

SMA TORCH TALKS

**20 THINGS
YOU MAY NOT
KNOW ABOUT
DIGITAL MEDIA**

FEBRUARY 2023

SIMON TREPEL
MD FRCPC



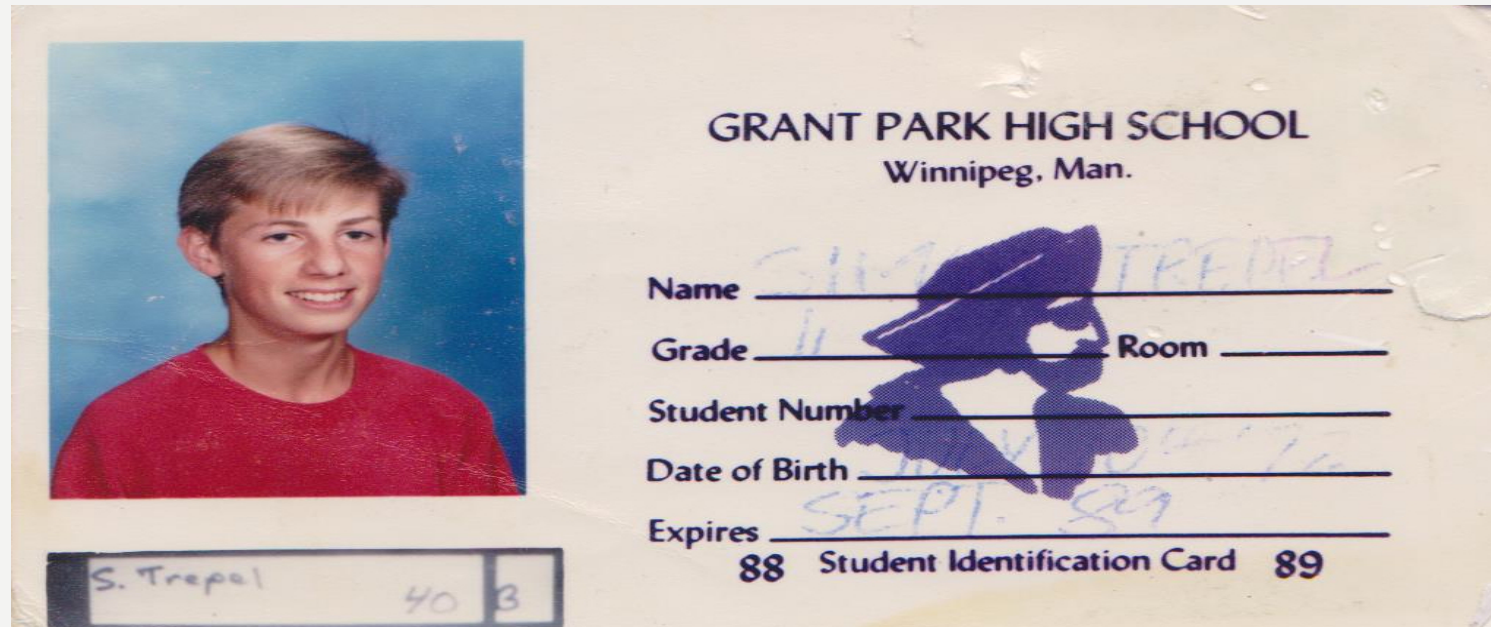
**THANKS FOR
INVITING ME**

DR. SIMON TREPEL

CHILD AND ADOLESCENT PSYCHIATRIST

**ASSISTANT PROFESSOR • UNIVERSITY OF MANITOBA
FACULTY OF MEDICINE • DEPARTMENT OF PSYCHIATRY**

**MANITOBA ADOLESCENT TREATMENT CENTRE
RNA+GDAAY+YHC**



OBJECTIVES

YOU SHOULD SOON KNOW MORE ABOUT:

- Current **demographic information** about youth and adult digital media use
- Some **positive consequences** of child and teen digital media use
- **Risks** of digital media use
 - General and specific risks associated with screen use
- **Approaches** to digital media

**THE VIRTUAL INTERNET
WORLD AND IRL ARE
THE SAME THING**

SOME IMPORTANT POINTS

- Daily digital media (DM) use **includes phone time plus computer time plus TV time**
 - For some kids and teens there are more hours spent using DM than sleeping or any other activity
- **53% of urban teens say they use DM (the internet etc) almost constantly**
 - Compared to 24% in 2015
 - 32% feel they use SM 'too much'
- **DM use may be the most dangerous thing your teen is engaging in right now**
 - MVA, sexting, cyberbullying, self esteem, body image, self harm, eating disorders, dependence on phone
- **Screen time effects can best be controlled by**
 - Having healthy attractive alternatives to screen time
 - Reducing number of minutes or hours in a row spent (getting lost) using DM
 - For example it is better to play a video game for an hour 3 times a day than play for 3 hours straight
- Most conflicts teens and parents (and schools) have with DM starts out with lots of battles but then turns into a cold war of deception and intrigue with briefer skirmishes and occasional nukes

TOP 20

1. Some Numbers	2. Popular sites	3. Positives	4. Young Brains	5. Physical Problems
6. Sleep	7. Distracted Driving	8. Social Media Concerns	9. Cyber Bullying	10. Sexting
11. Violent Content	12. Eating Disorders	13. Pornography	14. Not hired or just fired	15. Suicidality and Self Harm
16. Addiction Dependence	17. Risky and Illegal	18. Studies about DM	19. Approaches to DM misuse	20. Questions from audience

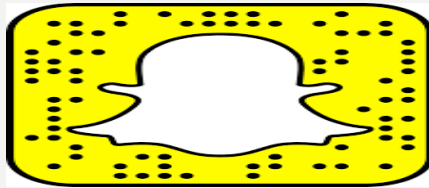
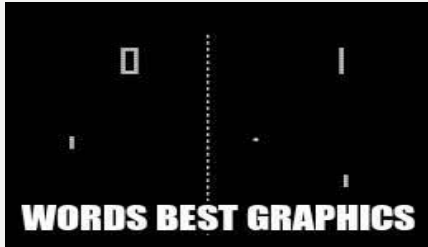
1. WORLDWIDE DIGITAL MEDIA USE

(2023 WORLD POPULATION 8B)

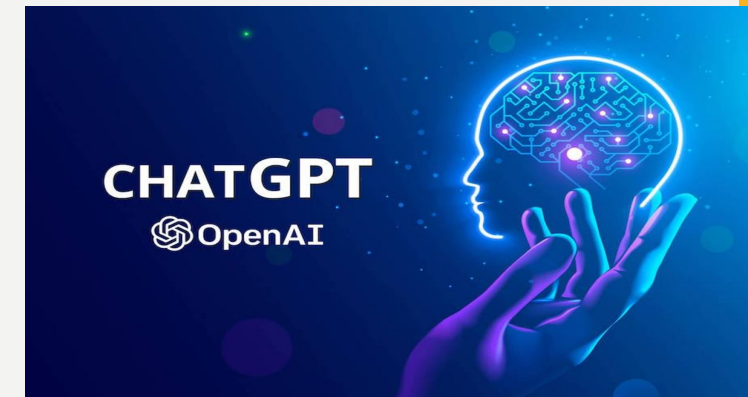
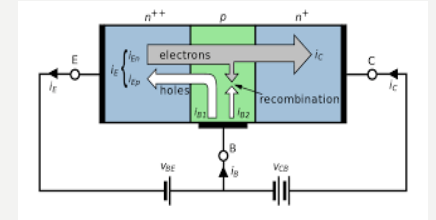
- **5.16B Internet users** right now
- **4.95B Internet users in 2022**
 - 1 in 3 internet users are children or teens
 - On average, 1 million **new** internet users log on. Every. Single. Day.
- **7.26B Smart/Mobile phone users in 2022**
 - 90% of world population
- **4.62B Social media users in 2022, up 10% from 2021**
 - Facebook is 1st at 2.96B
 - YouTube is 2nd at 2.56B
 - WhatsApp 3rd at 2B
 - Instagram 4th at 1.47B



DIGITAL MEDIA TIMELINE



- 1947 Bipolar transistor made
- Video games created in 1958
- Cell phones worked by 1973
 - 1975 Personal computer
 - Laptop in 1981
- **Internet was online in 1990**
- Smartphones debuted in 1992
 - 2004 liked Facebook
 - 2005 YouTube debuted
 - iPhone in 2007
 - Cloud Storage 2008
 - Zoom 2011
 - TikTok in 2018
 - Pandemic 2020
 - ChatGPT3 arrives 2022



SMARTPHONES ARE POPULAR

- **Kids are getting phones at younger ages**

- 42% of 10yo have phone
- 71% of 12yo
- 91% of 14yo
- 95% of 16yo



- **Average screen use at school**

- 8-12y = 5 hours
- 13-18y = 9 hours

- **Average use of phone daily**

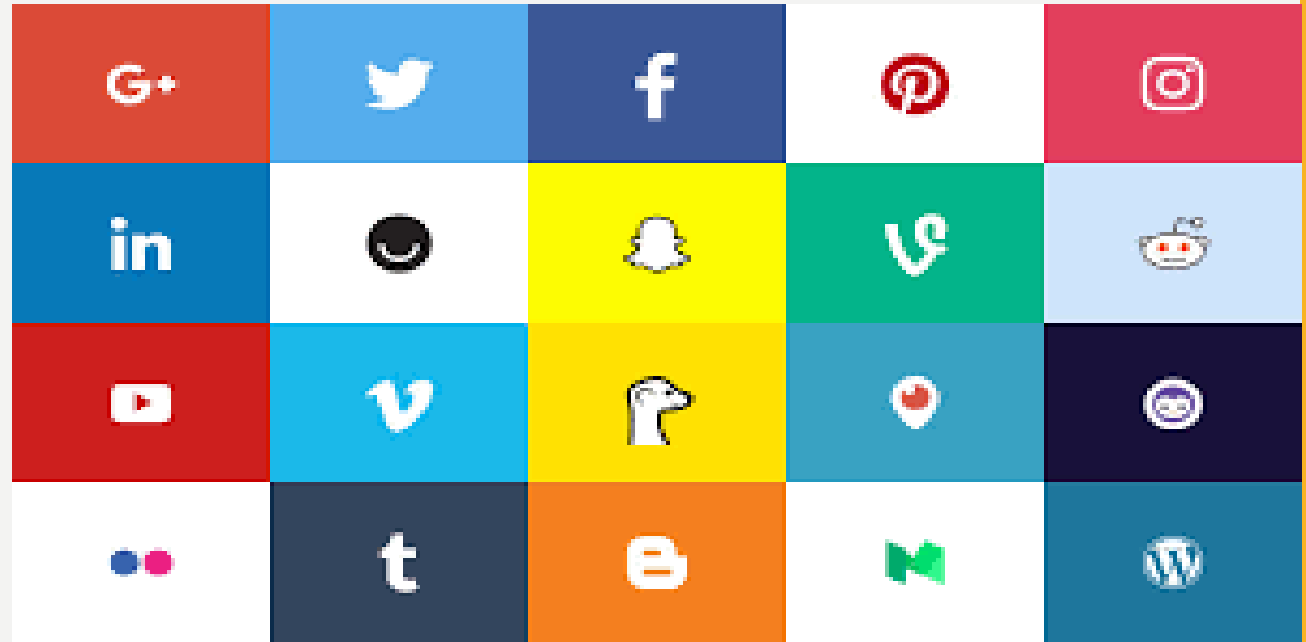
- Child (8-12) uses for 4h30m
- Teen (13-17) uses for 7h22m

- **78% teens check phones hourly**

- average 50-150 daily

2. SOCIAL MEDIA

- Sites are designed to help users share content, interact, and disseminate info about themselves and their world
- Adolescents' brains are wired to seek social standing
 - SM allows users to create a **digital identity** that can be digitally enhanced to idealization
 - Comparisons, FOMO, checking and scrolling are all attempts to determine if and where you fit
- Leads to issues with
 - Body Image distortion
 - Miscommunication
 - Loss of face-to-face time
 - Managing multiple social media sites
 - Catfishing



POPULARITY OF SOCIAL MEDIA

- **Average social media user now spends 2h31m each day on social platforms in 2023**
 - Almost 50% longer than in 2014
 - 35% of teens admit to using SM ‘almost constantly’
- **Kids and teens are very busy on these sites**
 - 75% of teens have at least 1 profile
 - 71% use more than 1 site
 - YouTube is most popular at 95% of teens
 - TikTok is 2nd, being used by 67% of teens
 - Instagram and Snapchat are 3rd at 60% of teens
 - Then Facebook (32%)
 - Then Twitter, Twitch, WhatsApp, Reddit, Tumblr



3. MAYBE IT'S NOT TIME TO WORRY YET

- We don't have ANY rigorous large scale randomized controlled trials that have determined whether digital media is CAUSING harm to anyone
- Current evidence for the connection between digital technology and child/adolescent well being is mixed
 - Household panel surveys
 - Large scale anonymous polls with thousands or millions of respondents
 - Simplified
 - Non-standardized
- Hard to determine how 'well being' maps onto anxiety or depression
- Recent study (Jan 2019) used 3 large databases to calculate 'all theoretically plausible analyses' and determined overall there was a significantly negative association between technology use and well being- but **'at most it would only explain 0.4% of the variation'**
 - This does not make sense based upon my patient's symptoms and experiences



OVERALL POSITIVES

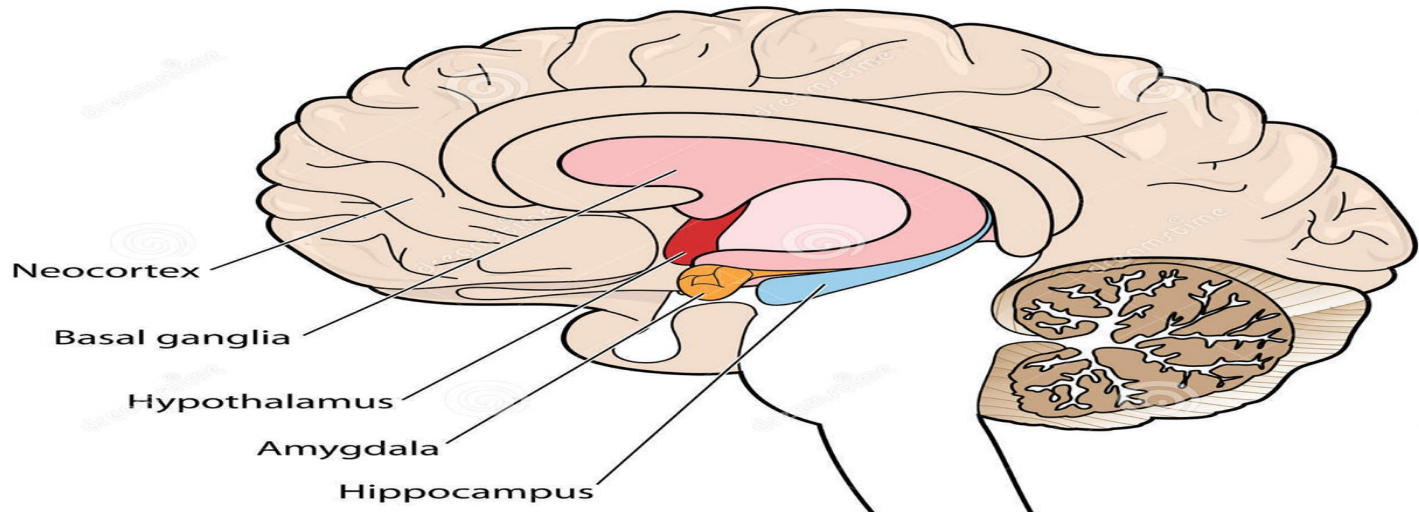
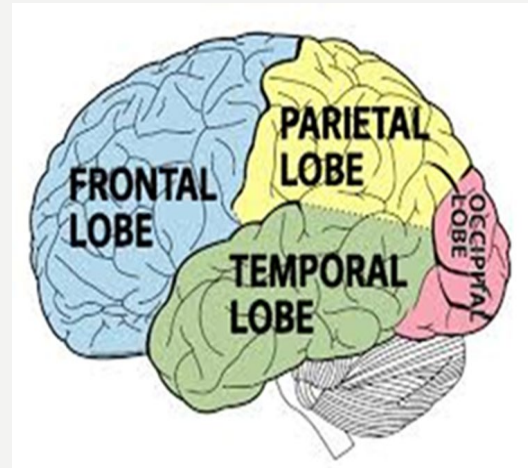
- **Review of 36 published studies between 2002-2017 showed teen screen use was beneficial**
 - Enhanced relationship by increasing wellbeing, social connections, sharing intimacy, displaying affection and arranging meetings/activities
- **Collaboration**
 - Increasing social connections, homework assignments, peer encouragement, team sports, share creative projects, development of identity
 - Socially anxious, awkward teens, LGBTQ, ethnic minorities, or isolated youth may benefit from social relationships mediated through online platforms
 - Supportive exchanges with family, friends and supports can matter even more than face to face friends, improves social skills, shyness, social activities
- **Youth learn about their health**
 - Nearly 1/3 of teens use internet to learn about health related information
 - 90% of teens with mental illness sought help online due to anonymity and accessibility

DM POSITIVES

- **10 year study tracking adolescents' mental health and use of smartphones was positive**
 - Most young people aged 11-19 are doing well in the digital age
 - In USA a record 84% of students graduated from high school in 2016
- **Many parents continue to believe the risks of DM are outweighed by the benefit of being able to theoretically contact their child anytime anywhere**
- **Activity level might actually INCREASE**
 - Recent data suggests that those who use social media are more likely to be active as their communication often leads to plans offline
- **Pregnancy, violence, alcohol abuse, teen sex and smoking have all declined in past 20 years**
 - iPhone released in 2007 correlates with less teens dating, less sex and less driving (Atlantic 2017)
 - (Just for context if you were suddenly imprisoned or in a cult you might also do less of the above)

4. YOUNGER BRAINS ARE AT HIGHER RISK IN THE OFTEN UNSUPERVISED VIRTUAL WORLD

- **Still developing frontal lobes (PFC) that can become overwhelmed more easily**
 - Poorer impulse control, empathy and judgement while being given more independence
 - More difficulty assessing consequences of actions- *risky social media posts*
 - Once overwhelmed may not ask for help or make matters worse
- **Relatively overactive reward seeking compared to adults**
 - More curious, learn more quickly and but more difficulty delaying gratification



- ***Frontal lobes mature into the mid 20's**
 - Prefrontal cortex: 21 in women and 25 in men
 - Whole brain: 32 in women and 43 in men

BRAIN CHANGES WITH HIGH SCREEN USE

ELECTRONIC SCREEN SYNDROME (DUNCKLEY)

- **Even if kids aren't 'addicted' they can still appear impulsive, moody and struggle to pay attention, require instant gratification**
- **Digital electronic screens exhaust/overstimulate frontal lobes causing loss of vital higher brain functions**
 - Mild ADHD signs- focus, frustration, distraction
 - Academic and memory difficulties
 - Reading a book or novel may become difficult
 - Executive dysfunction (when the mature part of the brain gets tired)
 - Decreased impulse control, focus and emotion regulation
 - More distractibility, inattention, irritability
 - Poorer planning, prioritizing, organizing and 'getting stuff done'
 - Less working memory causing decreased academic and work output

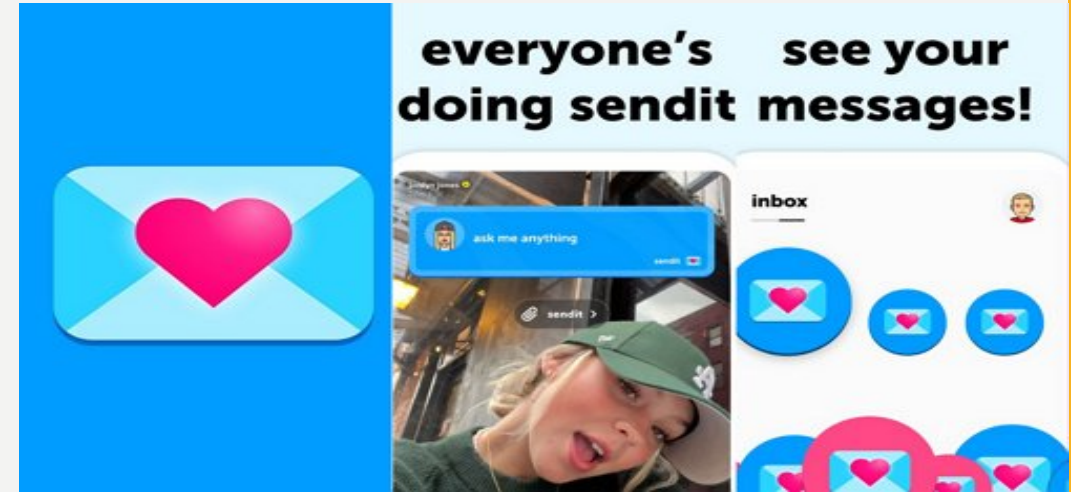


INTERNET ADDICTION BRAIN CHANGES

- **Appears to mostly affect reward centers and frontal lobe**
- **Changes in reward centers:**
 - Dopamine downregulation and withdrawal- similar to *substance use leading to addiction*
 - Internet or smartphone addiction shows changes to reward circuits and GABA levels
 - Nucleus accumbens (dopamine) becomes activated when viewing Instagram pictures with more 'likes'
- **Frontal lobe changes:**
 - Studies show that internet addiction is associated with structural and functional changes in brain regions involving emotional processing, executive function, decision making and cognitive control'
 - (Lin and Zhou et al 2012)

WHAT DOES ALL OF THIS MEAN?

- Younger brains may act impulsively online in a way that can hurt them more than if they had acted impulsively offline
- Younger brains may be engaging anonymously with older brains and may have no idea
- Younger brains may not know how to block someone or recognize they are being bullied or manipulated
- Younger brains are more susceptible to the addiction
 - more reactive, increased novelty seeking and instant gratification 'needs'
 - underdeveloped reflecting and poor delayed gratification
 - **often termed all gas no brakes**
- Younger brains can get more easily burned out by excessive DM use
- Younger brains can be easily influenced online possibly without parents' knowledge
- Simply taking device away or limiting internet use may not be a good long term solution



5. POTENTIAL NEGATIVE PHYSICAL EFFECTS OF DIGITAL SCREEN MEDIA

- More sedentary behavior
- Repetitive use injuries
- Disrupted brain function
- Motor vehicle accidents
- Eye and vision problems
- Sexual dysfunction
- Negative effect on sleep

MORE SEDENTARY BEHAVIOR IS BAD

- **Poor nutrition and hygiene can also be part of a more sedentary lifestyle**
- **Less physical activity and less exercise**
 - Associated with weaker bones, poor muscle development, difficulty maintaining healthy weight, poorer sleep and appetite
- **Obesity**
 - Especially if using screen media for an average of >5h per day
 - Digital media may also lower melatonin (poor sleep) and elevate cortisol (stress hormone) causing fatigue and weight gain
 - Higher BMI increases risk of cardiovascular and joint problems
- **2015 study of Canadians**
 - Teens spend 7.9h weekly activities outdoors
 - Parents spent 17.5h weekly activities outdoors as teens
- **Rare but serious complications**
 - Deep Vein Thrombosis
 - Malnutrition
 - Bed sores



EYE PROBLEMS (BLUE LIGHT?)

- **Dry Eye Syndrome**

- Caused by staring at devices and blinking 60% less than normal
- Less blinking means tear film not renewed as often causing eyes to become dry
- Long term dryness can lead to eye damage and vision loss

- **Computer Vision Syndrome or Digital Eye Strain**

- Blurred vision, dry eyes, difficulty focusing and sensitive to light
- Sore neck, headaches and migraines

- **Myopia** (nearsightedness) is skyrocketing

- May be related to too much screen time and not enough sunlight
- In USA childhood myopia has more than doubled over the last 50 years

- Children are increasingly learning how to use technology before they can talk, walk or read which risks serious consequences to the development of young eyes and possibly even the entire brain



6. HOW SCREENS LESSEN SLEEP

- **Displacement by taking time away from sleep**
 - Lose track of time while playing, get up early to use
 - Delay sleep onset- just one more refresh, video, level
- **Exciting media before bed**
 - Raises adrenalin levels and lowers adenosine = poor sleep onset
- **Increased cortisol if sleeping near device**
 - Stress hormone that should be low to allow relaxation
- **Nighttime Notifications**
 - Beeps, bleeps and tweets raise adrenalin and dopamine
 - Your teen may be doing nightly therapy for friends and feeling on edge
- **Blue light reduces melatonin causing insomnia**
 - Lead to irritability, less organized, poorer academic function
 - Daytime sleepiness
 - Possible loss of vision over time



7. MVAS BECAUSE OF DISTRACTED DRIVING

- **This generation's drinking and driving**
 - 2010 study by Pew Research Centre
 - Nearly 33% of 16-17 year olds said they texted while driving
 - Almost 50% of adults in USA admit to texting while driving
- **Manitoba public insurance reports collisions involving distracted drivers is increasing**
 - In 2011 there were 2,415
 - In 2016 there were 11,086 (30 crashes daily in Manitoba)
- **Texting and driving suspensions start within 24h**
 - 3 day suspension for first offence
 - 7 day suspension for subsequent offence



8. SOCIAL MEDIA'S ASSOCIATED PROBLEMS

- **Concerns about excessive time spent online**
- **Sharing too much information**
 - Schools, colleges, universities, employers search for information about applicants
 - There is no privacy yet tons of data collection
- **More disinhibited and risky online behavior**
- **Cyberbullying**
- **Social media's influence on body image and self esteem**
- **Loss of face to face social skills**
- **Increased opportunities for sexting**
- **Access to harmful content or advice**
 - Websites promoting anorexia, or self harm
- **Use of personal data for targeted advertising**
 - Manipulation shaping personal views
- **Impacts on mental health**
 - Anxiety, depression, ADHD, self harm, suicidality, PTSD from bullying, anorexia

SOCIAL MEDIA MAGNIFIES SOCIAL PEER INFLUENCE

- Distortion
- Contagion
- Comparison
- Contests
- Status
- Affiliation
- Celebrity

SPECTRUM OF SOCIAL MEDIA USE

- **Safe and healthy way to connect with friends and family**
 - Many children and teens use social media in a fairly realistic and responsible manner with positive effects
- **As a way to role play or experiment**
 - Try out different fashion choices, show off body or face
 - May increase risk of sexting
- **As an easier way to connect because they are too busy**
 - Multitasking
 - Overscheduled with little unstructured face to face socialization time
- **An easier way to connect because they struggle with emotions or relationships ‘in real life’**
 - Lonely or shy teens may find social media a helpful place to primarily or even the sole place they express and regulate emotions
 - Shy teens more likely to post negative comments on social media, those who post negative comments endorse more loneliness
 - but it may impair relationships irl, and lead to cyberbullying
- **As a preferred way to manage self esteem and body image**
 - Constant need for validation or perfection combined with bombardment of filtered images leads to excess social media checking behavior
 - Overuse can lead to cycle of avoidant coping, social isolation, addictive use, exacerbated loneliness and social anxiety
 - Excessive viewing of other’s social media profiles- Lurking, Instastalk
- **As an escape or the only maladaptive coping strategy used to deal with unpleasant emotions and real world stressors**
 - For some it can become a problem when social media is the primary way to regulate emotions and replaces real world conversations
 - Avoids processing/reflecting on events or conversations, discussing the problem and coming up with solutions
 - Replacing instead of repairing, burning bridges but just making more with less familiar people

SM USE CHANGES BETWEEN AGES 13-18

- The most insecure grade 6'ers were more likely to have increased phone and DM use in grades 7-9
- As teens get older there is trend towards less social media use
- Increased importance about taking a break from online activities
- More practical SM and internet use
- Less reactive to what's online
- Those 'hooked' on screens are seen as 'less attractive' by the time high school is finishing
- Parents there is hope!

9. CYBER BULLYING

- **Any kind of bullying behavior that occurs online and may include:**
 - Sending/posting abusive or threatening messages
 - Creating/sharing embarrassing photos or videos
 - Sharing secrets about someone online without their consent
 - Voting in an abusive poll
 - Creating a website, meme, fake profile, hijacking identity to damage reputation
 - Sending explicit messages or encouraging someone to send a text and then sharing their text
 - Cyberstalking, by continually harassing and denigration including threats of physical harm
 - Many bullies use both face to face and internet to target victim (they usually know who it is)



CYBER BULLYING

- **Cyberbullying affects 15-20% of high school students**
 - 38% of people are bullied on SM platforms daily
 - Girls, kids who are disabled, LGBTQ, obese or history of victimization are more likely to be cyberbullied than other kids/teens
 - 25% of students bullied use SHB to cope
- **Insults and trolling**
 - Shaming or being targeted
 - ‘Ugly’, body image, ‘slut shaming’, trolling
 - Cyberbullycide
 - Amanda Todd died by suicide from online bullying
 - Racism, religious persecution, homophobia, transphobia



YOUNG PEOPLE AND CYBERBULLYING

- **Young people being cyberbullied often don't ask for help**
 - UK study showed only 22% of kids upset by online content talked face to face with adult
 - Those that did seek face to face support: kids talked to parents, teens talked to friends more often
- **Young people use a range of coping mechanisms to deal with online problems**
 - Muting, unfollowing, blocking, changing privacy settings, taking break
 - UK- only 40% of 11-13y knew how to block unwanted messages, only 33% compared website info
- **Because they often don't ask for help, learning digital skills may be helpful**
 - **Minimize** risks by making profiles private, only chatting with people they know and trust
 - **Recognize** difficult or hurtful relationships as they occur
 - **Strategize** ways to stop negative connections from interacting, telling someone
- **Ensuring kids and teens are protected from cyberbullying is important- responsibility lies with parents, schools, and social media companies**
 - EU Kids Online study showed smart phone and tablet users claimed nearly twice as many skills as those without these devices- supporting idea that the more kids use the internet, the more skills they develop to deal with online problems and navigate the virtual world safely

- ‘If nothing else, at least look at the type of people who make such comments- it’s anonymous people who probably have some degree of hate for themselves and are lashing out at you to try to make themselves feel better. And there’s nothing to be said other than: ignore it. Don’t engage in it. And rely on the people who love you and who you love, because that is where your self worth can be found’

10. DEFINING SEXTING

- **The sending/receiving of sexually suggestive/explicit text messages, images, videos**
 - Including nude or seminude photographs- 'nudes'
 - Via digital technology
 - 90% of boys and 60% of girls are exposed to internet pornography by age 18
- **Consensual sexting is becoming a more common experience during adolescent sexual development**
- **Risky situations teen may be wondering about:**
 - Is text the same as images?
 - What is nude and not nude?
 - Receiving but not sending texts or images?
 - Forwarding or sharing images?



HOW COMMON IS SEXTING?

- **1 in 7 teens report they are sending sexts**
- **1 in 4 teens are receiving sexts** (JAMA N=110,000 teens, Feb 26, 2018)
- Sexting on rise in past 10y coinciding with more smartphones
 - The more you text, the more likely you are to sext
- Texts are more common than images
 - Explicit imagery in the minority
- May occur at any age with unsupervised phone access
 - Typical first experiences occur in junior high school (13-15)
- Nearly always sending sexts to someone known to the individual
 - Overwhelmingly to relationship partner



SEXTING IS CONVENIENT

- 25% of teens dating report they met their partner through digital media
- 10% of Tinder users are teenagers
- *‘It’s super accessible and efficient. You can be sexting 12 people at once, rather than going on a date with one person.’*
- *‘You can cast the net pretty wide. And there’s less social judgment for sexting multiple people compared to sleeping with multiple people.’*
- *‘You can get flirting out of the way by sexting. Now that you’ve done the groundwork, you don’t need to wait 6 weeks to have sex.’*

REVENGE PORN

- Images depicting nudity of anyone under 18 years old is child pornography and illegal
 - *Even if you are sending someone an image of yourself*
- Allowing someone to take pictures of you or sending them pictures when you are in a relationship can become problematic if you break up, especially with a bad breakup
- This can lead to your ex threatening, sharing, or posting embarrassing or humiliating personal content, *which can follow you for the next 50 years*
 - This can have devastating consequences to reputation, family, school, work, future education or career
- 2016 Middlesex University study for the NSPCC found only a small minority of young people are likely to send nude images of themselves via social media (Anthony Weiner)
 - 2.9% of children 11-16 had taken a fully nude photo of themselves, but 55% shared the image

11. ONLINE VIOLENCE

- **Digital media will expose you to a huge amount of violence**
 - Real time or livestreamed unrated and uncensored violence, terrorism, police shootings, sexual violence, suicide
 - Those online are exposed to 24 violent acts hourly
 - ‘Manhunt’, ‘Thrill Kill,’ ‘Gears of War’, ‘Mortal Kombat’, ‘Assassin’s Creed’
 - By 18y a child will have watched thousands of murders and hundreds of thousands acts of violence



**grand
theft
auto**



12. EATING DISORDERS

- Excessive use of social media may be associated with disordered eating and higher thoughts and behaviors related to eating disorders
 - AN- restrictive pattern supreme willpower
 - BN- bingeing purging excess impulsivity
 - Binge eating disorder- binge without purge or restriction
- Selfies are now staged and manipulated by filters and editing programs
 - Many idealized images of beauty on social networks
- The 'compare-and-despair factor' describes the impact on young person's view of what is desirable
 - UK Study linked time spent by teenage girls on social media with body image concerns, particularly 'higher levels of internalization of the thin ideal, body surveillance and dieting, and lower body esteem' ' (Tiggerman 2014)



EATING DISORDERS ONLINE

- Among 11-16y on the UK in 2017:
 - 13% have seen sites promoting eating disorders- which rises to 16% of 13-14y
- A 2021 review showed Eating Disorders and Social Media usage are influenced by: time spent on SM, the type of interactions, and shared photographs, as well as gender and sociocultural context
 - There is evidence indicating that avoidance of posting photos on social media, photo investment, and photo manipulation are associated with a higher risk of eating disorders
- University of Pittsburgh study found a correlation between time spent scrolling through social media apps and negative body image feedback
 - Those who had spent more time on social media had 2.2 times the risk of reporting eating and body image concerns, compared to their peers who spent less time on social media
 - The participants who spent the most time on social media had 2.6 times the risk

'PRO ANA' WEBSITES

- “Pro-ana” refers to individuals with an eating disorder who focus on having an eating disorder as a lifestyle choice as opposed to a psychiatric disorder
- Although the exact number of these pro-ana Websites is difficult to determine, studies have estimated their number to exceed over 500 (Chesley, Alberts, Klein & Kreipe, 2003)
- In general, pro-eating disorder Websites contain a very specific set of information: biographical data about the creator of the Website, a disclaimer asking those who are under 18 and who do not already have an eating disorder to not enter the site, and a forum where users could talk with each other
- The sites often contain sections
 - “tips and tricks”- information on losing weight and how to conceal weight loss
 - “thinspiration”- images of very thin women designed to encourage the viewers to lose weight
- The function of these sites has been widely debated

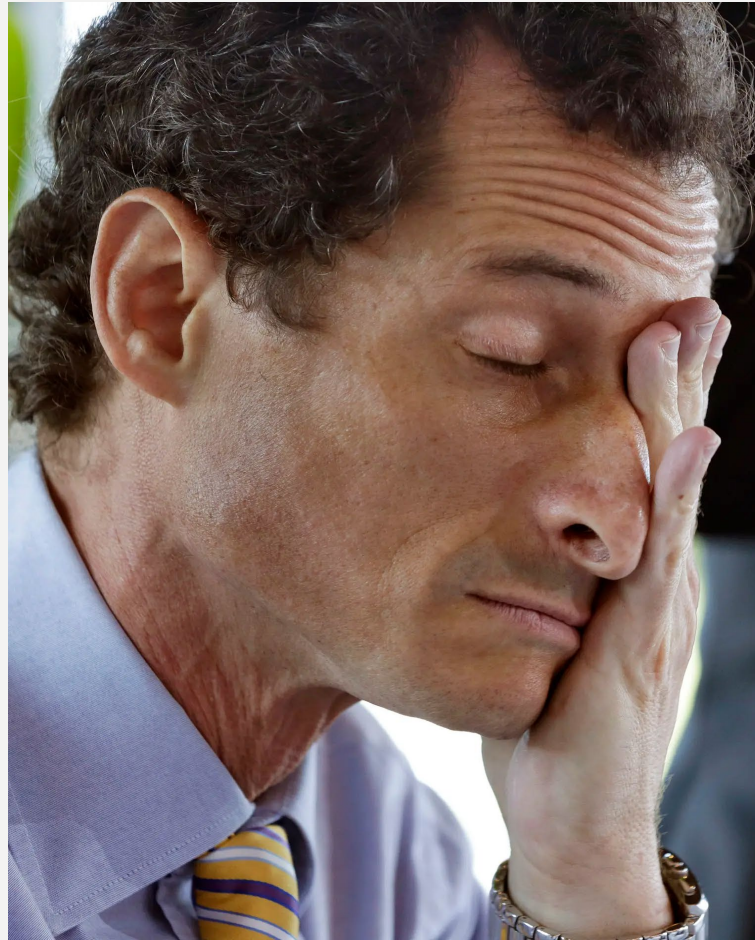
13. REPETITIVE USE INJURIES

- **Repetitive motion tendinitis**
 - Carpal Tunnel Syndrome
 - Text neck
- **Repetitive distracted walking injuries**
 - Signs, traffic, fountains
- **Erectile dysfunction and sexual desensitization**
 - Associated with repetitive pornography viewing with masturbation



14. NOT HIRED OR JUST FIRED

- People from prospective employees to senior staff at any job can be not hired or fired due to inappropriate DM or SM use
- Drunk posts or texts
- Plandemic posts



15. SM AND NON SUICIDAL SELF INJURY

- **Previous research has found that children who self-harm are 17 times more likely to go on to commit suicide compared to children who do not**
- **Study in 2017 found self-harm among girls aged from 13-16 rose by 68% between 2011-2014**
 - Among boys of the same age the rise was 52%
 - Self injury YouTube videos are usually viewed by teen girls, have high view numbers, overall rated positively
 - Adolescents who self harm have high rates of internet use compared to peers
- **2017 review showed significant potential for self harm from online behaviour**
 - Normalisation, triggering, competition, contagion
- **Self harm is searched 42 million times yearly**
 - 91% of searches lead to unendorsed sites- both attractive and dangerous to youth considering or engaging in NSSI
 - Motives include seeking help to change, crisis support, reassurance, validation or approval from others
- 12% of adolescents from community sample endorsed NSSI in past year, majority without suicidal intent, to help cope, relieve distress or emotional pain

13 REASONS WHY AND SUICIDALITY

- **Netflix released 13 Reasons Why in 2017**

- Story of a teen in high school who- before committing suicide- left 13 tapes explaining her choice
- ‘Brave and undiluted depiction of sexual assault, teen violence and suicide’
- Generated 11 million tweets within the first 4 hours of being online

- **Google searches after 13 Reasons showed positive awareness and concerning themes**

- 12% increase in ‘suicide hotlines’
- 18% increase in ‘commit suicide’
- 23% increase in ‘suicide prevention’
- 26% increase in ‘how to commit suicide’



- **Caused more people to talk about suicide but likely glamorized it as well**

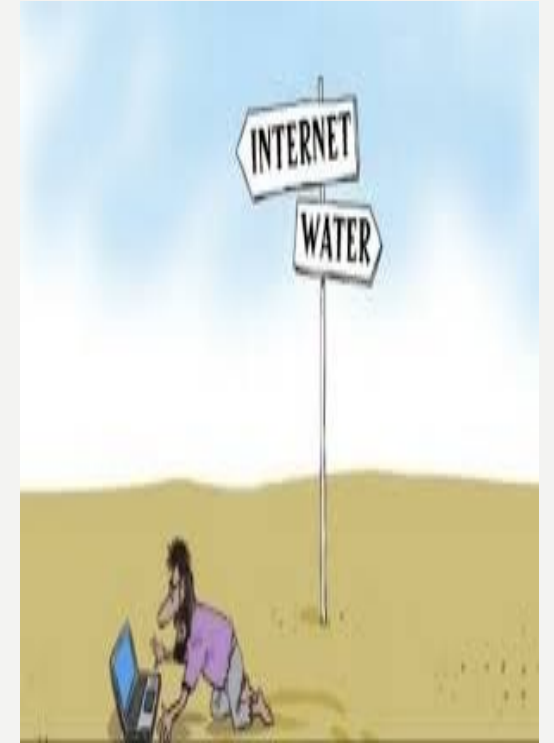
- Concerns about revenge fantasies, contagion or ‘copycat’ behaviors

SOCIAL MEDIA AND SUICIDE

- **Adolescent suicide is a leading cause of death in young people, second to accidents**
 - Recent study showed 20% of high schoolers had seriously considered suicide in past year, 8% attempted
- **No study has shown social media to be the cause of suicide**
 - Suicide rates in the USA have been increasing in every age group since 2000- especially girls 10-14y
 - After 13 Reasons Why, NIH study showed the suicide rate increased in the months afterwards
 - possibly up to 29%, while correcting for seasonal effects and recent increasing trends in suicide rates
- **Social media may be a place where kids and teens are exposed to suicidal imagery**
 - Facebook live suicide, Blue Whale Challenge, Jake Paul
 - About half of websites related to suicide were either neutral or pro-suicide
- **Social media may be a place where kids and teens communicate suicidal thoughts**
 - Teens communicate suicidal thoughts on social media to peers (25% tell adult) which delays help seeking
- **Studies suggest having 1 online friend reduces suicidality but the higher the number of digital 'friends' the higher the risk of SHB and Suicidality (2022)**

16. ADULTS WONDER IF TEENS ARE 'ADDICTED'

- **They act addicted**
 - Using device constantly
 - Normal life seems flat compared to social media, YouTube, TikTok, gaming
 - Have symptoms of craving, withdrawal, phantom vibrations/notifications
- **Daily use of screens on school day:**
 - 8-12y = 6 hours
 - 12-18y = 9 hours
 - 15-18y = 11.5 hours
- **Are screens the cigarettes of this era?**
 - Is digital media use an addiction that we know is unhealthy- even without the confirmation of hard evidence- but continue because everyone else is doing it as well?
 - In 2018 Silicon Valley executives admitted smartphones, games and social media were designed to be purposefully addictive



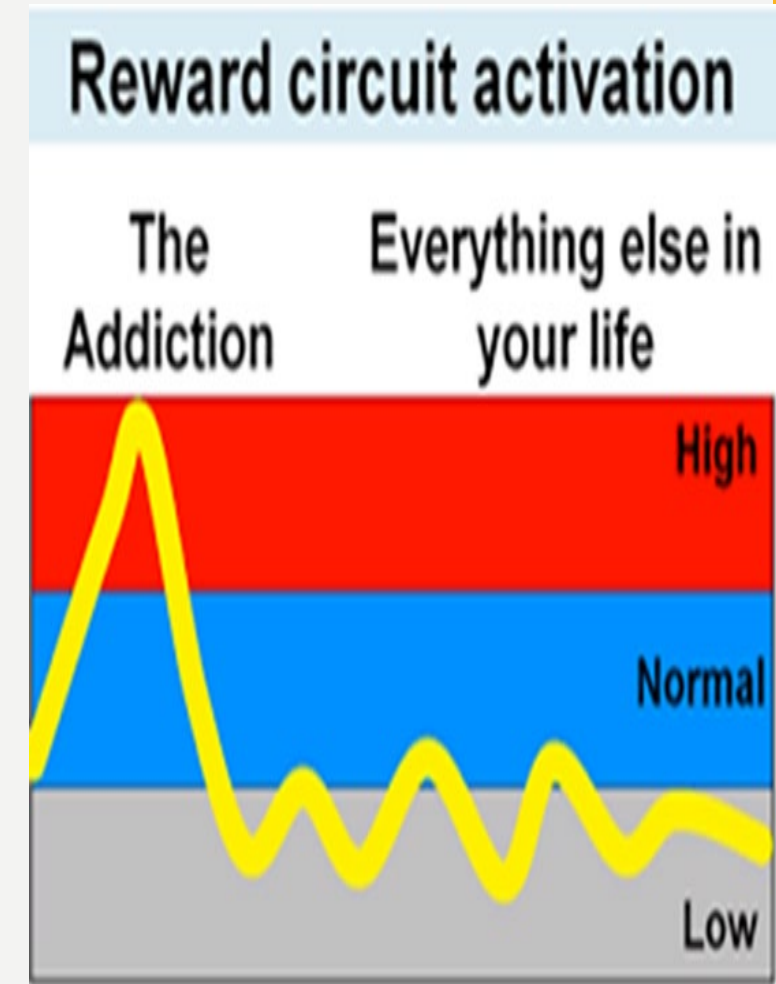
**'I WAKE UP IN THE
MORNING AND MY
HEART IS RACING
OUT OF MY CHEST.
I'M CHECKING
INSTAGRAM RIGHT
AWAY. HOW MANY
NEW FOLLOWERS
DID I GET? HOW
MANY HEARTS?
HOW MANY PEOPLE
DID I LOSE? WHAT
AM I GOING TO
POST TODAY?'**

CAN SMARTPHONES ACT LIKE A SLOT MACHINE?

- **The typical cellphone owner touches their phone 2,617 times every day**
 - Average 18-24y checks phone 74 times daily
 - ‘If you have more than 30 seconds without stimulation, you have this twitch to reach for your phone’ so it becomes harder to delay gratification
- **Tristan Harris former Google employee**
 - ‘We carry cellphones around like little portable slot machines, swiping and pushing buttons looking for a win; a few new likes, a crucial email or text, more followers, an interesting news story. Sometimes we get a dopamine releasing hit, sometimes we don’t, but that is what keeps us coming back.’
- **Children and teens spend about twice as much time online as their parents believe**
 - Perfect storm of parents believing teens can control their digital media use and give them unlimited access to internet causing teen to unable to control their digital media use

SCREENS AND ADDICTION

- ***Smartphones and the fridge are not themselves ‘addictive’***
 - What’s in these devices can create habitual or addictive behavior
 - Gabor Mate’s view on addiction as a symptom of trauma or attachment
- ***Substances provide our understanding about addiction***
 - Substance releases dopamine causing pleasure and substance seeking
 - Brain changes occur causing person to seek substance more
 - Brain reward circuits become less responsive over time (tolerance) addictive behaviors to compensate (using more often for longer)
- ***Specific behaviors that cause pleasure can cause addiction***
 - Internet use, video games, gambling, shopping, eating, exercise involve similar brain areas and neurochemicals
 - Experts are starting to believe that using tech devices may be a form of a digital drug
 - Viewing instagram pictures has been shown to release dopamine
 - Winning a video game releases dopamine the same way inhaling nicotine does



DEPENDENT DIGITAL MEDIA USE

- Associated with a history of psychological difficulties
- Those who experience stress may use digital media as a way to escape negative feelings and increase positive ones- leading to compulsive use (Oberst 2017)
- Digital media may slowly become the **ONLY** way an anxious teen feels comfortable soothing themselves and it may not be that great at soothing them
 - Rebound anxiety, panic, or fight/flight when digital media unavailable
- Research has shown those with Social Anxiety Disorder who seek social reassurance are much more likely to develop addiction to social media compared to those without
- Overall, what research is finding is the most addictive DM phenomenon is the ability to create an environment of **continual immediate gratification**
 - Scrolling, feeling bored, switching to another favorite app, scrolling, feeling bored, switch to another app...

INSTAGRAM SHOPPING

- Captive audience for celebrities to hawk their wares to their followers
 - Sales, specials, promotions, giveaway alerts
- 24% of online shoppers are willing to buy something a celebrity or blogger posted on social media
 - In the 18-24y online shopping age group it's 50%
- Among online clothes shoppers, 50% check social media for reviews before making purchase at least some of the time
 - 18-24y = 79%, with 26% of those people checking 'social media reviews for clothes all the time'

17. RISKY AND ILLEGAL

- Dark web
- Drugs
- Weapons
- Sex
- 4Chan
- Small cult like conspiracy theory groups
- Crypto scams
- NFTs
- Malware or ransomware
- Doxxing



18. STUDIES ABOUT DIGITAL MEDIA

- **We are currently experiencing digital media's impact on:**
 - Society- face to face verbal conversations, sharing of emotions and empathy
 - Family- time spent together, interactions, meals and communication
 - Personal- time spent on device, self esteem, FOMO, YOLO, addictive behavior
- **Research has begun but we are all canaries in a mine shaft**
 - We are slowly developing guidance around healthy digital media use
 - Further research is needed to fully understand the impact of such rapid changes in the ways young people communicate and develop social relationships in the digital world

SCREENS HAVE ALREADY BEEN LINKED WITH MOOD AND DEPRESSION

- Teens are often vulnerable to social media affecting their emotions, self-image and esteem and depressed teens are more often expressing distress, cutting habits and suicidal thoughts online
- Twenge Study was based upon the observation:
 - In 2010 roughly 8% of 13-17 year olds were diagnosed with depression
 - By 2017, about 13% of 13-17 year olds were diagnosed with depression, **increase by 62% in 7y**
 - Study showed correlation between screen time and unhappiness

TWENGE'S STUDY

LARGE NATIONAL SURVEY OF 8TH, 10TH, AND 12TH GRADERS, JANUARY 2018

- **Looked for correlations between happiness and screen vs. non screen activities**
- **Results:**
 - For all the non screen activities the correlation was positive
 - For all the screen activities the correlation was negative (zero sum gain)
 - The unhappiest group were the teens who use screens more than 20 hours per week
- **Adolescent's psychological well being decreased the more hours a week they spent on screens**
 - Internet, social media, texting, gaming and video chats

WHAT MADE TEENS HAPPIEST IN STUDY

• Positive effects

- Sports or exercise
- In-person social interaction
- Religious services
- Print media
- Homework

• Negative effects

- Reading news online
- TV
- Video chat
- Texting
- Social media
- Computer games
- Internet

STUDY RESULTS CONTINUED

- **Screen time and happiness**
 - 1-5 hours weekly were the most happy
 - 0 hours less happy
 - 20 or more hours the least happy
- **Compared to kids and teens who use screens 2 hours or less per day**
 - 3 hours or more daily showed 34% greater chance of a suicide related risk factor
 - More than 5 hours daily showed 48% greater chance
 - Suicide related risk factors
 - feeling hopeless, seriously considering suicide

ROYAL SOCIETY FOR PUBLIC HEALTH

UNITED KINGDOM 2017

- RSPH and the charity Young Health Movement surveyed 1500 14- to 24-yo regarding 5 social media sites
 - They were asked to score their impact on a list of 14 health and wellbeing issues including anxiety, depression, loneliness, sleep, bullying, and fear of missing out
- In order from best to worst?
 - YouTube > Twitter > Facebook > Snapchat > Instagram
- Instagram had most negative effect, particularly on perceptions of body image, FOMO, poor sleep
 - It ranked more favorably in the areas of self-expression, self-identity and community building
- Facebook appeared to have the most bullying
- Twitter was second best but was still found to have more negative effects than positive ones
- YouTube was the only social media platform to have a largely positive effect on mental health, ranking highly for raising awareness, community building and self-expression

ROYAL SOCIETY FOR PUBLIC HEALTH

UNITED KINGDOM 2017

- **Conclusions:**
 - SM use was significantly associated with increased depression
 - Given the proliferation of SM, identifying the mechanisms and direction of this association is critical for informing interventions that address SM use and depression
- **Office for national statistics in UK found a ‘clear association’ between longer time spent on social media and mental health problems**
 - 12% had no social media use on school day
 - 27% used social media for 3 or more hours daily on school day

TEXTING IN CLASS



LEVEL: EXPERT

19. FINDING THE DIGITAL MEDIA BALANCE

20 SLIDES

PANDEMIC GENERAL SCREEN TIME RECOMMENDATIONS

- Accept there has been more screen time for most families
- Focus on mental wellness
 - Connections to people and activities that give belonging, purpose, hope and meaning
- Recognize that reducing screen time alone may not be a positive thing unless your kids are also connected to other positive things
- Encourage healthy or more positive screen time such as talking with grandparents or learning piano on YouTube
- Teach your kids
 - Digital citizenship skills
 - About potential problems
 - How to self regulate their DM use
 - Other ways to reduce stress that don't involve screens
 - Tolerating boredom
 - Mix of instant and delayed gratification

SPECIFIC RECOMMENDATIONS

- Parents should set all digital media limits and continue to uphold them
 - Parents are the most important role models
- Discourage apps and websites that have been shown to be harmful to mental health
- Set limits with endless binge-watching streaming videos
- Make using technology as meaningful as possible
- Use technology to connect people
- Encourage technology that gets young people moving and outside
- Encourage educational and skill building applications and online content
- Encourage young people to create content and support their learning
- Encourage apps that you have found to be helpful with mental health
- Teach your kids/teens to be mindful about why they are online so they can notice when they are doomscrolling or procrastinating or at least recognize when the AI algorithm is trying to keep them online longer
- Less exciting apps/games/videos are less addictive
- Ensure enough natural light
- Charge phone in a different room than where you sleep
- 20-20-20 Eye health rule
- Continue to monitor how, when, why and where your kids are using technology

WARNING SIGNS

- **Change in time spent using digital media**
- **Change in school work, sleeping patterns, mood or anxiety**
- **Change in social or family behavior such as isolation and withdrawal**
 - All digital media has the potential to isolate users
 - Risky online behaviors are likely to be mirrored in similar offline behaviors
- **Ceasing digital media triggers emotional or behavioral crisis**
 - Signs of depression or anxiety that can only be relieved by device use
 - ‘I am afraid of what my child or teen would do if I took away their device’
- **Child has underlying mental health problem made worse by screen use**
 - ADHD
 - Depression or anxiety
 - Autism

WAYS TO IMPROVE SCREEN USE

- Parental involvement
- Take a media history
- Be proactive
- Offer alternatives
- Create protected times
- School Policies
- Scale back
- Taking the phone away
- Addressing sexting
- Addressing video games
- Online Resources
- Teacher Behavior

ADDRESSING PROBLEM MEDIA USE

- **Find out about everything your youth is doing online**
- **Basic internet education about:**
 - Ideas, words, photos, videos on the internet can be manipulated
 - What you post has real world consequences- in public domain for years: bullying, nudes, alcohol, drugs
 - Blocking and privacy, uncomfortable situations and talking to parents
 - Never sleep with phone, no phone 30m before bed, turn off notifications
 - Teach helpful ways to use phone- scheduling, reminders, school
 - Tracking use while balancing with sleep, eating, hygiene, school, family, extracurricular activities
- **Decide whether digital media is becoming a problem**
- **Negotiate new rules with rewards for good behavior**
 - Stay calm and supportive; stormy behavior passes over hours-days
 - If the behavior has been going on a long time it will take a longer time to change

ONLINE RESOURCES



Commonsensemedia.com



Stresshacks.ca

AACAP Facts for Families

FACTS *for* FAMILIES

No. 100

November 2011

Children and Social Networking

Social Networking Sites play an important role in the lives of many young people. Over 60% of 13-17 year olds have at least one profile on a social networking site, many spending more than 2 hours per day on social networking sites.

Social networking sites can present opportunities to youth who participate with them but like any activity there are also associated risks and it is important for parents to help their children use these sites wisely.

Some potential benefits are:

- Staying connected to friends
- Developing new social contacts with peers with similar interests
- Sharing content of self-expression such as art work, music and political views
- Developing and expressing your individual identity

Online social networking can involve new risks such as:

- Bullying online "cyber bullying"
- Sharing too much information
- Vulnerability to predatory adults
- Sharing photos or video that you later regret
- Exposure to large amounts of commercial advertisements which may not be age appropriate
- Risk of identity theft
- Reduced amount of time for physical activity

If your child is thinking about using social networking sites there are many ways to help them use them safely and appropriately. **Discuss freely with your child and guide them in their usage of social networking sites by suggesting they:**

- Keep control of their information by restricting access to their page
- Keep their full name, address, telephone number, social security number and bank or credit card number to themselves
- Post only information they are comfortable with everyone seeing
- Talk to their parents before considering meeting anyone face to face they have met on line and review the risks involved

3615 Wisconsin Avenue, NW ■ Washington, DC 20016-3007 ■ 202.966.7300 ■ (FAX) 202.966.2891
<http://www.aacap.org>

AMERICAN ACADEMY OF CHILD & ADOLESCENT PSYCHIATRY



**THANKS FOR
LISTENING!**

20. QUESTIONS?

OTHER IMPORTANT THINGS TO CONSIDER

- **Ask your child or teen about:**
 - Violence, sexting, bullying, sexual imagery, abusive language, uncomfortable situations, dependence
 - Fraud with credit card or password
 - Checking the ESRB rating of their games or media
- **Proactively teach children or teens:**
 - Texting and driving- and keep reminding
 - How to monitor own use while balancing sleep, eating, hygiene, school, family, extracurricular
 - Importance of talking to parents if getting into trouble online (and IRL of course)
 - Only 22% of kids upset by online content told someone- child told parent, teen told friend
- **Determine your child's understanding of appropriate social media behaviors**
 - Are they able to balance online and offline life with practical strategies and coping mechanisms?

PARENTS AND TEACHERS NEED TO BE INVOLVED

- **Parent and teacher behavior is an extremely powerful influence on student's behavior**
 - Adult use of screens and smartphones significantly influences how kids and teens use them
 - Play, work, read and surf alongside your kids and students when possible
- **Try to determine if your students uses good social skills while online**
 - Important to practice behaviors that are compatible with face to face life
- **Negotiate how much phone use is healthy and doesn't lead to problems**
 - Actively develop a media plan with (different) rules for every grade level
 - Failure to create a digital media plan is akin to planning to fail
 - Reward demonstrations of healthy online behavior with more online privileges and vice versa
- **Try to use the device for reward instead of punishment**
 - Studies show reward is more effective

LEARN MEDIA DIET OF CHILD ONLINE

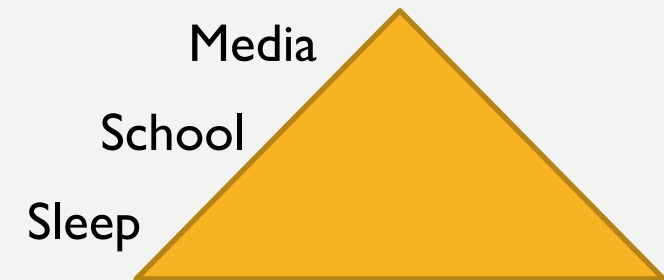
- **Talk to your child about:**

- Typical daily schedule
- Devices and sites
- Types of interactions

Media Diet Analysis:

Facebook - 68g	Skype - 27g	Around Me - 5g
Whatsapp - 42g	Instagram - 21g	Seamless - 4g
Behance - 42g	Google Search - 10g	Snapchat - 3g
Pandora - 42g	Google Maps - 9g	BBC News - 3g
Gmail - 34g	Yahoo Weather - 8g	Magazines - 3g
Vid Streaming - 33g	Wikipedia - 8g	
Youtube - 28g	iTunes - 8g	

- **Choose media that is worth your time**
- Healthy media diet similar to needs pyramid
- Similar to Canada food guide
 - % of daily intake recommended



BE PROACTIVE

- **Prepare your child or teen for**

- Confusing or uncomfortable situations
- Sites asking for personal or financial information
- Cyberbullying or exclusion
- Adult themed content

- **Review situations where they should ask for help**

- Check in regularly or daily if you are concerned

- **Discuss texting and driving**

- Treat the behavior similar to drinking and driving
- Passengers in vehicle object until phone away or vehicle parked
- Parents don't respond to texts while teen driving

- ***'Don't text n drive or else we will take the car away'***

NO PRIVACY EXISTS ON INTERNET

- **Private**

- Diary with a lock
- Hard drive or USB in a safe

- **Not private**

- Emails
- Texts
- Files on your computer
- Photos
- Laptop camera
- ‘Delete’ key should be renamed ‘Archive’



- **Major ‘data breaches’ have occurred with:**

- Yahoo and Facebook
- Equifax and JP Morgan Chase
- Sony and eBay
- Adobe and Adult Friend Finder
- Target and Home Depot
- Wikileaks, Edward Snowden, Chelsea Manning

- A survey of over 600 teens from 2012 found that nearly all shared real name and photos of themselves, most shared their school name, birthdate and city or town where they lived

ACTIVELY OFFER ALTERNATIVES

- **Become involved in your child's non screen life**
- **Offer more attractive alternatives**
 - Do things your kids like to do
 - Take them places they like to go
 - Make it easy to see, host or visit friends in real life
 - Doing any activity inside or outside without holding phone
- **And don't just get involved in their lives; let them get involved in yours**
 - Have your kids help you plan the next family vacation
 - Ask your kids to give you advice
 - Discuss a problem you're facing and ask how they would solve it
- **Provide opportunities**
 - Reading a comic, magazine, book
 - Board games, arts or crafts
 - Listen to music or play instrument
 - Dance or play with their toys
 - Exercise together
 - Help them learn a sport
 - Enroll in organized sports
 - Attend religious or spiritual events
 - Meditation and or yoga
 - Invite them to join your activities
- **Create a real time living list**
 - 100 things to do without phones

PARENTAL MONITORING

- **Parental monitoring should be active**
 - Co-viewing, discussing, playing together, following each other, education and guidance
- **Forget the spyware-** Monitor instead of spy, be seen but not heard
- **Demand all passwords-** You will never know when you may need them
- **Understand the ESRB rating system and check your kid's games**



CREATE PROTECTED TIMES

- **Turn off notifications in general and remove social media apps from phone**
 - Lights, noises, or anything that hijacks attention
 - Check for updates from laptop or home computer at end of the day
- **Turn off devices at certain times of the day**
 - Meals, studying, driving
 - Schedule device use to specific times, such as 15 minutes, instead of ‘open ended’
- **Good sleep requires high melatonin, low cortisol and high adenosine**
 - Stop using device about an hour before bed (**raises melatonin**)
 - If using phone at night switch to Apple’s ‘Night Shift’ option (emits less blue light)
 - Charge your phone in a different room (**lowers cortisol**)
 - Buy an old school alarm clock
 - Don’t engage in stimulating device use before bed (**lowers adenosine**)
 - Gaming, social media lurking, sexting, Netflix, YouTube

INTERNET RESTRICTION

- Time limits, banning sites, taking phone away
- Restricting a young person's use of the internet
 - Can reduce chances of experiencing online risks
 - Doesn't reduce amount of harm if risk encountered
 - 'Forbidden fruit' response may cause obsessive, manipulative, binge behaviors
 - Limiting the development of digital skills may backfire causing more high risk online behavior
- UK research indicates that restricting a young person's access to the internet could inhibit the development of the skills needed to handle online risk
- Overall consensus is today's young people will live in a world fully integrated with the internet
 - Restriction is likely the least effective way to reduce online problems as child or teen will eventually become an adult who will need digital skills to function
 - The ultimate goal should be education, guiding and supporting youth to develop online resiliency

SCALING DOWN

- **Create smartphone/internet free hours/days during the week**
 - Cut off Wifi to home from 10pm to 9am
- **Treat screen time like dessert**
 - Something you can have once in a while, but shouldn't be part of your everyday
- **Switch to a Light Phone**
 - Slogan to millennials: 'our phones have become our nervous habit, our invisible crutch'
 - Doesn't have it's own number, download apps, take pictures, send texts, receive notifications

UNHOOKING FROM SOCIAL MEDIA

- **Trial separation may be a good place to start**
- **Deleting Facebook**
 - First download all of Facebook's data on you since you joined
 - You won't get photos other people shared of you, even if you were tagged, but you can save them individually
 - Once you've saved everything, log in one more time and press the blue delete button
 - Your data will be deleted in a few days (up to 90), and you can't change your mind after the first 3 days
 - Deletion will be cancelled if you log back in again
 - Consider deleting other apps owned by facebook
- **FOMO- psychological separation may prove difficult**
 - Consider Eventbrite for events, Letgo for buying and selling, Peanut for expectant moms, GoFundMe for raising money, MeetUp for socializing, Twitter for news

CONSIDER GOING 'TECH FREE'

- **Wait until 8th movement urges parents to delay giving kids phones until just before high school**
- **7 day no screen challenge for entire family**
- **Technology free schools do exist**
 - France went smartphone free in schools in 2019
 - Some Silicon Valley schools where 'tech titans' send their children
 - San Lorenzo High worked with Yondr to restrict smartphone use during school hours
 - 'The changes were profound- kids are more focused and engaged during class and student journals suggest high schoolers were feeling less anxious and more relaxed'
- **Digital detox, electronic cleanse, smartphone/internet free/private retreats**



CONSIDER THE FOLLOWING IF TAKING AWAY PHONE

- **How much were they using and for what purposes**
 - Do they have other ways to contact friends, help with stress?
 - Are you going to ruin their streak?
- **Be clear about length of punishment and why**
 - Be clear about which things cause loss of phone as punishment
 - Provide ways for child to earn back earlier
 - *(what your child does AFTER the 'bad' thing is very important)*
- **Go through the entire phone**
 - If Russian hackers and the NSA can see everything, why not the parent?
 - Look at sites, texts, pictures and remember this is different than reading their diary or journal
- **Provide a plan for how the child can occupy themselves if phone is taken away**
 - How will child get help with stress, school, connecting with friends, anxiety, games, projects
 - Go over this plan/list prior to phone being taken away



ADDRESSING SEXTING

- **Open attitude without judgment**
- **Topic areas to discuss**
 - Healthy dating relationships
 - Peer pressure
 - Digital security
 - Sexuality
 - Citizenship
- **Ongoing conversation as opposed to a single lecture**
- **Be proactive rather than protective and reactive**
- **Taking phone away or preaching abstinence are usually not effective**

