinking abilities.” The study also found that younger participants exhibited higher dependence on AI tools and lower critical thinking scores than older participants.²² (For more information on the research about the harms of AI integration into education and an encouragement to be very cautious in any use of AI technologies at school, review this [public comment](#) on AI in education that EPPC submitted to the Department of Education)²³.

Steps to Take

- **Remove one-to-one educational devices and opt for computer carts or labs instead:** Schools should move away from requiring and relying on the use of personalized devices for general instruction in the classroom and for assignments. Instead of requiring each student to have his or her own device, schools can instead use computer carts where computers are brought into the classroom for specific tasks that truly require a computer. This policy also reduces costs for the school, which can purchase fewer computers for different classes to share. Another approach is to choose to limit computer access to dedicated computer labs or computer science class, where students go to specifically learn and practice computer and software skills. Computers should absolutely not be used in subjects like English, history, or math, where devices most threaten to undermine the deep learning that occurs using paper and pencil (for more on this subject, see recommendation #3 below). When using computers for specific purposes, schools should also avoid EdTech programs that rely on points, badges, or streaks that encourage gaming rather than learning and try to hook students through dopamine-triggering rewards instead of deep learning. And schools should not rely on EdTech platforms for homework assignments but instead opt for worksheets, physical books, and handwritten assignments (more in recommendation #3 below).

- Advocate for states and school districts to pass policies to reduce screen use in schools:** Encouragingly, many school districts and individual schools are starting to move away from screen-based learning. In April, the Los Angeles Unified School District (the second-largest school district in the country) became the first major district to put serious limits on screen time in school.²⁴ The school board voted to restrict students' use of laptops and tablets in class and encourage pen-and-paper assignments instead. It also required the district to "create a screen time policy for each grade and subject, prohibit students in first grade and younger from using devices, clarify the process for parents to opt their child out of using technology at school, and audit its education technology contracts."²⁵ In March, the Missouri House of Representatives passed the Student Screen-Time Standards Act, requiring public schools to move away from screen-based instruction and "toward a model grounded in science, literacy, and child development."²⁶ The bill still needs to pass the Missouri Senate, but if passed into law it will require the state's school districts to adopt policies that limit classroom screen time, prioritize books and hands-on learning, increase transparency on schools' technology use for parents, and reestablish handwriting and cursive instruction in Missouri's schools. Also, in March, Utah passed the BALANCE Act, which limits classroom screen time, prioritizes traditional methods of instruction, and requires local education areas to create model policies regarding the use of technology and AI in public school classrooms.
- Reduce screen use as individual schools:** Schools do not need to leave these reforms up to governments or school boards; individual schools can make changes too. Last year, a Kansas middle school that had banned smartphones during the school day recognized that digital distractions were still harming students' learning because of one-to-one devices. In response, the school recalled the Chromebooks it had been using and shifted to more handwritten assignments.²⁷ Hopefully, more states, school districts, and individual schools will follow these early leaders in reversing course on screens and returning to more analog educational methods.
- Monitor and filter all internet school devices and Wi-Fi:** At a minimum, schools should monitor and filter all school devices and Wi-Fi networks and block access to social media platforms, pornography websites, gaming and gambling sites, and other addictive sites like YouTube. A study by Common Sense Media in 2022 found that of the 73 percent of surveyed teens who had seen pornography, 41 percent had viewed it during the school day. Of these teens, 44 percent had seen it on a school-issued device. Schools should be aware that students often find ways to get around filters, and the risk always remains that students will be exposed to harmful content. The more steps schools take toward getting phones and other screens out of the school day, the safer students will be from these dangers.

3 Prioritize handwriting, paper work, and physical books.

The Research

Part of the reason that EdTech has led to learning loss may be the lack of physical reading and writing among many students today. Research shows that there is educational value in reading physical books and in writing by hand instead of typing. Screens have replaced these critical activities, and schools should work to recover them.

A study from Norway found that “students who read texts in print scored significantly better on the reading comprehension tests than students who read the texts digitally.”²⁸ A separate study using MRI scans of 8- to 12-year-olds showed stronger reading circuits (the interconnected, specialized network of neural pathways in the brain that translates letters into meaningful language) in those who spent more time reading paper books than those who spent their time on screens.²⁹ In addition, neuroscientists at the Teachers College of Columbia University found evidence that “children’s brains process written texts more deeply when they are presented in print rather than on a digital screen.”³⁰ Brain activity they measured showed that after reading a text in print, children were better able to make connections with new concepts. The authors wrote that their findings “indicate that the meaning networks built during print reading are richer and deeper than those established during digital reading.”

Similarly, handwriting has cognitive benefits that typing does not produce. One study found that writing out the alphabet instead of typing it leads to better recognition of letters.³¹ Thus, “the clearest consequence of screens and keyboards replacing pen and paper might be on kids’ ability to learn the building blocks of literacy—letters,” according to one report.³² Writing by hand also improves memorization of words, according to research from 2021.³³

While technology can be a useful tool, it is not an effective primary method for teaching the foundational skills students need, especially writing, reading, and critical thinking. Decades of neuroscience research show that handwriting, particularly cursive, activates broader and more complex brain networks than typing. Writing by hand strengthens memory, comprehension, and cognitive processing, and reading on paper consistently leads to deeper understanding and retention than reading on screens.

Steps to Take

- Schools should prioritize handwriting, paper work, and physical books over screen-based instruction.
- Depending on the subject, this shift may include more physical worksheets, paper books, handwritten essays and notes, or cursive instruction. Individual educators can take many of these steps on their own as they design their classes, no matter what their schools’ technology policies are.

- Schools and teachers should provide class time or study halls for assignments that might previously have been given as homework, especially in classes that are writing intensive. This is because when students write essays at home, they are more likely to use AI, but if they have supervised class time dedicated to writing essays where AI use is impossible, they will be evaluated more fairly on their mastery of the subject.
- Likewise, schools and teachers should provide time at school for reading assignments. When teachers assign reading as homework, students will likely ask AI to summarize reading for them. Dedicated class time or study hall periods to complete reading assignments will encourage students to actually read, which will improve their skills and understanding.
- Schools should invest in their physical libraries to provide more books to students that they can use for research assignments, rather than having to rely on the internet.

4 Educate students on the harms of smartphones, social media, and other addictive screen technologies.

The Research

Inside and outside of the school day, screens are causing great harm to children and teens, affecting everything from their learning and brain development to their mental health and body image. Here are some of the most pressing points of research on harms for schools to be aware of and to convey to students and parents:

- **Brain development:** A University of North Carolina study found that sixth- and seventh-grade students who checked social media platforms multiple times throughout the day (to say nothing of how long they spent on the platforms) demonstrated divergent brain development over time.³⁴ Students who frequently checked social media developed hypersensitivity to the anticipation of the social rewards of social media compared with students who didn't check these platforms as often. In other words, a developing brain becomes more sensitized (hard-wired) to the rewards and stimuli of social media, a pattern often seen in addiction. Pre-adolescents with more screen exposure also show weaker connectivity in brain circuits responsible for impulse control.³⁵ Developing impulse control is critical for success as an adult.
- **Attention issues:** A longitudinal study found that social media use in particular is associated with increased ADHD symptoms over time.³⁶ Children who spent a significant amount of time on social media platforms such as Instagram, Snapchat, TikTok, Facebook, Twitter, and Messenger gradually developed inattention symptoms.

- **Mental health:** Receiving a smartphone before age 13 is linked to worse mental health outcomes in young adulthood, including increased risk of depression, anxiety, and suicidal thoughts. These effects appear consistently across all global regions.³⁷ Other research finds that the younger a person's age when acquiring his or her first smartphone, the worse his or her mental health is as a young adult (between ages 18–25). Using a smartphone at a younger age was most strongly correlated with increased suicidality as a young adult.³⁸ Thus, there are long-term negative effects of acquiring a smartphone earlier. Frequent social media use is also associated with greater body dissatisfaction; disordered eating behaviors; increased risk of self-harm; and greater likelihood of alcohol, tobacco, and drug use in adolescence.³⁹ More hours of screen time are also linked to anxiety, depression, low self-esteem, family conflict, increased aggression, and poor peer relationships.⁴⁰
- **Impacts on physical health:** Younger age of smartphone acquisition is negatively associated with obesity and insufficient sleep for each earlier year of acquisition.⁴¹ Heavy screen use is also linked to worsening vision, reduced physical activity, and poor dietary habits.⁴²
- **Exposure to dangers:** Social media and smartphones expose adolescents to online exploitation, including the risk of sextortion. Sextortion is an increasingly common form of blackmail where perpetrators trick young people into sending them sexually explicit images, which they then use to pressure the young person into providing them with sex or money. Between 3.5 to 5 percent of children experience sextortion, which can result in significant psychological distress, fear, shame, and risk of self-harm.⁴³ One survey found that 1 in 3 minors report having had a sexual interaction online, and 1 in 5 say they believe that interaction was with an adult.⁴⁴ An internal study by Meta found that 100,000 minors per day receive sexual content on its platforms.⁴⁵ Social media use also increases the risk of cyberbullying. Nearly 5 out of 10 teenagers have experienced cyberbullying.⁴⁶
- **Autism:** A systematic review found that the longer the period of screen exposure, the higher the risk that a child may develop autism spectrum disorder (ASD). Further, the earlier the child is exposed to screens, the higher the risk of developing ASD compared to children exposed later.⁴⁷

Schools certainly should not contribute to these harms by exposing students to more screens, but they can also play a proactive role in educating students about the negative effects of smartphones, social media, video games, and online pornography. Schools can encourage students to implement healthy habits and boundaries around screens, preparing them to make wise decisions around tech use as adults.

Steps to Take

- **Incorporate teaching about digital and screen-based harms into school curricula:** Schools can incorporate instruction on the following subjects in their health and physical education curricula:
 - the harmful effects of smartphone use, social media use, and excessive screen time to the human brain and body
 - healthy technology habits to adopt, such as digital detoxes, physically distancing from phones, not sleeping in the same room as a phone, deleting apps, turning off notifications, and taking daily phone-free breaks
 - identifying deepfakes, cyberbullying, sexual exploitation, sextortion, pornography, violence, and other online dangers, including how to respond
 - dangerous online activities to avoid, such as gambling, pornography, OnlyFans, dating apps, and AI companion apps
- **Use homeroom periods and school assemblies to teach about the harms of screens:** These topics should also be addressed during general instruction times like homeroom or schoolwide assemblies.
- **Leverage expert resources:** One resource schools and educators can use is *Kids' Brains & Screens: A ScreenStrong Student Course* by Melanie Hempe, a curriculum specifically designed for educators to teach children how their brains and bodies work and how screens can negatively affect them.⁴⁸ For a deeper dive into the research appropriate for both educators and older high school students, see Jonathan Haidt's book *The Anxious Generation*, which presents evidence for the harms of smartphones and social media on teenagers' mental health.⁴⁹ Finally, a practical resource for moving away from screens and smartphones is Clare Morell's book *The Tech Exit*, which is appropriate for students, educators, and parents alike.⁵⁰
- **Involve parents:** The whole school community, including parents, should be united in these educational efforts so that students can talk to their families about screen use and tell a trusted adult if they see harmful content online. See the following section for specific suggestions on how schools can involve and educate parents.

5 Equip parents to protect their children and homes from the harms of smartphones, social media, and other digital dangers.

Schools can play a critical role in educating parents about the harms of addictive, interactive screens and apps, especially smartphones, social media, tablets, video games, and online pornography. Schools can also convene parents, encouraging them to commit together to delay giving smartphones to their children until late high school or ideally until adulthood.

Steps to Take

- **Send a letter to parents to encourage delaying smartphones for students:** We offer [a sample letter template](#) for schools to send to parents encouraging them to delay and avoid smartphone use. Social media and smartphone use outside of school hours negatively impacts the learning and social environment at school the next day. By encouraging families to abstain from smartphone use, schools can create a richer, more vibrant community that enhances students' learning, relationships, and overall flourishing. Private schools can also consider requiring families to sign a pledge that their children will not have social media accounts, or even smartphones, while students at the school. Some private schools that have required a signed pledge of this kind have seen positive effects from these family commitments on the school community.
- **Host parent education events:** Schools can host parent events on the topic of children and screens to educate parents on the harms of digital technology and to give them strategies to implement with their families. Schools can use the materials mentioned above or bring in outside experts to give talks. Schools can also organize parent discussion groups around books like *The Tech Exit* or *The Anxious Generation*.
- **Give practical recommendations for parents to adopt at home:** Here are the top recommendations for schools to convey to parents through educational events, a letter, or other means:
 1. Delay smartphone acquisition until adulthood and opt for smartphone alternatives for children. Alternatives include the Pinwheel phone, Bark phone, Wisephone, Gabb phone, Gizmo watch, Light phone, and others.
 2. Allow no access to social media platforms (not allowing smartphones helps with this rule as well).
 3. Allow no access to AI companion chatbots.
 4. Make all internet use in the home public and purposeful. School assignments requiring a computer should be done in a public place, and children should log off after completing these tasks. Absolutely no devices should be allowed in private places like bedrooms, especially at night.
 5. Make screen entertainment in the home, like movies and TV, sparing and shared. Rather than making it a daily habit, reserve TV time for weekends and special occasions and enjoy programs together as a family.
 6. Monitor all of a child's communication channels (email, texting on a non-smartphone alternative, etc.). This does not mean constant snooping, but if parents have concerns, they should have access to a child's messages.

The expectation of digital accountability in the home will cause a child to think twice about online activity.

7. Reverse course even if you have already given your child a tablet, smartphone, or social media. It's never too late. Start with a 30-day digital detox. There are many resources to help with this, including *The Tech Exit*, *Reset Your Child's Brain* by Victoria Dunckley, and screenstrong.org.
8. Find other families to opt out of smartphones with you. The school community can be a natural place to find like-minded families and partner together. Start a detox with a few families and then keep going as a group for the long term.
9. Partner with your school by educating your children at home about the harms of digital technology. Help them understand the rationale behind the restrictions you are implementing, which will train them to make wise decisions as adults. Have frequent conversations with your children about digital dangers and talk about how to respond if they come across something harmful.
10. Model healthy phone use as a parent. This is the best way to prepare children to use a smartphone wisely as an adult. Keep your phone physically away from you when home with your kids. Have a family phone box where parents can keep phones to free themselves from distractions while at home. Enjoy phone-free meals. Dumb down your phone to make it less addictive by deleting distracting apps (especially social media), turning off notifications, putting apps away in folders, removing the internet browser, or putting the phone in grayscale.
11. Replace screens in the home with real-life relationships, activities, and responsibilities for children. Encourage children to read books, play outside, play music, play a sport, enjoy family games, and take on responsibilities around the home to contribute to the family.

Conclusion

Schools play a critical role in helping children learn, develop their minds and character, grow in life skills, and thrive relationally. These five key actions will help schools establish a healthy academic and social environment ideal for students' learning and flourishing. Schools that implement these recommendations will build a culture where students are protected from the harms of digital technology both at home and at school, and where both students and parents are equipped to respond confidently to the dangers and temptations of digital technologies.

Endnotes

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