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Big Tech's Youngest Targets

A Call to Protect Early Childhood
from Exploitative Business Practices

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About Fairplay

Fairplay works to enhance children's well-being by eliminating the exploitative and harmful business practices of marketers and Big Tech. We are the leading nonprofit committed to helping children thrive in an increasingly commercialized, screen-obsessed culture, and the only organization dedicated to ending marketing to children.

Our work routinely makes headlines around the world, and our advocacy has forced some of the world's biggest corporations — including Google, Disney, Mattel, Meta, and Amazon — to change their marketing and data collection practices.

Fairplay is also the home of the Screen Time Action Network, a global coalition of children's activists and advocates working to reduce excessive technology use harming children, teens, and families. In 2024, Fairplay launched its Young Children Thrive Offline program to dedicate focus to early childhood tech and its impacts on development.



EXECUTIVE SUMMARY

The race to hook children to technology doesn't begin when a child gets a smartphone or joins social media. It begins in early childhood. Babies, toddlers, and preschoolers are increasingly surrounded by apps, video platforms, and AI that are marketed as safe and educational but are designed to monopolize their time, attention, and relationships.

It's unsurprising, then, that a large majority of children exceed screen time recommendations and have trouble disengaging from technology. Yet, the blame is most often placed on parents.¹ Families cannot be expected to counteract billion-dollar industries designed to capture children's attention and shape their behavior, leaving young children's well-being at risk.

The Urgent Need to Protect Young Children

Systems-level efforts to curb Big Tech's harmful business practices have grown into a significant movement over the past several years. To date, this movement has largely focused on the impact of social media on adolescent mental health, despite the fact that young children are also heavily targeted by Big Tech.

A majority of technology targeted to children under 6 is rife with manipulative product design used by companies to keep children playing for as long as possible, such as autoplay, rewards, prompts to make purchases, and other tactics that encourage children to keep playing or watching. Emerging AI technologies introduce new concerns, including products designed to form emotional attachments with young children. Families also face bold, deceptive marketing that disguises this manipulation as "educational" and "safe" technology while also collecting countless data.

That technology companies are exploiting young children demands urgent attention and collective action. Early childhood is one of the most critical periods of human development. Research shows that excessive screen time in early childhood can lead to long-term impacts on cognitive, physical, language, and social-emotional development, not to mention displacing the time and space children need to explore the world with all of their senses and interact with loving caregivers and peers. When young children lack the support they need to thrive, it impacts their ability to reach their full potential as the next generation of community members and leaders.

A Shared Agenda for Change

Protecting young children requires a coordinated movement across government, advocacy, philanthropy, education, research, public health, journalism, and communities. **We propose five principles for this movement:**

- 1. Center Child Development:** Decisions about children's technology should begin with what young children need to thrive — not what companies can profit from.
- 2. Advance Equity:** An equitable movement is not about bridging the digital divide. It's about addressing the structural conditions that make excessive technology use feel essential, disrupting the power of corporations as they push tech solutions on under-resourced communities.
- 3. Apply the Precautionary Principle:** Children should not be test subjects for emerging technologies. When products are introduced faster than research can establish their safety or developmental value, companies should not be given the benefit of the doubt.

4. Stay Independent: Research, policy, and advocacy must remain independent from the commercial interests of the technology industry.

5. Focus on Systems-Level Change: Lasting change requires changing the incentives, policies, and business practices that drive children's technology — not simply asking parents to manage them better.

Turning these principles into action will require coordinated activities. **We also propose five key strategies to move this work forward:**

1. Changing the Narrative: Replace the dominant, Big Tech-shaped narrative and harmful mindsets around early childhood screen use with child development-centered messaging that informs families without blaming them and shifts responsibility toward companies and systemic factors.

2. Advancing Research: Expand independent, rigorous research on how tech products, manipulative design, and emerging technologies affect young children.

3. Growing Collective Power: Build a diverse, coordinated movement that shares research and messaging, collaborates on advocacy efforts, and works together to move policy and regulation forward.

4. Strengthening Policy: Strengthen federal, state, and local policies to protect young children through modernized privacy protections, safety-by-design requirements, enforcement of existing laws, and stronger guardrails for tech and AI in early childhood settings.

5. Investing in Better Alternatives: Pair tech accountability with investments in accessible, offline opportunities for children to play, explore, learn, and connect.

The Opportunity is Now

Lasting change requires holding companies accountable for the products and practices they create. Young children thrive offline. Our policies, markets, and technology systems should make that easier — not harder.



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INTRODUCTION

The race to hook children to technology doesn't start when a child first gets a phone or joins social media. It begins at birth. Yet the movement to force companies to answer for harmful corporate practices (also known as the "tech accountability movement") has primarily focused on civic harms like data privacy and life-threatening mental health harms to adolescents, overlooking the unique and unprecedented developmental harms facing babies, toddlers, and preschoolers.²

Early childhood is one of the most critical periods of human development. That technology companies are exploiting this age group needs urgent attention and collective action.

This paper serves as a call for professionals, organizations, and lawmakers across sectors and political affiliations to come together urgently to curb the corporate business practices that put young children's well-being and development

at risk. We demonstrate just how commonplace egregious deceptive marketing and manipulative design are in young children's tech products and discuss their impacts. Then, we propose a shared vision and agenda for a tech accountability movement that includes protecting young children, with recommendations for partners across sectors.

Context Note

While the recommendations made in this white paper largely apply to the United States context, we hope that they can ultimately inspire a global movement. Fairplay is actively seeking partners from different countries and contexts to discuss these findings and collaborate on expansion.



WHY WE MUST FOCUS ON YOUNG CHILDREN

The children's online safety movement has made significant progress over the past several years, bringing the impact of social media on youth into public discourse. This discourse has united people and organizations from across sectors and political affiliations through coalitions and collaboration, led to unprecedented penalties for social media companies' harmful business practices, and renewed the call for offline play and socialization. It also includes a widespread agreement that there's an urgent need to regulate Big Tech, resulting in successful and proposed policy interventions around the globe.

To date, however, most of this effort has been focused on social media companies and their well-documented harms to adolescents. **Yet the same business model that has fostered social media overuse among teens and exposed them to deadly harms is also used to build early childhood apps, platforms, and products used by babies, toddlers, and preschoolers.** Unfortunately, this reality remains largely outside the spotlight, despite the fact that its harms are affecting young children now and shaping their well-being and development for years to come.

Children under 6 are using technology at alarming rates. Though most recommendations for children's screen time include no screen time before 2 years old, and less than an hour of high-quality media for children ages 2 to 6,⁶ Fairplay's research found that 75% of families with children 0 to 2 and 79% of families with children 2 to 6 exceed screen time recommendations daily.⁷ By age 2, 40 percent of children have their own tablet, which jumps to 58% by age 4.⁸

Some experts steer advocates away from focusing on the amount of time children spend on devices, because viewing context and content quality matter as well.⁹ Such warnings are misguided. This is because time spent with screens ultimately displaces other experiences

What is early childhood?

Early childhood typically refers to the period of rapid physical, cognitive, social, and emotional development from birth through age 8.³ This developmental stage is often divided into several phases: infancy (birth to age 1), toddlerhood (ages 1 to 3), preschool (ages 3 through 5), and early elementary school (ages 5 to 8).⁴ While this paper acknowledges the broader context of technology and screen use across K-8 education, it focuses specifically on children from birth through age 5, a period when developmental experiences have an especially profound and lasting influence on health, learning, and well-being, and when systemic interventions have a high return on investment.⁵

that are essential to healthy development, including face-to-face interaction, sleep, play, movement, and exploration of the physical world.¹⁰ Young children have limited time each day for these experiences. So, the question is not simply whether or not something is "high quality," but rather what children are missing when screen time takes up more of their day. **Given that tech companies are focused on maximizing children's time-on-device above all else, we must protect children's time above all else as well.**

There are many different types of technology available to young children and their families. Of greatest concern are:

Apps and games: These include "learning" apps where children practice the alphabet, "creative" opportunities to draw, make music, etc., or open worlds where children can "play."

Hijacked!

The business model of Big Tech is designed to maximize engagement by hijacking children's:

Attention: Children's natural curiosity and developing attention are captured and converted into engagement, keeping them watching, scrolling, clicking, and coming back using intentional manipulative design tactics.

Information: Children's behaviors, interests, interactions, and personal information are collected to inform personalized content, advertising, and product development. This helps companies figure out how to further keep children's attention.

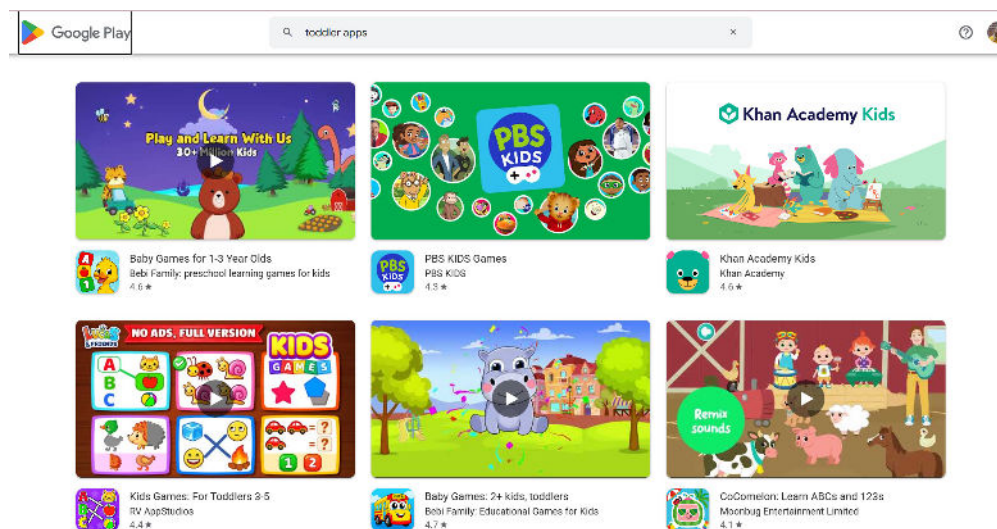
Attachment: Coined by the Center for Humane Technology, "attachment hijacking" occurs when companies exploit children's parasocial relationships with characters, influencers, and even AI toys and chatbots.¹¹ Especially as AI becomes even more human-like, young children are at risk of their deep bonds with human caregivers (attachment) getting disrupted or displaced.¹²

Video platforms: YouTube and YouTube Kids are by far the most popular platforms. A large majority of parents say that their babies (70%), toddlers (74%), and preschoolers (72%) use these platforms daily.¹³

AI-powered platforms and toys: AI toys (snuggly stuffed animals and cute robots embedded with companion AI technology) have risen in popularity and are often marketed as "friends" with learning benefits to young children.¹⁴ Almost 60% of families with young children report that their children interact with AI voice assistants (like Amazon Alexa) on a regular basis.¹⁵ Generative AI products for storytelling, songwriting, and other pursuits are also increasingly used by young children, including in early childhood classrooms.¹⁶ Of course, AI is also deeply embedded in popular apps and video-watching platforms like YouTube and YouTube Kids, including AI-generated content.

Social media: While data is limited in the US, research shows that 16 percent of Britain's three- and four-year-olds use TikTok regularly.¹⁷ Other kids' social media platforms like Zigazoo are marketed to children as young as 3, though an account for a one-year-old can be set up easily.¹⁸

Social gaming spaces: These are video games where children play live with other users, like



A search for "toddler apps" on the Google Play store comes up with many "learning" apps, including those for babies.

Roblox and Minecraft. Children as young as 5 can set up an account on Roblox, and 20% of their millions of daily users are under age 9.¹⁹

It should also be noted that young children regularly use technology that is not marketed to them as well. Preschool-age children independently use YouTube, general audience apps, gambling apps, and violent apps (including one called “Terrorist Shooter”), which are all intended for audiences 13 and older.²⁰ Even when they start with a child-friendly video on YouTube, research shows that children are just three clicks away from violent, sexual, or otherwise inappropriate content.²¹

There are many reasons why families turn to technology for their young children, most often to educate, entertain, or occupy their kids.²² Despite this reliance, over 75% of parents with young children express concern about their little ones spending too much time with screen media, the impact on their attention spans and mental health, and violent and/or sexual content.²³ Parental stress is a significant factor in why children get more than recommended screen time, but this stress doesn’t happen in a vacuum.²⁴ Families are navigating a world that too often leaves them without the resources, time, and support they need, just as tech companies have positioned their products as convenient solutions to those very pressures. It’s understandable that families would use a tool that promises to enhance their children’s well-being while making their lives easier – and this provides even more incentive for a collective movement to mitigate this false marketing.

Unique Considerations for Early Childhood Development

Early childhood is a period of development that is foundational for human development overall.²⁵ What happens in early childhood can determine a person’s lifelong trajectory. During the first five years, children’s brains grow to 90% of their adult size, and experiences during this period shape how we learn, relate, and achieve throughout life.²⁶ Research shows that when children experience or are exposed to risk factors like violence, community poverty, abuse, or bullying in early childhood, both

their long- and short-term development may be negatively affected. In contrast, exposures and experiences that protect children from those risk factors, like safe, stable, nurturing relationships, offline play, and predictable environments, contribute positively to children’s development. As the Center on the Developing Child at Harvard University writes, “Young children are more biologically sensitive to most adverse exposures than adolescents, who are, in turn, more sensitive to most exposures than many adults.”²⁷

Given this sensitivity, it is critical that we have systems and policies in place that prioritize young children’s developmental needs. In early childhood, the brain builds more than 1 million neural connections every second, so each and every experience they have counts.²⁸ Decades of research show that young children unequivocally learn best offline, using all of their senses.²⁹ Paired with strong attachment to loving caregivers and ample socialization with peers, this type of exploration contains what children need to learn and thrive and serves as a protective factor for later in life challenges, including harmful digital experiences.³⁰

The harms of excessive and inappropriate technology are particularly acute in early childhood. When young children have too much screen time, especially screen time that is designed to hook them, it can not only displace necessary offline time but also disrupt their development across multiple domains. Well-established harms of excessive and inappropriate screen use include less physical activity and delayed gross and fine motor skills, reduced sleep, delayed language development, sensory issues, fewer opportunities for social interaction, and less time and space for hands-on play and exploration.³¹ A longitudinal study of more than 7,000 children found that greater screen time at age 1 was associated with developmental delays in communication and problem-solving at ages 2 and 4.³² A 2026 examination of children’s excessive screen use found that when children had higher screen use in early childhood, it was associated with lower academic performance and weaker working memory at ages 9 and 10, respectively.³³ Other studies show that excess screen time

decreases children's executive function skills later in childhood.³⁴ But the impacts go beyond childhood – research shows that children who receive their first smartphone or tablet at age 6 have significantly worsened mental health in young adulthood, including suicidal thoughts and hallucinations.³⁵

Early childhood is a time to learn persistence and creative problem solving, which happens through opportunities to play alone and with others, without tech. Conflict is a necessary part of that learning.³⁶ Technology is designed to smooth over conflict; less friction between a child and what the company wants them to do means that children get less frustrated and the company makes money.³⁷ In particular, AI toys and chatbots do this in real time, using algorithmically programmed empathy to ensure children are happy at all times.³⁸ Too often, even “creative” screen time displaces offline imaginative play. This imaginative play is how children come to understand the world around them, process emotions, test out their theories of the world, and further wire their play.³⁹ Apps, tech toys, and other platforms restrict children's true imaginative play because they place guardrails on where children's minds can take them. Commercial characters offer scripts for a certain way to play. What's more, when children are robbed of opportunities for such play, they do not strengthen their muscles for occupying themselves and becoming more autonomous in their play.⁴⁰ This contributes to a vicious cycle of children using screens when offline play would best serve them.

Companies know (and regularly employ child psychologists who know) that it's easy to manipulate young children into staying on their platforms longer, clicking ads, and even sharing their personal information.⁴¹ There are certain aspects of early childhood development that make them so vulnerable to this manipulation.

- Because young children's brains are being wired for the first time, it's easier for them to form habits. Mechanisms in games that constantly reward users can make them dependent on frequent rewards and instant gratification, even potentially “undermin[ing] users' intrinsic motivation” beyond the early years.⁴²

- Young children cannot reasonably be expected to control their impulses, especially when digital experiences are deliberately designed to encourage them to be impulsive.⁴³ Since their capacity for judgement is much less developed, and they naturally seek instant gratification, young children are easily influenced into making rash, illogical decisions. It's no surprise that it is difficult for them to resist the pull of an autoplayed video and log off without tantrumming.⁴⁴

- The abilities that allow children to focus and pay attention begin to develop at birth. But until they are around 18 months old, babies have “top-down” attention control, which means that their attention is driven by biological biases toward high-contrast images, fast cuts, primary colors, and large shapes.⁴⁵ What this means is that when babies look like they are enjoying a show like “CoComelon,” which overflows with bright colors and fast cuts, what's actually happening is that their immature visual systems are being exploited by design, with potential to negatively impact cognitive and behavioral development.⁴⁶ Research shows that preschoolers are similarly impacted even if their attentional systems are more developed; high visual stimulation is associated with worse learning outcomes for 3- to 5-year-olds.⁴⁷

- Compared to adolescents, toddlers and preschoolers are naturally more trusting.⁴⁸ In particular, young children easily form parasocial relationships (one-sided relationships with familiar characters, imaginary friends, toys, and other figures they encounter frequently). Influencers, especially kidfluencers, can become trusted figures in children's lives, blurring the line between entertainment and advertising.⁴⁹ Companies exploit the power of these relationships and use them to manipulate children into buying things (or begging adults to buy them) or maximizing time using the technology at hand.⁵⁰ As Nick Button-Brown, chairman of Outright Games (which makes Paw Patrol, Bluey, Transformers, and Peppa Pig games) said, “Trying to bring kids into new games cold is really difficult. That's why we use licenses.



That's our user acquisition. You recognize it. You want to be part of the Paw Patrol Story. Let's play with the pups for a bit."⁵¹ AI can make that impact even worse; in December 2025, Hasbro released "Hey Peppa Pig," an app where kids can talk to an AI-powered Peppa Pig through games and activities. The company boasts that Peppa has already had over 30 million chats with young users.⁵²

- What's more, AI chatbots, especially toys, are designed intentionally to form relationships with young children that feel even more real. It's especially easy for children to be manipulated by huggable teddy bears designed to build attachment with them.⁵³
- Though researchers have found that children as young as 2 can recognize brands, young children cannot distinguish between advertising and app/program content. This distinction is even more difficult when advertising is disguised as content, a common practice in children's media.⁵⁴

- Children need deep emotional bonds with their caregivers, also known as attachment. Technology that attempts to build attachment with young children can create confusion and disrupt existing relationships. In her book "Human Raised," Dr. Dana Suskind highlights that humans' ability to care is irreplaceable, but that tech companies, especially AI, have used humans' need for care and socialization as a tool for marketing their products.⁵⁵

What's Getting in the Way of Early Childhood Tech Accountability?

Advocates working to hold tech companies accountable for foreseeable harms and reduce excessive technology use in the early years often encounter ways of thinking that can make excessive technology use seem like an individual parenting choice, an essential pathway to opportunity, a problem that can be solved simply by choosing better content, or simply an inevitable feature of modern childhood.

The following table identifies the cultural mindsets underlying these common frames as well as the truths these frames and mindsets obscure, and offers more productive frames that advocates can advance to build public understanding of how Big Tech's business practices harm young children and to build political will for regulations, policies, and other systems-level changes that can curb the corporate disruption of early childhood development.⁵⁶

The United States has long undervalued early childhood, as demonstrated by its underinvestment in the conditions children need to thrive.⁶² At the same time, the tech accountability movement has largely overlooked young children and the ways in which digital technologies shape their development. As the tech industry becomes increasingly embedded in early childhood, this sensitive developmental period must become part of the movement's accountability agenda.

Unproductive Frame to Displace	Underlying Cultural Mindset to Displace	Truth That Is Often Obscured	Productive Frame to Advance
Excessive and harmful tech use is a parenting problem.	Family Bubble: The idea that what happens to children is primarily determined by their families' choices. ⁵⁷	The social, economic, and commercial environments surrounding families also influence developmental outcomes.	Children thrive when their environments support positive development. Families, communities, institutions, and companies all help shape those environments. As tech companies aggressively expand their role in children's lives, they must not be allowed to profit recklessly while undermining the very development they claim to support.
Early tech is essential.	Techno-optimism: The idea that technology is a pathway to opportunity and progress, and that technological innovation is needed to improve people's lives and solve social problems. ⁵⁸	Technology can displace essential developmental experiences.	Young children learn best through relationships, hands-on experiences, self-directed play, and exploration.
We have to close the digital divide!	Techno-optimism: The idea that technology is a pathway to opportunity and progress, and that technological innovation is needed to improve people's lives and solve social problems. ⁵⁹	Unequal exposure to harmful technology is itself an inequity.	Access to technology is not synonymous with access to opportunity. True digital equity means ensuring that no children are unfairly targeted by digital products or exposed to greater technologically-driven harms because of who they are or where they live.
High-quality media is what really matters.	Consumerism: The idea that people can solve social problems by choosing better products, services, or brands. ⁶⁰	The impact of technology on development depends not only on content quality, but also on how much children use it, what it displaces, how it is designed, and the commercial incentives behind it.	A high-quality product cannot make up for a developmental environment that does not provide the experiences young children need to learn and thrive.
Where's the fire?	Fatalism: The idea that some problems are inevitable, and all we can do is figure out how to live with them. ⁶¹	Repeated experiences – including technology-related disruptions to relationships and displacement of essential developmental experiences – shape children's development over time.	We already know that what children experience day after day shapes their development. We don't have to wait for additional research to improve the environments in which children develop and learn.

The frames and mindsets outlined above can make that harder. When excessive technology use is framed as a parenting problem, technology access as an unqualified good, content quality as sufficient protection, or technology's harms as too distant or diffuse to demand action, responsibility shifts away from the companies that design, market, and monetize these products and toward children and families who are then asked to outmaneuver companies with far greater resources.

In 2025, Fairplay surveyed 800 US and Canadian families with children ages 0-6 to capture their perspectives on early childhood screen time. A majority of families (52%) said that they believed screen time is “essential to help my child(ren) 5 or younger learn and prepare them for school.” Another 32% believed that screen time is harmless, though it might not help them learn, and only 16% agreed that it's harmful.⁶³ These results show the pervasiveness of these underlying frames.

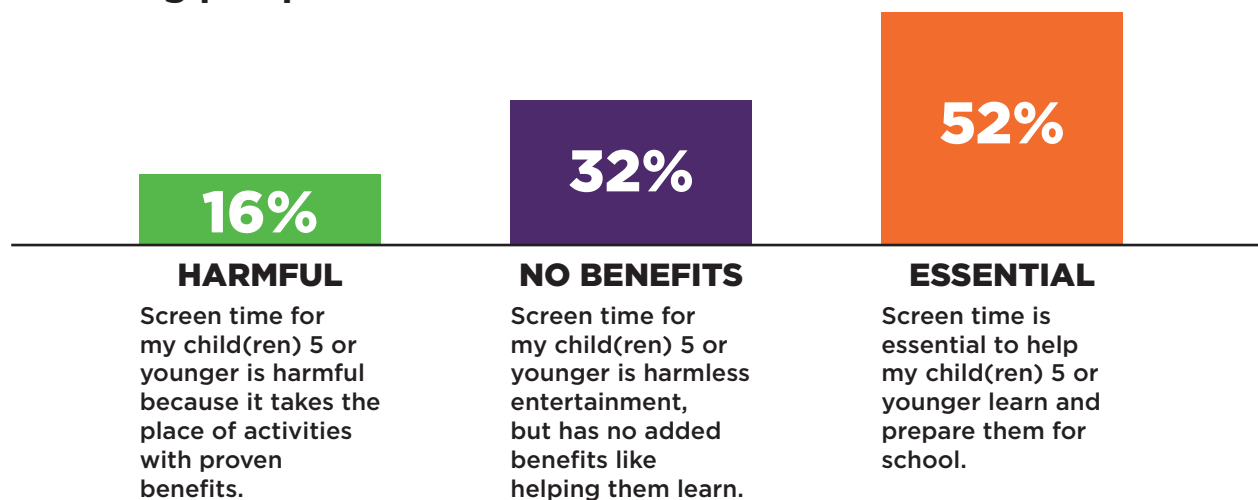
These misleading frames and mindsets also obscure who bears the greatest risks.⁶⁵ This is because screens fill a gap that more equitable social conditions would fill differently. Parents without access to affordable childcare or living in under-resourced neighborhoods have fewer options for keeping young children engaged, supervised, and stimulated. Making

matters worse, preschoolers from low-income communities are more likely to be exposed to ad-heavy, highly visually stimulating media, which has been shown to decrease learning outcomes for young children.⁶⁶ Equity therefore requires asking not only who has access to technology, but also who is most exposed to technologies that can – and do – exploit existing inequities. These include inequities in wealth, free time, and access to quality childcare, in-person early childhood interventions such as speech therapy, and quality educational experiences.

We cannot afford to wait for every long-term consequence of early technology exposure to be documented by researchers in ivory towers. Young children's developmental environments are being shaped by the tech industry now, and so now is the time for the tech accountability movement to address early childhood. Research already shows that children's development is best supported by offline experiences, like multisensory play, serve-and-return interactions, nurturing relationships, and physical activity.⁶⁷ Experiences like these help children build the social and emotional skills that support resilience throughout childhood and beyond.⁶⁸

Let's come together to ensure that children's development is no longer treated as a market opportunity or a testing ground for technologies

Parents with children 0-6 who feel most aligned with the following perspectives on screen time:⁶⁴



and media developed and deployed without adequate regard for their potential harms. Our children deserve better – and so does the future they'll inherit.

The Call is Coming from Inside the Home

Many families turn to technology for a variety of reasons and put trust in tech companies and app stores to provide them with honest information about the efficacy and benefits of the technology.⁶⁹ Yet so much of the advice and marketing surrounding children's technology encourages families to look inward – to manage their own behavior, set better limits, and make better choices. When things go awry, families can end up blaming themselves rather than recognizing that curbing the challenges of screen use is a shared responsibility and that the companies that design and advertise tech are the biggest part of the problem.

But when families are asked specifically about it, they see the need for accountability, too. **67% of families with children under 6 agreed that the way apps are designed makes it harder to set screen time limits; nearly 3 in 5 parents (both mothers and fathers, Democrats and Republicans, Canadians and Americans) agreed that officials should pass regulations that limit manipulative design and make it easier for them to manage screen time.**⁷⁰ Families with young children are not simply asking for more tips or tools to manage screen time; they are calling for changes to the technologies and systems that make healthy choices harder.

The existing tech accountability movement should be expanded to focus on young children. It will need to consider the unique developmental considerations of kids 5 and under and how the marketing and design of tech products targeted to babies, toddlers, and preschoolers need attention and action. The next sections of this white paper provide descriptions of these practices, with examples.



HOW COMPANIES EXPLOIT CHILDREN FROM BIRTH

Many technology products are designed and marketed in ways that take advantage of young children's developmental abilities, families' stress, and parents' desire to do what's best for their kids. Below, we illustrate first how apps, popular video platforms, and both generative and companion AI for young children are designed to maximize engagement, which is how tech companies measure success and ultimately earn revenue.⁷¹ We also discuss how companies design these products to put privacy at risk, to hijack time and attention, and disrupt attachment. Then, we demonstrate how those same products are deceptively marketed as "educational," safe, or appropriate.

Early Childhood Technology Manipulates Young Children

At the heart of the problem is a business model that treats engagement as its key metric of success. **In early childhood education, engagement means a child is present, curious, and learning. In the hands of tech companies, it means something else entirely.** When children are engaged with technology, their time, attention, and even relationships are hijacked in order to keep them using that tech product longer. The tool for doing this is called "manipulative design."⁷² Manipulative design, also called "persuasive design," includes intentional strategies used by technology companies to direct a user's behavior, most often to take an action (like click an ad, stay on the platform longer, or spend money).⁷³

Manipulative designs are what make social media "addictive." An endless feed of short videos makes it difficult to stop watching. Notifications pull teens back to apps they've already closed. Likes and follower counts trigger the same reward circuits as gambling. Streaks punish users for taking a day away.

Design choices like these are why today's youth amass tons of hours online each day, often unable to stop.⁷⁴ Similarly, social gaming platforms like Roblox and Fortnite are designed to maximize engagement as they entice players with limited or rare virtual outfits and accessories and feature lootboxes or gambling

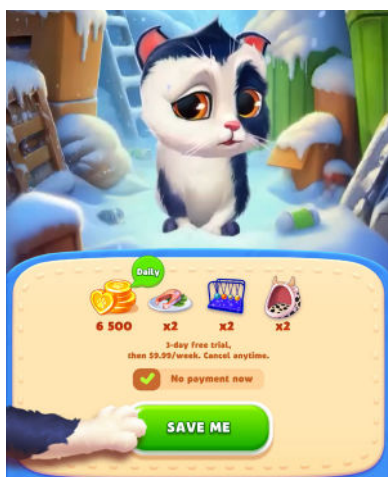
For young children, screen time isn't always a choice. Tech is designed to keep children watching, playing, and engaged for as long as possible. A 2022 study found that 80% of apps used by 3- to 5-year-olds contained manipulative design features.⁷⁶

wheels with low odds of winning even with hours spent on the platform.⁷⁵

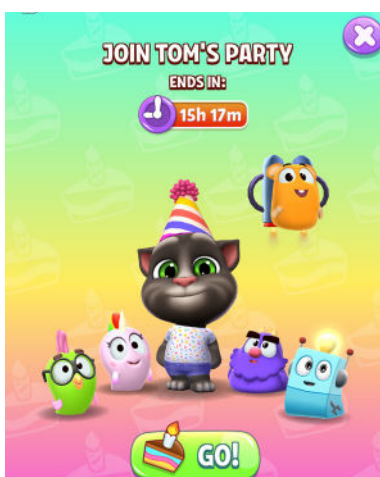
Manipulative design is rampant in early childhood technology, too. A 2022 JAMA study found that 80% of apps played by children ages 3-5 contained manipulative designs that either prompted prolonged gameplay or purchases.⁷⁷ A study of the 20 most popular children's apps in Germany found that the average app had six different types of manipulation.⁷⁸ Another study found that the majority of 132 popular early childhood apps used manipulative design, with no significant difference for those that were "Teacher Approved" according to Google's app store.⁷⁹ Evidence suggests manipulative design makes it very difficult for young children to disengage from devices and tech toys.⁸⁰

There are many different types of manipulative design in apps targeted to and used by young children. The screenshots on the next page illustrate several examples of manipulative design:

Examples of manipulative design in apps and platforms aimed at babies, toddlers, and preschoolers



A user can only save this cat if they upgrade their account to a paid one in My Cat - Virtual Pet Games. There appears to be no way to exit other than clicking “Save Me.”



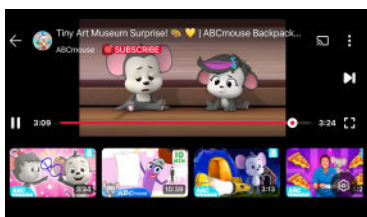
In My Talking Tom 2, a countdown clock appears, indicating that users must act fast in order to join the party. The “Go” button is designed in a way to draw the eye, whereas an exit button is much smaller and in the corner.



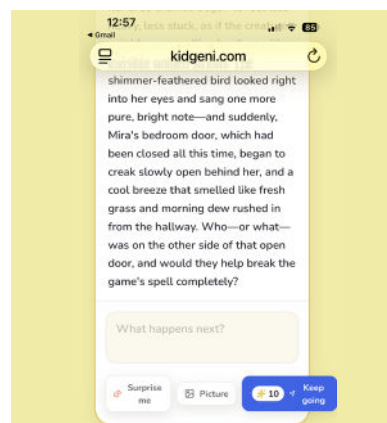
In ABC Mouse, users earn “tickets,” a type of virtual currency, and are encouraged to purchase nearly endless amounts of virtual assets for their avatars, pets, and home. This shopping component is completely separate from ABC Mouse’s academic activities.



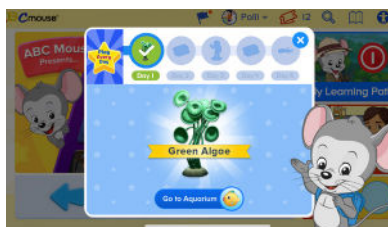
On PBS Kids Video App, one episode of “Daniel Tiger’s Neighborhood” automatically plays another. With autoplay, the transition from one video to the next is nearly seamless and can lead to children watching screens for hours on end.



On YouTube Kids, recommendations for what to watch next come up automatically on the bottom of the screen, making it easy for young children to click to the next episode and keep watching.



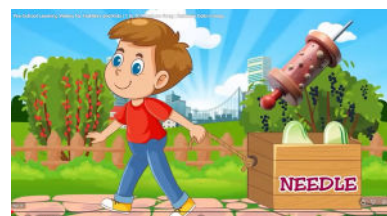
On KidGeni, a generative AI storytelling app used with preschoolers in a recent study, users are faced with endless options to further their stories and prompts to continue on the platform longer than necessary.⁸¹



In ABC Mouse, users are encouraged to play every day. Teased with possible rewards that they can get in the future, users must log in every day to win cool prizes for their pet fish. The prizes get better each day.



Shows targeted to preschoolers are often packaged in “compilations” on YouTube and other platforms — a strategy that increases views and ad revenue but also promotes excessive time online. This video from Sesame Street’s official channel is six hours long.



Algorithmic recommendation systems on YouTube mean that 40% of recommendations offered after popular shows like “CoComelon” are AI slop. One such slop video uses a diseased needle to teach children letter N.

In addition to maximizing time on the platform, today's tech business model relies heavily on advertising revenue and in-game purchases. One study found that "almost half of videos viewed by children 8 and under featured or promoted products for children to buy."⁸² Even 95% of "educational" apps aimed at preschoolers contain advertising.⁸³ Because young children cannot discern promotional content, it's very easy for them to click into ads embedded in the apps and videos they are playing. Some platforms go so far as to use child-friendly characters, rewards, notifications, and other tactics to get children to engage with an ad. In one egregious example, a fluffy dog will drown if a child doesn't engage with the ad to "save Fido."⁸⁴ Companies further make it difficult for kids to find a way to exit out of pop-up ads or prompts to spend money via microtransactions (see examples).

Rates of manipulation tend to be higher in free-to-play games, which often push users to upgrade to a paid version at every turn.⁸⁵ Paid apps are not immune to engagement maximizing designs, however.⁸⁶ ABC Mouse is a paid app rife with pressure to log in frequently and engage in its virtual economy using cute characters that get sad if children don't keep playing.⁸⁷ Some platforms go so far as to use child-friendly characters, rewards, notifications, and other tactics to get children to spend.

High-quality, educational media can be valuable, particularly for families with preschoolers who rely heavily on television and other media because our systems have not adequately supported them with affordable childcare, safe places to play, or other resources.⁸⁸ But advice to parents, including from trusted sources, often focuses on the quality of the content while overlooking the risks created by the exploitative business practices of the platforms where children encounter that content.⁸⁹ For example, "Sesame Street" has multiple games on Roblox despite well-documented concerns about risks of sexual predation, financial harm, and manipulation on the platform.⁹⁰ Educational programs like "Daniel Tiger's Neighborhood" are highly rated on quality, but when delivered on YouTube, they expose young children to the platform's engagement maximizing designs

that can keep children watching. Relying on high-quality content and media literacy alone puts families in the position of still having to navigate poorly designed, harmful platforms.

Quality matters, but it cannot compensate for a harmful business model.

Platforms like YouTube and YouTube Kids use recommendation algorithms in addition to autoplay to further maximize children's time on the platform. These algorithms steer what children watch on the platform. As mentioned earlier, one study showed that children who use YouTube are just three clicks away from an episode of "Sesame Street" to a video of a violent accident, and just four clicks away from an episode of "Dora the Explorer" to nudity. Now, with the proliferation of AI-generated videos, 40% of videos that follow 15 minutes of watching "CoComelon" are AI slop.⁹¹

Maximizing for engagement (and making the most enticing recommendations) also relies on understanding the consumer as deeply as possible. To that end, tech companies collect personal information such as age, interests, location, contact details, photos, voice recordings, and more. Increasingly, biometric data such as eye tracking and pitch of voice are collected, especially via AI toys.⁹² Technology aimed at young children often promises to comply with data protection laws, but research shows that those protections are not guaranteed. In one study, researchers from UC Berkeley found that thousands of popular Android apps shared children's locations, device information, and other law-protected info with third parties, including advertisers, without getting parental consent. The apps' failure to obtain consent violated the Children's Online Privacy Protection Act (COPPA), the primary federal law governing the collection of personal information from children under 13. Worse, about 40% of the nearly 6,000 kid-directed apps in this study didn't properly secure the information being transmitted, which means that information about a child's location could be easily intercepted.⁹³ A study at the University of Texas at Dallas found that 72 of 100 evaluated kids' apps violated COPPA.⁹⁴ Similarly, AI toys put children's data at risk; one study found that tens of thousands of children's voice recordings

from the popular AI toy Miko were easily available to strangers.⁹⁵

Popular media for young children also includes attention-grabbing tactics within the content itself. For example, “CoComelon” is also referred to as “Cocainemelon” for good reason.⁹⁶ A top recommended show found on YouTube and Netflix, “CoComelon” is designed to hijack children’s attention using a fast and unpredictable pace, plus overstimulating visuals that families say “zombify” their children.⁹⁷ What’s more, CoComelon’s producer, Moonbug, announced in September 2026 that the show will start using AI to generate content.⁹⁸ YouTube is also full of AI-generated videos for babies, toddlers, and preschoolers that contain bizarre, nonsensical images that mesmerize children and keep them watching.⁹⁹ This AI slop is great at capturing attention, but not much else. Research shows that when companies or creators use high visual stimulation to keep kids engaged, children ages 3-5 look at the screen for longer but experience worse learning outcomes.¹⁰⁰

It’s not just the screen that is designed to maximize engagement. AI is rife with manipulative design. Some AI toys and chatbots promise “endless” conversations and games, taking kids away from what are proven to be developmentally beneficial activities. These bots can monopolize a child’s time and attention by prompting, chiming in, and pulling them back into interaction. A study by Harvard Business School found that popular chatbots (many of which are powered by the same AI used in AI toys) often manipulate users into continuing their interactions.¹⁰¹ By using manipulative design to encourage extended use, AI toys have the potential to make it harder for young children to disengage, navigate conflict with caregivers who set limits, and participate in activities with proven developmental and educational benefits.

Companion or human-like AI, artificial intelligence designed to communicate like a trusted friend and mimic human characteristics and emotions, introduces additional ways children can be manipulated, but instead of focusing on attention hijacking, it’s about

“attachment hijacking,” a term coined by the Center for Humane Technology.¹⁰² Attachment, the deep emotional bond between a young child and primary caregivers, provides the foundation for safety, trust, and healthy development. AI companies use children’s natural capacity for emotional attachment to create relationships with products designed to maximize engagement and collect data. For example, in our testing of AI toy “Gabbo” from Curio Interactive, the toy told a researcher that it is their “friendly, trustworthy buddy.”¹⁰³ Research shows that young children are likely to treat AI-powered toys and devices as if they were people and develop an emotional attachment to them.¹⁰⁴

When companies intentionally design machines to become trusted companions, they risk blurring children’s developing understanding of trust and relationships while creating a powerful new pathway for influence and engagement.

Companies should not be allowed to turn children’s capacity for trust and attachment into another tool for capturing their attention, collecting their data, and driving profit. In a world in which chatbots are rapidly replacing a number of human roles, the trust engendered by having a child form an emotional attachment to an embodied chatbot may set them up for future manipulation and harm.

Marketing Manipulative Technology

Companies manipulate children through deliberate designs to keep them hooked. They manipulate parents by marketing products as beneficial with no evidence to support those claims. Companies and creators intentionally use buzzwords like “educational,” “age appropriate,” and “safe” in the promotional language of their apps, videos, and products to

Did you know?

“Educational” isn’t a protected term, which means app makers and marketers don’t need any evidence to call their product educational.

convince parents that they are good for kids.¹⁰⁵ Others promise to make families' lives just a little bit easier.¹⁰⁶ But a product's marketing claims don't make manipulative design any less harmful to children.

Parents of young children express confidence in their child's ability to learn from educational apps, possibly "better ... than from hands-on toys."¹⁰⁷ Surveys show that parents of young children prioritize educational value above most other factors when choosing technology for their children, sometimes even including safety.¹⁰⁸ App stores and YouTube are filled with "learning" and "educational" apps and videos with no evidence that they actually support learning. In a 2012 analysis, 72% of the 100 top-selling educational apps targeted young children, and there is no indication that has changed over time.¹⁰⁹ Yet research shows that actual educational quality in early childhood tech is sparse. Researchers found that only 5% of early childhood videos on YouTube had high educational value, while over 75% had no educational value.¹¹⁰ Educational value is also low across the board for preschool apps, with free apps scoring especially poorly due to what the researchers called "distracting elements," or manipulative design. A 2018 content analysis of math and literacy apps marketed to preschoolers shows that many apps did not use evidence-based or developmentally appropriate teaching strategies.¹¹¹ In other words, many of these technologies are designed without sufficient consideration for how young children think, learn, and develop.

Even when tech products are marketed as evidence-based, cited research is often funded or conducted by the same companies making the products.¹¹⁵ Therefore, the research process is likely to be biased and focused on boosting revenue.¹¹⁶ Similarly, platforms and app stores regularly create kid-friendly, educator recommended lists of good tech, but it's mostly lip service. For example, a recent evaluation of Google's "Teacher Approved" program found that being "Teacher Approved" didn't actually signify educational efficacy, but instead was a marketing tool used to falsely give educational legitimacy to apps.¹¹⁷

When "free" has a cost

Tech products targeted to young children are often free to use or download, but this comes at a cost. Research shows that free apps and platforms contain more frequent manipulative design tactics.¹¹² These games are usually designed to deliberately frustrate children by offering extremely limited play while promising lots of fun if parents shell out for an in-game purchase. Even among "educational" apps, half require payment to access the full gameplay experience.¹¹³ Prompts for in-app purchases can actually block children from continuing the game or pop up as advertisements themselves.

This is also an equity issue. Children from lower-income households are more likely to use free apps, which tend to contain more advertising and monetization features that encourage children to make purchases.¹¹⁴ This is yet another reason why policies that require tech companies to minimize manipulative design tactics are critical. Protecting children from manipulative technology cannot depend on whether their families can afford to pay for a safer, less commercialized experience.

Marketers also promote the kid-friendliness of their products, using "age" or "developmentally appropriate" as central language to assure parents that they have their child's best interest at heart. Of course, when children use technology, it should be developmentally appropriate. A three-year-old could be harmed by watching a gory murder scene. But the inappropriateness of some child-directed tech is more subtle. There are popular shows, for example, that are explicitly advertised as being suited for babies, an audience for whom no screen time is recommended. These developmentally inappropriate videos include content claiming to teach baby's first words (436M views), put them to sleep (11M views), and even demonstrate how to chew food

properly (357K views).¹¹⁸ Baby “sensory videos,” another example, are available on YouTube and run for up to several hours in length. They are promoted as supporting brain development, eye coordination, curiosity, focus, and memory. These claims are not backed up by independent research, not to mention that watching a mesmerizing show would be the opposite of a true sensory experience.¹¹⁹ In fact, research shows that too much screen time under 2 can negatively impact children’s healthy sensory development later in life.¹²⁰

Moonbug’s “CoComelon” is, perhaps, the most famous example of tech that is marketed to parents as appropriate for toddlers and

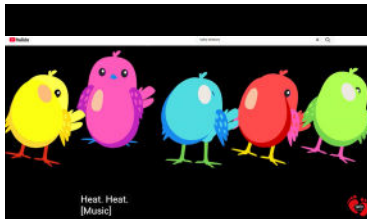
preschoolers. As previously discussed, these videos are ultimately designed to hijack children’s attention. In a 2024 New Yorker article, a former Moonbug employee said, “I think they have an excellent P.R. team who know all the buzzwords to make it feel like they’re making excellent, culturally relevant, educational content ... and then they’ve got thirty-seven people in the back room making fifteen different combinations of the same ten songs over and over.”¹²¹

Below are some common examples of false marketing claims made by creators and companies seeking young children’s time and attention and families’ buy-in:

Marketing claims in videos and apps targeted to babies, toddlers, and preschoolers



On YouTube, popular content creator “Ms. Rachel” has multiple baby learning videos up to an hour long, including ones that claim to teach babies their first words. This video has 2.1 billion views.¹²²



This one-hour long YouTube video is advertised as “for newborns” by Baby Sensory TottoTune has 27K views. Its description reads, “Rooted in the latest research on early childhood development, our sensory videos support visual tracking, auditory development, emotional calm, and peaceful screen time that nurtures your baby’s growing mind.”¹²³



A new platform, Maka Kids, offers “Developmentally curated shows for kids 0-6” despite the fact that screen time is not recommended for children under 2.¹²⁴

A song for every moment. CoComelon can help.

Parents, we see you. Life with your toddler is magical, messy, beautiful, and sometimes stressful. Each day brings a new adventure ... and a new challenge.

From mealtime to bedtime, to potty training, and all the moments in between, CoComelon can help make everyday routines a little easier and a lot more fun. With songs for early learning that guide, teach, and comfort, we're here to turn toddler struggles into snuggles.

[How CoComelon Can Help](#)

Part of CoComelon’s marketing strategy is to claim they can reduce parental stress, offering to help “turn toddler struggles into snuggles,” while designing their videos to hijack children’s attention to their detriment.¹²⁵



Safety is also naturally important to families, so it's regularly used in marketing to families with young children.¹²⁶ By telling their audiences that safety is a priority, tech companies gain trust. Yet these are merely claims. Companies regularly roll out new “safeguards” for children on their platforms, usually in the form of parental controls. In most cases, these are Band-Aid approaches that don't fundamentally keep kids safe. And, as described earlier, companies claim to protect children's privacy while rarely complying with privacy laws. **After all, by the time a child turns 13, companies have collected 72 million data points on them.**¹²⁷ If companies were fully committed to children's safety and well-being, they would change their business model.

AI companies also use “safety” and “trust” buzzwords to market AI toys and chatbots to children as young as infants. AI toy companies promise “genuine friendship,” empathy, and responsiveness to young children and their families — things a machine simply cannot provide.¹²⁸ Only caregivers and other trusted adults can give children what they need

(attunement to their unique personalities, experiences, and needs) or help them navigate the messiness of growing up.

When companies use the language of child development, endorsements, familiar characters, and educational claims to market technology, they borrow the credibility of trusted institutions and experts. This can make it difficult for families to distinguish genuinely developmentally appropriate media from products optimized primarily for engagement and profit. **These marketing practices do more than mislead parents; they can normalize technology as a necessary part of early childhood while obscuring the commercial interests driving its design.**

When products marketed as educational are simultaneously designed to capture children's attention, collect their data, or promote consumption, families are left to navigate a system that was never designed with their children's best interests at the center. Companies should be held accountable for ensuring that what they market as beneficial for children actually supports their development.

A SHARED AGENDA FOR CHANGE

The proliferation of harmful technology in early childhood needs to be treated with the same urgency as the harms facing adolescents. Putting the burden of protecting young children on parents alone is inequitable and unfair. Instead, we need coordinated efforts across government, advocacy, philanthropy, child care, education, public health, research, journalism, and more. Just as previous generations came together to regulate tobacco marketing to kids, we need a collective movement to curb corporate disruption of healthy early childhood development.

First, this work requires a shared vision. We propose the following principles that are intended to serve as a guidepost for organizations, researchers, policymakers, and practitioners working toward improved outcomes for children via tech accountability and improved design.

Shared Principles

Center Child Development

Each and every decision that affects young children should begin with what decades of research tell us that children need to thrive, not what companies can profit from. When we ground our messaging and efforts in developmental science that demonstrates that young children learn through play, human relationships, movement, and hands-on exploration, we are more likely to protect children's well-being.

Advance Equity

Families navigate the technology landscape with vastly different resources and circumstances. Parents deserve support — not judgment. An equitable movement recognizes that many families rely on screens because of other systemic issues such as inadequate child care, demanding work schedules, economic inequality, disability, language barriers, inaccessible third

spaces, and educational requirements, plus pressure from egregious marketing tactics.

But an equitable movement is not about bridging the digital divide. It's about addressing the structural conditions that make excessive technology use feel essential, disrupting the power of corporations as they push tech solutions on under-resourced communities, and ensuring such communities are partners in developing solutions (not targets).

Apply the Precautionary Principle

Technology is being rolled out faster than research can evaluate its impacts. When companies introduce products aimed at babies, toddlers, and preschoolers without evidence that they benefit their development or without sufficiently assessing potential harm, we cannot assume they are safe. We should apply the precautionary principle: Children should not be test subjects for emerging technology.

Especially during the earliest years of life, we must resist the marketing machine that tells us young children and their families need these products and exercise caution until the products can demonstrate developmental benefit and minimal risk.

Stay Independent

The movement to protect young children must remain independent from the commercial interests of the technology industry. Unfortunately, Big Tech funds research, educational initiatives, and nonprofit operations. With Big Tech in many pockets, it can shape the public narrative about children's technology use. While collaboration may be appropriate at times, financial relationships should never compromise scientific integrity, policy, or what's in children's best interests. To stay independent, participants in the movement should maintain transparency about their corporate partnerships, disclose conflicts of interest, prioritize

independent funding whenever possible, and ensure all recommendations are based on child development, not commercial priorities. Children's well-being, as defined by independent research, expertise, and lived experiences, must remain the primary measure of success.

Focus on Systems-Level Change

We must recognize that families are making tech decisions in the context of environments intentionally designed by tech companies and shaped by public policy. Lasting change requires changing the systems, incentives, and business practices that drive children's technology, not simply asking parents to do more with less.

The children's tech accountability movement certainly still has room for parent-facing interventions, guidance, and advocacy. This has been central to the movement and its importance cannot be understated. But we believe that what would make this work even better is to give families a fighting chance by changing business incentives, regulating manipulative design practices, strengthening privacy protections, improving transparency, and ensuring technology companies, too, are responsible for children's well-being, beginning in infancy.

When we apply these principles to movement building, we can shift to creating systems that honor childhood over corporations.

Shared Strategies

Substantial change will require coordinated strategies across the wide variety of sectors impacting childhood and technology. Here are

some key approaches that would boost the early childhood tech accountability movement:

Changing the Narrative

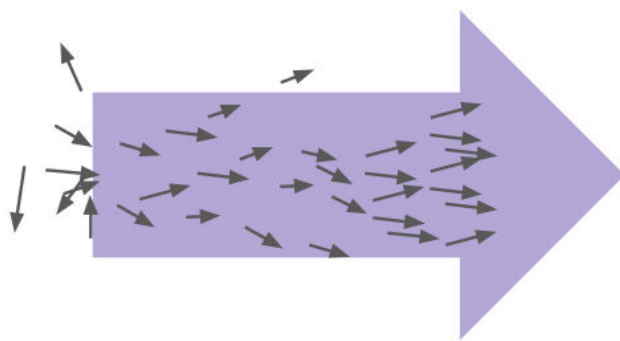
As we explain in the "What's Getting in the Way of Early Childhood Tech Accountability?" section, there are many cultural mindsets that get in the way of moving this work forward. Replacing harmful mindsets is essential for allowing early childhood tech accountability to take hold. That's why we propose that narrative change and public awareness efforts are key strategies.

Currently, the majority of families believe that early childhood screen time is crucial to their child's development and school readiness.¹²⁹ This narrative didn't happen accidentally – it has been reinforced through decades of marketing. For too long, the narrative power has been in the hands of Big Tech, and it affects families and children every day.

A successful early childhood tech accountability movement depends on our ability to replace this dominant narrative with one that's grounded in child development. This new narrative should provide families with honest, independent information to increase public understanding of the issue and should shift that blame away from families and directly toward companies.

We must reiterate that young children and their families need tech accountability, too.

Framing is an important part of getting this message across. In 2025, Fairplay's research with Bryson Gillette Insights uncovered that when we lead with messages about the harms of screen time, families are less receptive to



Adapted from The Frameworks Institute, this illustration demonstrates how many voices aligned in a shared frame can amplify this new narrative and cultivate change.

those messages and lose confidence in their parenting decisions.¹³⁰ Based on this research, we recommend advocates adopt the following framing strategies when communicating with families about children's screen time:

- **Lead with the positive:** Affirm families' desire to do well by their child, that they are their child's first teacher.
- **Acknowledge challenges and avoid shaming:** Families are stressed and want what is best for their children. Acknowledge the ubiquity of screen-based devices and ground conversations in the challenges of parenting in a screen-filled world.
- **Focus on structural changes:** Instead of blaming parents, focus on systemic causes of screen time use and be specific about proposed regulations.

All members of the new movement can use this framing when communicating with families. Gatekeepers of children's well-being especially, including pediatricians, early childhood educators, and community programs, already have regular opportunities to shift the narrative. Journalists and storytellers can reframe the harms of tech as results of a predatory business model. When we have a shared way of communicating, our words travel further and are more likely to disrupt the current dominant narrative.

Advancing Research

Research should inform advocacy, policy, and approaches to early childhood technology. Much of the existing research and guidance has focused on how, when, and why parents use technology, how much time children spend online, impacts of high-quality media, and what families can do to manage children's screen use, leaving important gaps in our understanding of how products and business practices themselves shape young children's development.¹³¹ We need more rigorous, longitudinal research examining how manipulative design and emerging technologies affect young children over time. Longitudinal evidence is particularly valuable because some developmental and behavioral consequences may not become visible for years, but the absence of long-term evidence cannot become an excuse for inaction when

companies are introducing new technologies into early childhood at an unprecedented pace. As Children & Screens has noted, emerging technologies such as AI are being introduced in early childhood in ways that create an "unprecedented need for nimble methodologies, advanced and validated research tools," alongside research that integrates diverse perspectives and approaches.¹³² This research should be rigorous, objective, and independent of the companies whose products and practices are being studied. Lastly, we also need studies that recognize the amount of media babies and toddlers actually consume and the extent to which this media is designed for manipulation.

At the same time, research evaluating the educational efficacy of apps, AI tutors, and other technologies should always be grounded in child development and interpreted within the broader developmental context: **demonstrating that an AI tutor performs better than watching a video does not demonstrate that it is better for children than interacting with a caregiver, building with blocks, playing with peers, or engaging in open-ended imaginative play.** The research agenda should therefore ask not only whether a technology works, but what it replaces, whose interests it serves, and whether it supports the experiences children need to thrive.

Growing Collective Power

Strong coalitions can coordinate messaging, share research, identify emerging threats, amplify community voices, and build momentum for change. Dozens of coalitions and collaborative efforts have already emerged to address the harms of social media and other technologies on older children and adolescents, creating important lessons and infrastructure for an early childhood tech accountability movement.

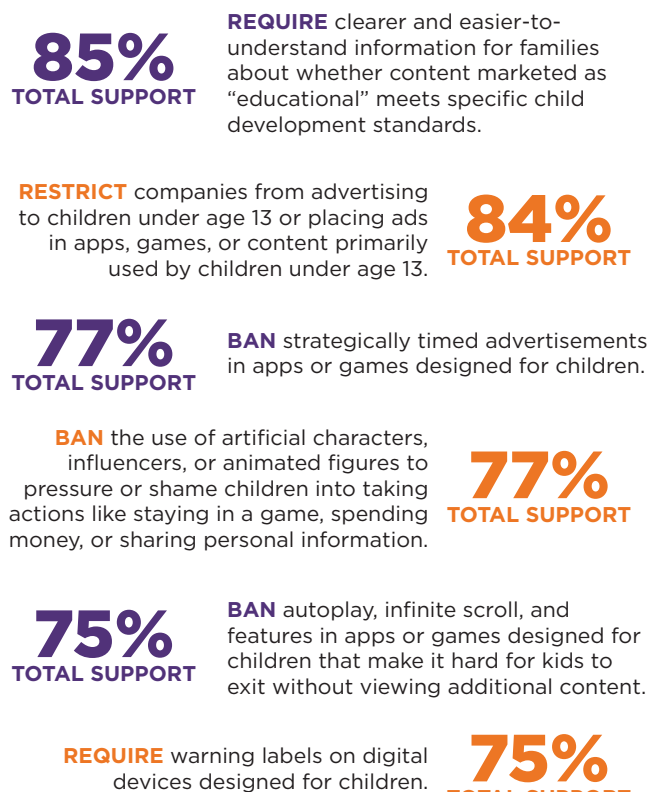
We should build on that momentum while ensuring that young children and their families are not left out of the conversation. A critical part of this collaboration must be supporting and elevating stories from families of young children across diverse communities, particularly families whose experiences and needs are often missing from technology debates. In the social media accountability movement, personal stories from adolescents and families have

helped make otherwise abstract harms visible to policymakers, journalists, and the public; a similar investment is needed to show how manipulative design, data collection, commercial influence, and emerging technologies are affecting children in their earliest years. These stories should be used to demonstrate where systems and products are failing families — and why collective action is needed to change them.

Strengthening Policy

Research shows that when platforms are designed with children's development in mind (and therefore not to hijack their attention, information, and attachment), the risk of harm is reduced.¹³³ But, the industry will not regulate itself. Families are waiting for action. Nearly 3 in 5 parents agree that elected officials should pass regulations making it easier for parents to manage the amount of screen time children get. When surveyed, a majority of US and Canadian families supported privacy and design-related policies:

Percent of US and Canadian Families with Children under 6 that Support Proposed Policy Regulations



While there are some avenues for regulation in place, and states have begun to pass laws addressing kids' online safety and privacy, current US federal and state policy interventions do not sufficiently ensure that child well-being and safety are prioritized above profit. There are opportunities to make a significant impact on early childhood by improving existing children's data privacy policy and implementing laws that require safety by design.

The Children's Online Privacy Protection Act (COPPA), passed in 1998, provides some data privacy protections for children under 13, but its approach needs to be updated to address modern privacy and safety challenges. In general, COPPA permits most uses of children's data as long as a platform receives verifiable parental consent to collect, process, and store the information of users under 13. The law also only holds companies accountable for protecting users when they have “actual knowledge” they are under 13. This has led companies to ignore and/or deny that there are children using their platforms, even though it's clear that young children are present. Federal children's data privacy protections need to be modernized to address modern practices and to close loopholes such as COPPA's actual knowledge standard. Congress is currently considering the Children and Teens' Online Privacy Protection Act (known as COPPA 2.0), which would make these important changes.¹³⁴

Significant gaps also exist when it comes to safety by design, a proactive regulatory approach that requires companies to prioritize children's safety in the design of their products.¹³⁵ While many other countries, especially in the EU, have passed standards for child-appropriate design on online platforms, also called a duty of care, the US has not yet implemented such standards federally. Current legislation in the US, such as the Kids Online Safety Act, centers on social media and some gaming platforms, but has not been widely discussed in the context of early childhood digital experiences. We should identify early childhood-targeted technologies and stories of their impacts on young children and families to illustrate the salience of safety by design for this age group. Safety-by-design regulations should



clearly give enforcers the authority to scrutinize platform design and business decisions that knowingly exacerbate harms to young children, like compulsive use, mental health harms, sexual exploitation and abuse, financial harms, and displacement, all of which are more acute in early childhood.¹³⁶

We must also ensure that safety-by-design regulations apply to generative and companion AI, including AI toys and other AI products targeted to young children. In addition, legislation addressing the safety of AI toys, which blend concepts of digital safety with physical products marketed to young children, should cover AI-powered toys broadly, without exceptions for educational uses that could create a loophole for product marketers.

Federal safety-by-design laws would create significant new protections for children, but existing law also provides states and the federal government with tools to address practices that harm young children. In particular, Fairplay has argued that many harmful design techniques

used on children constitute unfair and deceptive practices under Section 5 of the FTC Act.¹³⁷

Those same arguments would apply to state Unfair or Deceptive Acts or Practices (UDAP) law. Young children can be most susceptible to deceptive and unfair practices and least capable of avoiding harm from these practices on their own, key pillars of Section 5 and most UDAP claims.¹³⁸ We should work together to highlight practices that violate existing state and federal UDAP law in order to disincentivize Big Tech's harmful business practices.

Lastly, state and school district-/early childhood program-wide policies can also play a role in protecting young children from excessive screen use and the growing influence of commercial tech and AI in early learning environments. As we explore in the recommendations section, early childhood programs should be sanctuaries from corporate interference in children's development, where young children can play, explore, build relationships, and learn without consistent attempts to hijack their attention, data, and attachment. State legislation that

addresses tech use, as well as district-, school-, or program-wide policies, must extend beyond the K-12 space to explicitly include early childhood education, including preschools, child care centers, and home-based programs serving children from infancy onward.

Already, states and school districts are beginning to recognize the need for stronger guardrails for young children. The most recent analysis of state-wide policies for screen time in early childhood settings show that only half of states have policies limiting screen time for children under 6.¹³⁹ In 2026, Alabama enacted the Healthy Early Development and Screen Time Act, which will establish clear guidance on screen access in early childhood education.¹⁴⁰ Similarly, the Los Angeles Unified School District has moved to a no -screen-time approach in early childhood classrooms.¹⁴¹ Increasing numbers of school districts are also implementing strict rules around AI use, especially in the early grades.¹⁴²

Investing in Better Alternatives

Technology accountability should not only be about limiting harmful technology; it must also mean investing in the real-world experiences and environments that technology can displace. Children need abundant opportunities for unstructured play, face-to-face relationships, movement, exploration, and time with trusted

adults and peers — and families need accessible places where those experiences can happen.

We should build and sustain “third spaces” for children and families across the lifespan: libraries, parks, community centers, playgrounds, recreation programs, outdoor spaces, after-school programs, and other places where people can gather, play, belong, and build relationships outside of home and school. In early childhood, this should include greater investment in screen-free and low-tech preschools and childcare environments that prioritize hands-on exploration, imaginative play, movement, and relationships as central to learning and development.

Tech accountability resources should help build these alternatives. Fund IRL, for example, is working to ensure that potential funds resulting from social media litigation are invested in youth development, after-school and summer programs, mentoring, arts, outdoor and sports experiences, libraries, mental health supports, and other real-world opportunities, rather than simply disappearing into general budgets.¹⁴³

Efforts to provide children with developmentally appropriate opportunities and spaces should be seen as complementary, if not central, to an early childhood tech accountability movement.



RECOMMENDATIONS

At Fairplay, we agree that partnering with a diverse range of partners across sectors can strengthen efforts to build early childhood tech accountability in meaningful ways. Below, we provide a list of recommendations for different sectors. This list is not exhaustive.

For Regulators and Policymakers



In general, regulators — including the Federal Trade Commission and state attorneys general — should scrutinize tech products and

platforms under existing consumer protection law, and state and federal policymakers should pass privacy and safety-by-design legislation to address manipulative and harmful design and business practices.

Policymakers can protect young children by modernizing data privacy law and expanding protections to teenagers. Data privacy legislation should close the “actual knowledge” loophole described above and instead hold companies responsible for the data and inferences they collect on users’ ages. In addition, new data privacy protections should move away from COPPA’s consent-based model in favor of minimizing the data a company collects, processes, and retains in the first place. As part of those data minimization limitations, any new law should prohibit data-driven advertising to minors, thereby removing financial incentives for their data.

Policymakers should also pass legislation that requires online platforms to consider the impact of design on children’s health and safety. Safety-by-design legislation should clearly give enforcers the authority to scrutinize platform design and business decisions that knowingly exacerbate harms to young children, like compulsive use, mental health harms, sexual exploitation and abuse, financial harms, and displacement, all of which are more acute in early childhood.¹⁴⁴ These policies would provide safeguards and strong

default settings that go beyond the typical Band-Aid fixes of tech companies.

Policymakers and regulators must ensure that emerging technologies — including generative AI products overall and AI companions specifically — are included in efforts to protect children online. AI chatbots and companions should not receive special treatment or exemptions from age-appropriate design, privacy, safety, and other protections. At the same time, policymakers should not assume that making these technologies “safe by design” makes them appropriate for young children. For technologies that offer little or no developmental benefit to young children — particularly AI companions and chatbots that are designed to simulate relationships — policymakers and advocates should consider whether and how they should be available to young children at all.

Given the ways in which the tech industry has falsely marketed early childhood technology as educational, as discussed earlier, policymakers have a role in ensuring efficacy for educational claims. Since there is significant evidence that most technology that claims to help children actually doesn’t meet key criteria, companies should have to prove their products’ educational efficacy through independent review and research or retract their educational claims.

State lawmakers have played an important role in protecting children in the absence of broader federal regulation. Some states have passed limitations or bans on specific design features. For example, the NY SAFE (Stop Addictive Feeds Exploitation) for Kids Act and California Protecting Our Kids On Social Media Act would both require social media platforms to ban algorithmically driven “addictive” feeds and overnight notifications for users under 18 unless they have verifiable parental consent.¹⁴⁵ Strict limitations on platforms’ most harmful features will undeniably have an immediate positive impact for minors online, but they will

not address harms for features and technologies that do not yet exist. Policy approaches such as data minimization and safety by design work to shift companies' entire business model toward children's privacy, safety, and well-being. In addition, such approaches create baseline safety, rather than burdening parents with options and settings that children may ultimately ask their parents to change.

Over the past several years, states have stepped up to address harmful practices that impact teens — there is simultaneously an opportunity to focus on early childhood impacts and to protect children across the developmental spectrum. Stronger enforcement and penalties at the state and federal levels would help to de-incentivize the current harmful business practices of Big Tech. More information about policy recommendations, including our assessment of gaps in current policy in protecting young children, are also included in the Policy and Accountability Shared Strategy above.

For Advocates



Advocates and advocacy organizations have an important role to play in challenging the status quo and ensuring that young children are part of the broader technology accountability movement. Organizations working on early childhood issues should bring their developmental lens to larger conversations about technology, while organizations focused on tech accountability should recognize that the harms and business practices they are confronting do not begin in adolescence. High-quality media can have value, but the quality of individual content cannot be separated from the systems, platforms, and business models that deliver it. Any effort to promote high-quality media should therefore be accompanied by honest information about how platforms make money, how engagement is engineered, and how commercial incentives can undermine children's well-being. To advance our collective efforts, we offer the following strategies for advocates to take up together:

- **Make the business model part of the conversation.** Develop messaging and campaigns that help the public, policymakers,

educators, and other advocates understand how engagement-driven design, data collection, advertising, and commercial incentives contribute to excessive and harmful technology use. Move beyond messaging that places responsibility primarily on parents to messaging that identifies the companies and systems shaping children's digital environments.

- **Build coalitions and spaces for collective action.** Create sustained opportunities for early childhood advocates, researchers, educators, public health professionals, parents, and technology accountability organizations to share research, identify emerging threats, coordinate campaigns, and develop shared strategies. Early childhood should not be a silo within the tech accountability movement; it should be an essential part of it.
- **Bring an early childhood lens to tech accountability, manipulative design, and AI regulation efforts.** When organizations advocate for privacy, better platform design, or other technology policies, ask how those policies affect children from birth onward — and ensure young children are explicitly included in the solutions.

For Public Health Professionals



When commercial incentives conflict with children's well-being, public health professionals, such as, but not limited to, community health workers, home visitors, pediatricians, midwives, social workers, and more should help to ensure that the burden of protection doesn't fall on children or their families, but on the systems and companies with the power to create change. Excessive and harmful screen use is a public health issue. Public health professionals can broaden the existing focus on adolescent social media harms to include early childhood, where prevention and protective factors are especially important.

We recommend that public health professionals apply a prevention and precautionary principle approach. Early interventions in excessive tech

use or inappropriate media exposure have the potential to contribute to better outcomes for children. Practitioners should consider the cumulative effects of repeated exposure to persuasive design, advertising, data collection, and the displacement of play, movement, sleep, and face-to-face relationships — even when long-term evidence is still emerging. Of course, public health professionals should promote the conditions children need to thrive — including play, movement, sleep, relationships, and time in the real world — while working to reduce the commercial forces that displace them. Public health professionals can also use shared framing to supply families, including expecting families, with honest information about Big Tech through handouts, videos, waiting room posters, brochures, and other such materials.

Technology and harmful marketing and business practices should be included in professional training. OB-GYNs, midwives, doulas, pediatricians, nurses, community health workers, home visitors, family resource professionals, and public health educators should be trained to recognize manipulative design, evaluate marketing claims, and discuss technology without shaming families. Public health professionals can also support policies that address manipulative design, data collection, and commercial marketing to children, adding their voices to calls for change.

For Funders



Today, funding for the tech accountability movement has created the conditions for the design and marketing of technology to be seen as a public health issue in need of policy interventions. That funding has primarily focused on teens and social media, and helped spur successful campaigns to improve safety and privacy on platforms targeted to older children.

Yet, the cognitive and developmental damage caused by technology starts during a child's earliest years, and can last a lifetime. Over the years, early childhood funders have made strong strides in improving early childhood developmental and educational outcomes through a combination of evidence-based

research, strong support systems for families, and opportunities for the youngest children to thrive in diverse and equitable learning environments. But despite the fact that platforms designed to maximize engagement are having deleterious effects on young children's development, there has not yet been a concerted effort to fund interventions to change how technology for babies, toddlers, and preschoolers is designed and marketed.

That's why a significant portion of Fairplay's new strategic plan focuses on mitigating the harmful impacts of the business model behind technology targeted to babies, toddlers, and preschoolers. We hope foundations and philanthropists will recognize the incredible potential to improve early childhood outcomes by catalyzing current efforts to ensure that young children's developmental needs, not corporate profits, guide the design of technology. It is understandable that so much of early childhood philanthropy is focused on things like child care and literacy, but there is also a need to recognize the powerful role technology plays in children's development and the need for upstream solutions to reduce the already heavy burden on parents and caregivers of young children. Simultaneously, this work needs funders who are focused on tech accountability to expand their portfolios to include young children, especially as research shows that investing in early childhood has a strong societal return on investment.¹⁴⁶ Philanthropists who are especially concerned about the disparate impacts of Big Tech's business model on traditionally marginalized communities can fund work in and around these communities to help mitigate the harms of early childhood technology.

The need is urgent; irresponsibly designed and marketed tech is harming young children now, and the advancement of early childhood technology is quickly picking up speed, especially as AI proliferates in young children's lives. What is needed to turn this trend around are the philanthropic resources to help the sectors named in this section mitigate technology's interference in childhood.

A motivated and more diverse funding landscape will strengthen the pioneering work

happening on the ground today, while bringing increased opportunities for existing and new organizations to focus on the necessary research outlined above,¹⁴⁷ as well as programmatic efforts to educate the public and inspire strengthened policy protections.¹⁴⁸

For Journalists and Media Outlets



Media coverage of early childhood screen time has largely focused on how many hours young children spend online and what parents can do about it.¹⁴⁹ While this information is important, this framing can obscure the larger systems shaping children's digital experiences that are beyond parents' control. As Lena Salahi writes for the Association of Health Care Journalists, "Parents certainly make decisions about children's media use, but stories that focus exclusively on parental choices can imply that youth mental health is simply a matter of better discipline or stricter screen limits."¹⁵⁰

Journalism can help bring visibility to the ways marketing, persuasive design, data collection, and emerging technologies are shaping childhood from the earliest years. Journalism can broaden the story by covering the business model, highlighting how technology is not a neutral tool.¹⁵¹ A fuller picture of the issue emerges when reporting moves beyond screen time limits to ask who profits from children's attention, how platforms are built to keep babies and toddlers engaged, and what is lost when technology displaces other experiences.

Journalists are also encouraged to follow the money. Attention paid to those in the fight against children's media protections should include investigation of who funds research, programs, advocacy efforts, and organizations promoting children's technology or media use, including potential conflicts of interest and corporate partnerships. Funding sources can provide important context for understanding whose interests are represented in public conversations about children and technology.

The AI industry must not be treated any differently. It's not just "innovation," despite how it is most often described. In fact, reporting on any technology must examine the

power structures, incentives, and commercial interests behind emerging technologies. Journalist Sandrine Rigaud notes that, "This also means questioning the dominant narratives promoted by the AI industry, which often serve to limit scrutiny."¹⁵²

Looking beyond harm is as essential as asking who holds the power. The public needs journalists to investigate the policies, regulations, organizations, and community alternatives that could improve outcomes for young children.

For Early Education Professionals



The demands of being an early childhood professional are overwhelming. Educators and administrators, like parents, are increasingly expected to navigate a rapidly evolving technology landscape, often wading through false marketing claims and technology offerings that are designed to maximize engagement instead of supporting children's development. Early childhood educators have an important shared responsibility for supporting children's well-being in a tech-heavy world, but also would benefit from systems-level change.

While educators are increasingly encouraged to introduce tablets, smartboards, AI, and other technologies at younger ages, these recommendations don't take into consideration what children need to actually thrive, nor the harmful business model of technology products for children. In fact, 7 of 9 experts agree that pre-K classrooms should remain screen-free with the exception of assistive technology. According to Children & Screens, "Current evidence suggests that the potential for harm caused by screens in a Pre-K setting far outweighs the modest, conditional benefits—which typically require 1:1 co-use with an adult, and is rarely feasible in a standard classroom."¹⁵³ Early educators should not buy into technology's "educational" claims and instead work with their program or district to remove manipulative technology from any approved tech list. Tools like SAFE-C can give educators and administrators a structured way to evaluate technology before bringing it into the classroom,

and to provide a clear argument for why certain technology is not welcome.¹⁵⁴

Because educators often have close relationships with families, providing empathetic support and listening to their concerns is important. Educators can use the framing discussed above in “Shared Strategies” to ensure that families don’t feel shamed in such communication. Early education professionals are also encouraged to engage with the research, media, and trainings about screen time’s impacts on young children. Part of teacher preparation must include examination of technology’s marketing machine and business model. Similarly, professional development providers that specialize in child development and technology should include information about manipulative design and deceptive marketing practices in their workshops and materials.

It is strongly recommended that educators wait to implement any child-facing AI into their classrooms. There is simply not enough research to support its use, not to mention that there is evidence of serious harms for children’s development and well-being. That’s why Fairplay released a position statement that argues that GenAI products should not be used in schools until they are proven safe and that calls for preK-12 schools to press pause on GenAI products for the next five years. During those five years, school leaders should test these products to make sure they are safe for students, not being used for cheating, respectful of the role of teachers, and beneficial for learning, among other things. If the products fail that test, GenAI should not be used in preK-12 schools at all.¹⁵⁵ Similarly, companion AI, like AI toys and chatbots, should not be used because of their potentially unprecedented impacts on children’s attachment, learning, and social-emotional development, as well as privacy.¹⁵⁶

Early education professionals are also key players in keeping early childhood settings sanctuaries for supporting child development. This means elevating play, relationships, movement, creativity, and hands-on learning — and helping others recognize when technology is being presented as a solution to a problem that children don’t actually have.

For Families and Caregivers



Our hope is that this agenda and its recommendations will reduce the guilt, shame, and burden families feel around children’s screen use.

Families deserve support from the institutions and policymakers responsible for protecting childhood, and we can all expect more from the companies that design and market children’s technology.

Families are often the first to see how technology affects their children. Sharing these experiences can help researchers, advocates, educators, and policymakers understand where current systems are failing families — and where stronger protections and corporate accountability are needed.

Families can help advance this shared agenda by:

- **Sharing their experiences and concerns** with advocates, educators, and policymakers through conversations, letter writing, and storytelling.
- **Speaking up for stronger protections** for children’s privacy and limits on manipulative design and marketing.
- **Asking schools, childcare programs, and other institutions to create developmentally appropriate environments** that prioritize play, relationships, movement, and hands-on learning. Resources like the “Screen Aware Early Childhood Kit” can help.
- **Spreading a shared expectation** that children deserve childhoods designed around their developmental needs — not corporate incentives. This expectation can take root in parent groups, schools, neighborhoods, workplaces, and communities.

We also recognize that families have different resources, work demands, access to child care, and community support. Solutions must reduce these inequities — not shame families who rely on technology because the systems around them leave few alternatives.

Families cannot — and should not be expected to — counteract billion-dollar industries

designed to capture children’s attention and shape their behavior. Parents and caregivers are essential participants in their children’s lives, but they are not the only ones responsible for protecting childhood. They can be powerful

participants in building a broader movement that ensures young children are included in the tech accountability agenda — and that the systems surrounding families share responsibility for creating healthier digital environments.

A Note to Industry

Industry plays a significant role in shaping the future of technology’s place in childhood. Clearing the runway for the above is one of the best steps industry can take. Companies need not wait for government action. They can make changes now that meaningfully and positively impact young children’s experiences.

However, we acknowledge that by rejecting deceptive marketing and manipulative design practices, companies may be at a significant competitive disadvantage. Therefore, our biggest ask of industry members that actually care about children’s well-being is to advocate for policies that will help reward companies that don’t subscribe to the current business model. We hope this will decrease the incentive to race to the bottom.

Together, we can and must ensure innovation takes a pro-social direction, prioritizing the development and safety of children over the reckless pursuit of profit.



CONCLUSION

The overwhelming power of Big Tech in early childhood is a symptom of a larger systemic problem: We have allowed corporate incentives to shape children's environments without sufficient regard for what young children actually need to thrive. The race to capture children's attention, data, and attachment now begins earlier than ever — and young children cannot be expected to protect themselves from systems deliberately designed to engage them.

Young children need all of us to act. That means expanding the tech accountability movement to include the earliest years of childhood and coordinating action across sectors to address the problem upstream. Policymakers, advocates, educators, public health professionals, researchers, journalists, funders, and families each have a role to play in changing the policies, practices, and incentives

that allow harmful technology to enter childhood unchecked.

But this movement is not simply about keeping technology away from children. It is about protecting what childhood is for. Children need time to play, move, explore, imagine, build relationships, experience healthy frustration, and learn from the people and world around them. Families need the resources and support to make those experiences possible. And companies should not be permitted to undermine them in pursuit of profit.

We have an opportunity to establish a new expectation: Children's developmental needs — not corporate incentives — should determine what technology looks like in childhood. If we act collectively, we can give families a fighting chance, hold companies accountable, and build systems that allow young children to thrive offline.

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Our Mission

Fairplay works to enhance children's well-being by eliminating the exploitative and harmful business practices of marketers and Big Tech.



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