Me, Myself, and iKids: Screen time, social media, and child development

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Is this the blind leading the blind??

Where are we going today?

Our discussion today will:

- offer a primer on child and adolescent development
- explore the pervasiveness of technology in children's lives
- digest recent research on how screen time and social media are changing the neurological, social, and emotional development of children and youth, and
- discuss how parents can understand, model, and establish boundaries around media and technology for their families

Disclaimers, caveats, and cautions

- I am **not** an expert/follower/friend on technology, apps, and social media!!
- We will be exploring the antecedents, behaviours, and consequences (ABC's) of screens and social media **through** the lens of child and adolescent development.
- This is a young field of inquiry fraught with **much** hyperbole, fearmongering, and just plain spittin' in the wind.
- What we know **today** about this domain of inquiry may well be inaccurate, under/overestimated, and/or found to be insignificant in future research.

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Music Preferences, Personality Style, and Developmental Issues of Adolescents

Kelly D. Schwartz[1] and Gregory T. Fouts[2]

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The purpose of this study was to examine the personality characteristics and developmental issues of 3 groups of adolescent music listeners: those preferring light qualities of music, those preferring heavy qualities of music, and those who had eclectic preferences for music qualities. One hundred sixty-four adolescents completed an age-appropriate personality inventory and a systematic measure of music listening preference. The findings indicate that each of the 3 music preference groups is inclined to demonstrate a unique profile of personality dimensions and developmental issues. Those preferring heavy or light music qualities indicated at least moderate difficulty in negotiating several distinct domains of personality and/or developmental issues; those with more eclectic music preferences did not indicate similar difficulty. Thus, there was considerable support for the general hypothesis that adolescents prefer listening to music that reflects specific personalities and the developmental issues with which they are dealing.

KEY WORDS: music; personality; adolescent development.

INTRODUCTION

Music is important in the social and personal lives of adolescents. They cruise the streets in vehicles with pounding subwoofers; 25,000-seat concert stadiums sell out in minutes; and billions of dollars are spent each year on tapes and compact discs (Geter and Streisand, 1995). Between Grades 7 and 12, the typical adolescent spends over 10,000 h listening to music, an amount of time similar to that spent in class by the time they graduate from high school (Davis, 1985; Mark, 1988). Many researchers have examined why music is so important to adolescents and how adolescents actively use music to satisfy particular social, emotional, and developmental needs (Arnett *et al*., 1995; Larson *et al*., 1989; Larson and Kubey, 1983; Levy and Windahl, 1985; Lull, 1987; Rubin, 1994). Researchers have been particularly interested in adolescents and young adults who are marginalized and/or experiencing major psychological issues and have found that they prefer heavier forms of music such as heavy metal and hard rock (Hansen and Hansen, 1990; Took and Weiss, 1994; Wass *et al*., 1989). It is presumed that these music preferences reflect the values, conflicts, and developmental issues with which these youth are dealing.

Two groups of adolescents ignored by researchers are those who have strong preferences for lighter kinds of music (e.g., pop, teen pop, dance) and those who have more eclectic tastes or have no strong preferences for either heavy or light music. Thus, it is unknown how personality and developmental issues may contribute to the particular music preferences of these 2 groups of listeners. The major purpose of this study was to examine and contrast the personality characteristics and developmental issues of 3 groups of adolescent listeners, i.e., those preferring heavy, light, and eclectic music qualities. Also of interest was to readdress and extend early research relating personality and developmental issues to music preferences

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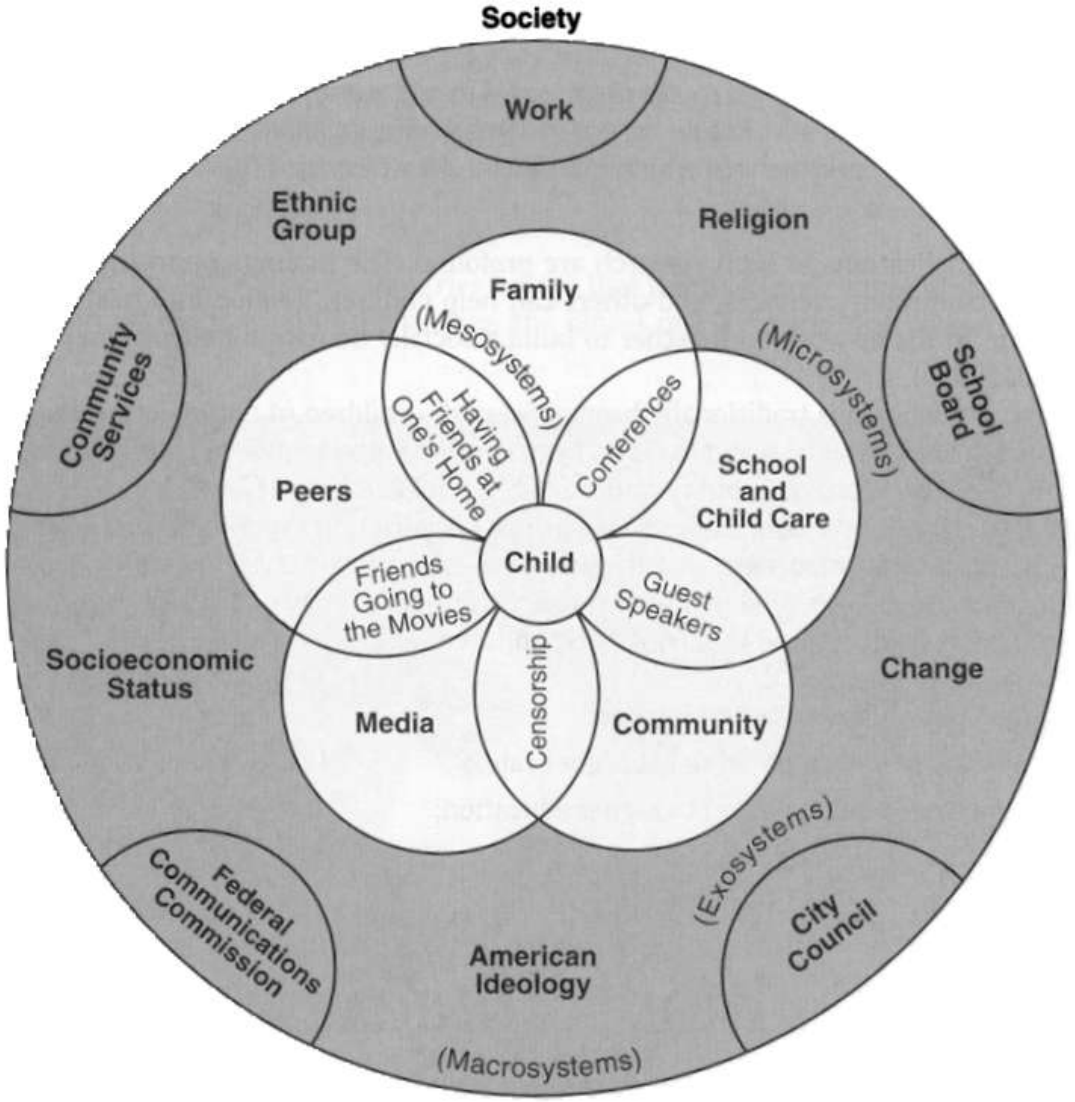
[2]Professor of Psychology, University of Calgary, Calgary, Alberta, Canada. Received PhD from University of Iowa in 1970. Research interests focus on social-emotional development across the life span and the effects of media.

If I had a tattoo . . . the bioecological model



What do healthy kids look like?

Three general characteristics are evident in all healthy children and youth:

- Interest in and success with establishing social-emotional bonds e.g., parent-child, family, friends, teachers
- Awareness, development, and expression of self-regulation e.g., emotional, behavioural
- Opportunities for and expressions of psychological autonomy e.g., social, academic/vocation, identity

Nature and nurture: Not either/or!

- Genes are designed to work in an environment or within ecologies.
- Genes are expressed by microenvironmental cues, which, in turn, are influenced by the experiences of the individual.
- What we become depends upon how experiences shape the expression – or lack of expression – of specific genes we have.

Nature and nurture: Not either/or!

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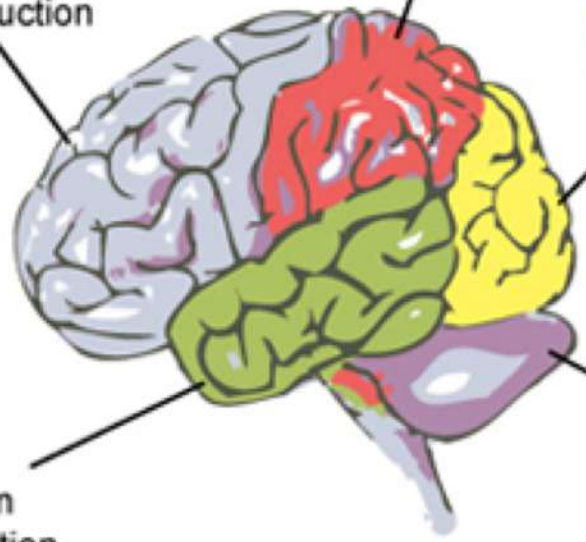
- The influence of gene-driven processes shifts during development.
- In utero, all of the chemical processes that are driving development are dependent upon a genetically determined sequence of molecular events.
- After birth, environmental cues mediated by the senses play a major role in determining how neurons will differentiate, sprout dendrites, form and maintain synaptic connections, and create the final neural networks that convey functionality.

The developing brain

Frontal Lobe
1. Problem solving skill
2. Emotion & personality
3. Behaviour control
4. Speech & word production

Parietal Lobe
8. Spelling readiness
9. Language comprehension
10. Body kinesthetic



Occipital Lobe
11. Able to visualize and identify images

Temporal Lobe
5. Memory power
6. Word recognition
7. Sound identification

Cerebellum
12. Muscle coordination & balance

Critical periods, sensitive times

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Shifting Developmental Activity Across Brain Regions

Brain Region	*Age of greatest developmental activity*	*Age of functional maturity***	*Key Functions*
Neocortex	Childhood	Adult	Reasoning, problem solving, abstraction, secondary sensory integration
Limbic	Early childhood	Puberty	Memory, emotional regulation, attachment, affect regulation, primary sensory integration
Diencephalon	Infancy	Childhood	Motor control, secondary sensory processing
Brainstem	In utero	Infancy	Core physiological state regulation, primary sensory processing

How does the brain grow?

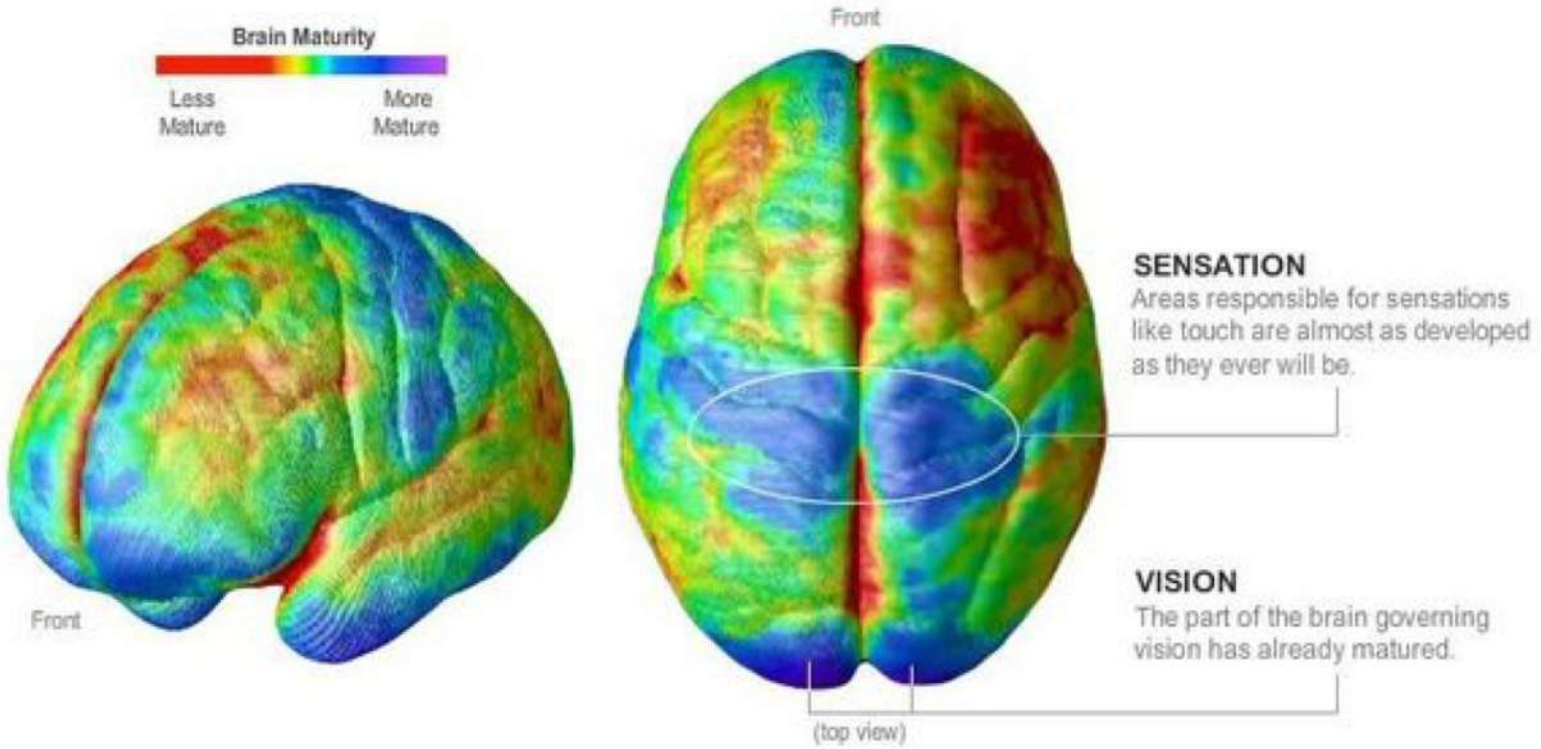
- At birth, most neurons the brain will ever have are present, approximately 100 billion
- By age two, brain is 80% adult size
- By age six, brain is 90% adult size

So what keeps growing?

- Other brain cells (glia)
- New neuron connections: Approximately 1000 trillion connections by age three!!

The developing brain

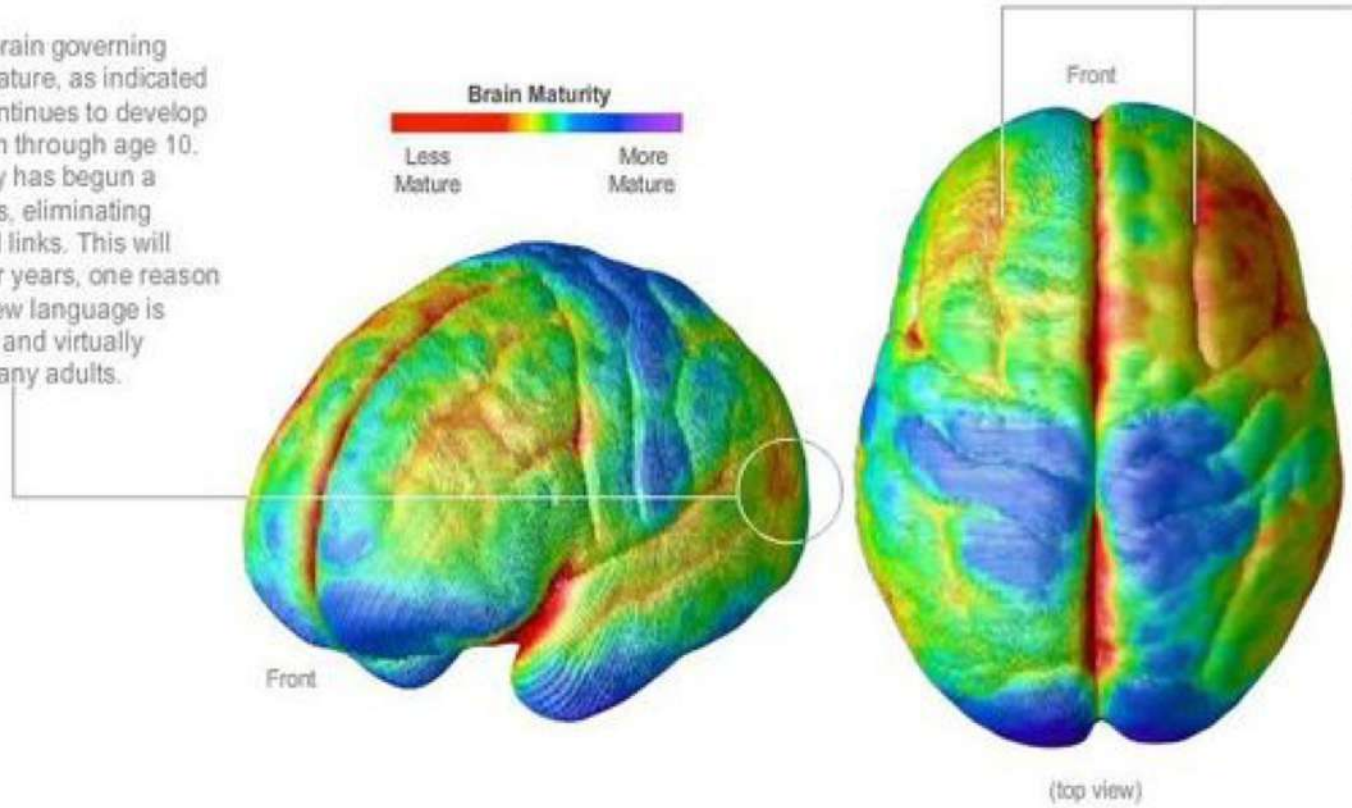
EARLY DEVELOPMENT
In the first few years of life, areas of the brain devoted to basic function change at a rapid pace. By age 4, primary senses and basic motor skills are almost fully developed. The child can walk, hold a crayon and feed himself.



4 years old

The developing brain

LANGUAGE
The area of the brain governing language is immature, as indicated in orange, but continues to develop rapidly in children through age 10. The brain already has begun a "pruning" process, eliminating redundant neural links. This will accelerate in later years, one reason why learning a new language is easy for children and virtually impossible for many adults.



REASON
The dappled yellow and red areas of the prefrontal cortex indicate that this part of the brain, which affects abstract thinking, reasoning skills and emotional maturity, has yet to develop. This lack of maturity is one reason young children can't juggle a lot of information and throw tantrums when presented with too many choices.

6 years old

The developing brain

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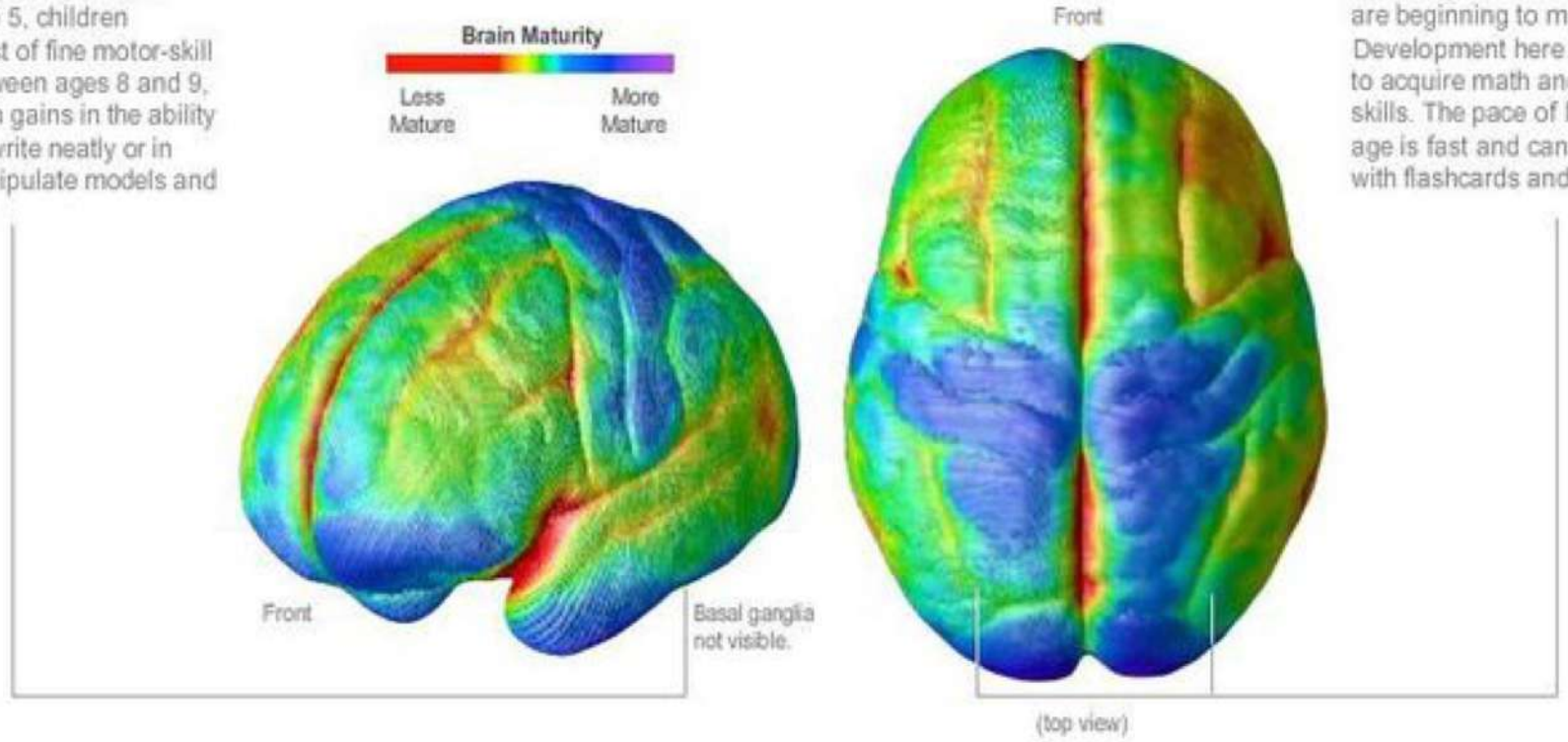
FINE MOTOR SKILLS

While basic motor skills are well developed by age 5, children experience a burst of fine motor-skill development between ages 8 and 9, helping to explain gains in the ability to use scissors, write neatly or in cursive, and manipulate models and craft projects.



MATHEMATICS

By the age of 9, the parietal lobes are beginning to mature. Development here allows children to acquire math and geometry skills. The pace of learning at this age is fast and can be enhanced with flashcards and math drills.

9 years old

How does the developing brain learn?

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- Overproduction of neurons and connections among neurons
- Selective reduction of neurons and connections among neurons e.g., dendritic branching
- Waves of intense branching and connecting followed by reduction in neurons called pruning
  - Before birth through three years (the “why?” stage)
  - Again at 11-12 years of age
- More is not better; more efficient is better

The developing brain

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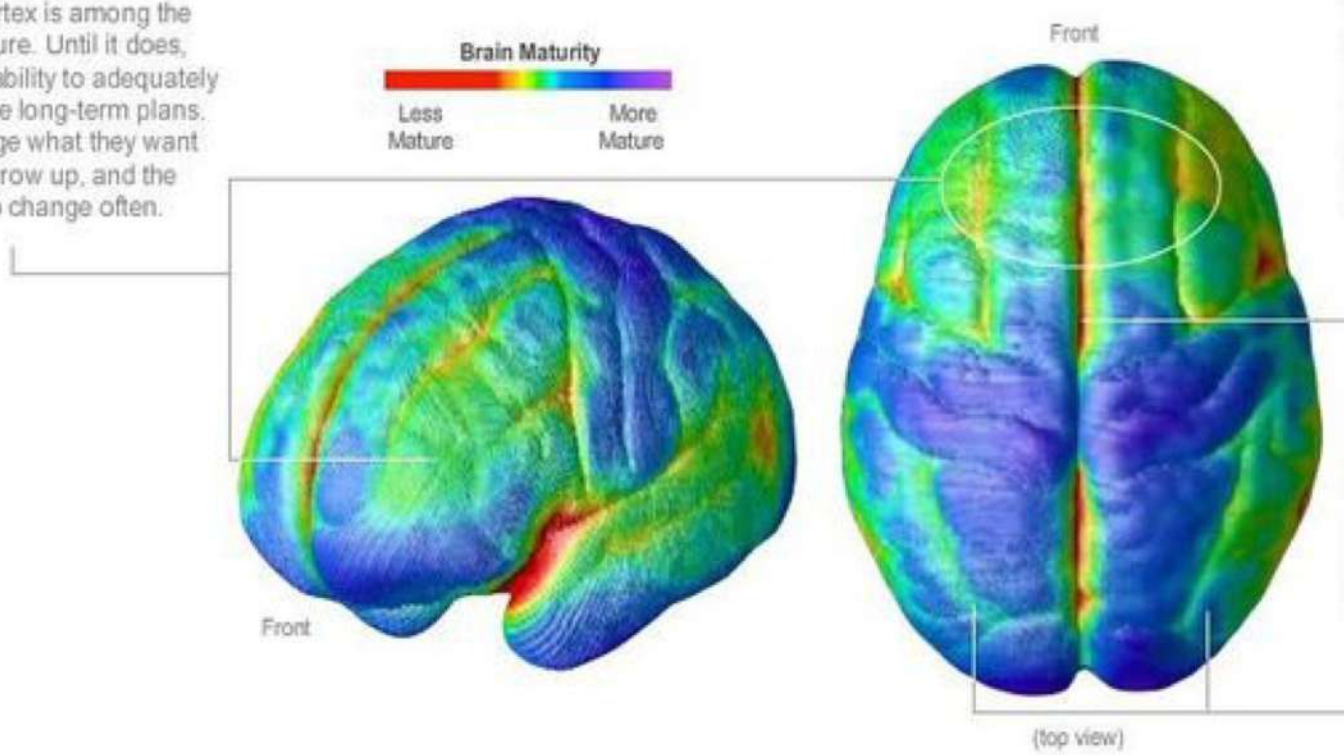
JUDGMENT

The prefrontal cortex is among the last areas to mature. Until it does, children lack the ability to adequately judge risk or make long-term plans. Ask kids at this age what they want to be when they grow up, and the answer is likely to change often.



EMOTION

Deep in the limbic system, a capacity for creating emotion increases. As yet, this capacity is unrestrained by the prefrontal cortex, which lags behind. That's why some teens can seem emotionally out of control.

LOGIC

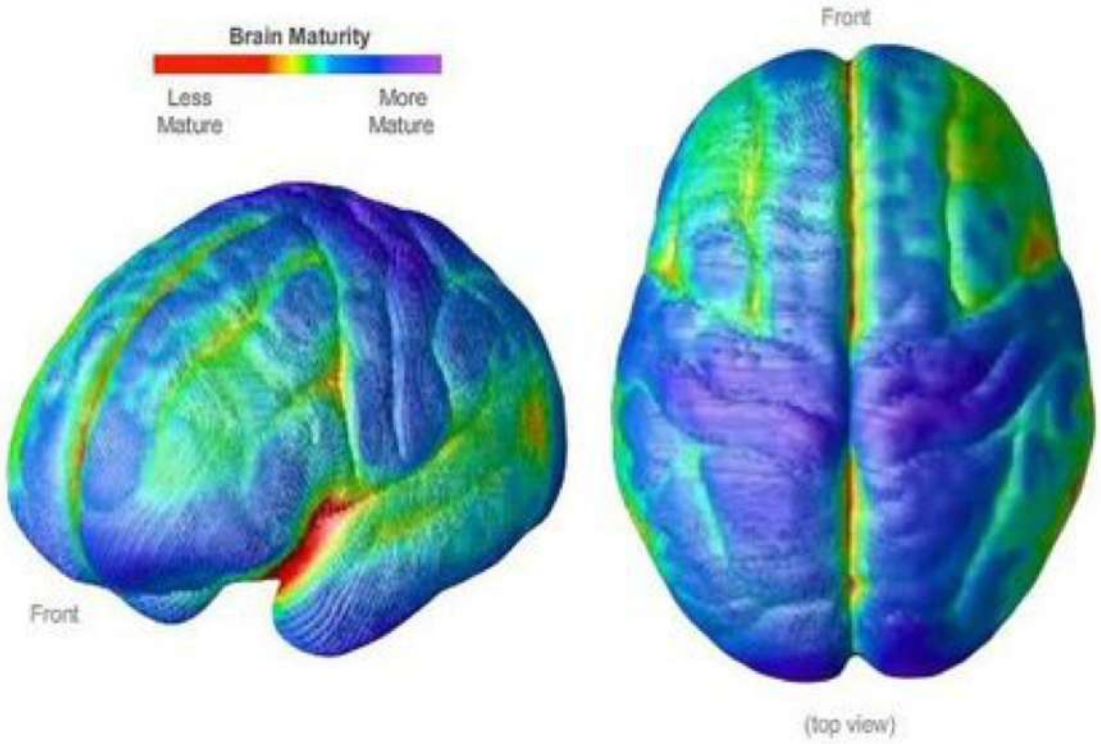
The parietal lobes are developing rapidly at this age, as shown here in blue. The child's intelligence and analytical abilities are expanding.

13 years old

The developing brain

SPECIALIZATION

In the teen years, an abundance of neural links continue to be discarded. Underused connections will die to help more active connections thrive. As a result, the child's brain will become more specialized and efficient.

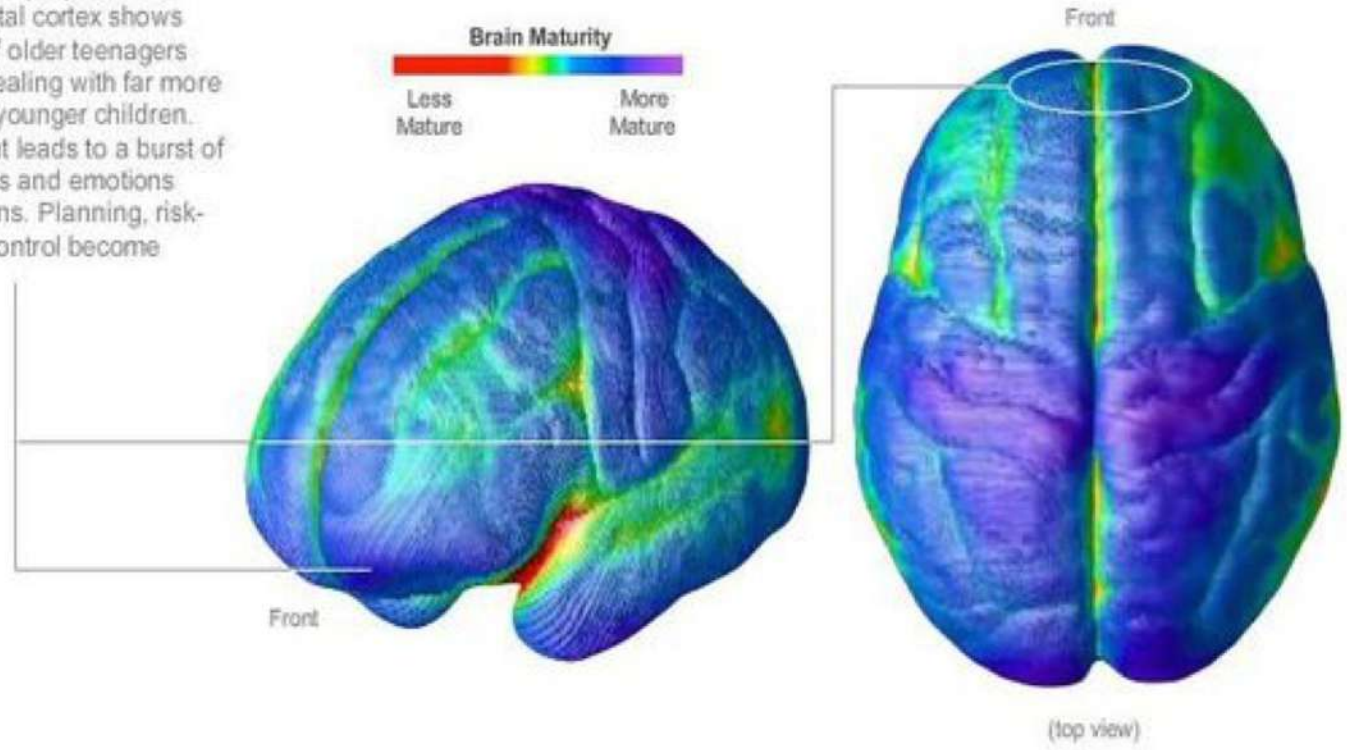


15 years old

The developing brain

ABSTRACT THOUGHT

The deep blue and purple of the maturing prefrontal cortex shows why the brains of older teenagers are capable of dealing with far more complexity than younger children. This development leads to a burst of social interactions and emotions among older teens. Planning, risk-taking and self-control become possible.

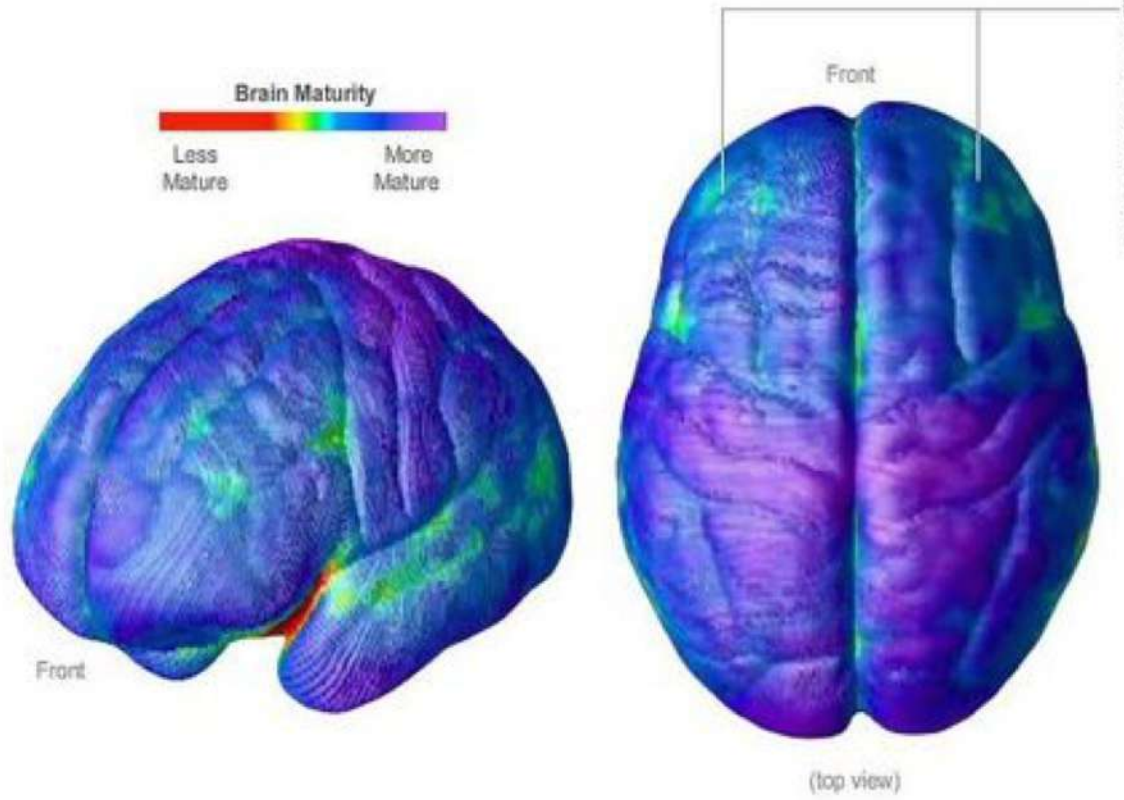


17 years old

The developing brain

EXECUTIVE FUNCTIONS

Although the brain appeared to be almost fully developed by the teen years, the deepening blue and purple areas here show that tremendous gains in emotional maturity, impulse control and decision-making continue to occur into early adulthood.

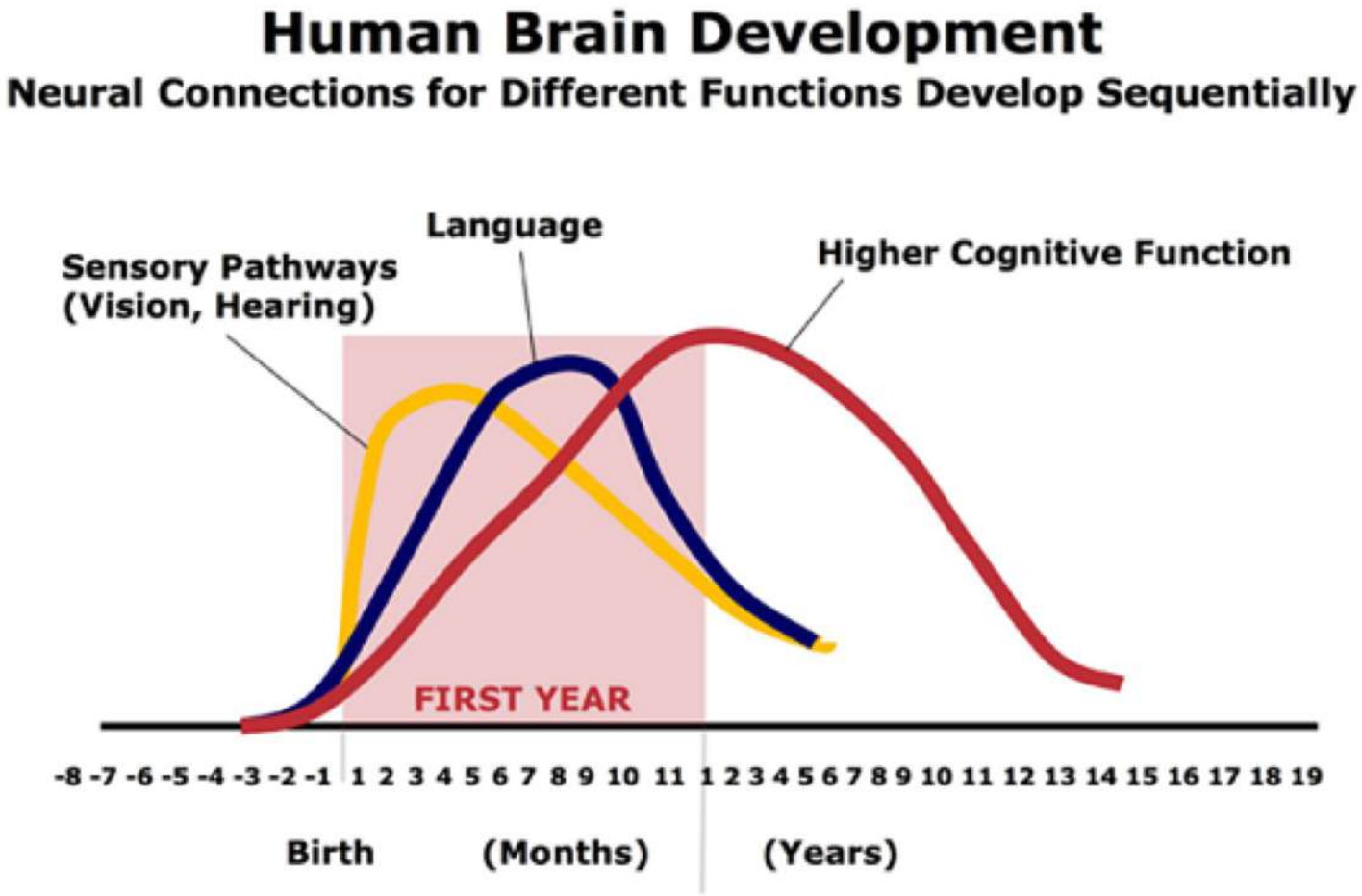


MATURATION

The 21-year-old brain is mostly mature, but the areas of green show that even at the threshold of legal adulthood, there is still room for increases in emotional maturity and decision-making skills, which will come in the next few years.

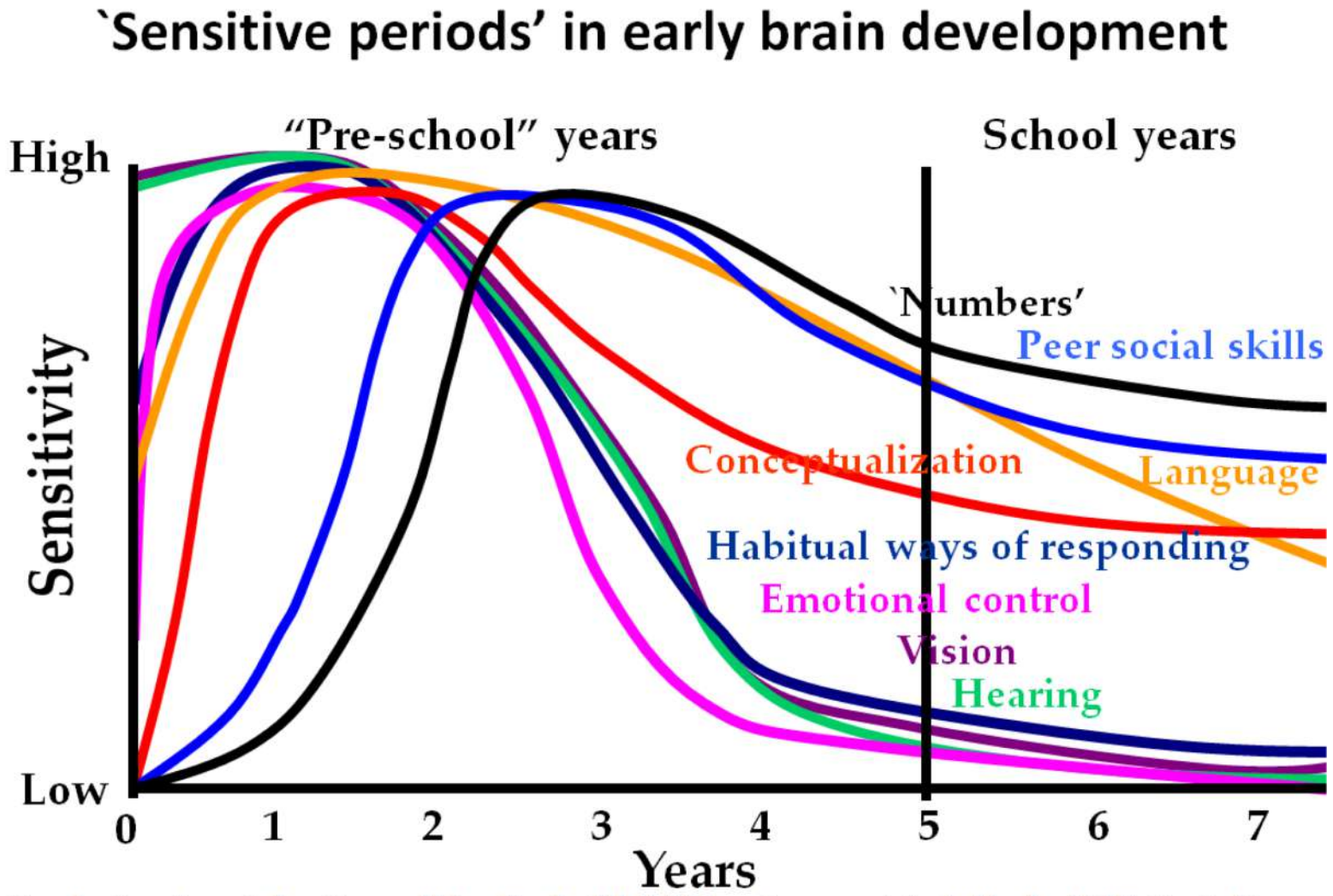
21 years old

Critical periods of early brain development



Source: In Brief: The Science of Early Childhood Development. Center on the Developing Child, Harvard University.

Critical periods of early brain development



Graph developed by **Council for Early Child Development** (ref: Nash, 1997; *Early Years Study*, 1999; Shonkoff, 2000.)

Naming the beasts

Interactive media refers to:

- digital and analog materials, including software programs and applications (apps),
- broadcast and streaming media,
- some children's television programming,
- e-books, the Internet, and other forms of content designed to facilitate active and creative use by young children and to encourage social engagement with other children and adults.

Naming the beasts

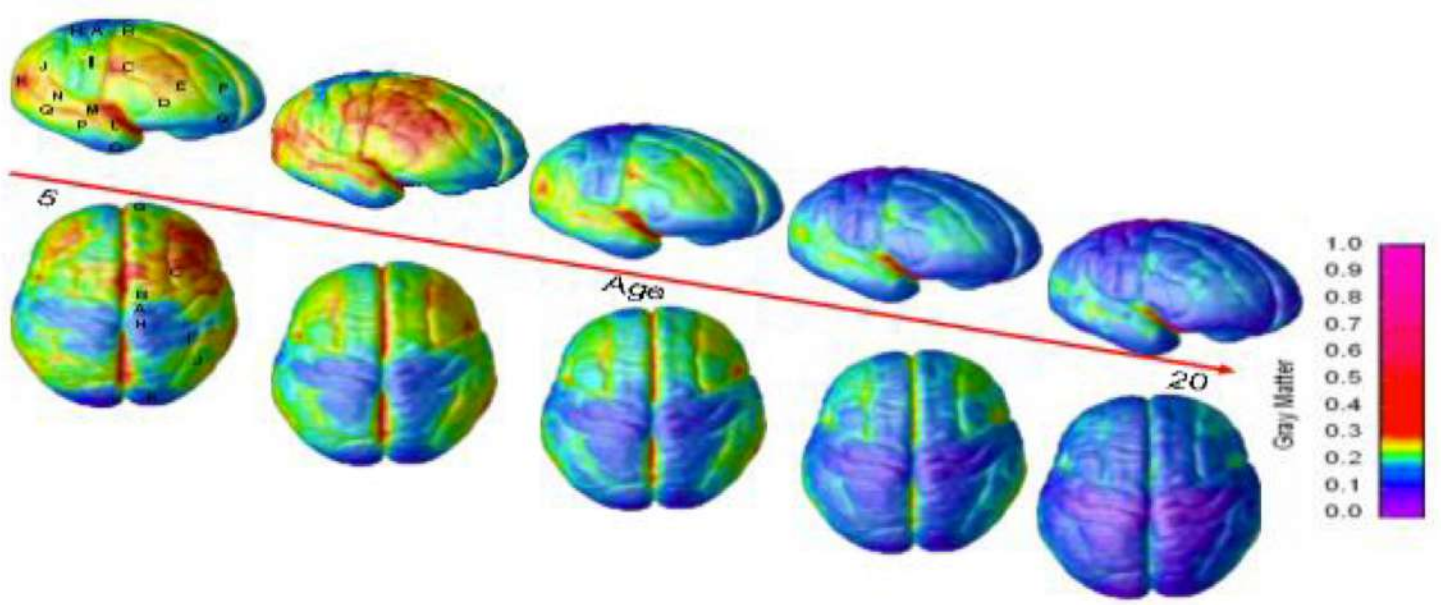
Non-interactive media includes

- certain television programs, videos, DVDs, and streaming media now available on a variety of screens.
- Non-interactive media can lead to passive viewing and over-exposure to screen time for young children and are not substitutes for interactive and engaging uses of digital media or for interactions with adults and other children.

Critical periods of early brain development

How does the developing brain learn?

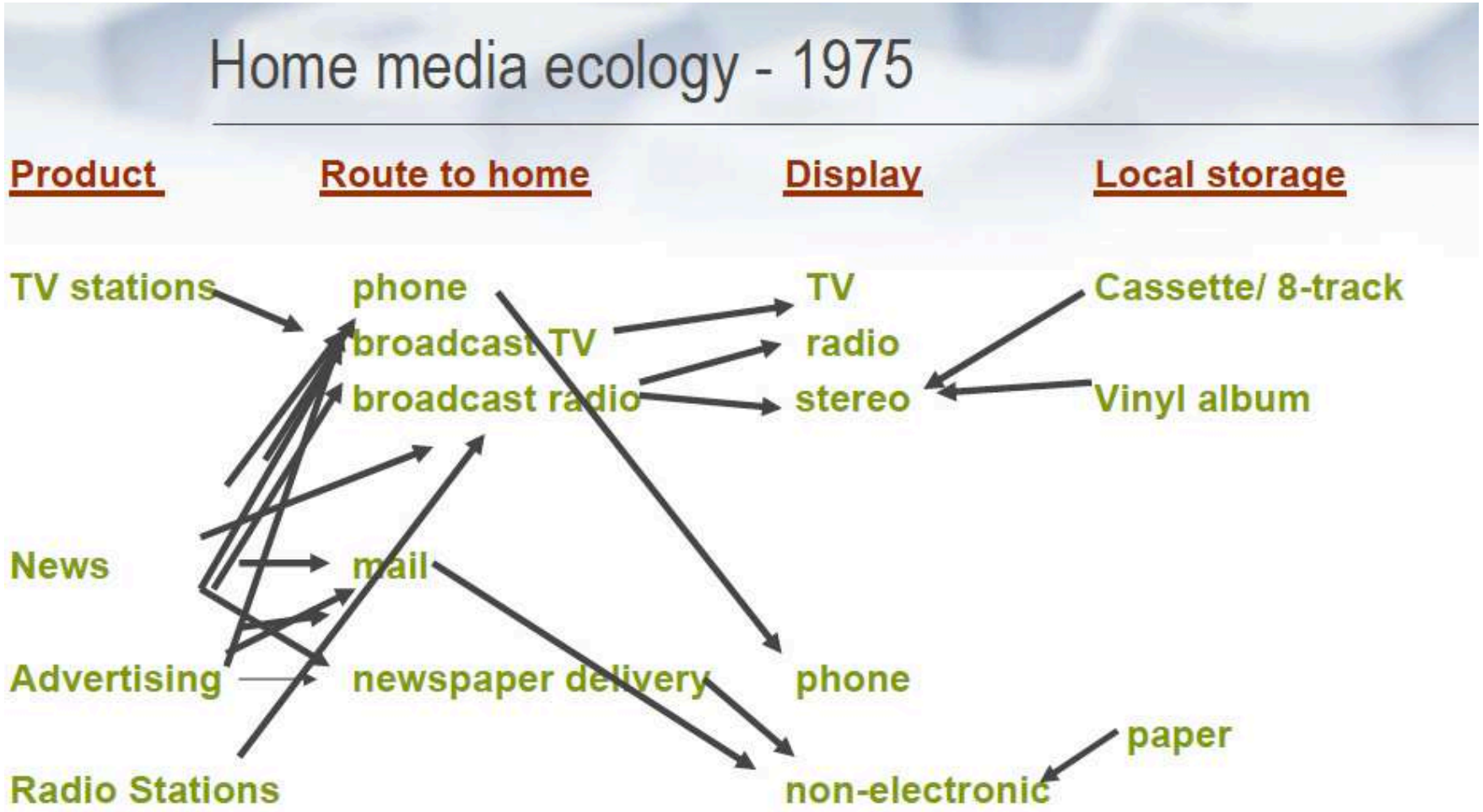
Now that you know more about the parts of the brain and how it develops, what questions are stirred about how technology might/could impact early brain developments?



Follow the leaders

"Mrs. Anderson, look! I'm only six and already I have 20 followers!"

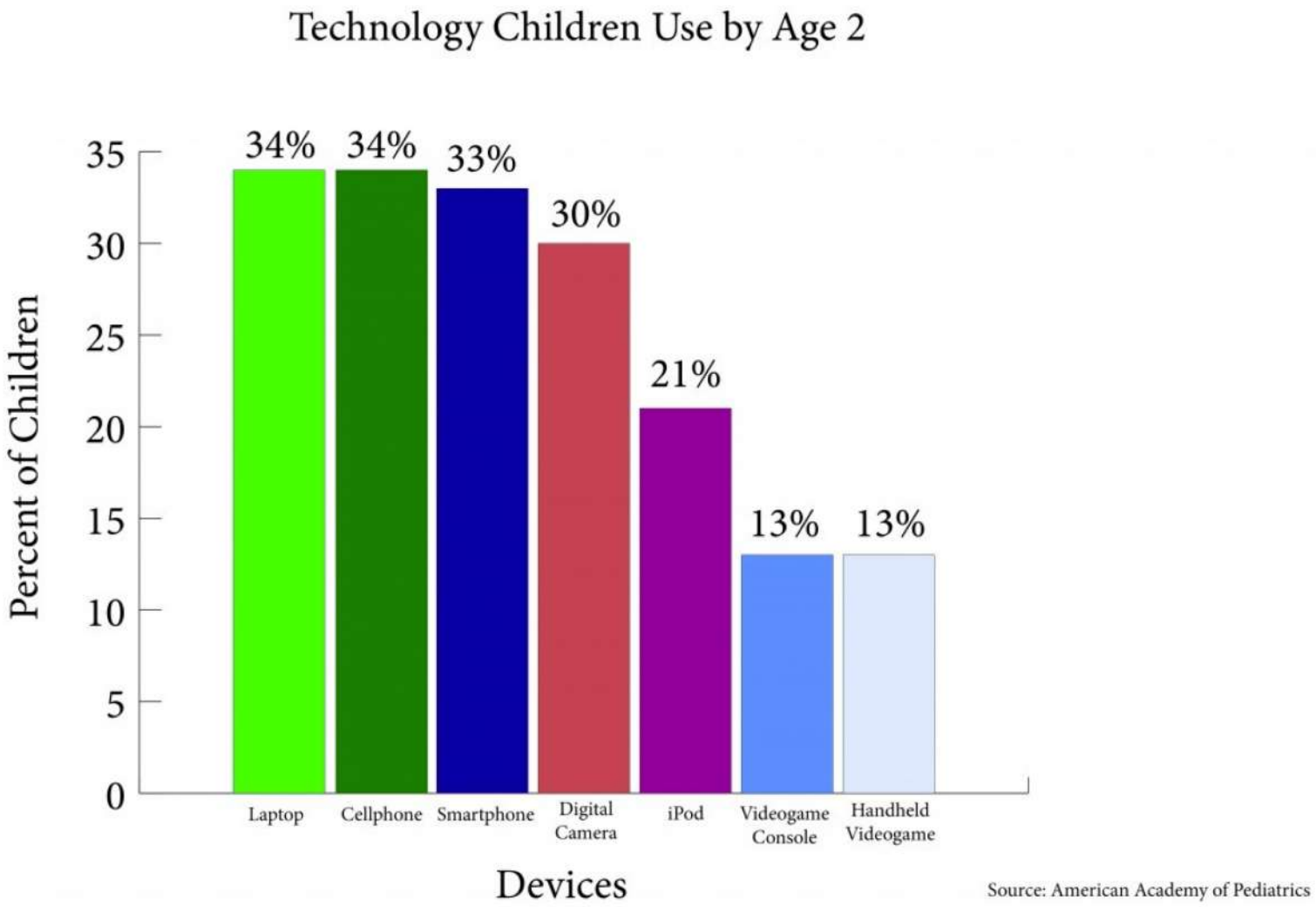
That was then . . .



This is now. . .


Home media ecology – now
Product
Route to home
Display
Local storage
TV stations
Info
"Daily life" content
Cable News
Web sites
Local news
Content from individuals
Peer-to-peer
Advertising
Radio stations
Satellite radio
cable
phone/DSL
wireless
broadcast TV
broadcast radio
satellite
mail
express delivery
iPod / storage
subcarriers / WiFi
newspaper delivery
TV
radio
PC
iPod / MP3
stereo
monitor
headphones
pager
portable game
cell phone
phone
PDA/Palm
game console
non-electronic
VCR
DVD
Web-based storage
server/ TiVo (PVR)
PC
web storage
CD/CD-ROM
MP3 player / iPod
pagers - PDAs
cable box
game console
paper
storage sticks/disks

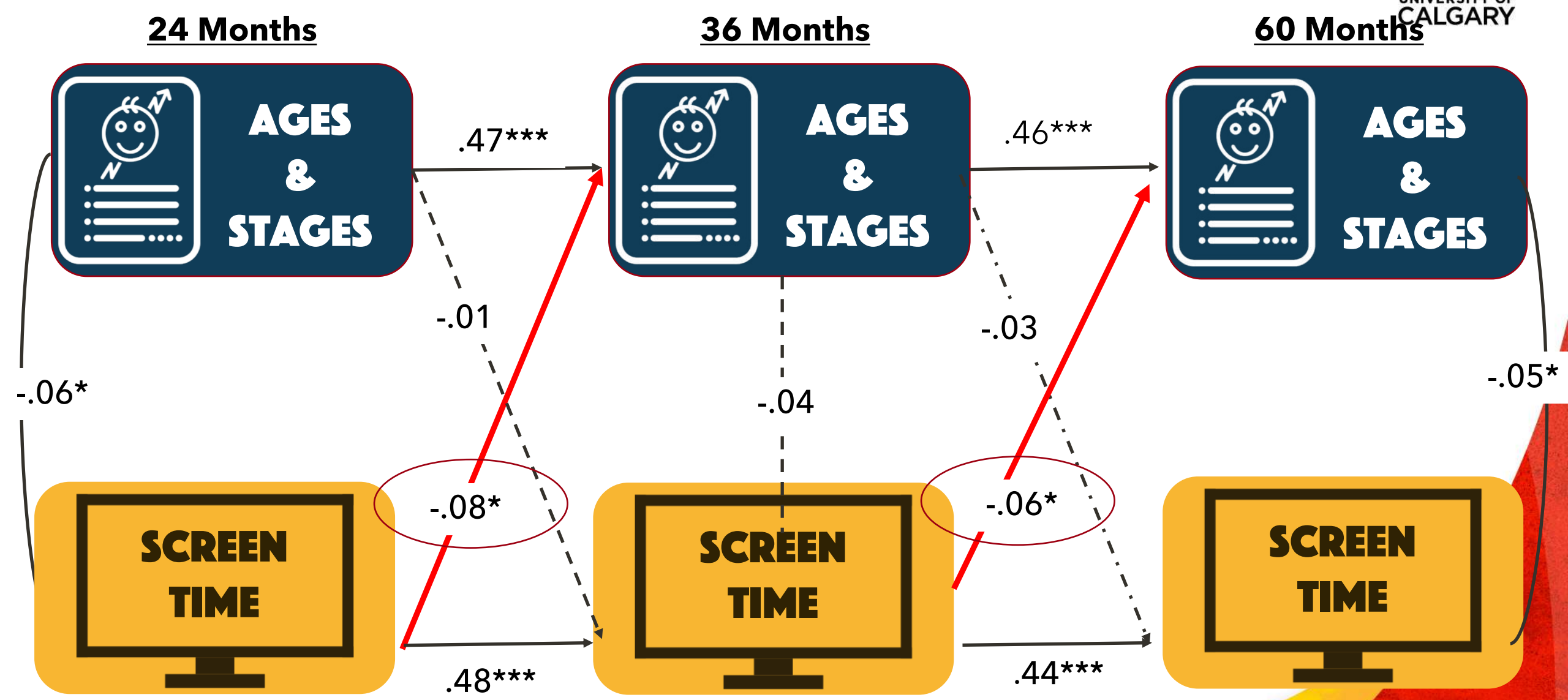
Our best preschool guesses . . .



And in our own backyard

- Madigan and colleagues (2019) analyzed data from the **All Our Families** longitudinal study over 3 waves: 24, 36, and 60 months.
- *N* = 2441 mothers and children in Calgary.
- At age 24, 36, and 60 months, children's screen time behaviour (hrs/week) and developmental outcomes assessed (maternal).
- Weekly screen times: 17.1 (24 mos), 25.0 (36 mos), 10.9 (60 mos)
- Results indicated that higher levels of screen time at 24 and 36 months were significantly ($p < .05$) associated with poorer performance on developmental screening test at 36 and 60 mos.
- Family income, maternal depression, child sleep, being read to regularly, and being female also related to screen time.

Fancy charts and numbers to prove it



Madigan et al., 2019, *JAMA Pediatrics*

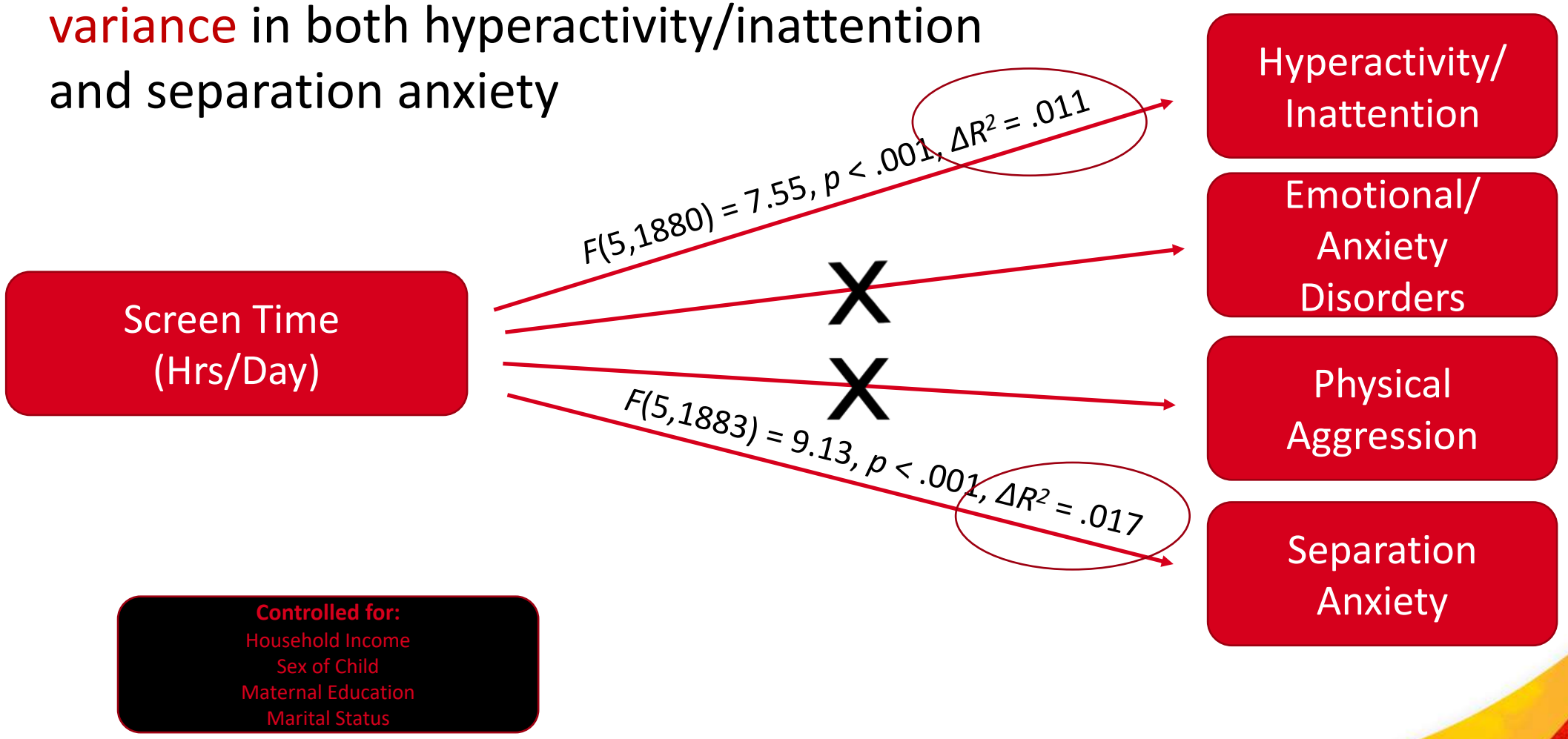
Model Fit: $X^2(10)=234.53$, $p<.001$, RMSEA=.097, CFI=.921, SRMR=.044, adjusting for covariates. *Note.* ***$p < .001$, **$p < .01$, *$p < .05$

A second look at AOF

- Using the same AOF data, Mueller and Schwartz (2019) looked at the relationship b/w screen time at 36 mo and parent-reported behavioural deficits (e.g., attention, anxiety, aggression, sep anxiety
- 14.1% met the CPS rec of < 1 hr/day; 85.1% exceeded 1 hr/day
- Child screen time and parent screen positively $r = .349$, $p < .001$
- Demographics:
  - 78% > $80K/year
  - 80.4% completed college or university degree
  - 95.5% married/common law

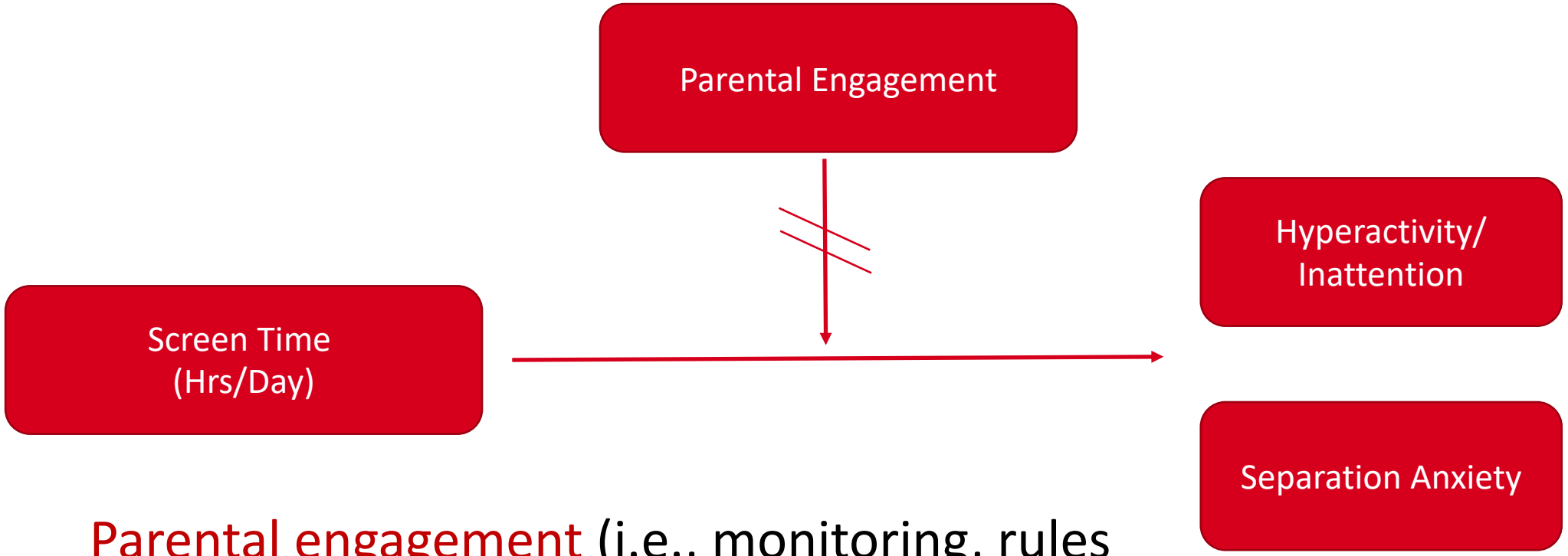
A second look at AOF

Screen time accounted for significant variance in both hyperactivity/inattention and separation anxiety



Controlled for:
Household Income
Sex of Child
Maternal Education
Marital Status

Moderate moderators



Parental engagement (i.e., monitoring, rules about screen time) did **not** moderate the relationship b/w screen time and any behavioural outcomes

Media use in kids 0-8 Years

- Common Sense Media surveyed 1454 parents of children age 8 or under from Jan 2017 to Feb 2017
- Key findings

1. 98% of children age 8 and under live in a home with some type of mobile device; 95% have a smartphone and 79% have a tablet. NB: 42% have their own tablet device!
2. The average amount of time spent with mobile devices each has tripled, going from 5 mins/day in 2011 to 15 mins/day in 2013 to 48 mins/day in 2017. NB: Children under 8 spend avg of 2:19/day with screen media (up from 1:55 in 2013).

In just six years!

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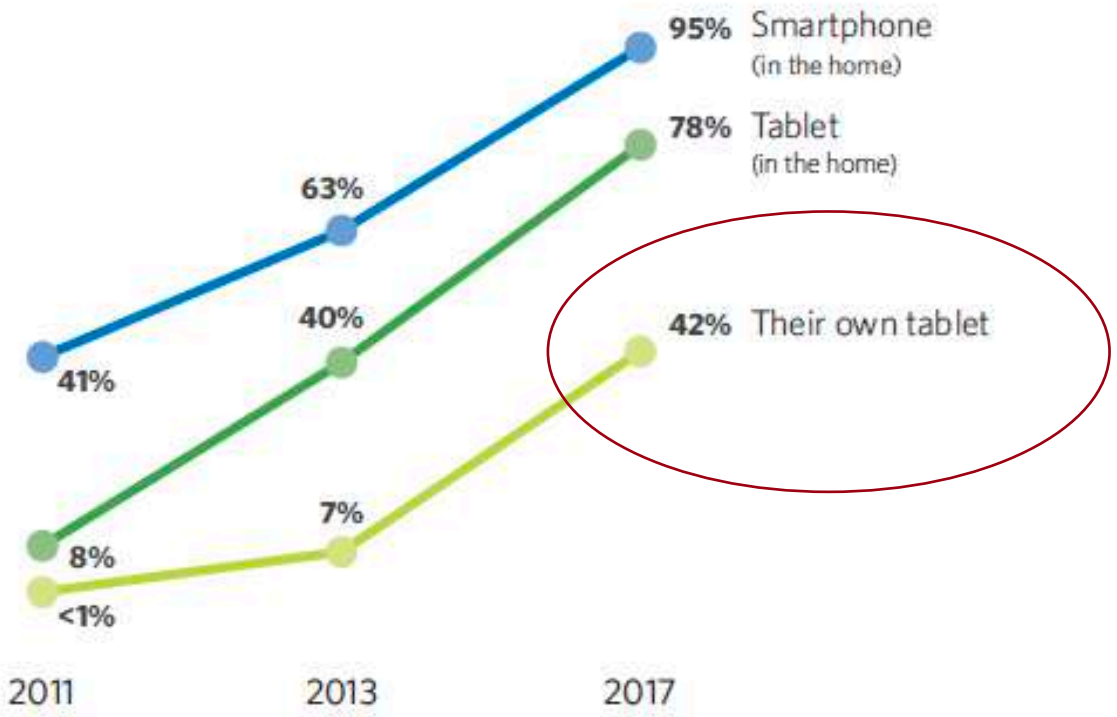
FIGURE A. Mobile Devices in the Home, 2011-2017

Among 0- to 8-year-olds, those with:



A body in motion stays in motion!

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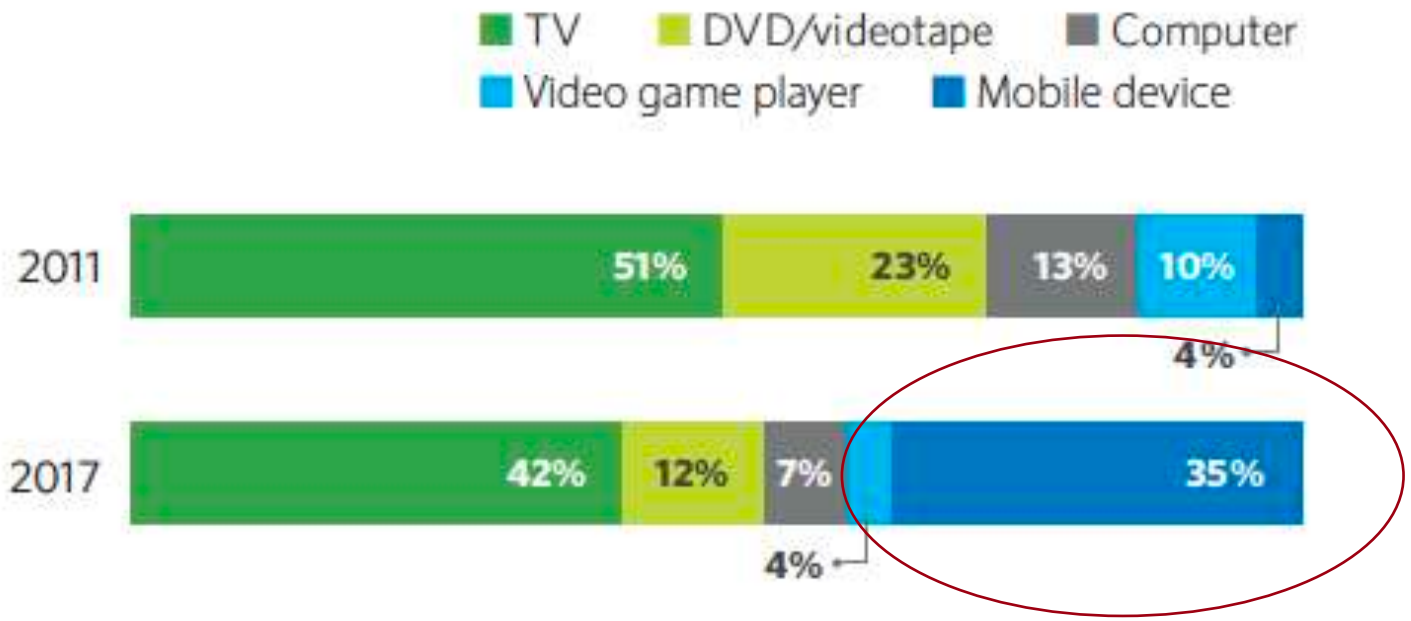
FIGURE B. Screen Media Use, by Platform, 2011 vs. 2017

Among 0- to 8-year-olds, share of time spent using:



Note: *Video game player* includes console and handheld players. *Mobile device* includes smartphone, tablet, iPod Touch, or similar device. Totals may not add to 100% due to rounding.

It takes a media village to raise a child!

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TABLE A. Screen Media Use, by Device and Age, 2017

Average time spent daily (hours:minutes)

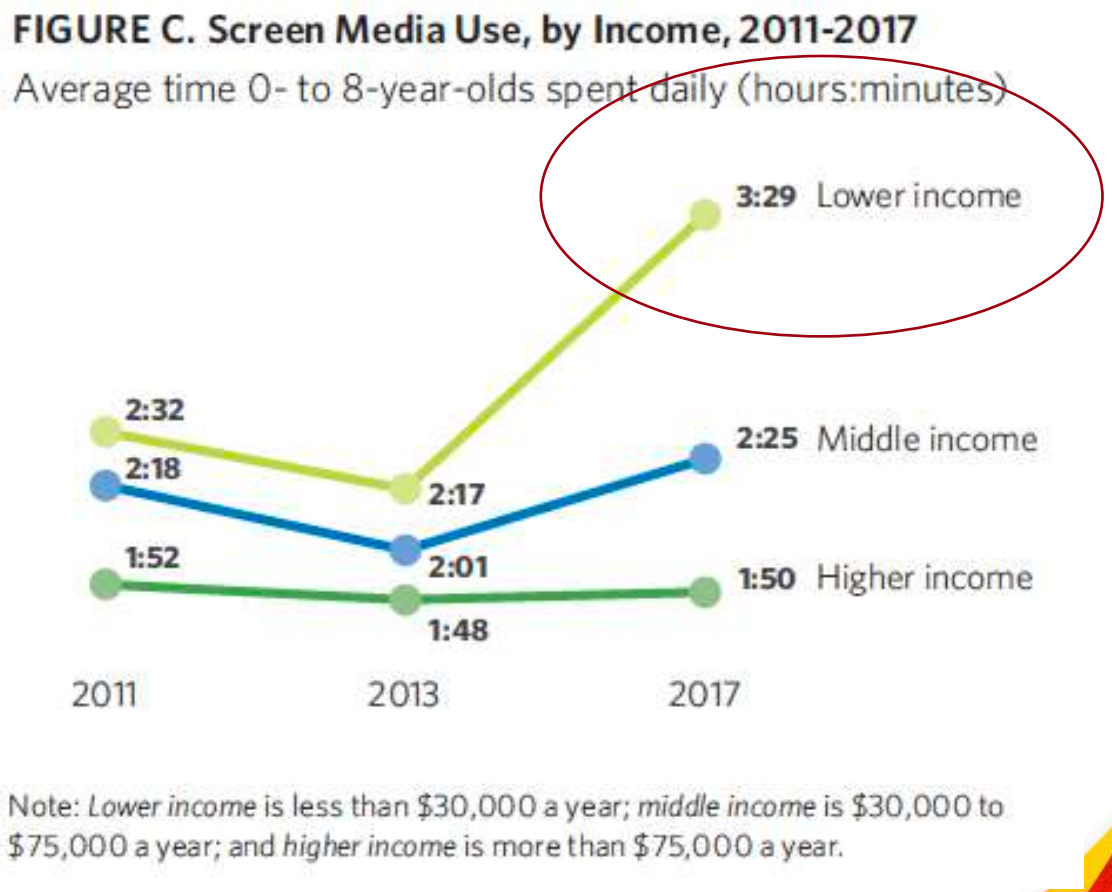
Device	All	Child's age		
	0 to 8	Under 2	2 to 4	5 to 8
Television set	:58	:29[a]	1:09[b]	1:04[b]
DVD/videotape	:17	:06[a]	:23[b]	:18[b]
Mobile device	:48	:07[a]	:58[b]	1:02[b]
Computer	:10	*[a]	:05[b]	:20[c]
Video game device	:06	*[a]	:04[b]	:12[c]
Total screen media	**2:19**	**:42[a]**	**2:39[b]**	**2:56[b]**

*Less than one minute but more than zero.

Note: Only those items with different superscripts differ significantly ($p < .05$). Significance should be read across rows.

Media use in kids 0-8 Years

3. 49% of children < 8 often or sometimes watch TV or videos or play video games in the hour before bedtime, and 42% say the TV is on always/most of time in their home.
4. There are large differences in screen time by household income and parent education.



Media use in kids 0-8 Years

5. On average, 0-8 year-olds spend about a half-hour/day reading or being read to, an amount of time that hasn't changed much since 2011. Fewer than half (43%) of children under that age of 2 are read to on a daily basis.
6. Parents are concerned about the violence, sexual content, and advertising in media, but they are optimistic about the use of media for learning and supporting creativity. 67% said screen media can help with learning, and 57% say it helps with creativity.
7. About 1 in 10 live in a home with a virtual headset, have "smart" toys that connect to the internet, or have a voice-activated virtual assistant (e.g., Amazon Echo, Google Home)

Much ado about something

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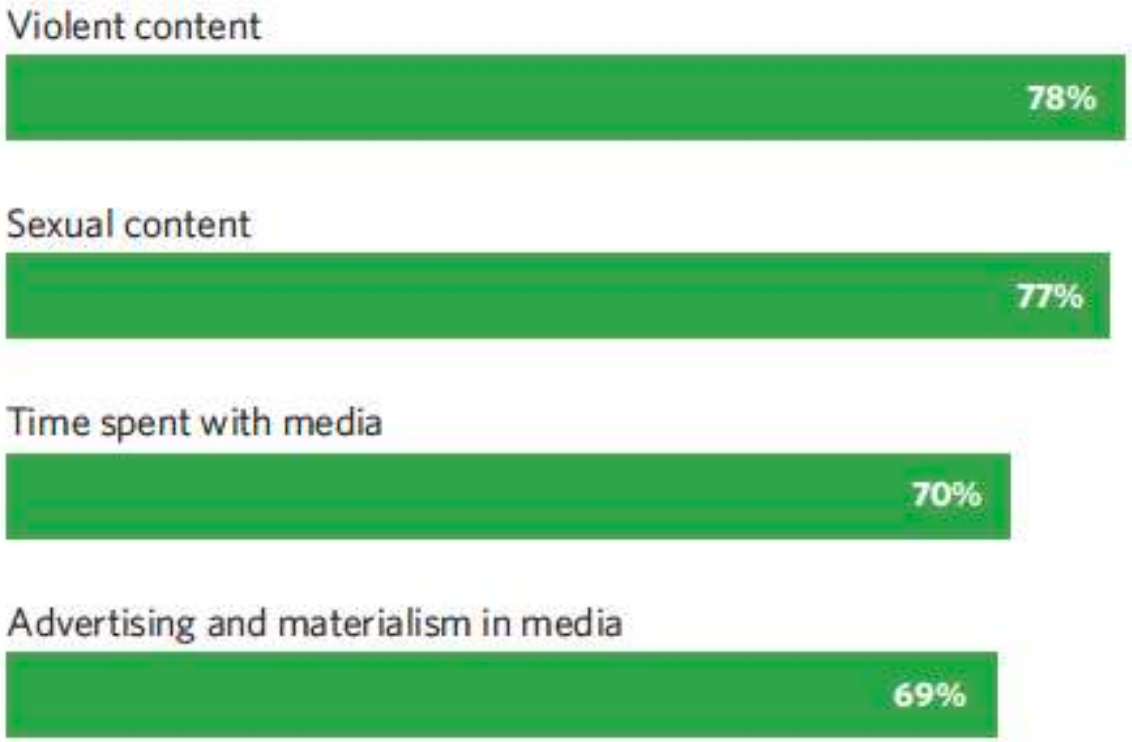
FIGURE F. Parental Concerns About Media Content, 2017

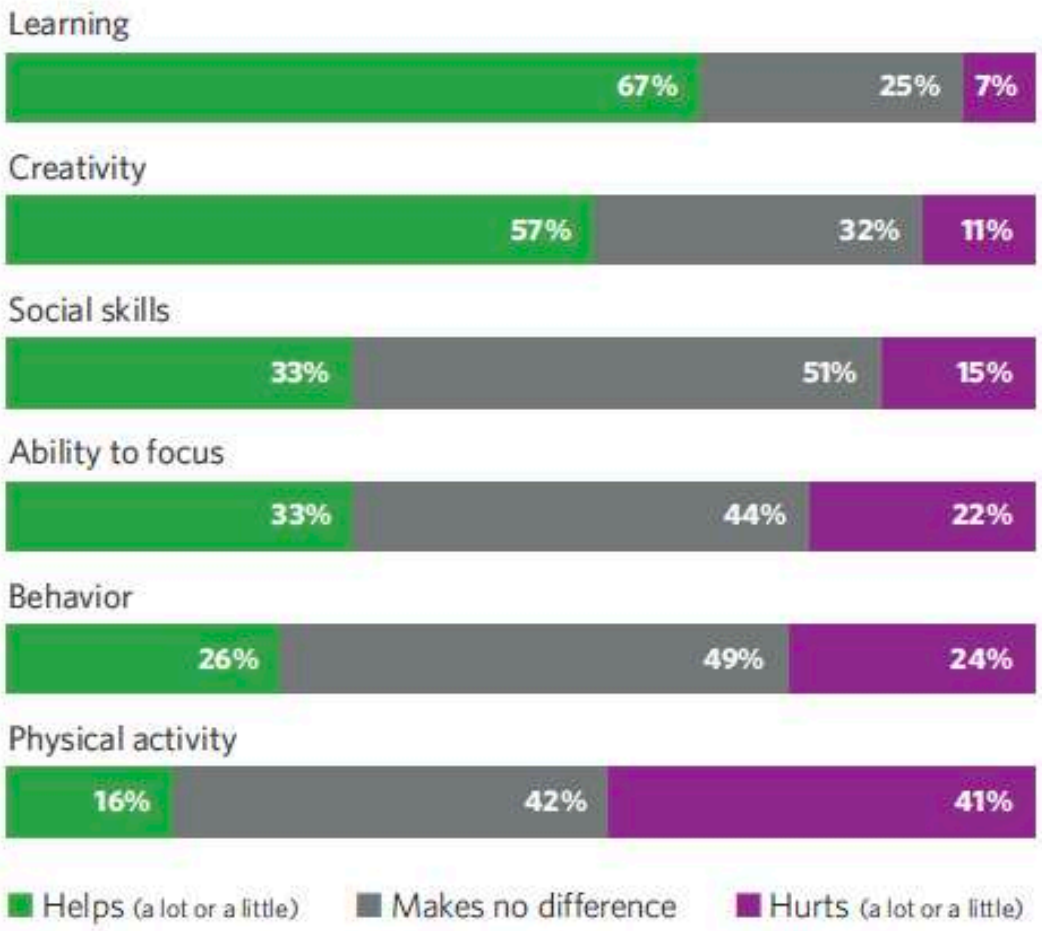
Among parents of 0- to 8-year-olds, those who are very or somewhat concerned as it relates to their child's use of screen media, today and in the future



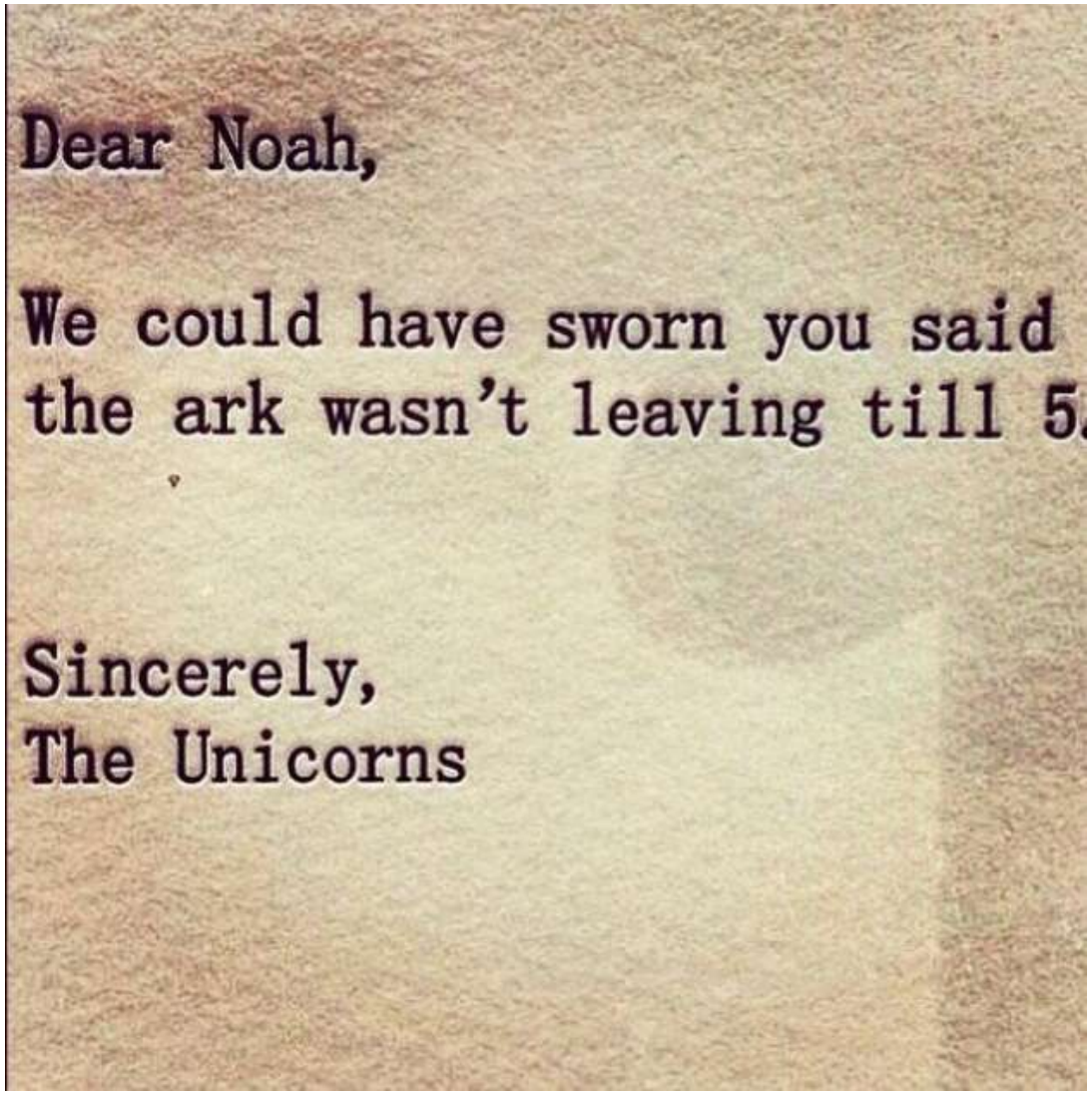
Helping vs hurting

FIGURE 14. Parents' Views of Media Effects, 2017

Among parents of 0- to 8-year-olds who use screen media, percent who say their child's media use helps/hurts the child's:



Have we missed the boat??



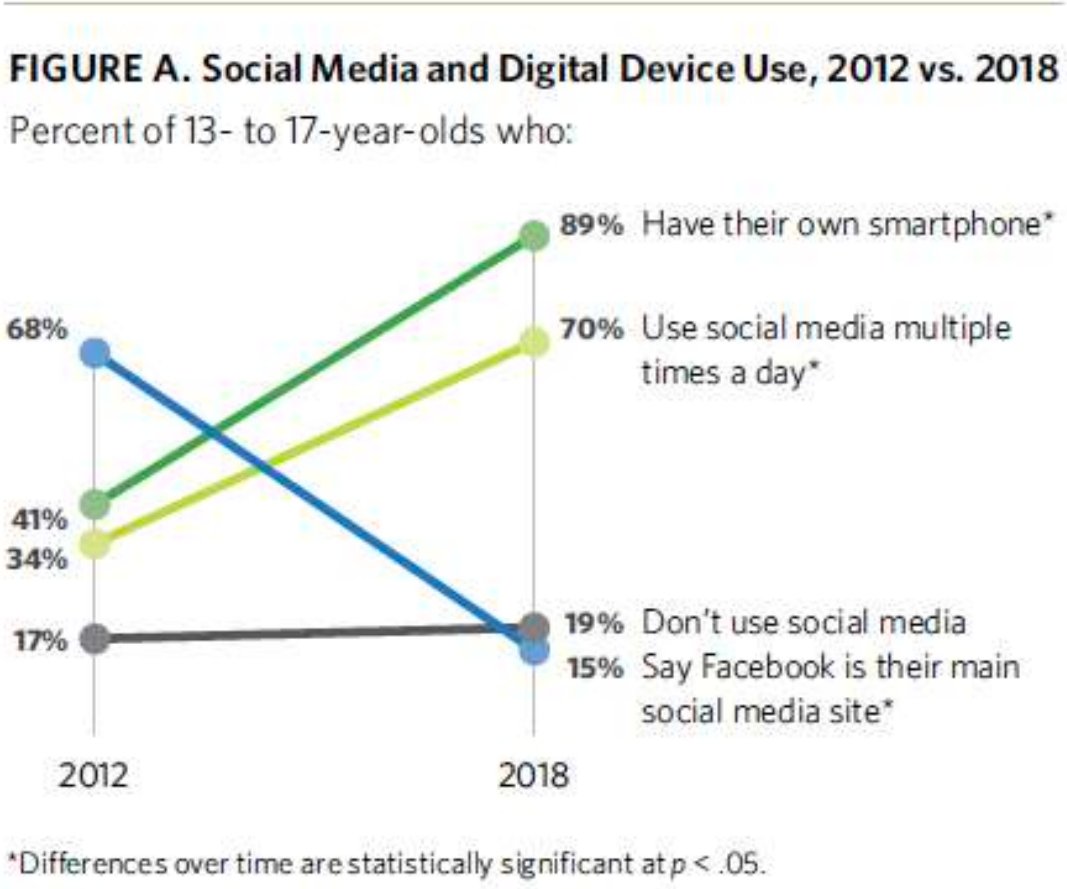
What do we know about adolescent SM use?

Referencing two relatively recent studies that will give us a sense of the prevalence of SM use for youth:

- *Digital Health Practices, Social Media Use, and Mental Well-Being Among Teens and Young Adults in the U.S.* (Rideout & Fox, 2018)
- *Social Media, Social Life: Teens Reveals Their Experiences* (Rideout & Bobb, 2018)

SM use has increased since 2012

- Smartphone ownership 41% in 2012, now 84%
- 81% use SM, about the same as 2012
- 34% used SM > 1/day, now 70%
- 38% use it multiple times/hr, 16% use it “almost constantly”
- Facebook use down

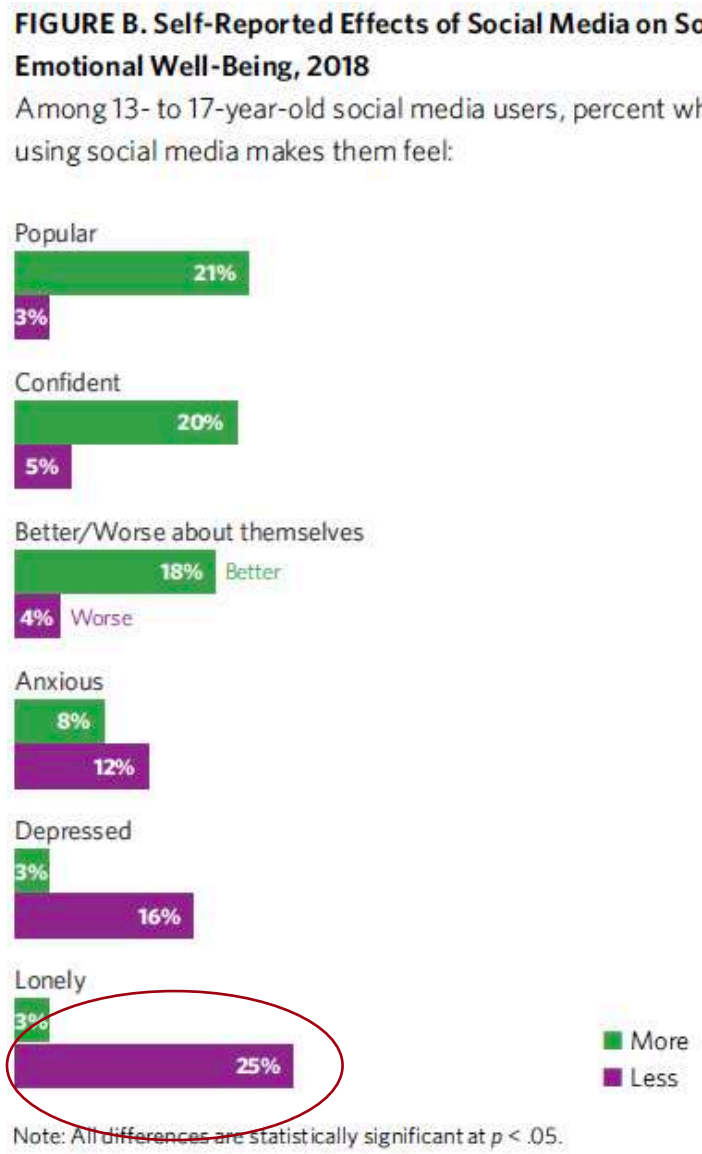


Source: Rideout & Bobb (2018) N=1,242 Age 14-22

Teens see SM use as positive than negative

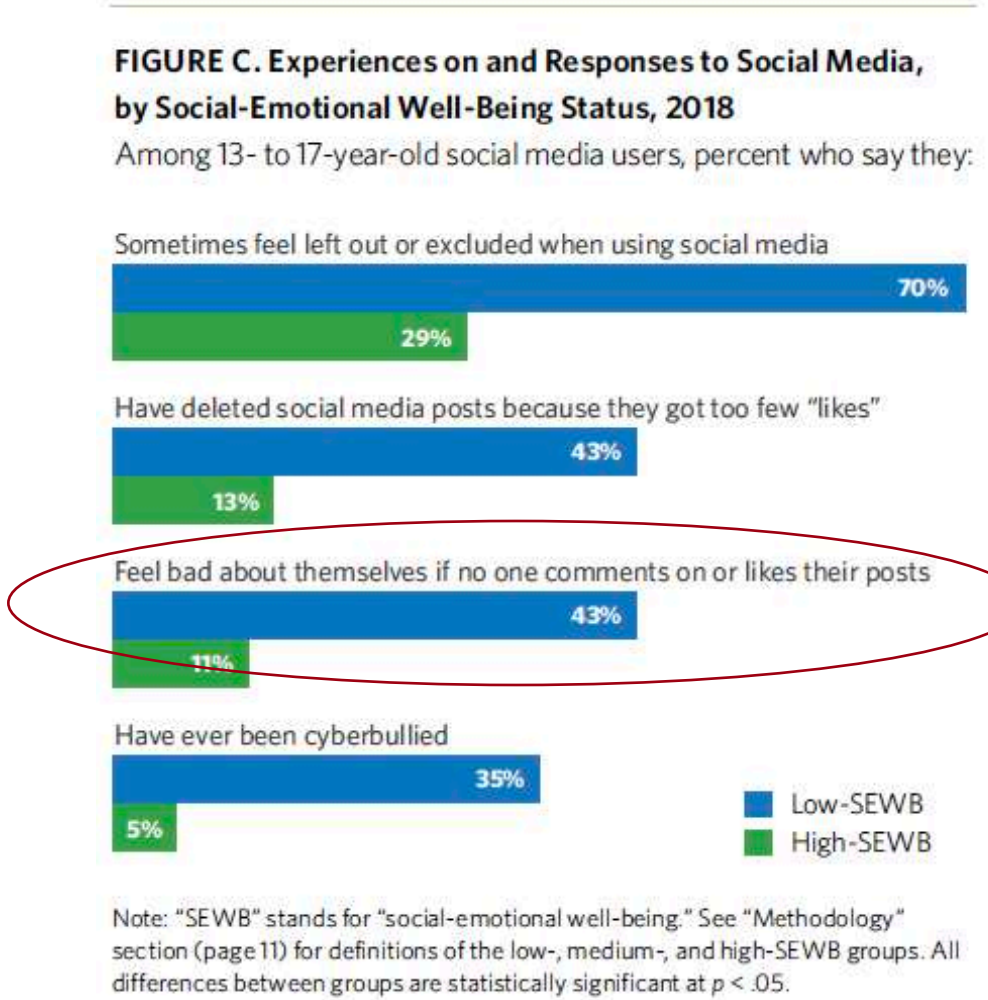
- 18% say it makes them feel better about themselves
- 16% say it makes them feel less depressed
- 25% say SM use makes them feel less lonely
- This has not changed significantly since 2012

Source: Rideout & Bobb (2018) N=1,242 Age 14-22



SM has heightened role for vulnerable teens

- SM significantly more important for teens lowest on SE well-being (SEWB) scale
- 46% of teens in low SEWB say SM is extremely/very imp
- Also > likelihood of having neg experience
- Low SEWB youth also report more benefits



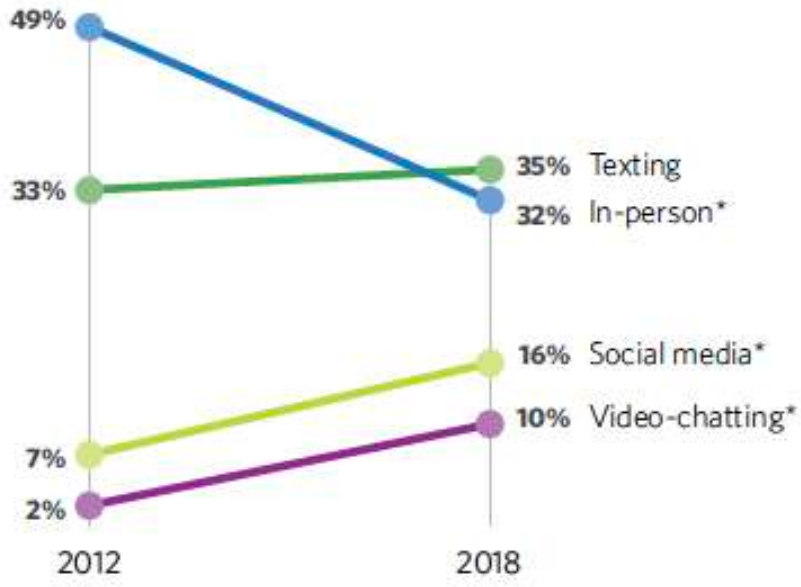
Source: Rideout & Bobb (2018) N=1,242 Age 14-22

Face-to-face communication in decline

- 49% (2012) preferred face-to-face contact; now 32%
- 54% say they are distracted from personal relationship by SM (44% in 2012)
- 42% say SM takes time away from spending time w/ friends in person (34% in 2012)

FIGURE F. Preferred Method of Communication, 2012 vs. 2018

Among 13- to 17-year-olds, percent who say the following is their favorite way to communicate with friends:

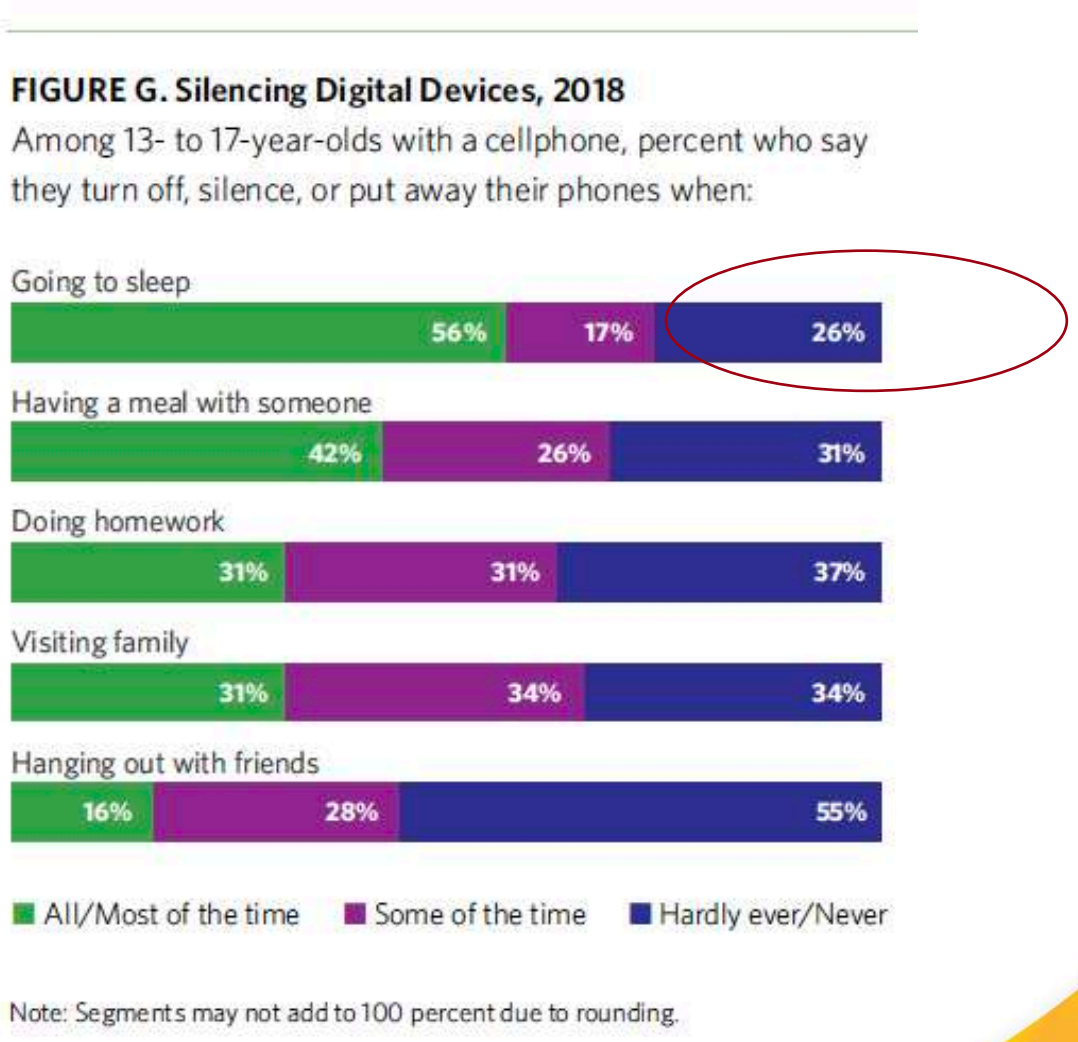


*Differences over time are statistically significant at $p < .05$.

Source: Rideout & Bobb (2018) N=1,242 Age 14-22

Teens wish they could disconnect more, but . . .

- Many youth turn off/silence phones when:
  - Going to sleep (56%)
  - Having meals with people (42%)
  - Visiting family (31%)
  - Doing homework (31%)
- Many youth do not



Source: Rideout & Bobb (2018) N=1,242 Age 14-22

An overexposed life?

- 64% of teen SM users say they “often” or “sometimes” come across racist, sexist, homophobic, or religious-based hate on SM
- Racist content exposure has increased from 43% (2012) to 52% (2018); religion 34% to 46%
- 13% say they have “ever” been cyberbullied, and 9% say they have been CB’d in a “somewhat” serious way
- 27% say that SM is extremely/very important to them for expressing themselves creatively (37% for those lower in SEWB)

Source: Rideout & Bobb (2018) N=1,242 Age 14-22

Defining social media

- Social media is defined as any technology or platform used to communicate with more than one person at a time
- Jones (2012) defines social media as “essentially a category of online media where people are talking, participating, sharing, and networking online”
- Social media includes social networking sites (SNS) e.g., Facebook, Instagram, Snapchat; micro-blogging sites like Twitter and Tumblr; text or voice chat during multiplayer online games; and communication within virtual worlds (e.g., Second Life)

How is media use impacting neural development?

How is the adolescent brain responding to media exposure? Three areas:

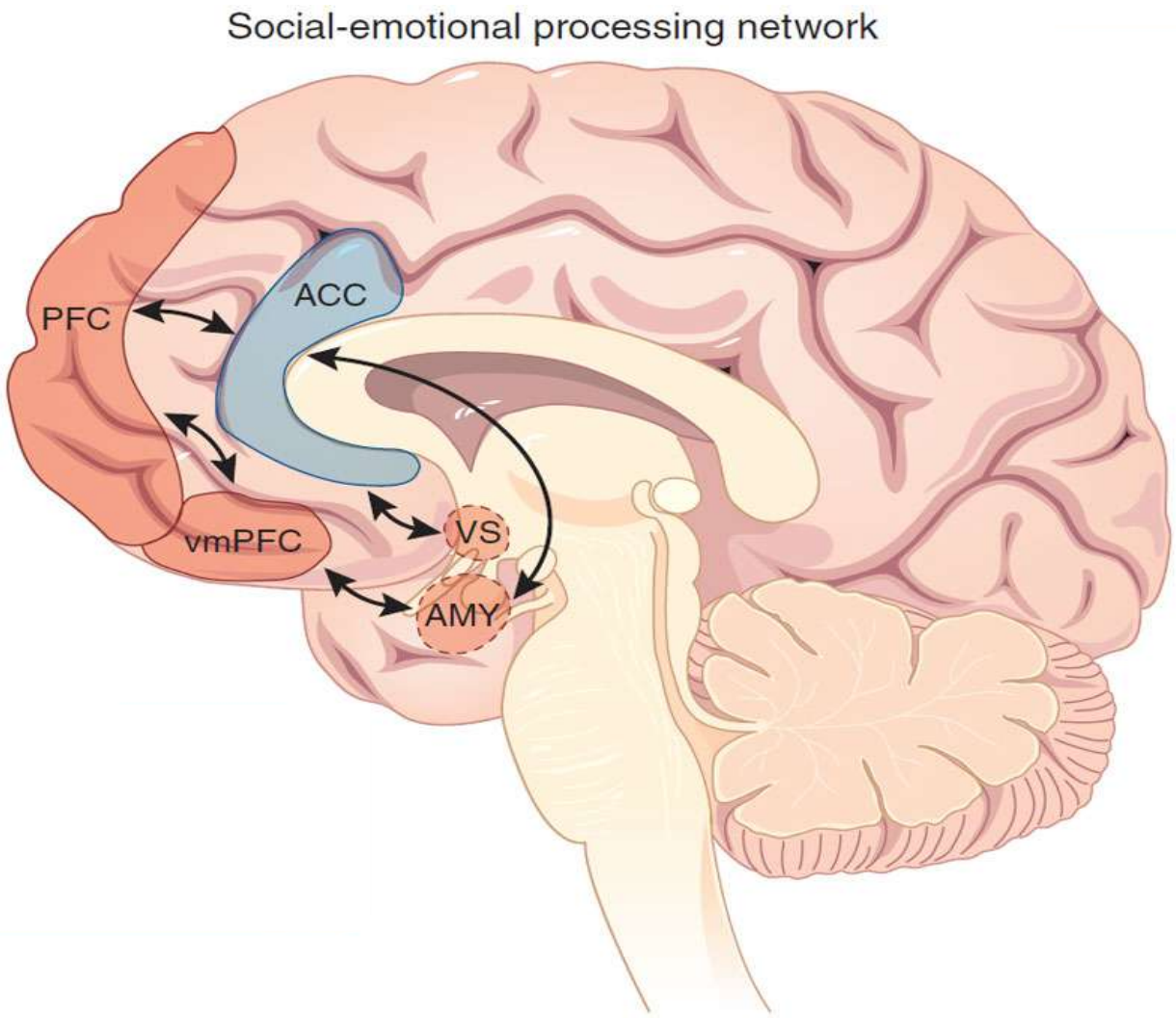
1. Social acceptance or rejection
2. Peer influence on self-image and self-perception
3. The role of emotions in media use.

Source: Crone, E. A., & Konijn E. A. (2018). Media use and brain development during adolescence. *Nature Communications, 9*, 1152-1162.

Being accepted and rejected online

- Using fMRI, increased activity in orbitofrontal cortex, dorsal anterior cingulate cortex (ACC) and insula following exclusion, areas implicated in depression
- Social judgment paradigms more akin to ”liking” activities on Instagram showed that adolescents expected to be liked less than young adults
- Imaging studies showed that being rejected based on one’s profile pics increased activity in medial prefrontal cortex
- Cool index (followers > following) may be implicated in greater ventral striatum activity (pleasure/reward)

Social-emotional processing and reward centres



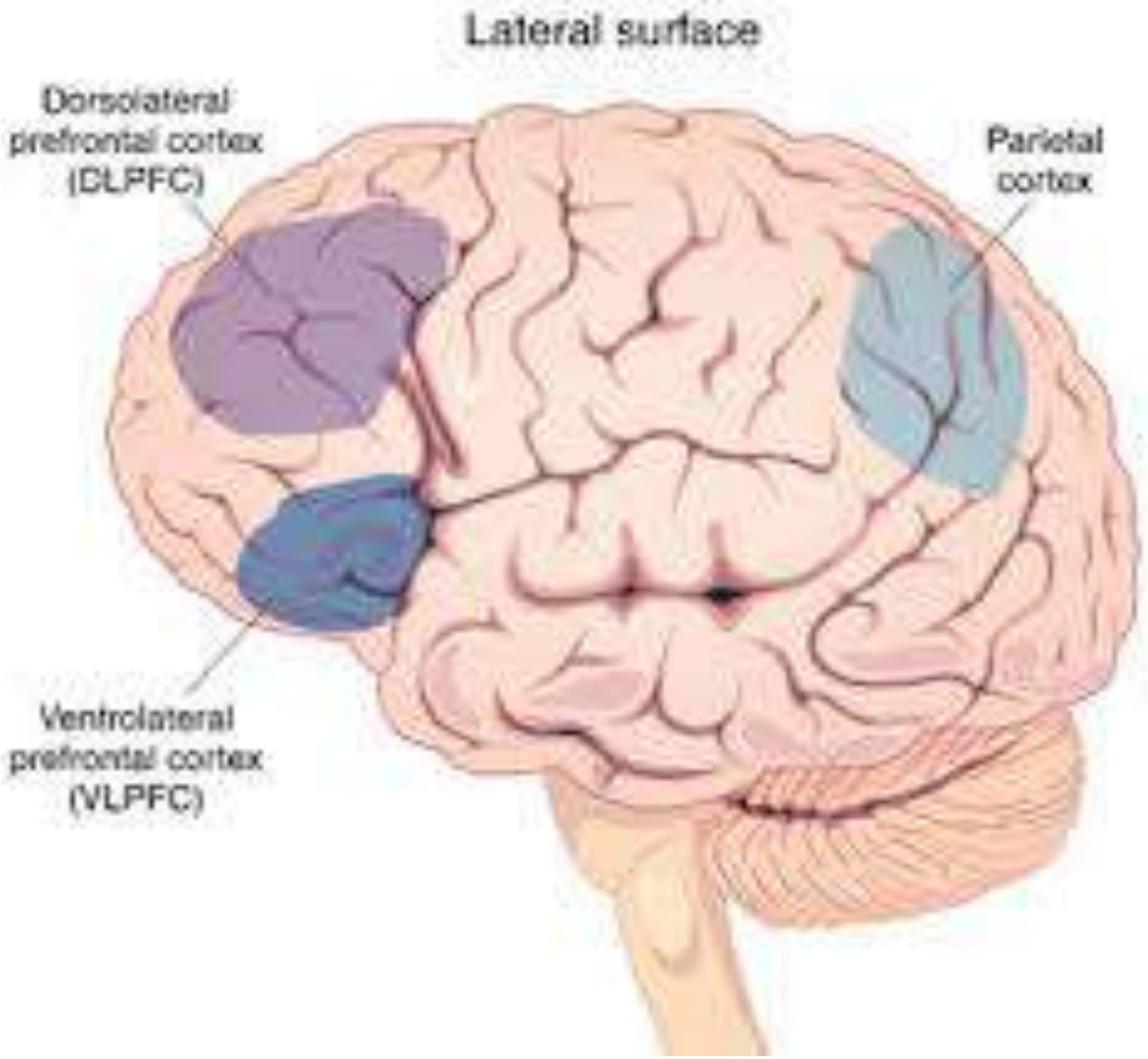
Online peer influence

- Recent neuroimaging studies examine how the adolescent brain responds to online peer comments
- When peer ratings of online content did not match A's own rating, higher ACC and insula activity noted
- This activity stronger in females w/ low self-esteem
- Studies also finding that early adolescents more influenced by positive feedback, showing greater medial prefrontal cortex activity, temporal parietal junction, and superior temporal sulcus – the social brain network

Precedence of emotions and impulsivity

- Several studies have shown that adolescents are more aggressive after being rejected online
- More dorsolateral prefrontal cortex (DLPFC) activity associated with less aggression and more giving
- Engaging with media is likely associated with multiple processes, with fast processing of emotions associated with higher:
  - Engagement
  - Sensation-seeking
  - Emotional responses to media content
- But imbalance b/w > emotional responsivity and < reflective processing and cognitive control

DLPFC

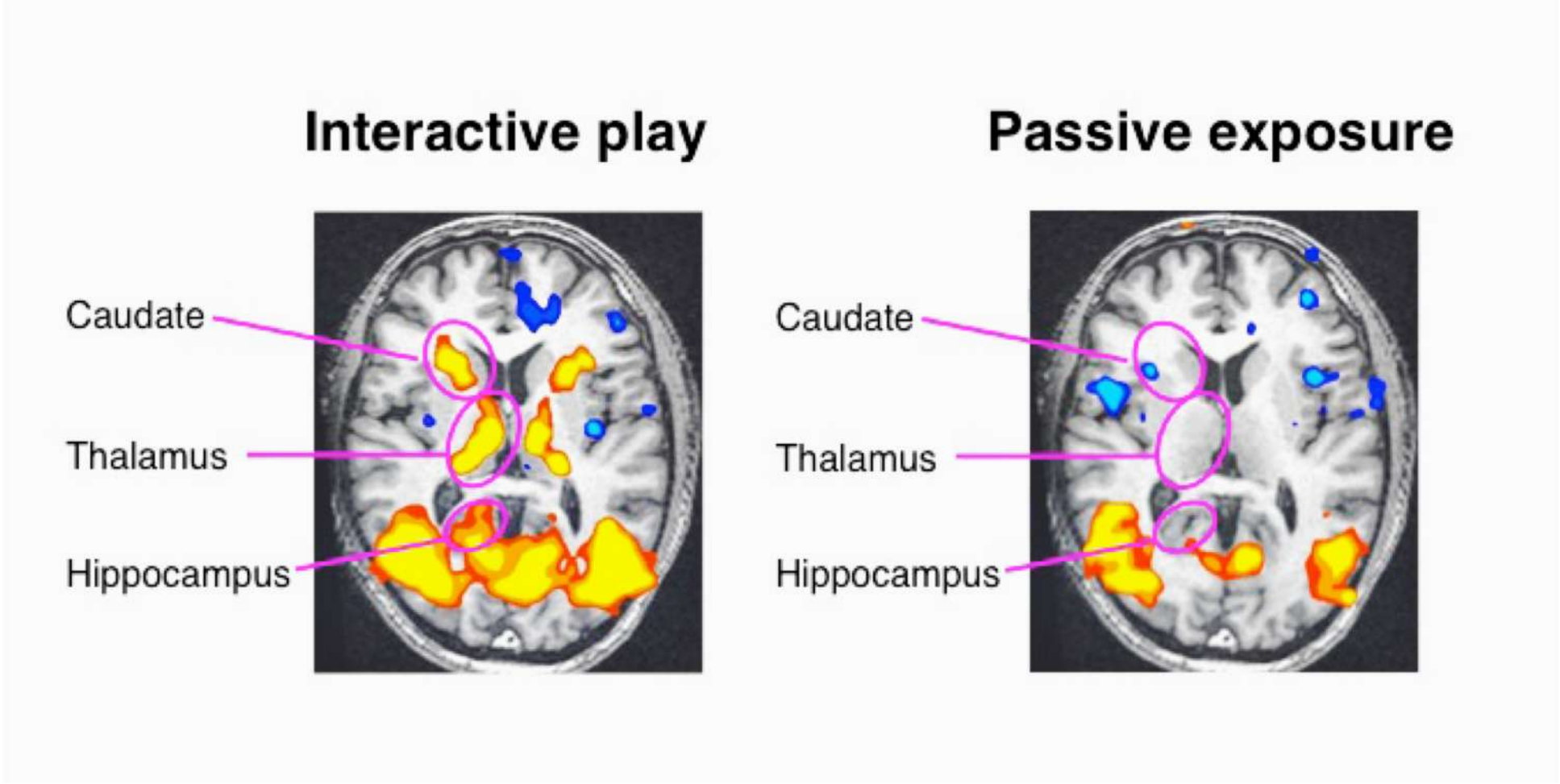

Lateral surface
Dorsolateral prefrontal cortex (DLPFC)
Parietal cortex
Ventrolateral prefrontal cortex (VLPFC)

THC and TAC systems

The brain uses two main systems to analyze and respond to environmental challenges, and technology use often exploits these systems:

- Thalamus-hippocampus-cortex (THC) system – helps us to explore objective, factual elements of a situation, compares them with declarative memory, then responds
- Stimulation of this pathway not typical of technology, and non-interactive technology in particular may lead to pruning of these areas

Interactive vs passive play



THC and TAC systems

- Thalamus-amygdala-cerebellum (TAC) system – identifies fearful and survival elements in a situation and quickly activates automatic response patterns via procedural memory
- Very typical path of technology, especially gaming
- Graphics and high definition images now elicit brain responses that mimic real life fight-or-flight responses
- Can result in parasympathetic fatigue (PTSD?)

So what might this mean?

- Heavy engagement with media and technology during the most important developmental years:
- Understimulates vestibular, proprioceptive, tactile, and attachment systems
- Overstimulates visual and auditory systems
- Creates a hypervigilant sensory system

Technology and unidentified fear

- As children are exposed to significant amounts of sustained/loud/looming/contrasting/moving/attracting elements that might signal danger, food etc, can lead to responses that can be:
  - Fearful
  - Impulsive
  - Inappropriate to situation e.g., exaggerated
- Consequently, children who are heavy technology users *may be* very emotional, have poor factual memories, and show general fear/anxiety for unidentified reasons

The last to the party: Executive functions

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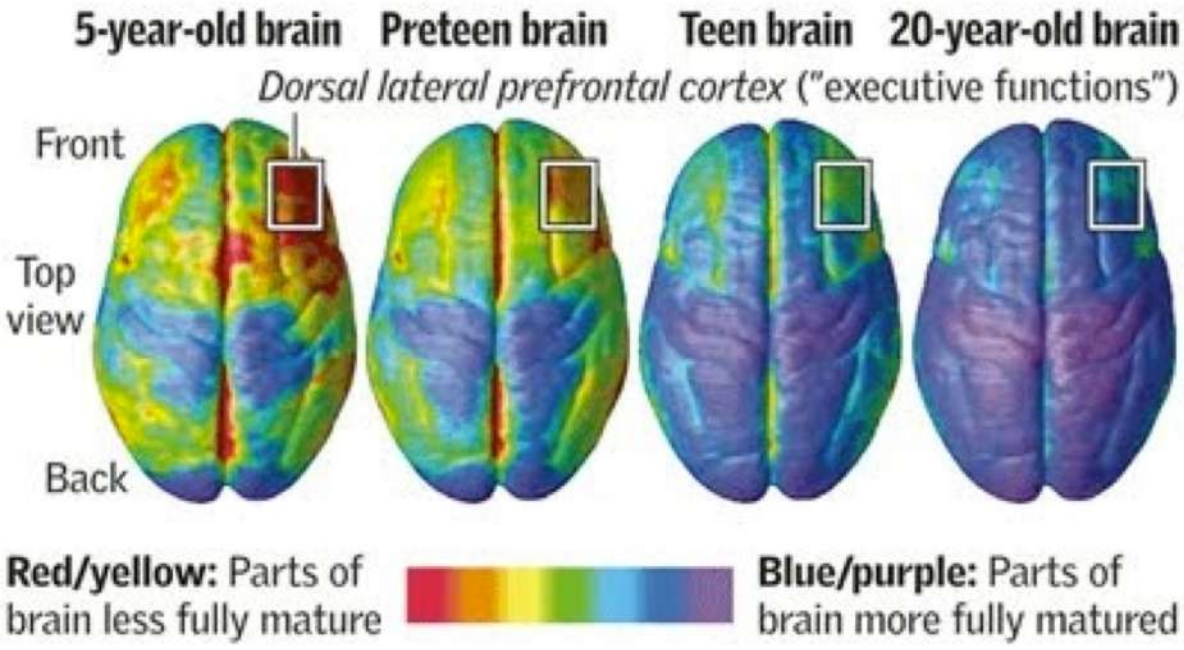
Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:



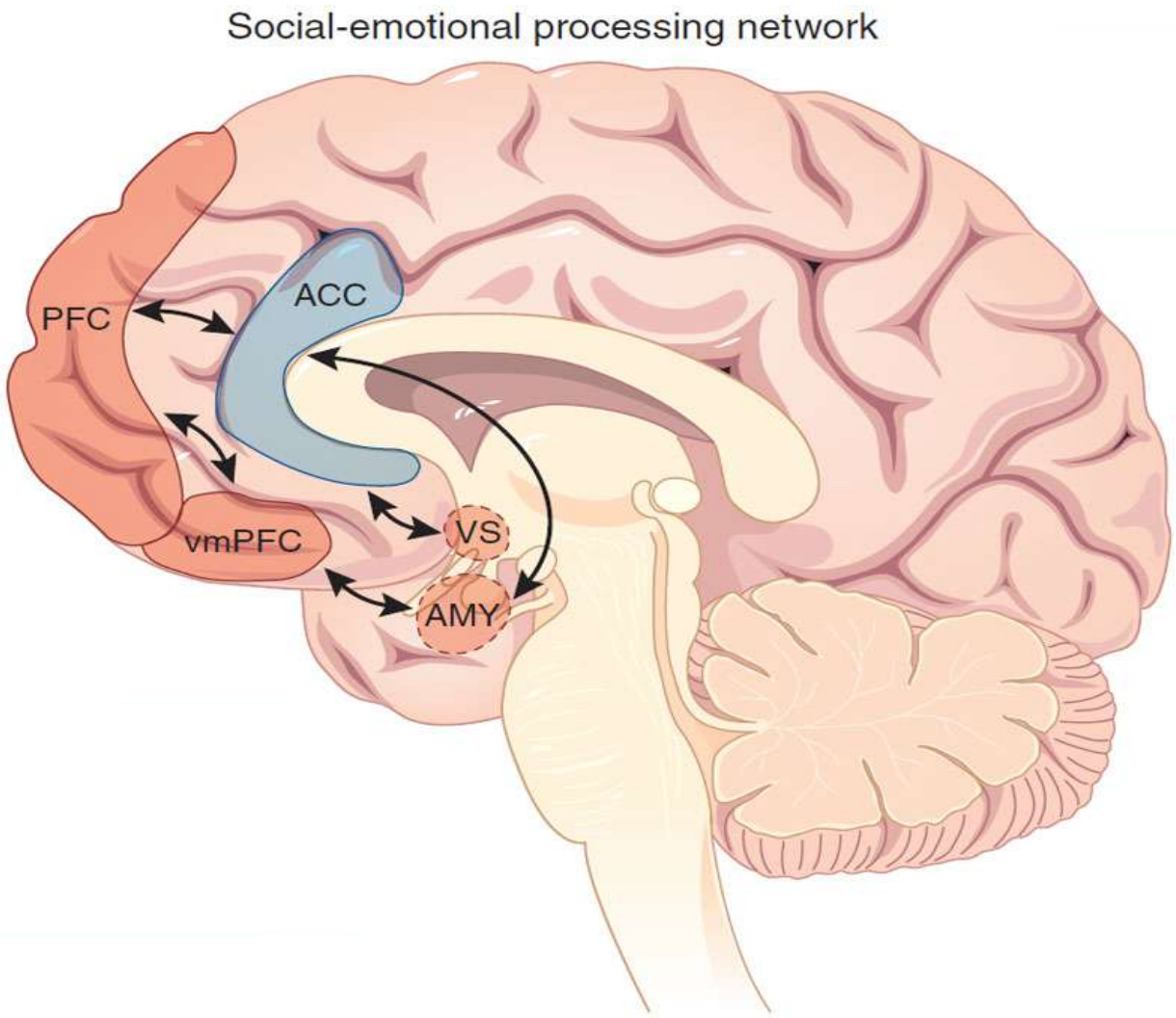
Sources: National Institute of Mental Health; Paul Thompson, Ph.D., UCLA Laboratory of Neuro Imaging

Thomas McKay | The Denver Post

Social rewards of tech use

- The brain regions that are highly activated on exposure to social stimuli are the areas that overlap considerably with the reward circuit – the nucleus accumbens and the medial PFC
- As children “interact” with their media, the rewards they experience are similar to that of what they will receive from peer relationships later in development
- Thus, the need for relationship may be pacified by the virtual associations that accompany heavy media and technology use

Social-emotional processing and reward centres



Social media and adolescent wellbeing

Some new'ish data

Hopelab and Well Being Trust

- 1300 U.S. teens, age 14-22, conducted February and March 2018
- Used the PHQ-8 depression scale
- Classified respondents into three groups:
  - No depressive symptoms
  - Mild depressive symptoms
  - Moderate to severe symptoms

Frequency of SM use by depressive symptoms

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- No significant differences in SM use based on depressive symptoms
- NB: this is a self-report survey (not objective)
- Survey did not ask for estimates of total amount of SM time
- Statistically sig dif on taking break from SM by depressive symptoms

Source: Rideout & Fox (2018) N=1,337 Age 14-22

Table 11: Reported amount of social media use, by depressive symptoms
Among 14- to 22-year-old social media users

	Depressive symptoms		
	None	Mild	Moderate to severe
Self-reported frequency of social media use:			
"Almost constant"	16%	14%	21%
Daily, but less than constant	62%	73%	59%
Percent who say they:			
Spend "too much" time/energy on social media	18%	29%	29%
Have ever taken a break from social media	40%[a]	61%[b]	62%[b]

Importance of SM use by depressive symptoms

- Significant differences in importance of SM based on depressive symptoms
- For those with mod/severe depressive symptoms, SM “very important” for feeling less alone, getting inspiration from others, and expressing themselves creatively

Table 12: Importance of social media, by depressive symptoms
Among 14- to 22-year-old social media users

	Depressive symptoms		
	None	Mild	Moderate to severe
Percent who say social media is “very” important to them for:			
Feeling less alone	7%[a]	18%[b]	30%[b]
Getting inspiration from others	13%[a]	20%	27%[b]
Expressing themselves creatively	13%[a]	23%[b]	26%[b]

Source: Rideout & Fox (2018) N=1,337 Age 14-22

Active vs passive SM use by depressive symptoms

- Youth with mod/severe depressive symptoms liked other people's posts more than none
- Those with "mild" symptoms browsed more than "none" group
- No differences in comments on other people's posts, DM, or post selfies

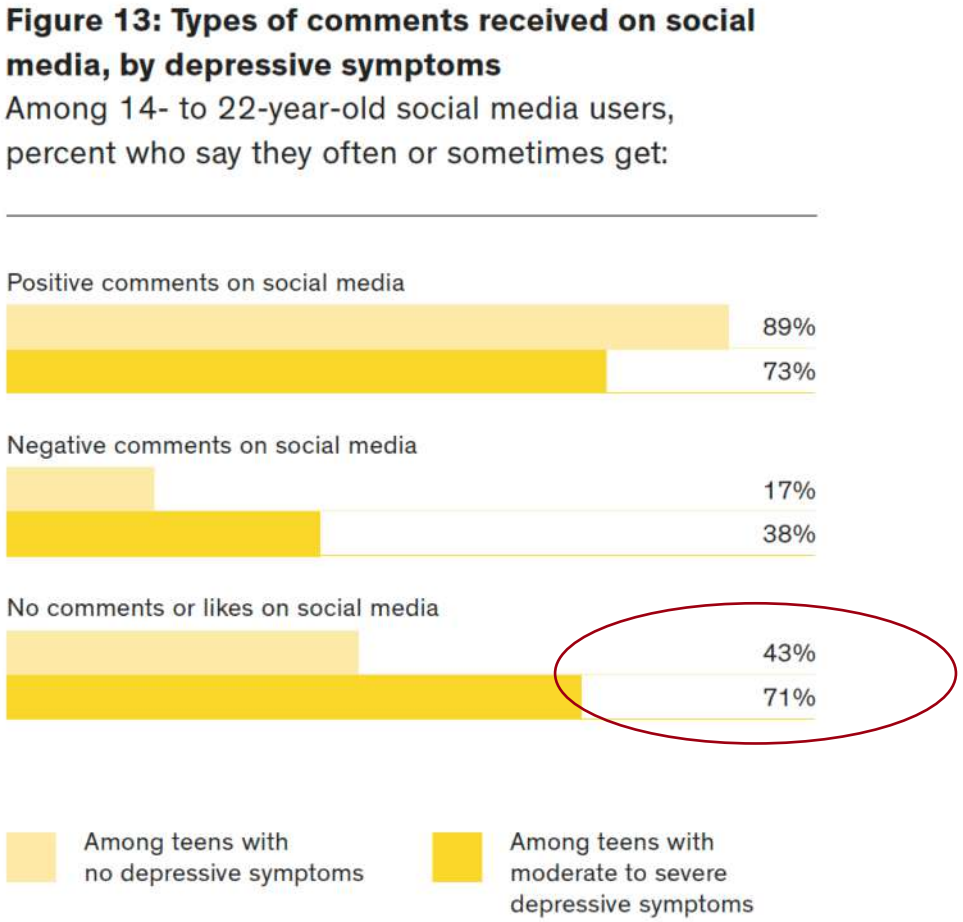
Table 13: Active v. passive social media use, by depressive symptoms
Among 14- to 22-year-old social media users

	Depressive symptoms		
	None	Mild	Moderate to severe
Percent who post to social media "daily"	32%	28%	29%
Percent who "often":			
"Like" other people's posts	47%[a]	44%[a]	62%[b]
Browse others' posts without liking or commenting	24%[a]	36%[b]	32%

Source: Rideout & Fox (2018) N=1,337 Age 14-22

Types of comments on SM by depressive symptoms

- 73% of youth with mod to severe depressive symptoms say they get positive comments vs 83% for none group
- Almost double negative comments for those with mod/severe dep symp
- No comments: 71% for mod/severe vs 43% for none group



Source: Rideout & Fox (2018) N=1,337 Age 14-22

Response to SM use by depressive symptoms

- Presentation pressure is significant for those with mod/severe dep symp
- Feeling left out is also prominent for those with mod/severe dep symp
- Avoidance using SM more prominent for those with mod/severe depressive symptoms

Source: Rideout & Fox (2018) N=1,337 Age 14-22

Table 15: Response to social media use, by depressive symptoms

Among 14- to 22-year-old social media users, percent who say they experience the following when using social media:

	Depressive symptoms		
	None	Mild	Moderate to severe
Feel like other people are doing better than they are			
Often	7%[a]	17%[b]	32%[c]
Often/Sometimes	46%[a]	70%[b]	64%[b]
Feel left out			
Often	1%[a]	8%[b]	18%[c]
Often/Sometimes	21%[a]	39%[b]	57%[c]
Use social media as a way to avoid dealing with your problems			
Often	3%[a]	6%	14%[b]
Often/Sometimes	16%[a]	38%[b]	39%[b]

Reported effect of SM use by depressive symptoms

- Use of SM by those with mild/mod/severe dep symp makes them feel worse vs nones
- Those with mod/severe use SM to connect with helpful advice, but also that it sends them down a rabbit hole more than those with mild/none

Source: Rideout & Fox (2018) N=1,337 Age 14-22

Table 16: Reported effect of social media when feeling depressed, stressed, or anxious, by depressive symptoms
Among 14- to 22-year-old social media users

	Depressive symptoms		
	None	Mild	Moderate to severe
Percent who say it makes them feel:			
Better	24%	30%	30%
Worse	7%[a]	22%[b]	22%[b]
No different	68%[a]	47%[b]	47%[b]
Percent who say it:			
Connects them to helpful advice and support	13%[a]	29%[b]	25%[b]
Sends them down a rabbit hole	9%[a]	10%[b]	29%[b]
Neither	76%[a]	60%[b]	46%[b]

Some even newer data

The New Normal: Parents, Teens, Screens, and Sleep in the U.S. (Common Sense Media, 2019)

Key findings:

1. 62% of parents say they keep their devices within reach of the bed; 39% of teens say the same. 29% of teens have in bed with them.
2. 35% of teens wake up and check their phones at least once per night; 26% of parents do same. 54% of teens are waking up bc they've received a msg and/or to check SM.
3. 61% of parents and 70% of teens check their mobile device within 30 minutes of falling asleep at night.
4. 39% of kids wish their parents would get off their device

Some even newer data

More key findings:

5. 45% of parent feel personally addicted to their mobile device; 39% of youth feel the same.
6. 38% of kids feel their parent is addicted to their mobile device; 61% of parent think the same of their kid.
7. 54% of parents and 58% of kids say the are distracted by their mobile device at least once per day.
8. 55% of parents and 72% of kids say that their mobile device use has had no impact on their relationships with each other.


Geez Grandma! It's not that hard! Go into Settings... select wi-fi... Select it! Tap it with your finger... OMG any finger!! Grrrrrrr

No solutions, just some solace

- We are not going to ever be rid of technology and social media; this is the fabric of our kids' lives
- As *digital natives* – those who have only known life with technology – we are only beginning to understand how, why, and to what end our children will engage with their technology
- The association we find between digital technology use and child/adolescent well-being is negative but small, explaining at most 0.4% of the variation in well-being (Orben & Przybylski, 2019)
- This is truly one of the experiences that all family members can learn about together; no one is the expert!

Good riddens

There are no technological substitutes for encouraging healthy development in children/youth via:

- Parent-child attachment
- Early and late literacy
- In-person social interactions with friends
- Physical activity
- Social engagement outside home
- Reasonable risk
- Being bored and making up engaging things to do (and then figuring out to fix the #&*%! you are in)

<u>Create and protect sacred spaces for experiences that are not online!</u>

My goodness, what now??

Here are some things we can do today about screens and kids:

- Model healthy screen use
  - make public and talk about your screen times with each other
  - set screen-free times/zones e.g., Tech-free Tuesdays
  - turns off screen when not in use
  - avoid screen time at least one hour before bed time (research says!!)
- Monitor not only screen time, but also your child's emotional relationship with screens
  - watch for complaints about being bored or unhappy when screen time is limited
- Encourage meaningful screen use
  - educational use
  - be part of children's media lives

Good references

Guernsey, L. (2012). *Screen time: How electronic media – from baby videos to educational software – affects your young child.* New York: Basic Books.

Ito, M. et al. (2010). *Hanging out, messing around, and geeking out: Kids living and learning with new media.* Cambridge, MA: MIT Press.

Twenge, J. M. (2017). *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy–and Completely Unprepared for Adulthood–and What That Means for the Rest of Us*. Atria Books

Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other.* New York: Basic Books.

Other good reads

Harris, M. (2015). *The end of absence: Reclaiming what we've lost in a world of constant connection.* Current publishing.

Lukianoff, G., & Haidt, J. (2018). *The coddling of the American mind: How good intentions and bad ideas are setting up a generation for failure.* New York: Penguin Press.

Ungar, M. (2007). *Too safe for their own good: How risk and responsibility help teens thrive.* McLelland & Stewart.

Good Online Resources

Common Sense Media

- http://www.commonsensemedia.org

Hopelab

- https://hopelab.org/

Screenagers

- https://www.screenagersmovie.com/

Teen Mental Health

- http://teenmentalhealth.org/

e: kdschwar@ucalgary.ca

t: @kellydschwartz

w: www.familywise.ca