



Digital Ecosystems, Children, and Adolescents: Policy Statement

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abstract

Digital media, including television, the internet, social media, video games, and interactive assistants, form the digital ecosystem. When this digital ecosystem is designed with children's unique developmental needs in mind, it can support learning and well-being. In contrast, digital ecosystems that prioritize engagement and commercialization often encourage prolonged use, which in turn can displace healthy behaviors (eg, movement behaviors, sleep), and contribute to negative outcomes. This policy statement follows the conceptual framework of the socio-ecological model, depicting nested circles of care including: children's own characteristics, their caregivers, the digital ecosystem, as well as broader societal systems. Given the interconnected nature of these influences and systems, "media and children" cannot be viewed solely through the lens of individual child behaviors or screen limits alone. Recommendations are provided for families, pediatric providers, practitioners (eg, psychologists, social workers, counselors, educators, researchers), industry, and policy makers, aiming to provide strengths-based solutions and promote a more child-centered digital ecosystem.

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All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. Author disclosures are provided at the end of this article. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

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To cite: Munzer T, Parga-Belinkie J, Milkovich LM, et al; American Academy of Pediatrics, Council on Communications and Media. Digital Ecosystems, Children, and Adolescents: Policy Statement. *Pediatrics*. 2026;157(2):e2025075320

GLOSSARY OF TERMS

Caregivers: Parents, foster parents, family members, child care providers who participate in direct care of children.

Child-centered design: Developmentally appropriate digital designs that provide privacy, safety, meaningful experiences, and support youth learning and well-being.

Digital ecosystems: Digital environments, including but not limited to the internet, algorithms, artificial intelligence, social media, apps, video games, TV, interactive agents, tablets, and mobile devices.

Engagement-based design: Digital designs which compete for user's attention, interaction, and data, often incentivized by revenue structures. Synonyms might include persuasive, profit-driven, or manipulative design.

CHILDREN'S CIRCLES OF CARE AND DIGITAL ECOSYSTEMS

Children develop within nested circles of care, extending from caregivers to larger systems and structures.^{1,2} When these systems are health-promoting and created to meet family needs, children typically thrive.³⁻⁵ When these systems lack adequate investment, caregivers and children are likely to experience adverse impacts on their well-being.⁶⁻⁹ Yet, families are often expected to take *individual* responsibility for health behaviors, even though these behaviors are also shaped by systemic factors beyond their control.^{5,10,11}

Digital media includes television, the internet, social media, video games, and interactive assistants. Today's "digital ecosystem," which includes engagement-based designs that are immersive, pervasive, and commodified, can no longer be thought of as "screen time" for families to manage. Intentionally designed around engagement and commercialization, this ecosystem is shaped by industry incentives and lies largely outside of the control of individual families.^{12,13} That is, many parts of the digital ecosystem have business models based on data collection and advertising revenue. These business models can lead to prioritization of engagement (eg, prolonged and frequent use) through designs such as algorithmic recommender systems, autoplay, intermittent rewards, friend recommendations, and social quantification metrics.^{9,14-16} Engagement-based business models can also lead to amplification of negative content (eg, dangerous challenges, self-harm, disordered eating content) through user-profiling. In contrast, child-centered design that respects child privacy, agency, and encourages critical thinking, age-appropriate content, and social connection, can offer benefits.¹⁷⁻¹⁹

Although research on children and media remains largely observational, longitudinal and meta-analytic studies show consistent links between more time spent with digital media and less optimal child development,²⁰⁻²² learning,^{20,21} social relationships,²³ and emotion regulation.^{24,25} Newer research provides insights into roles that individual differences, psychosocial context, and digital design play in shaping child and adolescent relationships with media, which are described in more detail in the accompanying Technical Report.

This updated American Academy of Pediatrics (AAP) policy statement on children and media briefly reviews the updated evidence, interpreting it within a socioecological model that recognizes the nested circles that relate to child well-being. We combine the existing evidence with pediatric clinical knowledge to generate guidance for families, and pediatric providers, as well as practitioners, industry, and policymakers. Artificial Intelligence is also rapidly shaping families' experiences, which will be covered in a separate and upcoming Policy Statement.

CONCEPTUAL FRAMEWORK

This policy statement follows the conceptual framework of the socioecological model,¹ depicting the nested circles that shape children's relationships with digital media and its impact on well-being (Figure 1). These circles include a child's characteristics, their caregivers, the digital ecosystem, and larger systems and structures. This framework emphasizes the sociotechnical and relational context of digital media and aims to address root causes of children and teens' negative media experiences. Because randomized controlled trials are not ethically or practically feasible when it comes to exposing children to potentially harmful levels of digital media, the science in this field is primarily observational. As a result, associations identified in existing studies are correlational, which we acknowledge limits the ability to draw causal conclusions. We ground this policy statement in the best available evidence, prioritizing longitudinal and meta-analytic evidence where possible, complemented by clinical experience, summarized below.

CHILD

Individual Factors

Every child or teen develops their own unique relationships with media based on their temperament, strengths, and how platforms personalize content.

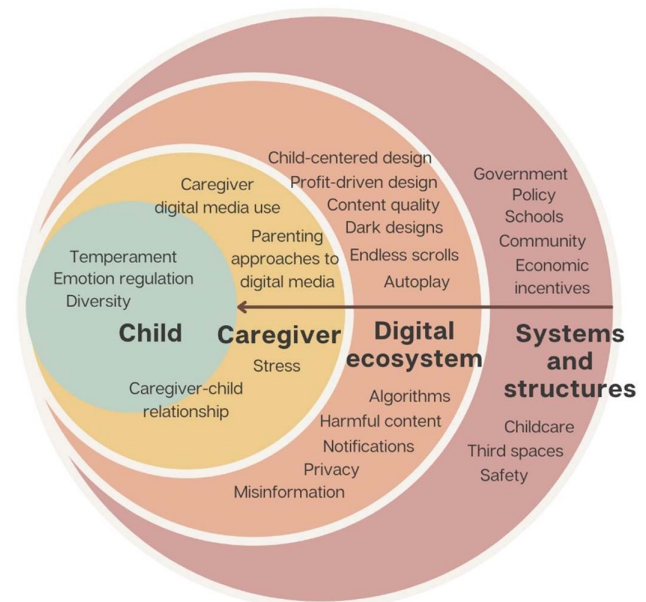


FIGURE 1. Socioecological model of children's digital ecosystem.

Emotion Regulation

Emotion regulation plays a key role in children's digital media use,^{25,26} with bidirectional associations. Using digital devices for soothing can displace opportunities for children to develop skills managing their emotions.²⁵

Minoritized Groups

For many minoritized youth (eg, racial, ethnic, faith-based, neurodiverse, and LGBTQ+ [lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual/aromantic]), digital media can foster social connection and well-being.²⁷ However, digital media can also amplify discrimination,^{28–32} which is associated with worse mental health.^{28,32,33}

Associations Between Digital Media and Development

Early Childhood (0–5 Years)

- Infants under 18 months struggle to transfer information from a screen to the real world because of immature cognitive processing.^{21,34–36}
- High-quality educational content is associated with greater prosocial behaviors and language²¹ among preschoolers and kindergarteners.^{18,37,38} Certain educational apps may promote STEM (science, technology, engineering, and math) and language learning.^{39,40} Effects are strengthened by joint media engagement (eg, viewing together, teaching) with a caregiver.^{17,41–44}
- Heavier noneducational and solo screen media use is associated with delays in language,^{21,36,45} cognitive,^{20,22} social-emotional,^{24,46–49} executive functioning,⁵⁰ and fine motor⁵¹ development,⁵² as well as poorer sleep⁵³ and less reading^{54,55} and pretend play.⁵⁶
- Many young children use tablets for many hours per day or night.⁵⁷ Heavier tablet use is linked with more anger outbursts over time.⁵⁸
- For preschoolers, use of mobile devices for calming is associated with weaker emotion regulation skills and problematic media habits.^{59,60}

School-Aged Children (6–12 Years)

- High-quality, well-designed digital media with learning goals, used in moderation, can be associated with children's learning of mathematics and reading.^{37,39,61}
- Excessive digital media use is associated with lower academic achievement,⁶² weaker attention control,⁶³ and weaker cognition (fluid, crystallized intelligence, language).⁶⁴
- Greater digital media use is associated with an increased risk of myopia progression,^{65,66} a more sedentary lifestyle, heightened exposure to calorie-dense foods, and elevated cardiometabolic risk for children and teens.^{67,68}
- Digital technologies can disrupt sleep duration, onset, and quality.^{53,57,69–71} Reasons include disruption of melatonin secretion,⁷² arousing content,⁷² and devices in bedrooms.^{71,73}

Teenagers (13–18 Years)

- There are small associations between greater duration of digital media use and poorer well-being.²⁷ Effects are heterogeneous.²⁷ Early adolescence (11–14 years) may be a period of relative susceptibility to negative effects.⁷⁴
- Digital media use can have positive associations with learning, identity formation and expression, and well-being, particularly when teens have supportive caregiver involvement,^{75–78} access to high-quality content,^{27,79} and positive peer influences online.^{27,80}
- Prolonged TV viewing,⁶² video game playing,⁶² mobile device use,⁸¹ and media multitasking⁸² are associated with lower academic achievement.
- Some teens may be at greater risk for adverse digital media outcomes (eg, teens with attention-deficit/hyperactivity disorder [ADHD], anxiety, autism).⁸³ Greater digital media use is associated with greater ADHD symptoms longitudinally.⁸⁴
- Optimal age of mobile device ownership is variable.^{85,86} Earlier age of device ownership for girls may be associated with worse behavioral adjustment.^{85,86}
- Algorithmic amplification and social comparison can be associated with greater risk for those vulnerable to developing eating disorders,^{87,88} depression, anxiety,⁸⁹ and self-harm behaviors.⁹⁰
- Cyberbullying is associated with worse psychological well-being.⁹¹

CAREGIVERS

Caregivers share the relational environment to gatekeep, teach, and participate with children and teens around media. Digital media can act as a connector or disconnecter in relationships.²³ Connected relationships with trusted caregivers (relational health)⁹² promote healthy development in digital media contexts.⁹³ Joint media engagement is associated with greater child and teen learning.^{17,41–44} Conversely, frequent digital media disruptions of caregiver-child interactions (eg, technofence) can be associated with child behavioral challenges.^{23,94}

Caregiver Stress

Nearly half of all caregivers report substantial stress in their lives,⁶ which is associated with greater caregiver mobile device use.^{95–97}

DIGITAL ECOSYSTEM

Child-centered design can support language, cognition, and social-emotional development.¹⁹ However, engagement-based designs might undermine child agency and potentially contribute to problematic or risky media use,^{98,99} such as (and Table 1):

TABLE 1. Aspects of the Digital Ecosystem Environment Shaping Children’s Health and Well-being and Recommendations for Each Design Type

Digital Ecosystem Design	Examples in Digital Play	Implication on Child Well-being	Pediatric and Family Recommendations	Advocacy and Policy Recommendations
Low-quality content	Some user-generated content that is widely available in streaming video platforms contains violent or age inappropriate content. ¹⁵ Apps may have educational claims but instead have designs that support in-app purchases. ¹⁰¹	Low-quality, fast-paced content has been found to be associated with greater hyperactivity symptoms among preschool boys. ¹²⁸ Low-income children may be more likely to be exposed to lower-quality content. ¹²⁹	Providers might consider pointing families toward high-quality content platforms such as PBS Kids. Various app platforms can be set up to de-emphasize certain types of content.	Consideration of a rating system on user-generated content, audits of such content, and providing trainings for content creators on how to generate high-quality content for videos in which children are likely to view. Create more opportunities for free high-quality content for all children.
Harmful content	Harmful content can include: eating disorder content, ¹³⁰ self-harm, unwanted contact from strangers, violent, ¹³¹ or stressful news exposure. ¹³² Data collection and profiling may infer a teen’s interests in unsafe activities such as drugs, alcohol, gambling, pornography, or extreme diets/fitness. ¹³⁵	Children and teens may be persuaded to adopt dangerous behaviors from social media, such as substance use and risky behaviors. ^{134,135} Exposure to violent media content is associated with greater aggression among children and teens. ¹³¹	Model open curiosity about what children and teens are encountering online. Encourage caregivers to talk early and often about digital experiences, so that children and teens can come to caregivers if they encounter content they find to be harmful. Consider algorithm resets if harmful content, such as eating disorder content is appearing frequently in feeds. Be aware of keywords to avoid.	Methods of reporting harmful content should be present and easy to use. Content should be rapidly removed to ensure that dangerous or risky content is not proliferated. Safety should be the default setting (eg, turning off the chat in gaming apps). Universal erasure laws should exist for minors, with the ability to quickly remove unconsented sexual or inappropriate content of a minor.
Commercial content and advertising	User-generated video platforms often contain highly commercialized content. ^{15,136,137}	Children may be more likely to ask their parents for specific toys or foods related to influencer marketing. ¹³⁸ They are often unable to distinguish advertisements and marketing from videos. ^{139,140}	Pediatric providers might point children toward platforms without as much commercialized content (eg, TV, paid streaming videos, PBS Kids). Caregivers can co-view and point out ads as they arise. Talk about what they are trying to sell.	User-generated commercialized content should be subject to similar regulations as TV content. Policies should align across states to de-incentivize ad exposure to minors, especially tobacco or alcohol products.
Automated algorithms	Algorithms might elevate risky, or unsafe content such as self-harm and dangerous challenges. ¹⁴¹ Online feeds and algorithms may elevate or contain overt sexual content. ^{110,111}	Algorithms can shape children’s learning and experiences. ¹⁴² Exposure to biased content may perpetuate more stereotypes. Exposure to overt sexual content may contribute to risky sexual behaviors.	Teach children about algorithms and talk about why they might be seeing specific content online. Talk about recommendation feeds and why they might be showing specific videos.	Create regulatory frameworks and processes for protecting youth during the design process. Hold companies accountable for manipulative algorithms that amplify harmful, biased, or targeted commercialized content.
Engagement-prolonging design	Social media and video platforms often contain endless scrolls and autoplay. ¹³ App features might constrain children’s ability to easily exit apps. ^{98,103}	Social media scrolls and video autoplay may make it harder for children to disengage from digital devices and prolong time spent on devices. ¹⁴⁶	Ask about how children decide when they are “done” with digital media and talk about digital design features that make it harder for them to stop. Provide resources for families on how to turn off autoplay on streaming video platforms and turn off devices at night.	Social media should have a place to click to advance content and periodic check-ins to help users disengage if they would like. Autoplay should, by default, be turned off.
Behavioral reinforcers	Gaming apps often contain easy advancement, frequent badges/trophies to encourage play.	Children may find it hard to resist these types of digital lures. It may be hard for children and teens to have agency in discontinuing game play. ^{100,101}	Create opportunities for children to experience positive reinforcement in offline spaces. Swap out a tablet or phone for a craft, book, or game. Ensure children are getting adequate sleep.	App games that are designed for children could include less frequent reinforcement and include opportunities to check in with children to disengage in play.

(Continued on next page)

TABLE 1. Aspects of the Digital Ecosystem Environment Shaping Children’s Health and Well-being and Recommendations for Each Design Type (Continued)

Digital Ecosystem Design	Examples in Digital Play	Implication on Child Well-being	Pediatric and Family Recommendations	Advocacy and Policy Recommendations
Mis-information	Social media and online content may contain unvetted information that shapes children and teens’ perspectives. ^{147–149}	Kids may find it challenging to parse out true versus false information online. ¹⁵⁰	Pediatric providers and caregivers might teach and reflect on the quality of information, how to evaluate sources, and what the underlying video/content motives might be.	Algorithms for children’s accounts could prioritize information from well-respected and well-vetted sources.
Privacy	Social media companies and online platforms track and collect data on children. ^{98,99,151,152}	Children have difficulty understanding how their information is collected online and cannot meaningfully consent to their data being collected. ¹⁵²	Pediatric providers and families might consider frequent conversations around where data might go and what it means to have digital privacy.	Youth and child privacy should be centralized as a key value. Surveillance and targeted advertising for children should be avoided.

For additional information, please visit the AAP Center of Excellence on Social Media and Youth Mental Health for a technical guide (<https://www.aap.org/socialmedia>).

- Low-quality apps with “educational” claims,^{14,100–102} including those with shallow learning goals, ads and high gamification.
- Manipulative “dark pattern” designs encouraging purchases or prolonged viewing.^{15,103}
- Platforms with endless scrolls and autoplay that make it hard to transition away.^{104–109}
- Online feeds and algorithms that contain overt sexual content^{110,111} contribute to risky sexual behaviors.^{112,113} Data collection and profiling that can infer a teen’s interests in unsafe activities such as drugs, alcohol, gambling, pornography, or extreme diets/fitness.¹¹⁴
- Short form videos may predict engagement and personalize algorithm recommendations more quickly than long form videos.⁹⁸ More needs to be known about their impact on children’s executive function and well-being.
- Notifications that can disrupt school or sleep.⁷³
- Privacy settings and recommendations that connect minors with strangers and put them at risk of exploitation or trafficking.^{115,116}
- School-issued devices that allow access to distracting video games, videos, or other platforms.^{117,118}

SYSTEMS AND STRUCTURES

Systems

Systems such as government, policy, schools, and community are dominant drivers of children’s digital media experiences.

Lack of Support for Families

Lack of childcare, insufficient “third space” opportunities for children and teens after school, poverty, and long work hours for caregivers are associated with greater duration of child digital media use.^{119–121}

CONCLUSION

Children and teens deserve to explore digital spaces filled with enrichment and community. Engagement-based designs are widespread but could be refocused toward children’s well-being. Child-centered designs are achievable, better for society, and can lead to digital products that promote children’s well-being.

RECOMMENDATIONS

Recommendations for Pediatric Providers and Practitioners

- *Use the 5 C’s to understand family goals around digital media:* The AAP Center of Excellence on Social Media and Youth Mental Health has a developmental digital media framework (<https://www.aap.org/en/patient-care/media-and-children/center-of-excellence-on-social-media-and-youth-mental-health/5cs-of-media-use/>). Pediatric providers and team members can support family decision making by asking:
 - Child: What are their strengths?
 - Content: What content are they interacting with?
 - Calm: Are children using media for calming?
 - Crowding out: What is digital media getting in the way of?
 - Communication: How is your family having conversations about media?
- *Support caregivers:* Societal framing around digital media use can incite caregiver guilt. Point out engagement-based design and focus on supportive, strengths-based communication.
- *Understand reasons for digital media use:* Explore family desire for change. Ask about the underlying causes behind digital media use (eg, boredom), and brainstorm practical steps.¹²²

- *Weave media conversations into health discussions:* Start with daily habits such as sleep, school, and developmental milestones. Consider using youth HEADSS assessment (**h**ome, **e**ducation [ie, school], **a**ctivities/employment, **d**rugs, **s**uicidality, and **s**ex).
- *Use strategies for emotion regulation outside of digital media:* Pediatric providers can help families identify use of media for calming and offer alternative strategies.
- *Ask about caregiver and child digital media use:* Encourage caregivers to model healthy habits from infancy through adolescence.
- *Address underlying challenges:* Screen for medical conditions such as ADHD, anxiety, or depression when children experience problematic media use symptoms.

Recommendations for Children, Teens, and Families

- *Foster digital literacy:* The AAP Center of Excellence on Social Media and Youth Mental Health has useful tools to promote healthy digital habits. Conversation starters promote frequent, ongoing discussions. Examples include: recognizing ads, private vs shareable information, body image, FOMO, and the permanent nature of online content. Schools might consider including digital literacy in curriculum. If youth encounter discriminatory, scary, self-harm, or eating disorder content, provide psychological support and brainstorm ideas on safer digital or offline spaces.
- *Create a Family Media Plan*¹²³: Use this AAP tool to discuss boundaries on digital media for the whole family (AAP Media Plan).
- *Find quality content:* Lean on high-quality, child-centered content that integrates principles of child development into its design. Higher-quality experiences tend to model social-emotional skills, include tailored learning goals (eg, math, reading), contain elements of free play, and promote critical thinking (Figure 2). Examples include media on **PBS KIDS** (eg, Daniel Tiger’s Neighborhood) and **Sesame Workshop**. Lower-quality content tends to include dark design patterns (eg, frequent rewards for play), embedded distractions such as ads, or excessive interactive elements, scary, or violent content (Figure 3).¹⁰¹ **Common Sense Media** and the **AAP Center of Excellence on Social Media and Youth Mental Health** include resources on high-quality experiences for apps and shows. Videochatting can provide opportunities for bidirectional interactions for children.
- *Be intentional about when to get a first phone:* Research does not point to a specific age for teen smartphone readiness, and it varies by teen.¹²⁴ Considerations include: teen digital media literacy, truthfulness with caregivers, ability to navigate conflict in social situations, and practical needs. Caregivers should set and monitor privacy, download, content, purchase, and time settings. Various smartphones, flip phones, or watches can minimize access to apps teens may not be ready for. The AAP PhoneReady Questionnaire (<https://www.healthychildren.org/English/Pages/PhoneReadyQuiz.aspx>) can jumpstart the conversation.
- *Tablets:* Personal tablets are designed primarily for solo use, which can make it difficult for caregivers to monitor and promote togetherness. A shared family tablet (vs one

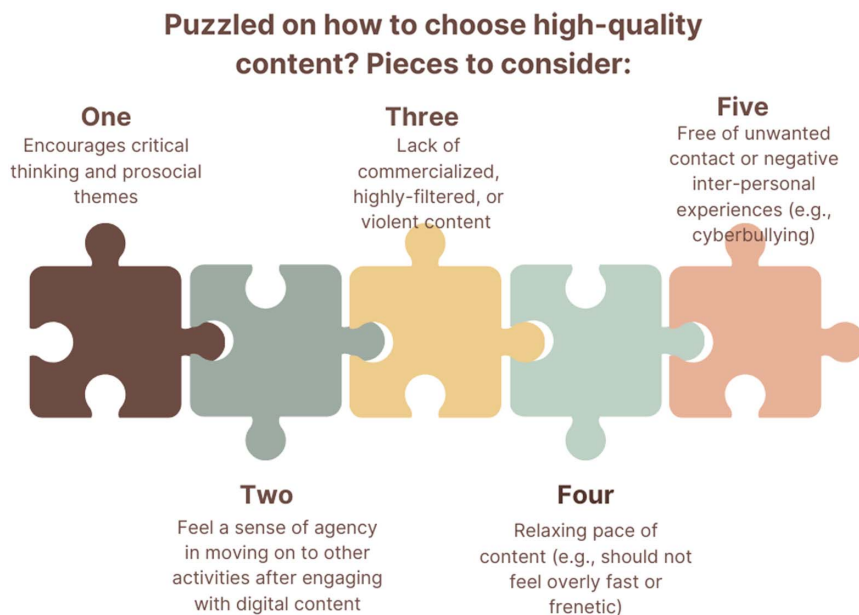


FIGURE 2. How to choose high-quality content.

SCREEN OUT: low-quality content

Identify content that may not be worth your child's time



FIGURE 3.

How to spot low-quality content. Use the acronym SCREEN OUT to avoid low-quality content that may not be worth your child's time.

that belongs only to the child) and waiting until children are older may help families establish and enforce boundaries. Children will not miss out on learning opportunities if families delay giving their children a tablet. Considerations about whether to give a child a personal tablet include: potential child difficulties transitioning off screens, whether caregivers feel they can set and keep boundaries, and caregiver readiness to set and monitor accounts for privacy/safety. Using a tablet device for occasional long road trips, plane rides, or challenging medical procedures can be appropriate.

- *Create screen-free time for the entire family:* Ensure opportunities for sleep, movement, reading, play, homework, and family time. Establish phone-free zones during mealtimes, in bedrooms, an hour before bed, and during homework. Use one screen at a time, and turn off TV when not actively viewing.¹²⁵
- *Set time boundaries:* The amount of screen media time spent per child might vary based on each family, their needs, and school nights vs weekends. Infants do not learn from digital media, but occasionally viewing brief, high-quality videos (eg, Sesame Street) is not detrimental. If caregivers want recommendations for a specific screen time limit, practitioners can discuss limits that fit a family's routine. Time limits might range from <1 hour/d for toddlers and preschoolers to 1 to 2 hours/d or more of entertainment (not school-related) media for school-aged children and teens. The most important considerations are high-quality content and prioritizing healthy activities (eg, sleep, play, physical activity, reading) (Figure 4).
- *Crowd in other important activities:* Extracurricular activities such as sports, music, art, volunteering, and outdoor

Pie Chart of Play

Ensure ample opportunities for nourishing childhood activities first, then consider digital experiences

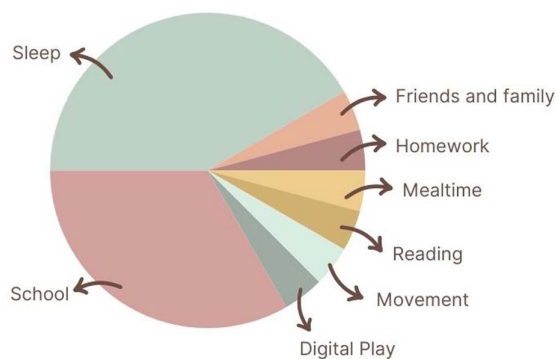


FIGURE 4.

Pie chart of play: balancing ample opportunities and time for healthy childhood experiences. Each section represents the potential amount of time dedicated to activities during each day.

movement can help crowd out digital media. Swap out digital media for these activities (Figure 5).

- *Use parental controls:* Track family digital habits and set parental controls (time, downloads, contacts, purchases) using tools on wireless routers, smartphones, tablets, gaming consoles/platforms, social media accounts, and school devices.
- *Protect sleep:* Avoid screen exposures an hour before bedtime and devices in the bedroom. Enable nighttime “do not disturb” settings. For children who watch videos to fall asleep, consider meditation apps, sound machines, or quiet music.

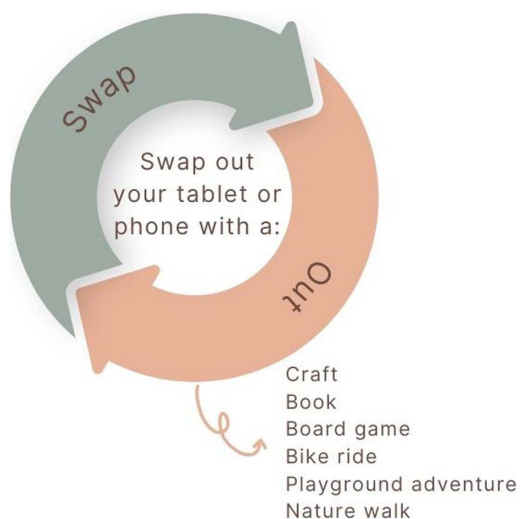


FIGURE 5. Do a swap! Swap out tablet, TV, or mobile device time for other fun child activities instead.

- *Relationship-building:* A strong relationship can help enforce screen media boundaries and facilitate ongoing digital media conversations. Joint media engagement can be a part of building relationships and learning.
- *Teach safety:* Caregivers and school sexual education programs can teach digital literacy through open-ended conversation and “if-then” scenarios around digital media content, including pornography, how to decline a sext, and consequences of sent images.

Digital Media Recommendations

- *Create child-centered designs:* Children’s health and well-being need to be prioritized over engagement-based designs encouraging excessive use, datafication, and commercialization (Table 1). Products should be adequately tested for safety and impacts through youth collaboration.
- *Differentiate child users.* Platforms should recognize when children are using their products. Platforms used by minors should have child safety teams and a governance structure in which these teams have power and report directly to company leadership.
- *Safety and privacy by default:* Digital companies should include safety and privacy features as the default setting, including turning off autoplay, not using targeted advertising on minors, providing options to turn off algorithmic feeds or content that has not undergone human review, preventing harmful content from being displayed to minors, minimizing designs that prolong engagement, and turning off the chat feature. Safety features should reduce unwanted interpersonal contact and child exploitation. Digital media companies should not be collecting privacy information from children using 1-to-1 laptops.

- *Increase transparency:* Digital media companies should allow for and address feedback when problematic content or interactions occur, with direct ways to communicate with platforms that market to minors or have content that pertains to them. Digital companies should provide algorithmic transparency, so consumers know how their preferences are shaping the digital environment.

Policy Recommendations

- *Fund prosocial third spaces:* In-person supports for families, such as adequate childcare, opportunities for extracurriculars, and paid parental leave are critical. Greater investment and access to third spaces, such as libraries, green spaces, and community centers that provide enrichment, social activities, and physical activity, can “crowd out” digital experiences.
- *Fund child-centered media:* Nonprofit organizations, such as PBS Kids and Sesame Workshop, include child-centered design and content and have the strongest evidence base for benefitting users. Nonprofit media can provide higher quality digital experiences with fewer ads that distract from content and learning topics.
- *Support healthy relationships:* Support programming that intentionally promotes strong caregiver-child relationships,^{54,126} which can facilitate digital media conversations.¹²⁷
- *Protect learning:* Students deserve distraction-free time to learn in school. Evidence-based school phone policies with thoughtful and consistent implementation, teacher support, and technology design change can minimize technological distractions.
- *Create a consensus:* The AAP recommends convening a group of diverse families, child developmental experts, pediatric providers, policy makers, and digital companies to create a consensus statement on creating a child-centered digital ecosystem.
- *Develop effective age assurance:* Effective, privacy-preserving age assurance should be used to prevent minors’ access to illegal and harmful content and activities.
- *Harmful content:* Regulatory practices should address digital media design that recommends overt sexualized, commercialized, or harmful content to youth. Algorithms should not infer teens’ potential interest in harmful content (self-harm, eating disorders, suicide).
- *Universal erasure:* Universal erasure laws should be enacted so that there is less permanence for teens’ online content and so that teens can take down content or images posted about them in a timely manner.
- *Fund research:* Policy makers should support research funding to understand the digital ecosystem (including novel formats), identify child-centered digital designs, and promote healthy digital media habits.

- *Institute transparency, safety reports, and certification requirements:* Digital media companies should be subject to the same types of product safety regulations as food, cars, and medical devices. Regulatory agencies could require that digital media companies who intend to include minors report key metrics on their digital content and patterns of use. Safety and well-being metrics could be regularly incorporated with earnings reports. Agencies could impose safeguards as a contingency to including children.

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ABBREVIATIONS

AAP: American Academy of Pediatrics
 ADHD: attention-deficit/hyperactivity disorder, LGBTQ
 + (lesbian, gay, bisexual, transgender, queer/
 questioning, intersex, asexual/aromantic)

The guidance in this statement does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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FINANCIAL/CONFLICT OF INTEREST DISCLOSURE: Dr Milkovich has participated as an expert witness on media issues. Dr Munzer had disclosures related to PBS Kids and Reach Out and Read Michigan. Dr Parga-Belinkie had disclosures related to Sanofi Pasteur Inc.

Disclosures are reviewed and mitigated through a conflict-of-interest process that consists of reviewing pertinent information which is then used to decide what action is required to maintain content integrity. Disclosures may include salary, wages or other remuneration of any kind (including but not limited to consulting or advising fees, speaking fees, research funding, ownership interests, honoraria, participation in pension or benefit plans or programs or other perquisites, and reimbursement for travel, lodging, and meals) given for services rendered or other activities for which remuneration is received or expected, whether that compensation or other remuneration is paid directly to the individual or to the individual's employer or another third party. A disclosure does not necessarily imply a real or perceived conflict of interest.

Members of the executive committee of the Council on Communications and Media assisted in the development of this policy statement. AAP requires committee members to mitigate any perceived or actual conflict of interest which may include recusal from participating in policy development.

FUNDING: No external funding.

<https://doi.org/10.1542/peds.2025-075320>

COMPANION PAPER: A companion to this article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2025-075321.

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