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Raising a Touch Screen Generation

- I. Pre-Covid State of the Union
  - A. Can't blame current events (pandemic, school systems, politics) for role technology is playing in our children's lives right now. Issues long preceded COVID. (Screen time and Content)
  - B. Screen Time
    1. Common Sense Media/NW Univ.: Adults poor role models w/9 hrs. & 22 min's a day of screen time only 90 min's of which is for work.
    2. Kids average 7-8 hours a day most of which is recreational not educational
    3. Kids with difficult temperaments/ADHD/Self-Regulation issues/Socio-emot. delays more likely to spend too much screen-time.
    4. University of London, Tim Smith: For toddlers every add. hr of screen-time equals 11 more minutes of daytime sleep, 26 fewer minutes at night and greater difficulty falling asleep.
    5. 2 yr. olds: every hr. of screen-time per week see BMI go up leading to increase in childhood obesity.
    6. 41% teens get less than 7 hours of sleep a night and need upwards of 10. (Screenagers)
    7. Excessive screen-time early childhood can lead to cognitive, language and socio-emotional delays. Poor executive function in pre-schoolers.
  - C. Diane Levin: > than 1-2 hrs. of screen-time leading to three socio-emotional and inter-relational deficits
    1. Play Deficit: Losing ability to engage in self-directed creative play
    2. Problem Solving Deficit: Children more comfortable being told what to do rather than figuring it out for themselves.
    3. Compassion Deficit: Less able to compromise, empathize, or take another's perspective.
  - D. Socio-Emotional Influences
    1. 1-2 hours of screen exposure in early childhood connected to higher levels of aggression; sleep disturbances; obesity; lower math/school achievement; shorter attention spans; delayed language acquisition; hyperactivity; emotional/behavioral problems; difficulties with peers; reduction of self-control; issues with memory (Paul Weigle, Adolescent Psychiatry, 2014, 4, 81-91). Campaign for Commercial Free Childhood; NIMH; University of Washington; National Institute of Early Education Research at Rutgers; Japan; Tokyo, China.
  - E. Jean Talenge, Psychologist SDSU: Brink of worst mental health crisis in decades due to smart phones for iGen (born 1995-2012).
  - F. Suicide rates highest in 40 years for girls 15-19 yrs. old. For boys, up 30%. 59% increase in depression in our children between 2011-2017. If feeling low more likely to sit in front of screen even though doing so makes you feel worse. (Screenagers)
  - G. 2013 American College Health Association Survey 100,000 college students from 153 campuses in 50 states: 84.3% felt overwhelmed by all they had to do.; 79.1% felt exhausted (not from physical activity); 60.5% felt very sad; 57% felt very lonely; 51.3% felt overwhelming anxiety; 46.5% felt things were hopeless; 38.3% felt overwhelming anger; 31.8% felt so depressed that it was difficult to function; 8% had seriously considered suicide; 6.5% intentionally cut or otherwise injured themselves.
  - H. How are we doing? Julianne Holt-Lunstad Psychologist Brigham Young Univ. – facing a loneliness epidemic causing a greater public health hazard than obesity and possibly smoking.



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- I. All despite American Academy of Pediatrics recommendations for screen time (None for those younger than 2 except for video chat; 1-2 hours for those older than 2 vs. reality (average 7 hours a day). Must take into consideration the content of your child's screen time as well as the amount of time spent. (Not realistic and clearly unattainable)
- J. Content
  - 1. Children raised in world of anytime, anywhere media so spend inordinate amount of time interacting with pop-culture.
  - 2. These consumer oriented messages communicated thru mass media are powerful and can shape attitudes, values, behaviors and skills as well as sell products.
  - 3. Children are being directly targeted as profitable group of consumers – "walmartization of information".
  - 4. Leading to Age-Compression where kids are starting their adolescent rebellions at younger and younger ages. Are reliant on media for knowledge and guidance not as much on adults. Media corp. are direct competitors for parenting control and excellent at normalizing certain behavior that will make them money (i.e., drink, smoke, drugs etc.)
  - 5. Children are unique audience and different from adolescents and adults: Bring less real-world knowledge and experience to understanding; More willing to believe info; Misunderstand media intent/accuracy/honesty; Hard time distinguishing fantasy from reality; Focus on concrete rather than abstract concepts; don't make causal connections; focus on one aspect of situation at a time; think in dichotomous categories.
  - 6. Adolescents are also unique but in different way due to what is happening at this stage of development: Identity formation; Increased independence; Increased experimentation/risk taking; Peers importance; puberty and sexual development.
  - 7. Children/adolescents internalize messages that lead to how they feel about themselves, others and world at large. Must exploit the positive influences of media and minimize the negative.
  - 8. Sexting: Five types
    - A. Creating/sending nude, partially nude or sexually suggestive images of oneself.
    - B. Receiving images from a sender.
    - C. Being asked to send an image.
    - D. Forwarding and sharing images. Involves one or more third parties and done without consent or knowledge of original sender. Nexus between sexting and bullying.
    - E. Sexually suggestive language-based communication.
  - 9. Why kids Sext?
    - A. Adolescence unique period of transition. (Biological, cognitive and social)
    - B. Most fundamental transition of adolescence is onset of puberty and subsequent sexual development.
    - C. Remember we are sexual beings! Even in utero!
    - D. Internet has become an important social context for adolescences to explore/manage their sexual development.
    - E. For most part, on-line sexual activities appear to be a normal part of sexual development. Does not make it safe or ok. Just means it's normal for teens to do it.





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- K. Scientific research on effects of technology on children's brain development (Very limited sample to give you a feel for what we are seeing. Remember these are studies not experiments so cannot claim cause and effect, can establish a relationship/correlation)

*Remember: Early human brain development changes in response to experience. Very sensitive time for permanent changes (positive and negative) to occur in brain structure and function.*

1. Proliferation-produce new brain cells (in utero and pre-adolescence), Thickening of Gray Matter-hard wiring of brain (pre-adolescence), Pruning-brain cells and connections die off (adolescence); Myelination-allows for faster/more synchronized communication in brain.
  2. Adolescent brain at greater risk for addiction due to sensitive dopamine reward system which causes them to gravitate toward thrilling/novel experiences. Like a car with a good accelerator but a weak brake.
  3. Three ways reward system manifests self: Impulsiveness; increased risk for addiction; Hyperrationality (literal thinking) vs Gist Thinking (intuition, gut feelings).
  4. Pre-frontal cortex (critical for all complex thinking) is last to develop. Fully developed by approximately 22 years old for girls and 25 for boys. Some research suggests even later for both.
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- A. Behavioral addiction to gaming and the internet is more prevalent in our children than depression, anxiety and ADHD. Effects on brain very similar to those associated with substance abuse and gambling – frontal lobe shrinkage of gray matter (allows us to think – not something you can get back) and decrease frontal lobe white matter (allows for communication between brain regions). (Paul Weigle, Adolescent Psychiatry, 2014, 4, 81-91)
  - B. China: Epicenter for Screen Addiction – 10-12 hrs a day of gaming rewires white matter in brain (individual differences in whether increases or decreases) and gray matter shrinkage 10-20% leading to reduced inhibition or inappropriate behavior.
  - C. Japan: Many computer games stimulate only parts of brain associated with movement and vision which may halt the dev. of frontal lobe. Particularly ability to control behavior and make rational decisions.
  - D. Indiana University School of Medicine: Violent content of computer games stimulate arousal centers (Amygdala) of the brain that lie outside frontal lobe. May shut down perception and thinking. See measurable decrease in empathy after playing violent games.
  - E. Multitasking: See decrease in density/number of nerve cells in Hippocampus in rats – brains CPU.
  - F. Moderate Users: initial increase in cortisol when engage in screen-time then decreases to a baseline. Significant Users: Increase in cortisol that persists during screen-time. Cortisol is a stress hormone that builds up in the brain/body. Influences ability to concentrate, pay attention, learn. Causes changes in heart-beat, breathing, body temperature etc. When heart is beating over 100 beats a minute brain switches from logical brain (pre-frontal



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cortex) to Motor Cortex preparing to fight, flight or freeze – a reaction that “I am at risk of harm”.

II. COVID – Current State of the Union

- A. Screen time is through the roof. By May 2020 had doubled compared to the year before and continues to go up.
- B. Out of necessity, parents have had to relax, and in many cases eliminate, boundaries since kids are learning, playing and socializing on their screens.
- C. Bundling: since learning, playing and socializing is being done on devices rewards associated with each engagement are co-mingled so hard to separate the good from the bad. Kids are dependent and at times addicted to their devices. This combo makes changes (backing off on screen time and particular content) very difficult (Dr. Humphrey, Stanford University). Children associate devices with multiple forms of pleasure and so requiring them to disconnect is like trying to preach abstinence in a bar.

III. What do we do about all of this? Idealistic and Practical Suggestions to bring us to a better place post-COVID. Take what works for your family and leave the rest. Get creative!

- A. Very little to no screen time for kids younger than 2 years old.
- B. No screens in bedrooms until teenage years. Then technology curfews for freshman and sophomores.
- C. No sleeping with screens at any age. Including you!
- D. No screen time 1-hour before bed. Including you!
- E. Say no to screen time regularly to bring back boredom and creativity.
- F. Spend screen time interacting with children.
- G. Create unplugged areas in house and spend time there as a family.
- H. Avoid fast paced programming for pre-school, elementary and middle schoolers and early high schoolers.
- I. Delay smart phones as long as possible. Ideally, not until high school. Maybe a flip phone for younger kids.
- J. Monitor your child's online activity and presence closely and regularly into their sophomore year of high school.
- K. When your child gets a smart phone require them to pay for part or all of their phone expenses (% of your plan) through chores for younger kids and jobs for older kids. Will teach responsibility, appreciation and hard work....and hopefully more respect for their device.
- L. Teach media literacy by researching and evaluating apps, games, websites with children. Model critical thinking. Question the validity of advertising.
- M. Teach them not to trust advertising claims for products, apps, games etc. (i.e., No scientific data suggesting that learning through an app or on a screen is superior to learning the old-fashioned way. In fact, the opposite is often true.)
- N. Counterbalance screen time and content with real life experiences and socialization. Get back to what is most important!



As you make changes, going to be a period of epic withdrawal. Start these changes as soon as you can so you can do it gradually and with your child's participation. It is not going to be easy or go smoothly. Adjust your expectations accordingly. Good news is that kids are starting to be sick of their screens TOO. Take advantage of the positive momentum brewing despite the bleak state we are in currently.

IV. How we make positive changes

- A. Must get comfortable playing a much more proactive role in guiding our children's development based on facts and common sense. Don't wait for science to inform us.
- B. Children will learn to value what you value.
- C. Real change happens in small increments and there will always be regression. There is no one size fits all approach. Don't take your children's feeling personally. They're aren't going to like these changes at first.
- D. Model the behavior you want your children to adopt. You are a powerful role model!
- E. Have ongoing age-appropriate conversations with your children about family values, what's truly important in life and how things have gone awry. (i.e., ID and define your family values. Post them. Talk about how they relate to technology use. This lays the foundation for change by identifying "why" change is necessary. The "Why" is what motivates us and inspires others (per Simon Sinek). Make conversations non-judgmental, no blaming, no arguing. Just perspective taking, exploring, getting to know how your children feel and think around this issue and others.
- F. Do on-going age-appropriate collaboration to determine current changes and future goals. Make clear: change needs to happen and are coming; changes will be decided on together and will be a process; you will be making changes of your own as well – not just about them; Isn't going to be easy but will all do it together; gently make clear that you are the parent and will take charge of the process if need be; Decide what you and your significant other want to accomplish ahead of conversations with kids so you can be on the same page; Use the Agreement Guidelines I provided as a starting point for creating a plan for change; Make all conversations short and to the point and try to listen more than you talk. Do not be the know it all!

If you have time get involved at a higher level by advocating for policy changes, insist on quality apps/computer games and parental controls.

We can do this. We must do this. It isn't going to be pretty! Find your grit and resilience. Come together and support each other.