



Children & Smartphone / Social Media Use

Dylan Grengs, CS 3111





Why Smartphones & Social Media?

Young Brain Neurology

- High plasticity (**Neurogenesis**)
 - Sponge brain
- Strong foundation important
- **Stimulating**, nurturing environment
- Importance of children

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Direct Effects

Attention


- Dopamine system
- Many attention grabbers now
- 2019 nationally representative survey of children ages 8-18, 53% own a smartphone by age 11
 - Higher in low-income households
- Correct attentive focus
 - Covid, online classes

Addiction / Habits

- Healthy addictions **formed young**
- Social media algorithm designs
 - Play on **dopamine** system
- Scrolling **reinforces** behavior
 - Addicted to checking device
- Brain not fully developed (age 25)
- Increased susceptibility to “distraction from irrelevant environmental stimuli” (Firth, 121)

Memory

- Very much **environmental**
- Less REM sleep
 - Human Growth Hormone, memory formation
- Screen blue light at late night
- Blue light reduces **Melatonin**
- Difficulty retaining memories
- Frontal lobe, higher cognitive functions
 - **Self control**, can't stop obsessive behaviors



ABCD Study

About ABCD

- Began in 2015, around **12,000** participants
- Largest Long-Term study of brain development and child health ever conducted in the United States
 - Actively ongoing
- **Ideally daily**, need <2 hrs Screen Time, >1 hrs Physical Activity, 9-11 hrs Sleep
- **5/100** surveyed met criteria
- **29/100** not meeting any

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Indirect Effects

Social Cognition

- Connection drives life
- Foundation in **primary school**
- Smartphone disconnect
- Isolation
- Cyberbullying

Related Findings

- “Higher frequency of Internet use over 3 years in children is linked with **decreased verbal intelligence** at follow up, along with impeded maturation of both grey and white matter regions” (Firth, 126)
- “Extensive media multitasking during childhood and adolescence could also negatively impact cognitive development through indirect means, by **reducing engagement with academic and social activities**, as well as by **interfering with sleep**, or **reducing the opportunity to engage in creative thinking**” (Firth, 122)

Anxiety / Depression

- Bullying / Isolation fostered by Social Media
- May lead to body dysmorphia, anxiety, and depression related disorders
- Children relying on **online feedback** for self-esteem
 - These rates then increase
- Facebook's internal findings on Instagram
 - Worse effects in young girls
 - Increased body image issues, dietary problems, suicidal thoughts

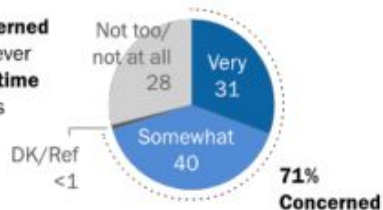
Underage Exposure

- 56% of 11-16 year olds have seen explicit material online
- Inability to correctly process the media
- Promotion of age verification
- Proper monitoring

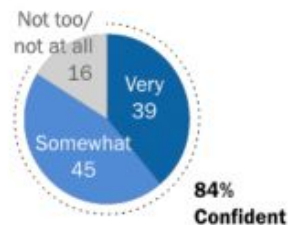
A majority of parents are concerned that their child might ever spend too much time on screens and have reached out to doctors for advice about this

% of U.S. parents of a child age 11 or younger who say ...

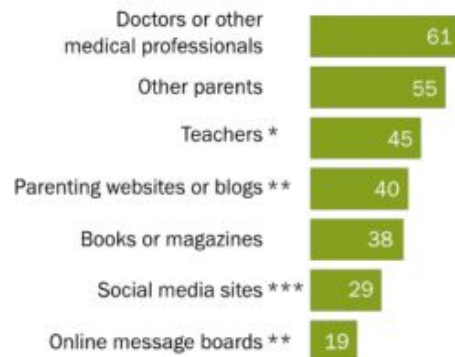
They are ___ **concerned** their child might ever **spend too much time** in front of screens



They are ___ **confident** in their ability to **know how much screen time is appropriate** for their child



They ever get **parenting advice or information** about screen time from ...



*Based on parents of a child age 5 to 11.

**Based on internet users.

***Based on social media users.

Note: If parent has multiple children, they were asked to focus on one child when answering this question. Those who did not give an answer are not shown.

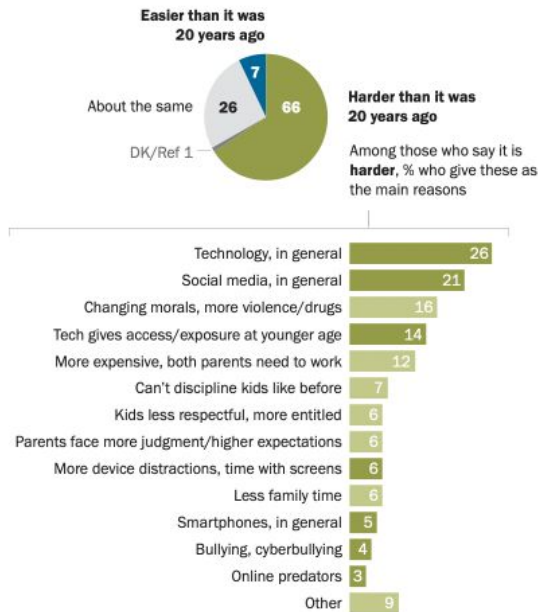
Source: Survey of U.S. adults conducted March 2-15, 2020.

"Parenting Children in the Age of Screens"

PEW RESEARCH CENTER

A majority of parents today say parenting is harder today than two decades ago, with many citing technology as a reason why

% of U.S. parents who say that for most parents, parenting is ...



Note: Based on parents who have at least one child under the age of 18 but may also have an adult child or children. Those who did not give an answer are not shown. Verbatim responses have been coded into categories and figures may add up to more than 100% because multiple responses were allowed.

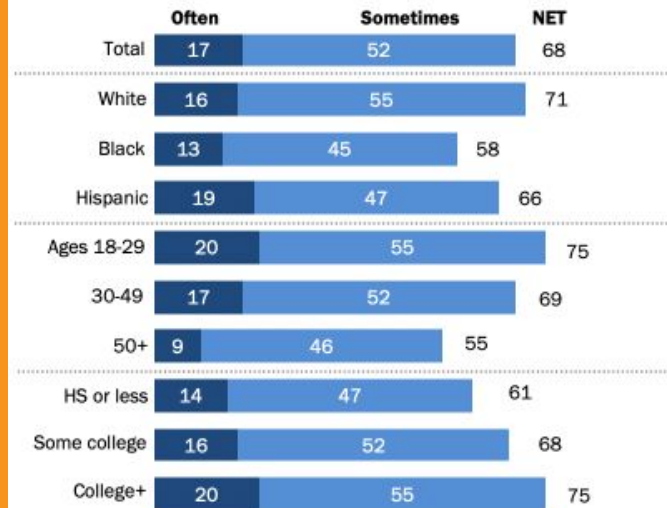
Source: Survey of U.S. adults conducted March 2-15, 2020.

"Parenting Children in the Age of Screens"

PEW RESEARCH CENTER

68% of parents say they at least sometimes feel distracted by their phone when spending time with their kids

% of U.S. parents who say they ___ feel distracted by their smartphone while they are spending time with their children ...



Note: Based on parents who have at least one child under the age of 18 but may also have an adult child or children. This item was only asked among those who use a smartphone but is presented here among all parents. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted March 2-15, 2020.

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Legislation

In the Past

- Communications Decency Act 1996
- Children's Internet Protection Act 2001
 - Limited explicit content exposure
 - Both ruled unconstitutional
- Child Online Protection Act 1998
 - Upheld in 2003

Modern Legislation

- Children's Online Privacy Protection Rule (COPPA)
 - Limits data collection under age 13
 - Strict Privacy Policies
 - Otherwise **verifiable** parental consent
 - Large Fines
- Kids Online Safety Act **2022**
 - Parents opt out of data collection and even algorithm recommendations
 - **APA Endorsed**

Ethical Perspectives

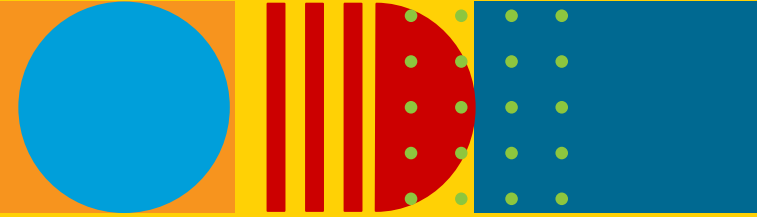
Should Children interact with Social Media sites?



Kantian Evaluation

- Respect autonomy of others, including children
 - Never a means to an end
- Child-Targeted advertisements
- Media conditioning, Fake News
 - Political, Religious, Cultural, etc.
- Rewards (Dopamine)
- As they currently exists, these platforms use people for their data by promoting the selling of information and targeting

Act Utilitarianism



Benefits

- To Children:
 - Creative Outlet
 - Form Connections
- To Companies:
 - More Users, More Money
 - Lifetime customers

Harm

- To Children:
 - Potential for Explicit Exposure
 - Brain Hijacking
- To Companies:
 - Compliance with Local Laws required



Social Contract Theory

- Everyone is subjected to advertisements
- Explicit material exists in other physical forms
- Social Media is not the only thing that has the potential for harm among children
- Most parents do not want their children's data stored or sold
- Preventative measures usually taken in any form
- Phones are almost necessary for daily life



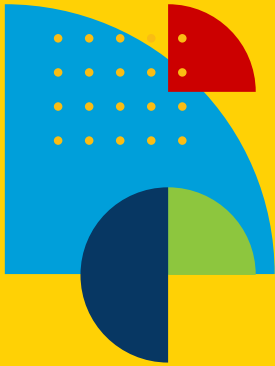
Looking Forward

The Future

- Pen & paper schooling
 - Less device emphasis, more hands-on
- More thorough child privacy protection laws
 - Constantly changing field
- Better information & education regarding healthy usage for **children and adults**
- Social Media sites held to a higher standard
- Distinct sites designed for children
 - Better monitored, promote healthy choices
 - Work with local legislation, **child health experts**

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**Thanks for
Listening :)**



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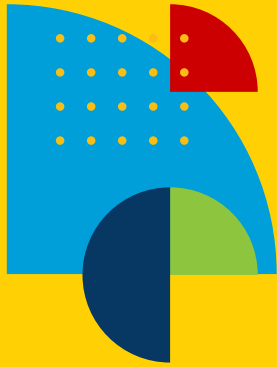
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