Welcome to 'Harbucks'
Virtual Coffee House

Learning and the Brain: Wired 24/7
Oct. 30, 2020

HARBUCKS COFFEE

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Key Idea:

Reduce the Negative Impact of Technology Usage on Brains and Development

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Some Pre-COVID Issues

- **Has the Smartphone Destroyed a Generation?** (Jean Twenge, The Atlantic, 2017)
- **Are video games turning lots of boys into addicts?**
- **Does the current financial model of the internet imperil our kids?** (The Social Dilemma, Netflix, 2020)
- **The average age of exposure to pornography is eight.**

Tech Has Always Been Complicated...

- **Dr. Stixrud:**
  - **Study: Classroom use of cell phones lowers test scores**
  - **Study: Restricted screen time = higher mental performance**
  - **Forget screen time rules… learn to parent your "wired child"**

Universal Truths:

- **Feeling safe is key to sleep, health, success and well-being.**

- **Self-regulation is a better predictor of academic and life success than IQ.**

- **Technology can "get in the way" of these truths.**

THE NEUROBIOLOGY OF
FEELING SAFE

Another Universal Truth: Rest is Important

- "Rest is the basis of activity"
- "While even school-age children are familiar with the food pyramid, virtually no child is taught about the life pyramid, which has sleep at its base." **-Mary Carskadon, pediatric sleep researcher**
- Rest protects us from stress. Excessive screen time interferes with rest.

Self-actualization
desire to become the most that one can be

Esteem
respect, self-esteem, status, recognition, strength, freedom

Love and belonging
friendship, intimacy, family, sense of connection

Safety needs
personal security, employment, resources, health, property

Physiological needs
air, water, food, shelter, sleep, clothing, reproduction

Tech Getting in the Way:

- **90% of teens sleep with their phone**
- **Remember:**
  - **Face to face communication is crucial for intimacy and empathy.**
  - **Meditation and mindfulness are good for everything.**

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Young People: A Mental Health Crisis

- **Unprecedented levels of anxiety, depression and loneliness in teens**

- **56% increase in suicides 10-24 y.o.'s between '07-'17**

- **Big increase in suicide in kids 5-11**

- **Pressure to achieve RWJ Foundation (2017)**

- **Does it get better in college? (No)**

Anxiety and Depression

- They are highly related stress-based disorders
- The weight of anxiety is worrisome
- Anxiety and depression are 30-40% heritable
- A formula for becoming anxious or depressed: "Be too tired and too stressed for too long."

The Prefrontal Cortex and the Amygdala

- **These are structures/areas in the brain**
- **These areas are associated with mood/anxiety disorders**
- **Also known as the biological reward system**
  - **"Things that feel pleasant are reinforced"**
- **Happiness (long-lasting, assoc with being with others)**
  - **serotonin**
- **Pleasure (short-lived and can be addictive, being solo)**
  - **dopamine**

"Kids Today are Wired Differently"

- Say researchers: Jukes, Rosen, Gardner
- They gorge on a constant media diet
- Then need speed and immediacy
- They believe they must always multi-task
- They want communication 24/7
- They think of the world as an ensemble of apps
- They avoid questions for which there are no apps
- They're more anxious, risk averse and socially isolated
- Video gamers can have trouble connecting in the real world
- A young person's brain is more vulnerable to addiction (plasticity)

Concerns about Social Media

- **Bullying and harassment**
- **Language and content**
- **Stress from hyper-connecting**
- **External locus of control**
- **Self-preoccupation, narcissism**
- **Lack of privacy**
- **Imposter syndrome**
- **Reduction in empathy**

Concerns about Social Media

- **Study: (2017) Royal Society for Public Health**
  Surveyed 1,500 14-24 y.o.'s
  - **Snapchat, FB, Twitter, and Instagram: anxiety, depression, loneliness, poor body image. (Instagram was worst)**
  - **YouTube - not adverse, no comparisons**
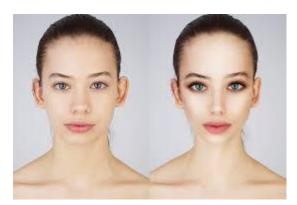 - **No direct causal link but teens who use heavily show lower self esteem and higher anxiety and depression.**

Selfie Harm "Social Media Ready"- Rankin

Kids Attitudes Toward Social Media

(Pew Research Center 2018)

- **Helps connect with friends (81%)**
- **Helps show their creative side(71%)**
- **Helps interact with diverse group (69%)**
- **Overwhelmed by online drama (45%)**
- **Pressure to make themselves look good (43%)**
- **Feel worse about themselves (26%)**

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Empathy Instead of Eye-rolling

- **"Can't you just get off your phone?"**
  - Teens feel pressured to stay connected, feel burdened if peers are struggling, protecting friends
- **"What are you even doing on there?"**
  - Tiktok in COVID posting funny videos w/ families
- **"Think before you post."**
  - This warning can make kids more anxious, "peer-co-construction"

And Now for Some Suggestions...

Ideas for Reducing Negative Effects

- **Forget the idea of screen time for now - it's how kids are staying connected to each other**
- **Model healthy use and balance**
- **Consider the 3 C's (child, content, context)**
- **Teach, mentor, use collaborative problem solving**
- **Empathy: try to understand their experience**
- **Use the crisis as an opportunity to help kids better understand tech and self**

Ideas for Reducing Negative Effects

- **Respectfully share our wisdom**
- Ask kids how they feel when they use social media. Do they notice a ½ hr. cut point? (Doom scroll)
- **Share your own tech challenges**
- Help kids find their own moderation
- **Watch "The Social Dilemma" together**
- Be in nature, or put up posters of natural images
- **Develop a meditation practice**

Ideas for Reducing Negative Effects

- Find play "pods" for young children
- Sleep
- Don't try to scare kids about their digital footprint
- Encourage them to create a positive digital reputation
- Help them find their own reasons for moderation
- Mentor versus monitor
- Work out online conflicts face to face
- Be here now yourself
- If we do monitor, let them know
- Teach kids to communicate via text and explain text that lacks tone

Ideas for Reducing Negative Effects

- **Use Radical Downtime:**
  - **Daydreaming or mind wandering**
  - **Meditation**
  - **Sleep**
    - **Half life of caffeine**
    - **Irritable → tired**
    - **Sleep logs**
    - **Support later start times at high schools**
    - **1st period → free period for rest**

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Ideas for Reducing the Negative Effects

- Emphasize creating rather than consuming
- Break up your tech time - close eyes, stretch, walk
- Teach kids to say: "I'm not available all of the time." and "You don't always have to get back to me right away."
- Teach kids that most of the problems they encounter on the internet are late at night when they're tired and inhibitory control is down.

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Suggestions for Schools

- Use tech to engage and convey content
- Don't use tech too early or too much
- Be careful to follow the research
- Keep focused on developing efficient brains
- Set up teams the include teachers, admins, students, and parents to focus on healthy tech and sleep