Social Media and Its Impact on Students and Families

Citizens Advisory Committee, 2024-2025

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WYOMING CITY SCHOOLS

In memory of



Alison Heck Dupee

February 10, 1982-
March 5, 2025

Study Objectives

- **Examine the impact** of social media on students and families, with a particular focus on insights from the book The Anxious Generation and the Netflix mini-series *The Social Dilemma*.

- **Explore the challenges and implications** of social media usage on family dynamics, mental health, and societal behavior.

- **Provide evidence-based insights and practical strategies** to address the effects of social media on families, fostering informed discussions and actions within the school community.

Methodology

Watched and evaluated *The Social Dilemma*
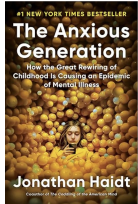
Read and analyzed <u>The Anxious Generation</u>: reviewed supplemental materials on companion website: https://www.anxiousgeneration.com/

Conducted a survey of parents via Google Forms (283 responses)

Collected cell phone policies and practices from local school districts and schools & articles from schools in other states

The Social Dilemma

➔ "Technology's promise to keep us connected has given rise to a host of **unintended consequences** that are catching up with us. If we can't address our broken information ecosystem, we'll never able to address the challenges that plague humanity."

➔ Social media platforms are **designed to addict** the users.

➔ Access to **smartphones** and the apps on them exacerbated the negative impact.
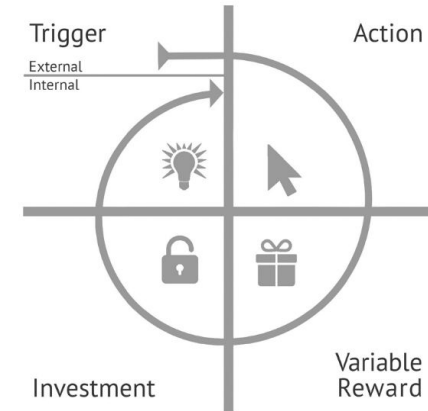
Figure 5.3. The Hooked model. From Nir Eyal's 2014 book, *Hooked: How to Build Habit-Forming Products*. In the book, Eyal

The Social Dilemma

- A 5,000-person study found that higher social media use correlated with declines in self-reported mental and physical health and life satisfaction.

  — American Journal of Epidemiology, 2017

- The # of countries with political disinformation campaigns on social media doubled in the past 2 years. — New York Times, 2019

- 64% of the people who joined extremist groups on Facebook did so because the algorithms steered them there. — Internal Facebook report, 2018

The algorithmic advertising industry incentivizes companies to use behavior modification and psychological manipulation to continuously increase their user base and engagement.

Users experience disinformation, extremism, and negative mental health outcomes, including addiction, depression, and anxiety. These outcomes are even more pronounced in younger users.
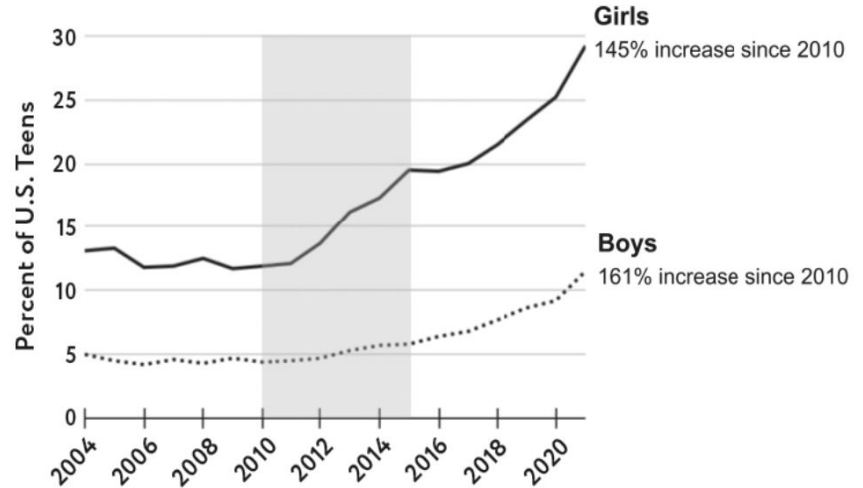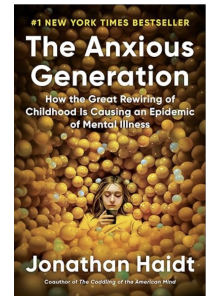
Contra Haidt

- Haidt's book is a narrative.
- Correlation does not imply causation.
- The science isn't as settled as it might appear.
- Beware of thinking that this is a solved problem, it needs continued attention.

The great rewiring: is social media really behind an epidemic of teenage mental illness? – Candice Odgers, Nature https://www.nature.com/articles/d41586-024-00902-2

Smartphones & Mental Health

- Smartphones and social media linked to rise in depression and anxiety

- Youth, especially teens and pre-teens, facing increased mental health challenges

- Both boys and girls are feeling increasingly lonely and disconnected from their peers

#1 NEW YORK TIMES BESTSELLER
The Anxious Generation
How the Great Rewiring of Childhood is Causing an Epidemic of Mental Illness
Jonathan Haidt
Coauthor of *The Coddling of the American Mind*

Major Depression Among Teens

Girls
145% increase since 2010

Boys
161% increase since 2010

Percent of U.S. Teens

30
25
20
15
10
5
0

2004 2006 2008 2010 2012 2014 2016 2018 2020

Smartphones & Learning

- Neuroscience shows when learning something new, it is a fragile idea, immediately subject to forgetting. It is a weak memory trace, retained only if it is strengthened.

- Adding more and more information acts as interference, preventing sufficient refiring of the original memory and functionally erasing it. **Smartphones are interference.**

"It never gets committed into memory, and no matter what you do on test day, you can't pull out something that isn't committed to memory."
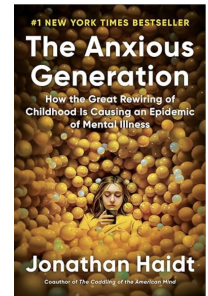
Social media creates substantial interference with memory consolidation
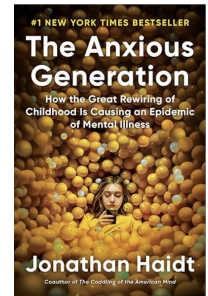
According to Haidt
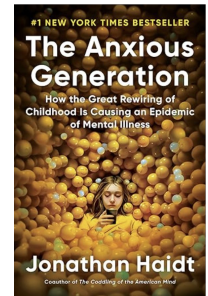
Contrast in "real world" and "virtual world" experiences

Real World	Virtual World
Embodied	Disembodied
Synchronous	Asynchronous
One-to-one or one-to-several communication	One-to-many communication
High bar for entry and exit	Low bar for entry and exit

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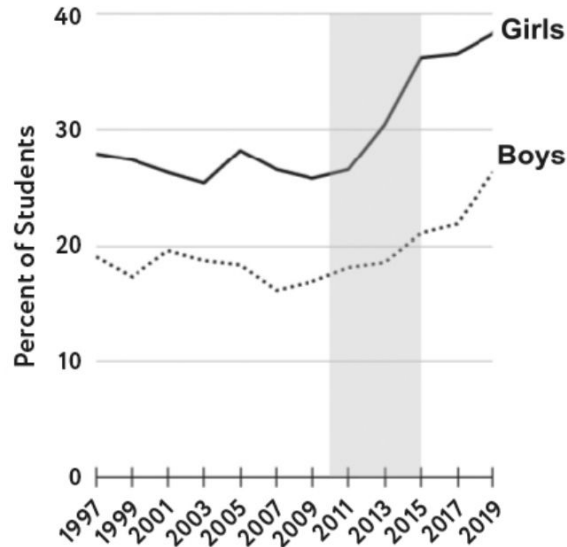
According to Haidt

Phone-based vs play-based childhood

Four foundational harms:
1) social deprivation
2) sleep deprivation
3) attention fragmentation
4) addiction

"Foundational" = adversely affect *multiple domains of human development*, impeding social, emotional, psychological and cognitive abilities and skills.
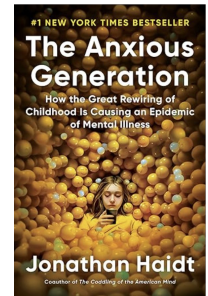
Social Deprivation

Often Feel Lonely

Impacts:

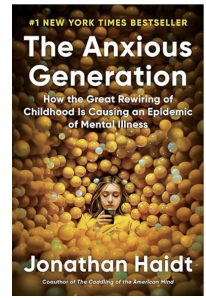Since 2012, the time adolescents spend with friends in face-to-face settings **has dropped 50%**.
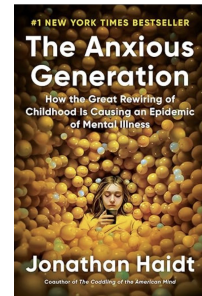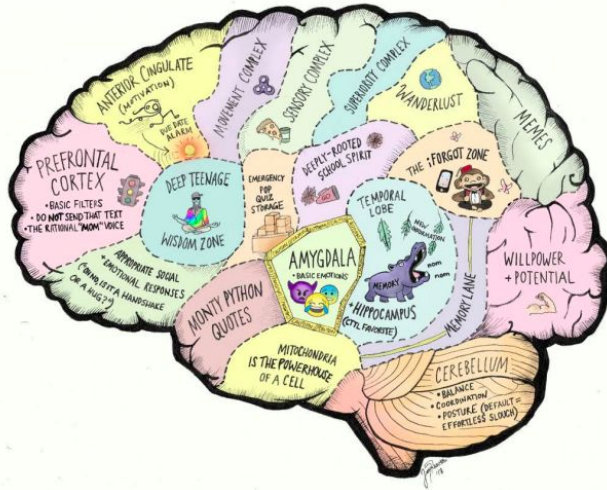
Sleep Deprivation

Impacts:

- A lack of sleep leads to "depression, anxiety, irritability, cognitive deficits, poor learning, and lower grades."
- Long-term studies demonstrate smartphones decrease length and quality of sleep.

Attention Fragmentation

PARTS OF THE STUDENT BRAIN

"Attention is the choice we make to stay on one task, one line of thinking, one mental road, even as attractive off-ramps beckon. When we fail to make that choice and allow ourselves to be frequently side-tracked, we end up confused, dazed, scatterbrained… in other words, fragmented."

Attention Fragmentation

What is it?

Disruption of focus due to constant interruptions.

What are the impacts?

One study found that students receive, on average, 237 notification per day (some up to 1,000).

Decreased ability to focus and interferes with laying down (encoding) new memories.

Implications:

School performance and test scores are negatively impacted, as shown by decreasing NAEP and PISA scores nationally and globally.
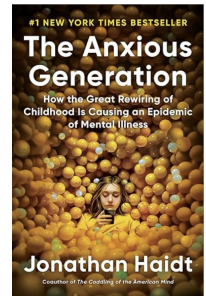
Attention Fragmentation

Summary of Internal Reports from TikTok:

- "Compulsive usage correlates with a slew of negative mental health effects like **loss of analytical skills, memory formation, contextual thinking, conversational depth, empathy and increased anxiety**."

- Minor users, "**do not have executive function to control their screen time**."

- Overuse caused, ""**negative emotions,**" "**interfered with [users'] obligations and productivity,**" **and led to** "**negative impacts . . . on their lives,**" including "**lost sleep, missed deadlines, poor school performance, running late, etc.**"
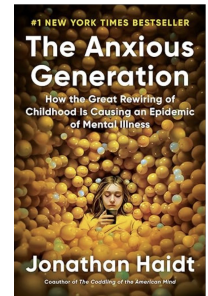
Attention Fragmentation

Summary of Analysis of National and Global PISA Scores:

- "**Low-performing students are being more severely affected**,"

- "In Sum, students who spend more time staring at their phone do worse in school, **distract other students around them, and feel worse about their life**."

Summarized findings from the book:

- A phone-based childhood is likely to interfere with the develop of executive function, which is the ability to make plans and do the necessary things to execute those plans.
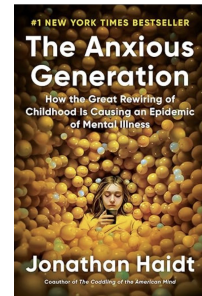
Addiction

Addiction =
To the device and the apps

Phones are like dopamine slot machines, when something is pleasurable but not satisfying, we want more. Big tech has designed their apps to encourage this behavior.

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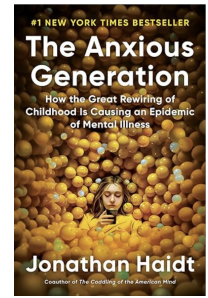
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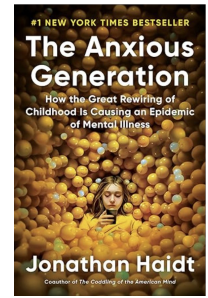
"We ended up overprotecting children
in the real world
while under protecting them
in the virtual world."

Parents Say…

Parents were concerned about these negative social media effects:

Addiction – 79%

Attention deprivation – 77%

Social deprivation – 66%

Sleep deprivation - 50%

Parents Say…

- 60% of respondents agreed or strongly agreed that they are concerned about the amount of time their child spends on their phone.

- 78% agreed or strongly agreed that they wish their child spent less time on their phones.

- 65% agreed or strongly agreed that they wish they had more support in the community to help reduce their child's reliance on social media.

Parents Say…

Family Policy on Phone Usage

School	Mean Score (0–1 scale)	Interpretation
Middle School	0.837	Most families have a policy
Primary School	0.836	Similar to Middle
High School	0.783	Slightly fewer structured policies

Family Policy on Social Media Usage

School	Mean Score (0–1 scale)	Interpretation
Middle School	0.801	Strong family oversight
High School	0.772	Some drop-off from Middle
Primary School	0.761	Lowest, likely due to lower use overall

Parents Say…

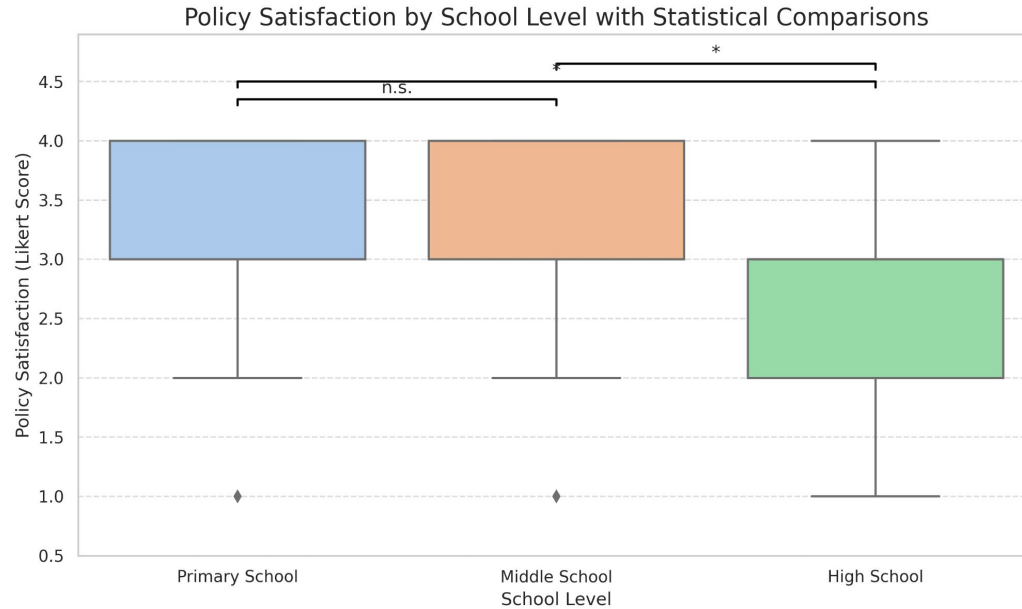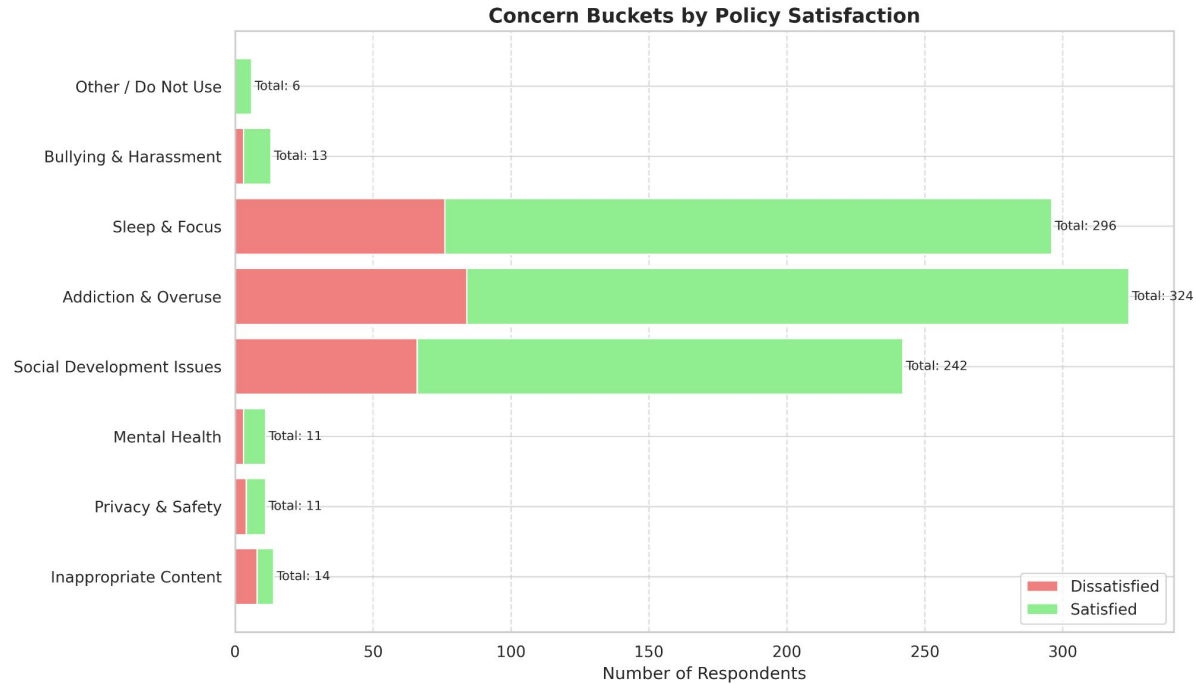| Variable	Correlation (w/Policy Rating)	P-Value	Interpretation
Has Phone	-0.043	0.486	Weak, not statistically significant
Uses Social Media	-0.023	0.705	No meaningful correlation
Family Policy: Phone	-0.105	0.048 ✅	Weak negative correlation, **statistically significant**
Family Policy: Social Media	-0.114	0.031 ✅	Weak negative correlation, **statistically significant**

Parents Say…

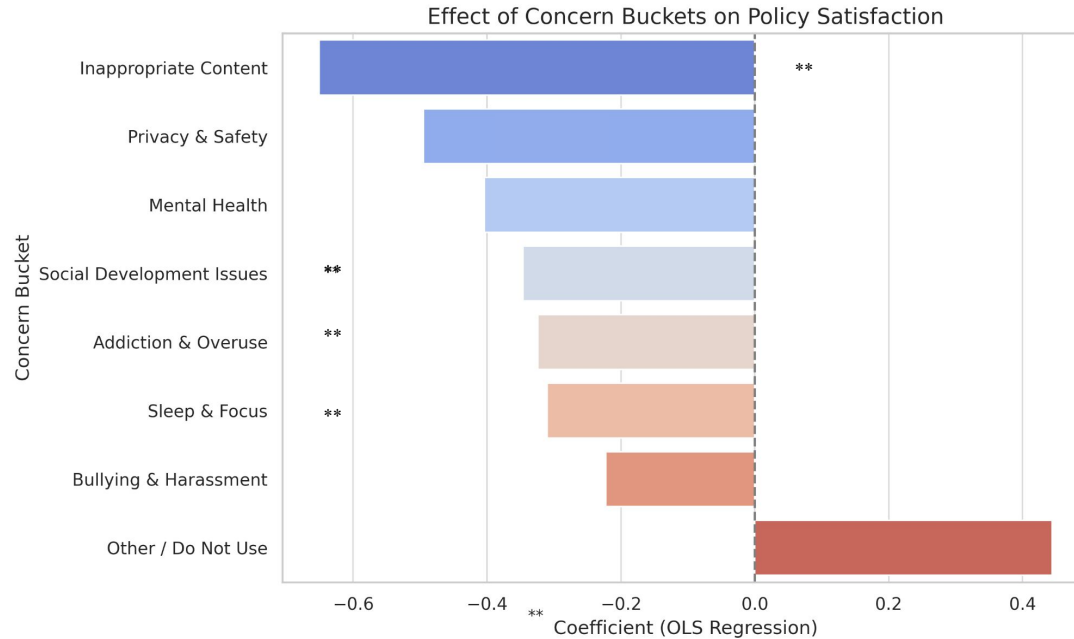| Compared Belief/Concern (vs. Policy Rating)	Correlation (r)	p-value
I am comfortable managing my child's screen time and social media usage	+0.13	0.008
I am concerned about the amount of time my child spends on their phone	–0.12	0.029
I wish my child spent less time on their phone	–0.14	0.017
I wish I had more community support to reduce my child's reliance on social media	–0.14	0.011

Parents Say…

Policy Satisfaction by School Level with Statistical Comparisons

Parents Say…

Concern Buckets by Policy Satisfaction

Parents Say…

Effect of Concern Buckets on Policy Satisfaction

Cell Phone Policies in other schools

Key insights & trends:

- Most schools restrict cell phone use during class unless explicitly permitted by staff.

- Many schools use specific storage areas ("phone caddies," lockers) during instructional times.

- Smartwatch use tends to follow cell phone restrictions or is explicitly prohibited.

- Earbuds/headphones typically require explicit staff authorization for use during instruction.

- Policies increasingly reflect concerns over distraction, cheating, and privacy/security.

From Haidt, for parents

- Give children more time playing with other children, ideally outdoors, in mixed age groups, with little or no adult supervision

- Provide children opportunities to engage in stable real-world communities.

- Don't give a smartphone as the first phone.

- Don't give a smartphone until high school. (Easier if many of your child's friends' parents are doing the same thing.)

- Delay the opening of accounts on nearly all social media platforms until the beginning of high school (at least).

From Haidt, for schools

Go phone-free:

- no phone use at school for the entire day
- phones placed in dedicated lockers or pouches

Add more play:

- more recess time, unstructured play (which does not mean unsupervised!)
- encourage new experiences, consider the Let Grow Project
- play-based learning opportunities, in all grades
- for older students, more shop classes or vocational training

Recommendations for Wyoming Schools

1. **Curtail** personal device usage throughout the school day on school premises. (Move toward phone-free)

2. **Promote play**-based learning and prosocial age-appropriate engagement opportunities for students in all grades.

3. **Engage** the school and community: create/assign task force of students, staff, parents to collaborate in the process of developing policy and procedures.

   - **Prepare responses** to pushback from staff, parents and students, such as: communication during dangerous incidents; contact with outside responsibilities like jobs; parents reaching students about e.g. forgotten items; appointments, etc.

4. **Start with** the High School and the top 3-4 issues we identified.

Implementation Considerations

- What to do with the devices: lock up or in locker?

- What will the policy be for staff and faculty?

- What are the procedures for outside communication with students during the day?

- Timing and mechanism for communication about policy and procedures with students, parents/guardians are important.