# The Impact of Technology on Children's Health

July 17, 2024

# Purpose of the presentation

Members requested an informational presentation on the impact of technology on children's physical, social, and mental health

# Agenda

Impact of Technology on Children's Health

Presented by Dr. Koeun Choi

Social Media and Children: State Legislative Landscape

Presented by Heather Morton and Flora Fouladi

Children and Technology in Virginia

Presented by Emily Atkinson

# The Impacts of Technology on Children's Health

## VIRGINIA JOINT COMMISSION MEETING

July 17, 2024, 10am
General Assembly Building,
House Committee Room C (206)

**Koeun Choi**
Virginia Tech
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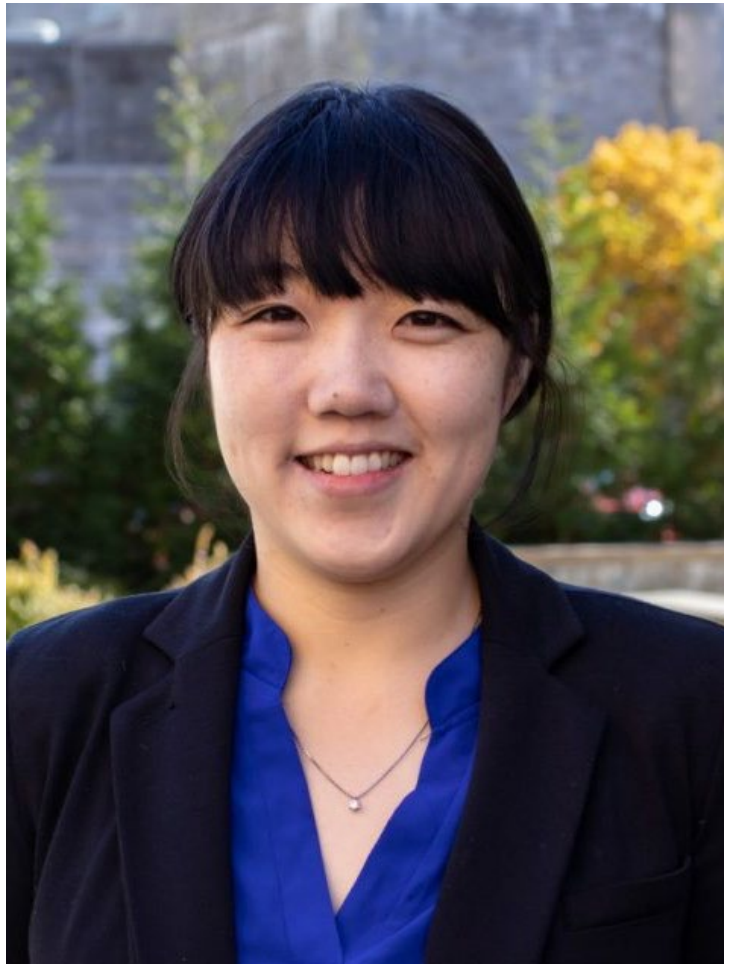


# Outline

- **Children's Screen Time Usage Statistics**
- **Effects of Screen Media Use Children's Physical, Social, and Mental Health**
  - **The Benefits of Screen Media Use**
  - **The Risks of Screen Media Use**
  - **The Benefits and Risks of Social Media on Children**
- **The Role of Parents in Technology Effects on Children**
- The Importance of Taking a Holistic Approach to Technology Effects on Children
- **Q & A**

# Children's Screen Time Usage Statistics

| Category | Infants and Toddlers (0-2 years) | Preschoolers (3-5 years) | School-Age Children (6-12 years) | Adolescents (13-18 years) |
|---|---|---|---|---|
| **Average Daily Screen Time (non-school related)** | 49 minutes (under 2) | 2 hours 30 minutes (2-4 years)<br>3 hours (5-8 years) | 5 hours 33 minutes (8-12 years) | 7 hours and 22 minutes |
| **Ownership** | 48% having their own device (0-8 years; 2020) | | 42.6% having their own smartphone (8-12 years; 2021) | 95% having their own smartphone (2023) |
| **Activity Breakdown** | - TV/Video: 45 min | - TV/Video : 2 hr<br>- Gaming: 15 min (2-4 years), 40 min (5-8 years) | - TV/Video: 2 hr 40 min<br>- Gaming: 1 hr 27 min<br>- Social Media: 18 min | - TV/Video: 3 hr 16 min<br>- Gaming: 1 hr 46 min<br>- Social Media: 1 hr 27 min |

(Pew Research Center, 2023; Rideout et al., 2021; Rideout & Robb, 2020)

# The Benefits of Screen Media on Children's Physical, Social, and Mental Health

## Age-Appropriate and Educational Content, Active, Interactive, and Moderated Use

| Category | Infants and Toddlers (0-2 years) | Preschoolers (3-5 years) | School-Age Children (6-12 years) | Adolescents (13-18 years) |
|---|---|---|---|---|
| **Physical Health** | • Interactive content can engage fine motor skills | • Interactive content promotes physical activity | • Interactive games enhance physical activity | • Access to health information, support network for healthy behaviors |
| **Social Health** | • Live video-chatting with responsive adults facilitate social connections with distant relatives. | • Educational/prosocial content enhances social skills development | • Educational content fosters social skills | • Social media fosters connections |
| **Mental Health** | • Toddlers can learn new information from touchscreens and video-chatting, especially when these media forms involve responsive interactions. | • Educational content supports cognitive, language, and emotional development | • Educational content enhances cognitive skills and emotional regulation | • Positive content offers mental health support, learning |

(AAP 2016a, 2016b)

# The Risks of Screen Time on Children's Physical, Social, and Mental Health

## Age-Inappropriate and Non-Educational Content, Excessive and Unmonitored Use

| Category | Infants and Toddlers (0-2 years) | Preschoolers (3-5 years) | School-Age Children (6-12 years) & Adolescents (13-18 years) |
|---|---|---|---|
| **Physical Health** | • Less physical activity due to screen time<br>• Shorter night-time sleep | • Sedentary behavior linked to increased obesity<br>• Shorter night-time sleep | • Sedentary behavior linked to increased obesity<br>• Screen exposure before bed disrupts sleep quality<br>• Linked to earlier initiation of alcohol, tobacco use, and sexual behavior |
| **Social Health** | • Less face-to-face interaction<br>• Associated with social emotional delays | • Reduced opportunities for social play<br>• Associated with decreased social skills | • Decreased in-person social interactions<br>• Excessive screen time leads to feelings of loneliness<br>• Increased exposure to cyberbullying |
| **Mental Health** | • An earlier age of media use predicts poor executive functioning<br>• Limited caregiver interaction affects emotional regulation | • Excessive media use is associated with cognitive and language development delays.<br>• High cumulative hours and non-educational content predict poor executive functioning.<br>• Violent content relates to behavioral symptoms. | • Media multitasking using entertainment media negatively impacts learning and academic achievement.<br>• Overuse of online media and video games can lead to problematic Internet use and Internet gaming disorder.<br>• High screen time (especially social media) linked to higher rates of anxiety and depression. |

(AAP 2016a, 2016b)

# The Benefits and Risks of Social Media on Children

**Adolescents (13-18 years)**

| Aspect | Positive Effects | Negative Effects |
|---|---|---|
| **Physical Health** | • Seeking health information and engaging in community to promote healthy behaviors<br>• Body positivity content | • Disruption of sleep<br>• Negative body image |
| **Social Health** | • Fosters connections and self-expression | • Increased exposure to cyberbullying, sexting, online solicitation |
| **Mental Health** | • Enhances creativity and learning through shared content | • Exposure to harmful content<br>• Increased anxiety and depression |

- Roughly 84% of teens (13-18 years) in the US use social media (2021).
- Also, 38% of tweens (8-12 years) in the US have used social media (2021).

(AAP 2016a; Pew Research Center, 2023; Rideout et al., 2021)

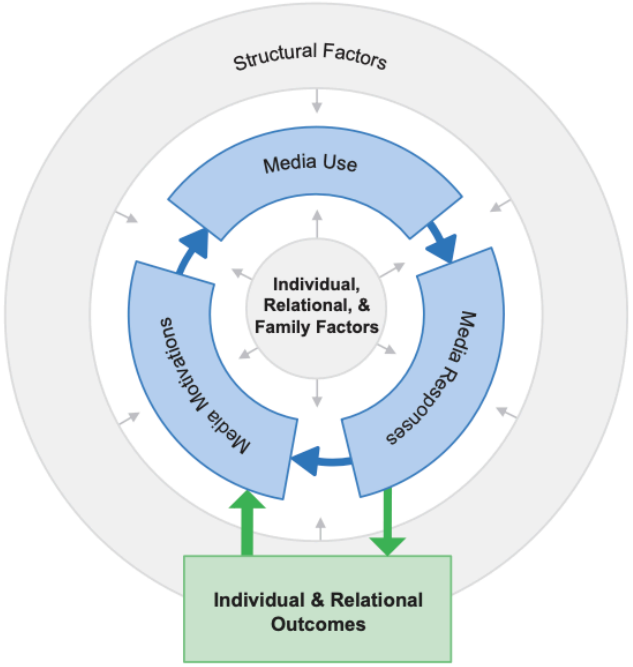
# The Role of Parents in Technology Effects

| Category | Infants and Toddlers (0-2 years) | Preschoolers (3-5 years) | School-Age Children (6-12 years) | Adolescents (13-18 years) |
|---|---|---|---|---|
| **Setting Limits** | • Avoid screen time except video chatting | • 1 hour/day high-quality content<br>• Screen-free times/zones | • Balance screen time with activities<br>• Involve in media plan | • Maintain/adapt media plan<br>• Set screen time boundaries (before bed) |
| **Monitoring and Supervising** | • Ensure screen time is appropriate | • Supervise and use parental controls | • Parental controls<br>• Supervise online activities, educate on safety | • Open communication<br>• Educate on digital citizenship and safety |
| **Active Mediation and Co-Viewing** | • Co-view to help understand content | • Co-view, discuss, relate content to daily life | • Co-view, discuss critical thinking, reality vs. fiction | • Discuss media use, mental health impacts, critical thinking |
| **Promoting Quality Content** | • Choose high-quality programs/apps | • Choose educational programs | • Promote high-quality educational content | • Encourage positive, educational media use |
| **Encouraging Offline Activities** | • Prioritize face-to-face interactions and play | • Promote physical play, reading, and hands-on activities | • Diverse activities, sports, hobbies | • Participation in sports, clubs, family engagements |
| **Modeling Healthy Behavior** | • Limit personal screen time during family interactions<br>• Demonstrate balanced media habits<br>• Reduce background media use | | | |

(AAP 2016a, 2016b)

# The Importance of Taking a Holistic Approach to Technology Effects on Children

Dynamic, Relational, Ecological Approach to Media Effects Research (DREAMER) Framework




**Individual & Contextual Factors**

**Individual, relational, & family factors** that moderate media dynamics and the associations between them (e.g., child temperament, parent executive function, attachment style, coparenting, presence of siblings)

**Structural factors** that moderate media dynamics and associations between them (e.g., access to child care, psychosocial stressors, COVID-19 lockdowns)

**Media Dynamics at Varied Timescales**

**Media motivations** for children and parents (e.g., to calm, escape from stress, share positive content, relax together)

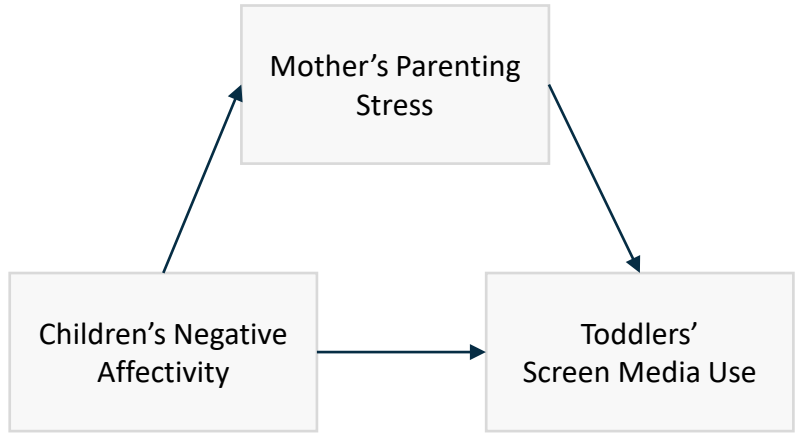
**Media use** by children and parents, including amount, content, design, and context (e.g., joint media engagement, technoference)

**Media responses** for children and parents, including cognitive, affective, behavioral, and relational aspects (e.g., cognitive overload, connectedness, behavioral dysregulation when media use ends)

**Longer-Term Outcomes**

**Individual and relational outcomes** resulting from cumulative media dynamics over time and may have transactional effects on media dynamics (e.g., children's social competence, self-regulation, language skills; parents' self-efficacy, burnout, marital satisfaction; parent-child interaction quality)

Barr et al. (2024)




Shin, Choi et al. (2021)

# Questions

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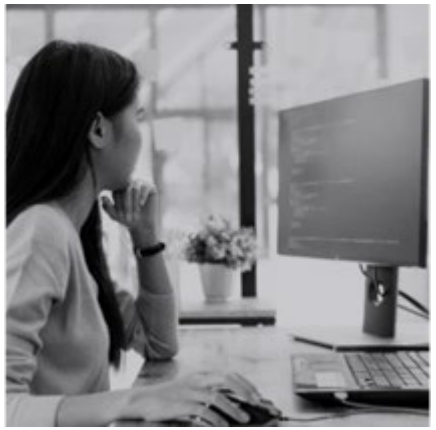
# Social Media and Children: State Legislative Landscape

Joint Commission on Health Care
Commonwealth of Virginia

July 17, 2024

# STRENGTHENING THE LEGISLATIVE INSTITUTION

# HOW NCSL STRENGTHENS LEGISLATURES



## Policy Research

NCSL provides trusted, nonpartisan policy research and analysis

## Connections

NCSL links legislators and staff with each other and with experts

## Training

NCSL delivers training tailored specifically for legislators and staff

## State Voice in D.C.

NCSL represents and advocates on behalf of states on Capitol Hill

## Meetings

NCSL meetings facilitate information exchange and policy discussions

# SOCIAL MEDIA AND CHILDREN

Recent Survey Results

**Most teens say the benefits of smartphones outweigh the harms for people their age**

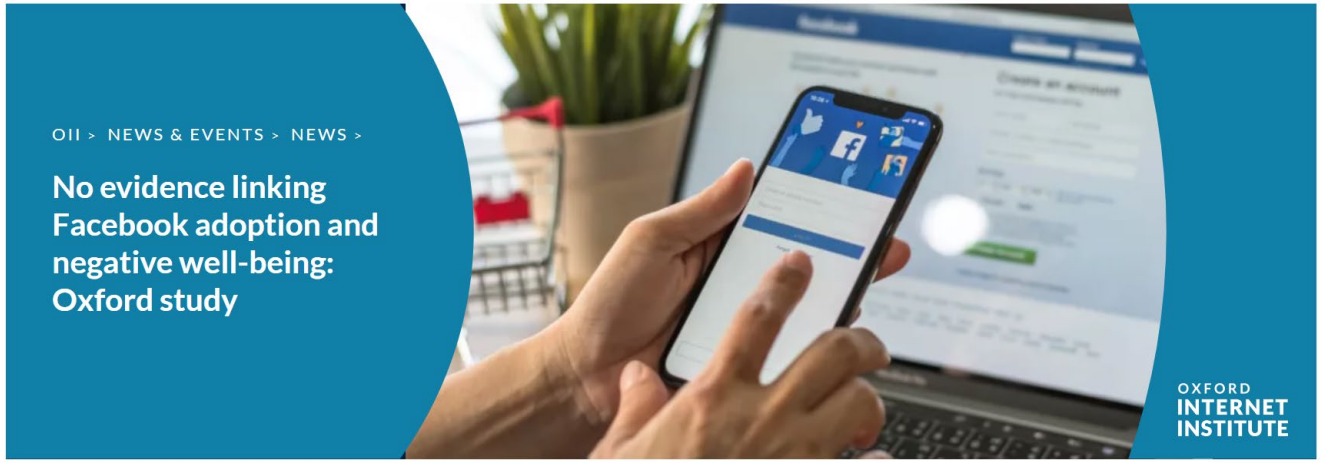
*% of U.S. teens ages 13 to 17 who say, when it comes to people their age using a smartphone, there are generally ...*

Note: Those who did not give an answer are not shown.
Source: Survey conducted Sept. 26-Oct. 23, 2023.
"How Teens and Parents Approach Screen Time"

PEW RESEARCH CENTER

**Do you feel like you are "addicted" to screen media?**

© 2022 Digital Wellness Lab. All Rights Reserved. | **Pulse Survey: Adolescent Media Use**



# USE OF TECHNOLOGY IN SCHOOLS

Georgia requires local boards of education and governing bodies of charter schools to annually submit acceptable-use policies and technology protection measures for review by the State Board of Education.

Minnesota requires that a school district or charter school must adopt a policy on students possession and use of cell phones in school.

# Social Media in School Curriculum

## Texas

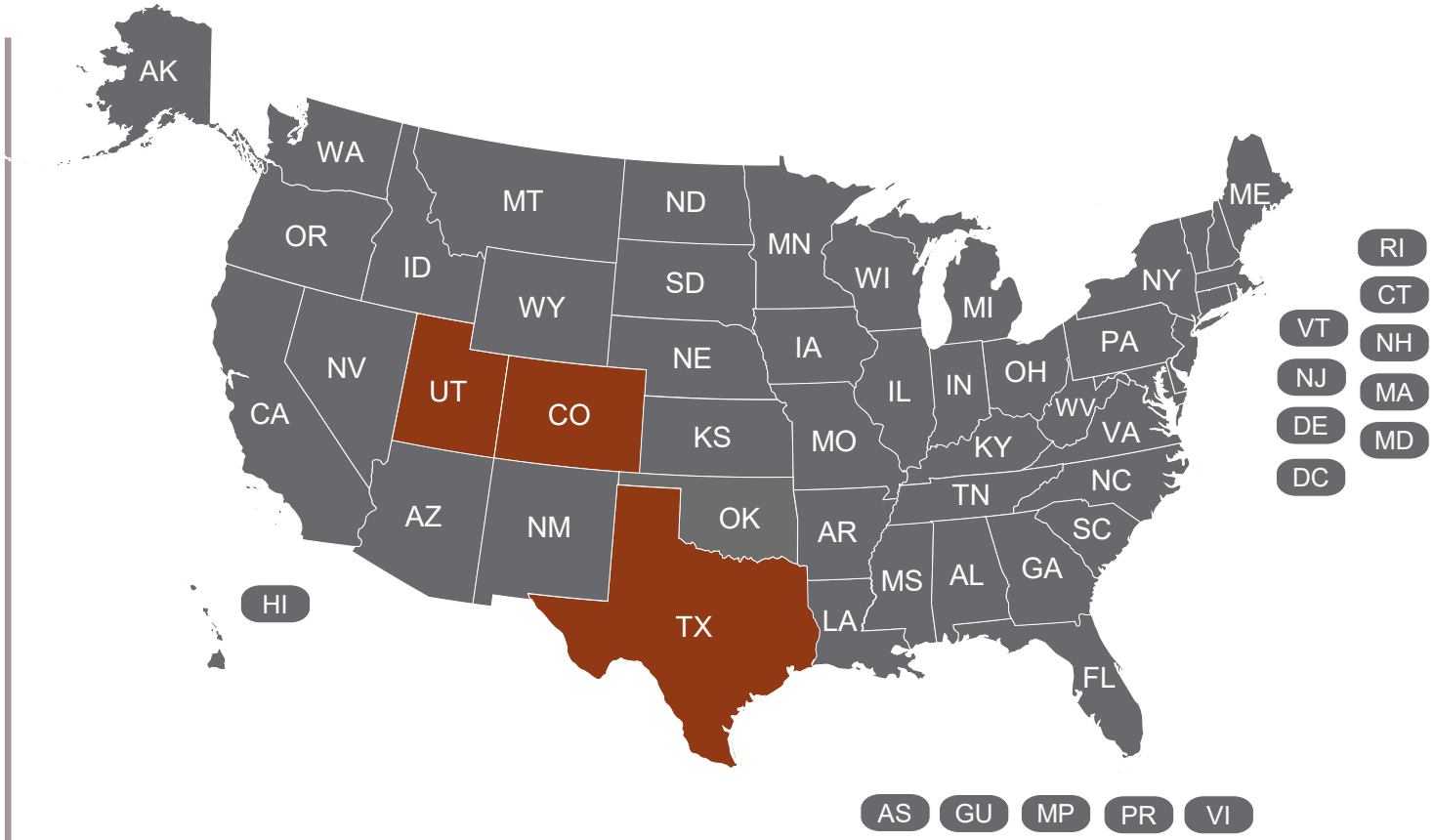
Requires each school district to incorporate instruction in digital citizenship into the district's curriculum

## Colorado

Requires the Department of Education to create and maintain a resource of program materials and curricula on the mental health impacts of social media use by children and teens.

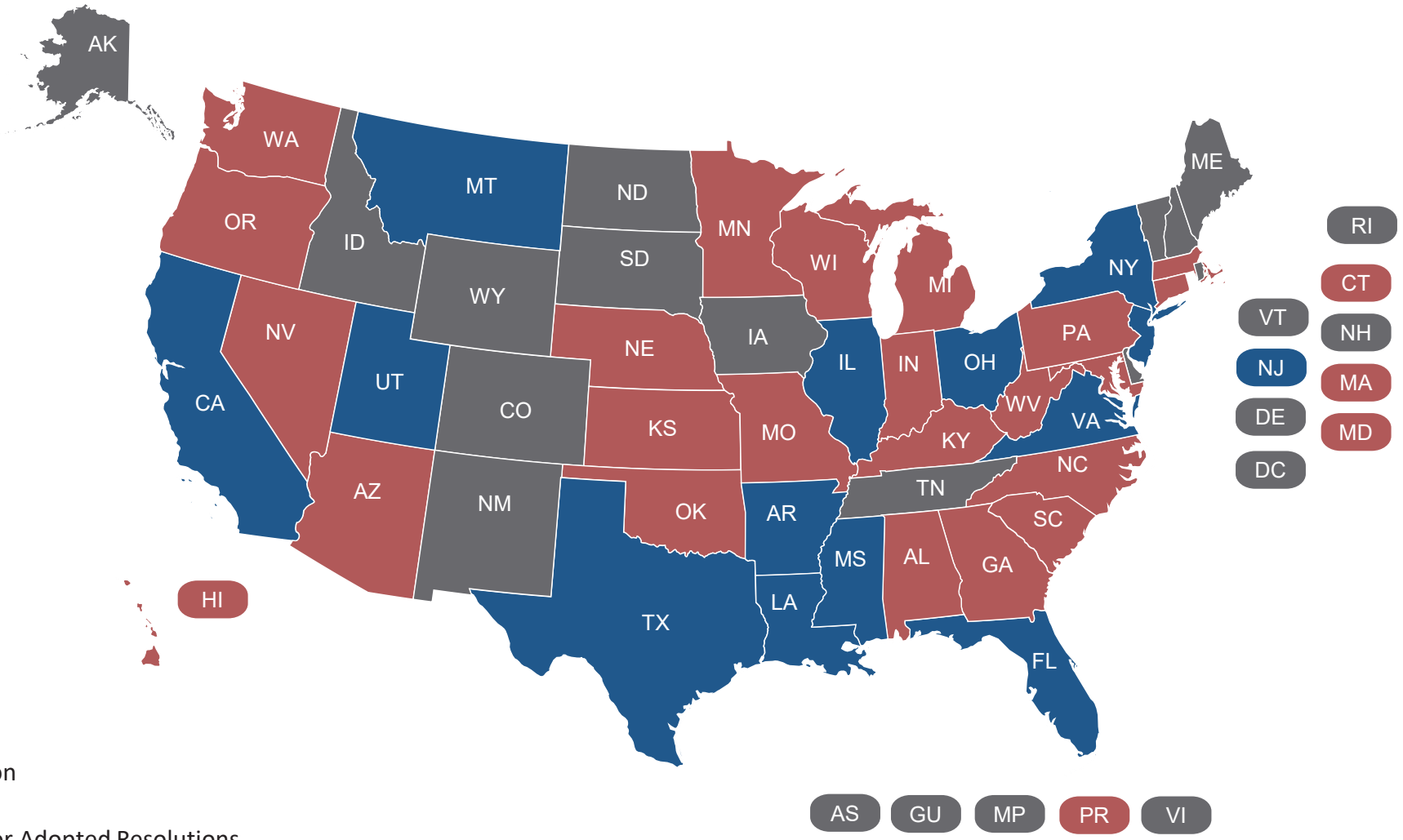
## Utah

Creates the Digital Wellness, Citizenship, and Safe Technology Commission to advance the goal of training every student in healthy behavior related to technology use.



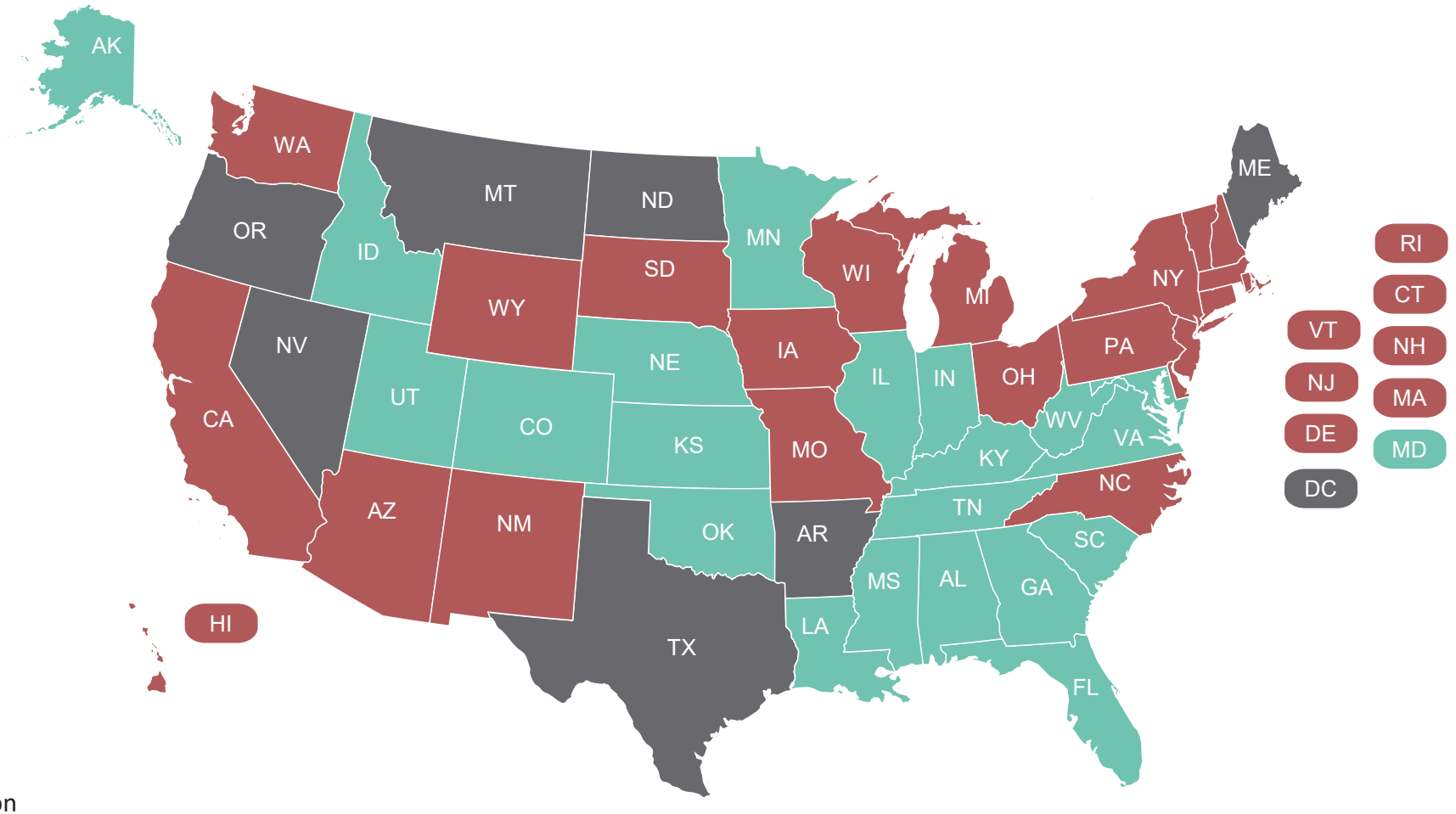
# SOCIAL MEDIA AND CHILDREN

## 2023 Legislation



# SOCIAL MEDIA AND CHILDREN

## 2024 Legislation




No legislation

Introduced Legislation

Enacted Legislation or Adopted Resolutions

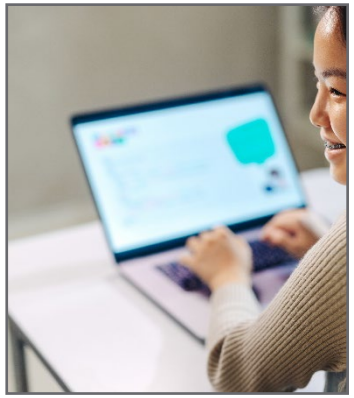
# SOCIAL MEDIA AND CHILDREN

## Legislation Types

**Age-Appropriate Design Code**

**Parental Consent-Supervision**

**Harmful Materials Age Verification**



**Media Literacy**

**Content Creators-Vlogging**

# LEGAL CHALLENGES

Filed by NetChoice

### Arkansas SB 396

NetChoice v. Griffin

Preliminary Injunction

### Ohio HB 33

NetChoice v. Yost

Preliminary Injunction

### California AB 2273

NetChoice v. Bonta

Preliminary Injunction

### Utah

NetChoice v. Reyes

Complaint updated May 2024

### Mississippi HB 1126

NetChoice v. Fitch

Complaint filed June 2024

# LEGAL CHALLENGES

Filed by Free Speech Coalition

**Louisiana**

Case on hold pending
Texas case
March 28, 2024

**Montana SB 544**

Lawsuit filed
May 14, 2024

**Texas HB 1181**

Certiorari granted by
U.S. Supreme Court
July 2, 2024

**Utah SB 262**

Case dismissed

FSC filed appeal
Sept. 27, 2023

# NCSL WEB RESOURCES

- Maternal and Child Health Legislative Database
- NCSL State Legislative News | Improving Child and Adolescent Behavioral Health
- Social Media and Children 2023 Legislation
- Social Media and Children 2024 Legislation
- Across the Aisle Podcast | States Take Up Social Media Regulation
- State of Play | Tackling Social Media Regulations for Children
- NCSL State Legislative News | States Search for Ways to Keep Kids Safe on Social Media

# 2024 Legislative Summit

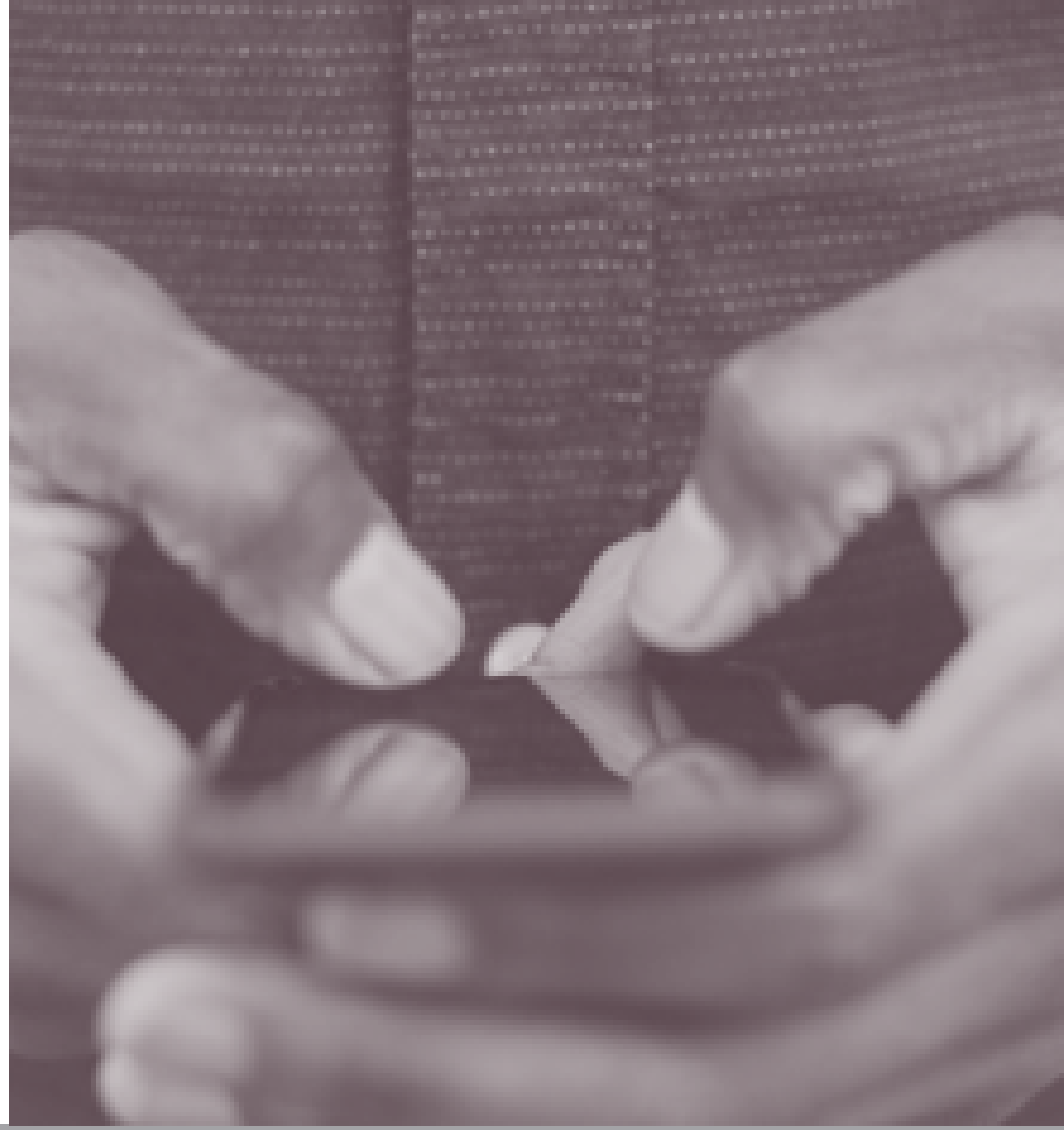
NCSL LEGISLATIVE SUMMIT 24 LOUISVILLE | KY

Aug. 5-7, 2024

# Oct. 29-30, 2024

# STAY CONNECTED

- Learn about NCSL training
- Subscribe to policy newsletters
- Read State Legislatures magazine
- Listen to an NCSL podcast
- Watch recorded policy webinars and training sessions
- Attend a meeting or training
- Follow @NCSLorg on social media



# Thank you for joining today!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# Agenda

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# Children and Technology in Virginia

Analyst: Emily Atkinson

# Virginia legislation has focused on online safety and protections for children

- 2022 Session
  - **HB 1026** – *Internet Safety Advisory Council; established, sunset date, report*
  - **HB 1215** – *Public middle schools; physical education to include personal safety training*
- 2023 Session
  - **HB 1575** – *Internet Safety Advisory Council; powers and duties*
  - **SB 1515** – *Harmful materials; civil liability for publishing or distributing to minors on the Internet*
- 2024 Session
  - **SB 361** – *Consumer Data Protection Act; protections for children*

# Two state agencies report initiatives on children's technology use

| Agency | No Initiatives | Implementing Initiatives | Plans for Initiatives |
|---|---|---|---|
| Virginia Department of Education | | ✓ | ✓ |
| Virginia Foundation for Healthy Youth | | ✓ | |
| Virginia Department of Medicaid Assistance Services | ✓ | | |
| Virginia Department of Health | ✓ | | |
| Virginia Department of Behavioral Health and Developmental Services | ✓ | | |
| Virginia Department of Social Services | ✓ | | |
| Office of Children's Services | ✓ | | |

# Virginia Foundation for Healthy Youth grantees implement strategies aimed to reduce children's screen time

- The "Promising Practices to Reduce and Prevent Childhood Obesity Framework" suggests grantees:
  - Implement policies that reduce sedentary screen time in preschool and after-school programs
  - Provide alternative forms of activity that are age appropriate for children ages 0-18 that promote physical activity and/or creative skills development
- Six VFHY grantees have implemented various screen time reduction strategies consistent with the obesity framework, including:
  - Limiting screentime to no more than 15% of daily operations
  - Implementing a Screen Free Week

VFHY=Virginia Foundation for Healthy Youth

# Virginia BOE regulates use of screens and electronic media in licensed family day homes

Regulations provide that:

- Screens and electronic media must be available no more than two hours per day
- Electronic media offered must be produced for children or are suitable for children
- Other activities must be available to children during television or video viewing

BOE=Board of Education

# VDOE plans to implement several initiatives on children's technology use

- Future computer science standards and internet safety policies will include information around proper media use and screen time
- Future resources and materials for both teachers and parents will address proper screen time and social media use
- Future initiative for cell phone free education in Virginia's K-12 public schools, consistent with Executive Order 33

VDOE=Virginia Department of Education

# In Summary

- There are both benefits and risks to children's technology use
- It is important to take a holistic approach to supporting families in developing healthy technology habits for children
- Social media legislation was enacted in 13 states in 2023 and 21 states in 2024
- Virginia has passed legislation related to technology and children, but there is no standardized, statewide approach which has been implemented yet

# Joint Commission on Health Care

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**Website:** http://jchc.virginia.gov