

Technology and mental health: strategies to promote mindful digital citizenship

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My Background

- Clinical Psychologist
- DePaul Family and Community Services is a full-service Child, Adolescent and Family behavioral health clinic located on the Lincoln Park campus of DePaul University
<https://fcs.depaul.edu>
- Father of two boys (10 and 13)

Mindful Middle Schoolers Program



Resiliency Skills for Anxiety, Depression and Executive Functioning

- DePaul University, in partnership with the Oak Park Township Community Mental Health Board and D97, plan to offer the following services and supports to the Brooks/Julian community during the 2019-2020 school year:
- Community Talks on technology, anxiety, depression, executive functioning, mindfulness and the social and emotional needs of youth
- School-based group mindfulness-based services for students
- Individual and family therapy at school and home

For more information please reach out to
omorriso@depaul.edu, your school principal or social worker

In The News

- “Suicide Rates For Teen Boys And Girls Are Climbing”

Lindsay Holmes, August 2017, Huffington Post

- Teen Depression and Anxiety: Why the Kids Are Not Alright

Susanna Schrobsdorf, October 2016, Time Magazine

- “Have Smartphones Destroyed a Generation?”

Jean M. Twenge, September 2017, The Atlantic

The Developmental Tasks of Childhood and Adolescence

- Physical growth
 - Fine and gross motor control (2-5 y.o.)
 - Puberty, hormones, body changes (tweens/teens)
- Cognitive development
 - Mental Representation, Symbolism (2-5 y.o.)
 - Information Processing, metacognition (6-11 y.o.)
 - Complex Reasoning, Hypothetical, logical, abstract & creative thinking (teens)

The Developmental Tasks of Childhood and Adolescence

- Social development
 - Cooperative Play (2-5 y.o.)
 - Empathy and Moral Development, Perspective Taking (6-11 y.o.)
 - Identity apart from parent/family, peer group membership, belongingness, sexuality, intimacy (teens)
- Emotional and behavioral development
 - Attachment (identify emotions, emotional co-regulation) (2-5 y.o.)
 - Tolerating emotions, delaying gratification/impulses (6-11 y.o.)
 - Identity Assertion, emotional intensity and fluctuation (teens)

Play & Development

Benefits of Play (well-established in research)

- Personal control and child-directed
- Intrinsically interesting and motivating
- Learning occurs through close (yet informal) interactions with materials, peers, adults
- Executive Functioning Skills

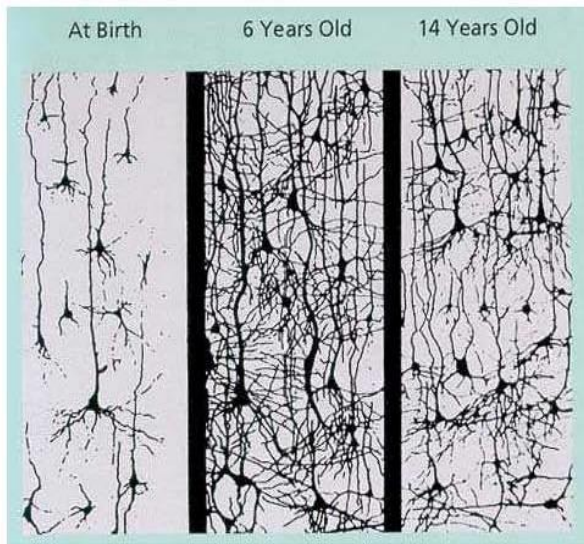


Brain changes across childhood

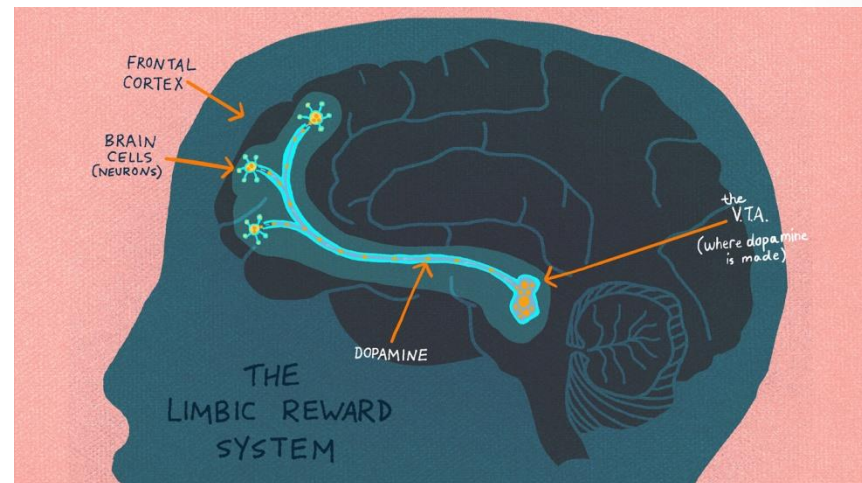
Integration of Structures/Systems

Neuronal “Pruning”:
becoming specialized and efficient

“Myelination”: becoming faster, more synchronized



Dopamine Pathway: The Drive for Reward



Video games and social media often exploit the increased activation in the incentive-reward motivational system

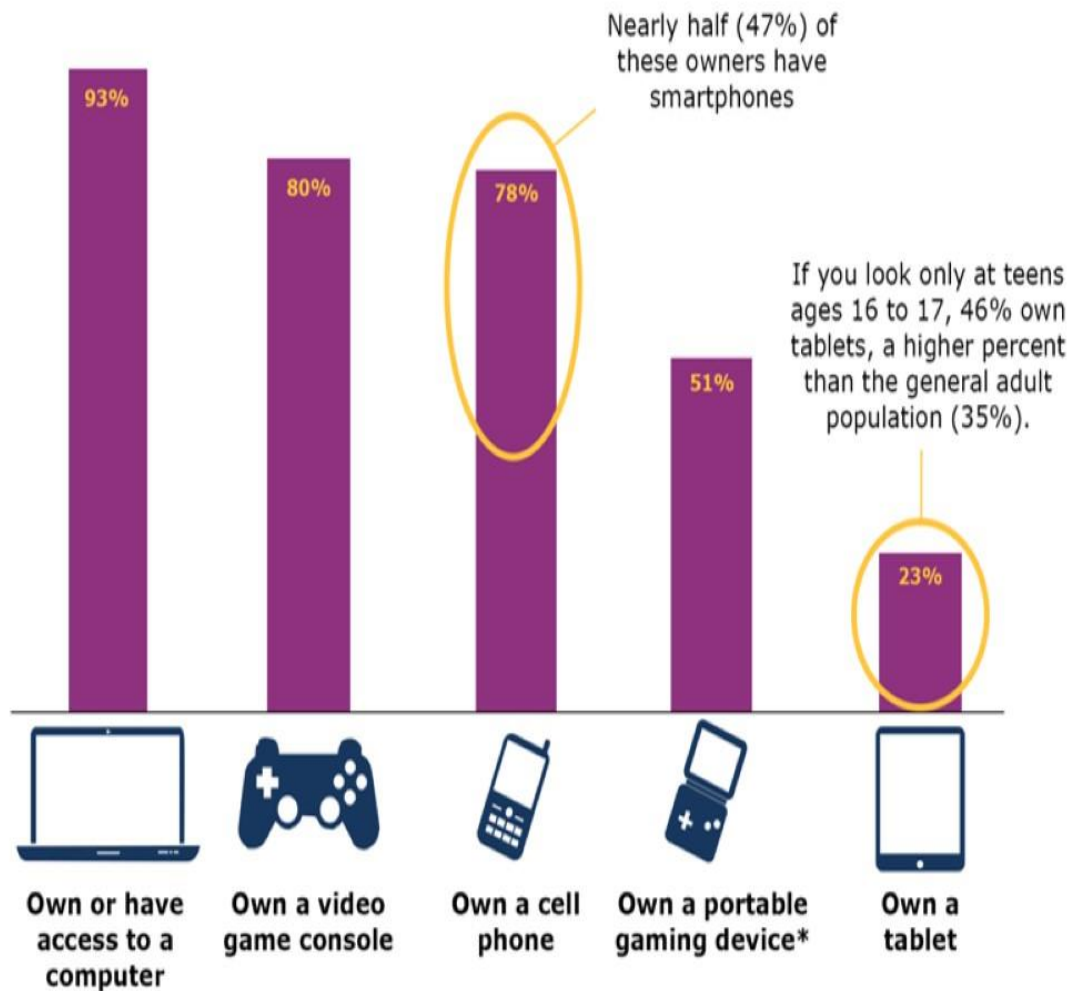


Children and Technology Use

- Nearly 75% of children have access to a smartphone & 30% a basic phone
- 92% of teens report going online daily
 - 56% say they go online several times a day
 - 24% say they go online “almost constantly”
 - 12% say they go online once a day
- 55% of teens spend time everyday texting with friends (Lenhart, Smith, Anderson, Duggan & Perrin, 2015)
- Screen Use: 0-2 year-olds 1:15, 2-5 year-olds: 3:09, 6-8 year-olds: 3:41
- On average, teens spend 8+ hours a day using some form of digital media device
- Children from lower income families spend greater amounts of time on screens

Pew Research Center (Lenhart, 2015), Northwestern University (Wartella, Rideout, Lauricella, Connell, 2014)

Media Device Ownership among 12 to 17 Year-Olds



*Does not include cell phones. For example, a PlayStation Portable owner would count, while a teen who owns only an iPhone with apps would not.



Technology (Benefits)



- Social Media/Networking:
<https://youtu.be/0X5sfJhvuZM>
 - Online communication expands & diversifies the child's social circle, particularly for older teens (Valkenburg, Schouton & Peter, 2005)
 - Diversifies social circles (ages, genders, geography, ethnicity...)
 - Dramatically increases the breadth of information and stimulation of all kinds

Technology (Benefits)

- Social Media/Networking:
 - “Rich get richer” hypothesis: Technology can augment prior strong social relationships (Lee, SJ, 2009)
 - “Social compensation” hypothesis: Technology can be used to compensate (introverted or socially anxious teens)
 - Social support: LGBTQI, children with illnesses, disabilities
 - Can create a platform for older children and teens to express idealism, aspirations, and desire for progress (e.g. Autumn Peltier – water, Greta Thurnberg - climate, Emma Gonzalez – gun control)

Technology (Benefits)

- Access to/Sharing of Information
 - Can supplement and enhance learning that is occurring both inside and outside of the classroom
- Can be leveraged as a tool to create (active vs. passive use)
- Can allow children to work/learn at their own pace
- Prepares them for a tech-rich world

Technology (Concerns/Challenges)

- Social Media/Networking:
 - Time alone/Downtime: Our brains need downtime to process and integrate experiences. Between 1991-2012 there was a decrease in the percentage of teens reporting 7+ hours of sleep (Keys et al., 2015)
<https://youtu.be/cKaWJ72x1rl>
 - While social media can be used to explore and build identity it also makes it possible for teens to construct “false identities”. Valkenburg, Schouton & Peter, 2005 found that younger teens use the internet to explore identities.
 - Creates pressure to “curate” profiles and “reputation-manage” online content and interactions

Technology (Concerns/Challenges)

- Parent-Child Relationships:
 - Autonomy from parents: Advances in technology have challenged parents' ability to monitor and stay engaged with parts of their children's lives
 - Hierarchy of authority: Family systems can change and conflict can arise when the teen has or perceived more technological knowledge than parent(s) (Livingstone, S, 2007)
- Can create heightened fear/anxiety, (current focus on police brutality, political division, immigration, school shootings, "othering"). ***This is particularly salient for children from historically oppressed/marginalized groups who have experienced racism, trauma, sexism, homophobia etc.)***
- Cyber-bullying: 23% teens reported being cyber-bullied (Hamm et al., 2015)
- Pornography: 23-95% of 10-19 year-olds report having viewed pornography online depending on the source
- Sexting: <https://www.youtube.com/watch?v=IZwVT6WnPQY>

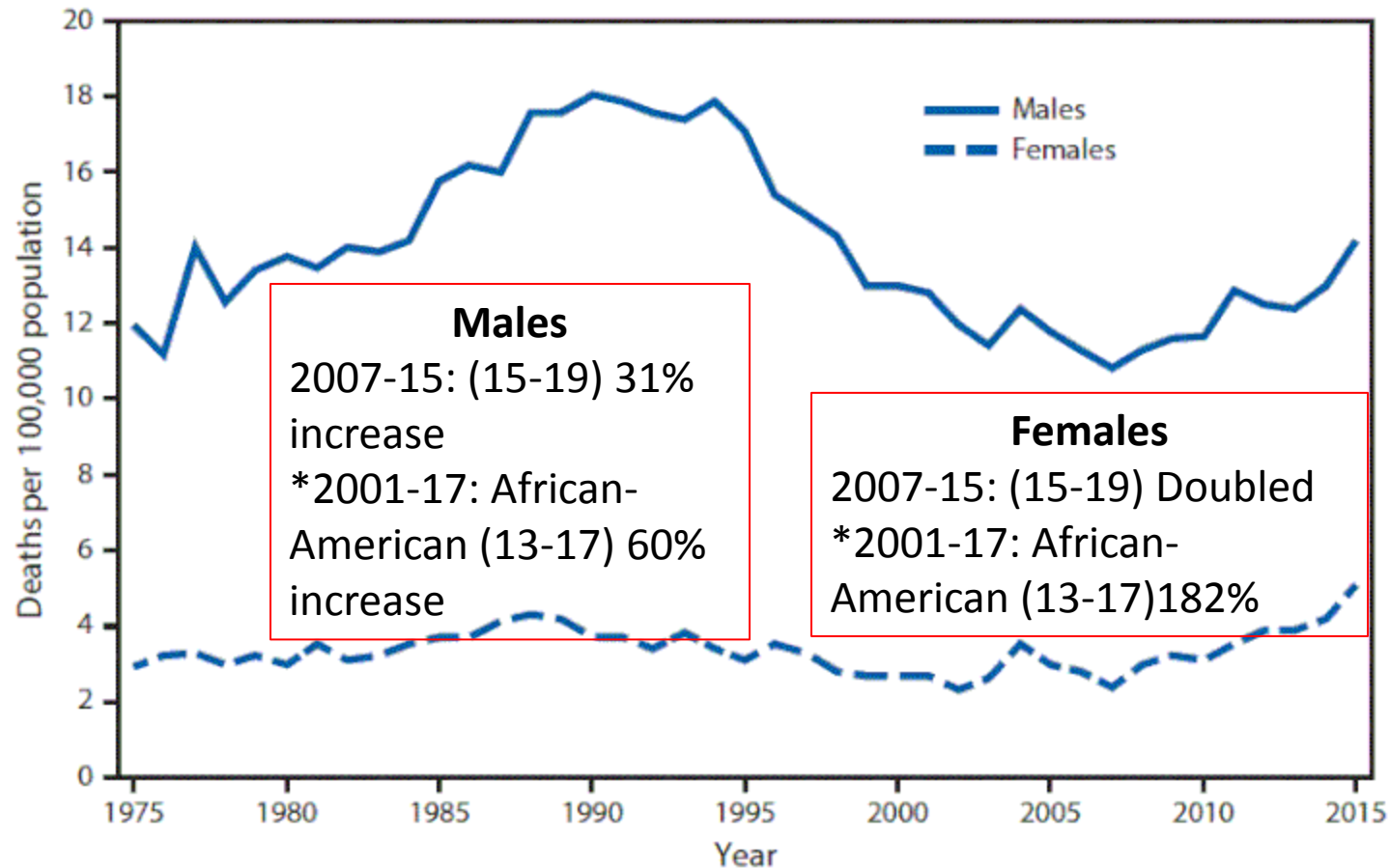
Technology (Concerns/Challenges)

- Multi-Tasking, Learning & Academic Outcomes
 - Background TV noise (Anderson, Pempek, Kirkorian 2000s, Evans et. al, 2008, Newman, 2006) :
 - Impact on Play
 - Impact on Parent-Child Interactions
 - Impact on Language Development
 - Significantly more “multi-tasking” in recent generations (Carrier, M et al., 2009)
 - Two-thirds of the students (university) reported using electronic media while in class, studying, or doing homework
 - Associated with lower grades (Jacobsen & Forste, 2011)

Technology (Concerns/Challenges)

- Technology Use “Displaces” other important aspects:
 - Unstructured play, family time, interaction with family members and peers (Lee, SJ, 2009)
 - Creates an “illusion” of connectedness without the depths and demands of friendship (only 25% of teens spend “in-person” time with friends outside of school daily)

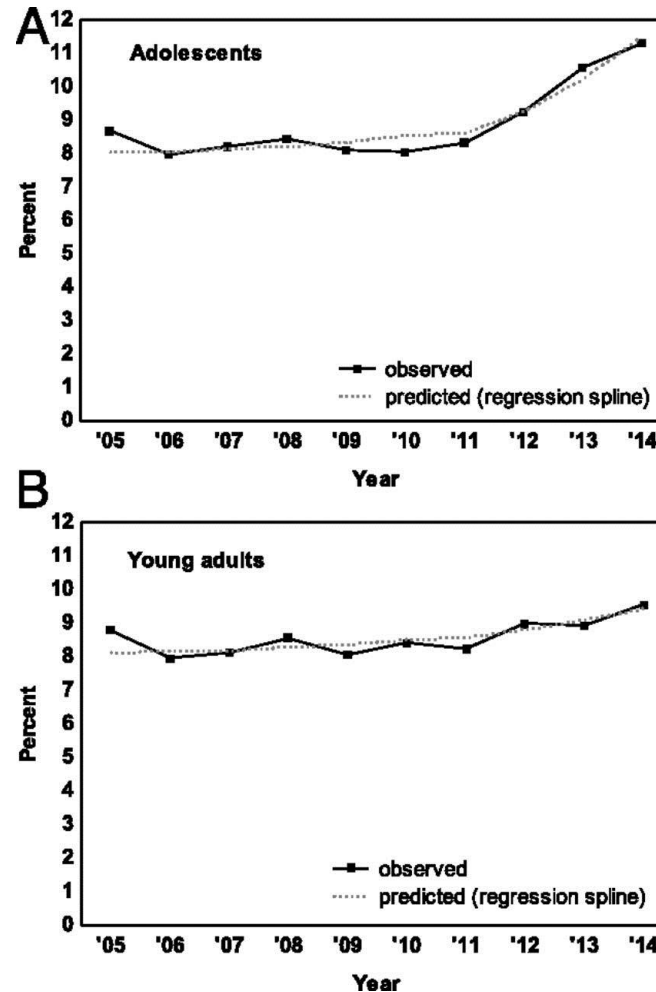
Suicide Rates for Teens



QuickStats: Suicide Rates for Teens Aged 15–19 Years, by Sex — United States, 1975–2015. MMWR Morb Mortal Wkly Rep 2017;66:816 (CDC)

*Price, J. (2019). The Changing Characteristics of African-American Adolescent Suicides, 2001–2017. Journal of Community Health 44(4).

Depression Rates



12 month prevalence of
Major Depressive
Disorder

8.7% in 2005 to
11.3% in 2014

12-17 year-olds

&

18-25 year-olds

“Digital Goldilocks Hypothesis” (Przybylski & Weinstein, 2017)

- Digital Goldilocks Hypothesis: **Moderate engagement** in digital activities is not harmful to teens well-being
- Researchers defined thresholds at which ‘moderate’ use becomes ‘overuse’ and affects well-being negatively (across different types of digital activities and compared impact on weekdays and weekends).
- Study: UK, 120,115 15 year-olds. Well-being: happiness, life satisfaction, psychological functioning, and social functioning

Digital Activity	Weekday Threshold	Weekend Threshold
Video-gaming	1 hr, 40 min	3 hrs, 35 min
TV/Films	3 hrs, 41 min	4 hrs, 50 min
Websurfing, Reading, Email	4 hrs, 17 min	4 hrs, 39 min
Smartphone, Social Media, Text	1 hr, 57 min	4 hrs, 10 min

Strategies/Recommendations

- **Discuss**: Help children exercise decision-making/higher-order skills: Problem-solve together, discuss appropriate online safety & cyberbullying
- **Balance**: Help children find balance between being passive consumers of technology versus using technology to create and strengthen higher order skills.
- **Down Time**: Help children balance “alone” time where they are able to introspect with limited distraction with time for collaboration and interaction (Example: Build in mindfulness meditation time into the day, screen-free retreats/vacations, unstructured play)
- Designate **screen-free zones and times** in the home (e.g. bedrooms, family meals, 1 hour before sleep time). Coordinate with other adults & caregivers.

Strategies/Recommendations

- **Mindfulness**

“Mindfulness means paying attention to things as they are in any given moment, however they are, rather than as we want them to be.”

...Williams, Teasdale, Segal & Kabat-Zinn (2007)

Activity

“3 Minute Breathing Space”

Step One: Become **Aware**

Step Two: **Gather** and Focus Attention

Step Three: **Expand** Attention



Strategies/Recommendations

How can mindfulness help with our approach to technology?

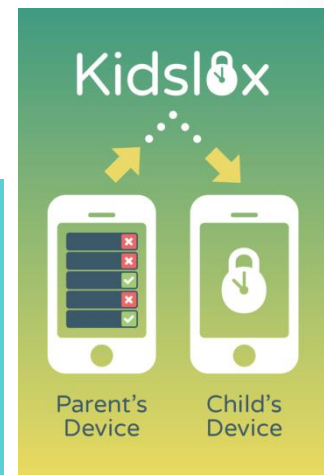
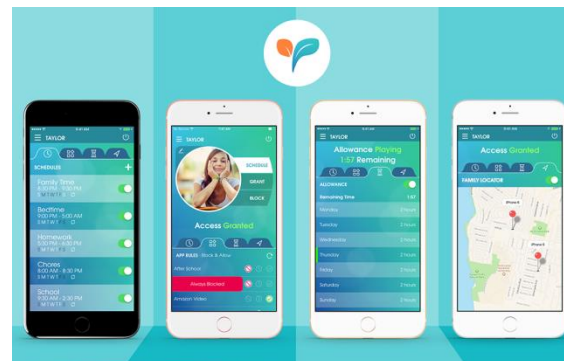
E-mailing example:

<https://www.youtube.com/watch?v=o2kADiEGlis>

- ***Set an intention***
- ***Take a moment***, every so often, to sit back, take your eyes off of the device and ***check in*** with your thoughts, emotions, and body
- Before posting, texting or emailing, ***take a breath*** and read over what you've written, check in with yourself. Are you posting reactively or impulsively?
- Be conscious of your ***values and goals***
- Apply the above when responding to posts etc. as well.

Strategies/Recommendations

- **Adults “model”** decision-making, coping, social engagement, use of technology (Example: Adult models how to regulate emotions, maintain attention, show empathy etc. while engaging in an emotionally charged facebook debate).
- **Manage** cell phone use with technology:
 - Limit hours of operation
 - Limit types of use (control which apps are operational at specific times of day)
 - Remotely control and monitor child’s phone
 - Apps: Kidlox, Our Pact
 - Parental Controls for Safari & other sites



Strategies/Recommendations

American Academy of Pediatrics Recommendations:

- **Under 18 months:** avoid use of screen media other than video-chatting
- **18 to 24 months:** Parents who want to introduce digital media should choose high-quality programming, and watch it with their children to help them understand what they're seeing.
- **2 to 5 years:** limit screen use to 1 hour per day of high-quality programs. Parents should co-view media with children to help them understand what they are seeing and apply it to the world around them.
- **6 and older,** place consistent limits on the time spent using media, and the types of media
- **Teens:** less than 2 hours of sedentary screen-time per day.
- Ensure other developmentally necessary behaviors:
8-10 hours of sleep, 60 minutes of moderate-vigorous activity
- Example of a “media use plan” (American Acad. of Pediatrics):
<https://www.healthychildren.org/English/media/Pages/default.aspx>

Thank you

Please complete a brief evaluation:

<http://bit.ly/D97tech>

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