<table>
<thead>
<tr>
<th>Explore</th>
<th>Explore how kids are spending their time online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review</td>
<td>Review important trends in social media use, video-gaming, and screen-time</td>
</tr>
<tr>
<td>Identify</td>
<td>Identify the ways technology use is impacting adolescent development &amp; changing the way the brain works</td>
</tr>
</tbody>
</table>

**Goals for the Evening**
“Social media and technology are not agents of change. They are just tools. We the connected people are the agents of change.”

- Stuart J Ellman, President, 92Y
Kik Messenger App Scrutinized Following 13-Year-Old’s Death
Chanhassen student, 17, dies after using synthetic drug

Chanhassen boy was found in marsh in throes of a seizure.

By Beatrice Dupuy Star Tribune | SEPTEMBER 30, 2015 — 10:13PM

Alex Snyder died Tuesday after using a synthetic drug. The Chanhassen High School community is mourning the loss of the senior.

A synthetic drug purchased over the Internet has been identified as the likely killer of a Chanhassen High School senior found lying in a cattail marsh at Lake Minnewashta Regional Park over the weekend.

Alexander J. Snyder, 17, of Victoria, died Tuesday at Hennepin County Medical Center in Minneapolis.

His father called police just after 7 p.m. Sunday after realizing that his son was missing, police said Wednesday. He had used a tracking application on
Lawsuit blames Snapchat’s speed filter for Georgia car crash

Why you shouldn’t snap and drive

By Ananya Bhattacharya on April 28, 2016 02:10 pm

A young girl trying to capture the perfect Snapchat is nothing out of the ordinary — but a speeding selfie comes with its costs. A new lawsuit alleges that Snapchat’s speed filter, which lets users display the speed at which they’re moving while taking a photo, encourages reckless driving and can cause automobile crashes.
Live Audience Poll

In one word, what concerns you most about technology use and our children?

Step 1: Open text messages

Step 2: Open new text and enter 22333 in the “TO” line

Step 3: Enter 313906 in the message, hit space, and then your one word response

Step 4: Hit send
word, what concerns you most about technology as it relates to our

Technology Trends Amongst Youth

• According to a CNN article, 90% of children have an online history by the age of 2
• Kids spend an average of 7.5 hours a day on entertainment technology
• 50% of kids report feeling addicted to their devices
• According to a Pew research study, 25% of kids report being online through mobile devices almost constantly
What are our kids doing?
Video Games

• Online/Console/Phone
• FPS
• MMORPG’s
• Fruit Ninja
Influence of video games

- Worldwide competitions
- Conferences
- Movies/Television shows
- Action figures & toys
- Comic books
- Combat training
Why are V Games so interesting

• Novelty
• Try on a different persona
• Control how others see me
• Rules are predictable
• Exploration
What are our kids doing? Social Media

• Social Media –
  • Facebook
  • Twitter
  • Instagram
  • Snapchat
  • YouTube
  • Kik
  • You Now/Periscope
  • Whisper
  • After School
  • Sarahah
  • Music.ly
  • AskFM
Instagram

A beautiful way to share your world
It's fast, free and fun!

Sign up  Log in
Snapchat – need to add screen shot
Digital Natives—Millennials versus Immigrants

• The millennials are the first generation to grow up completely immersed in, and surrounded by technology. They know no world without cell phones, computers, and social media.

• First generation to deal with cyber bullying, video game addiction, and 24-hour access to anyone and anything at the push of a button.

• This constant access to technology is having a profound, yet not completely understood impact on the developing brain.
Gr. 5 Parent Technology Response Summary
Survey Results 2016 and 2017

- I have wireless internet access at home with a filter that blocks inappropriate websites:
  - 2016: 53%
  - 2017: 39%

- Communication from teachers and administrators regarding the iPad have helped our family to develop productive strategies for home use of the device:
  - 2016: 64%
  - 2017: 57%

- My child has a cellphone with internet access WITH a filter that blocks inappropriate websites:
  - 2016: 24%
  - 2017: 15%

- My child usually keeps an iPad/cell phone or personal technology device in their bedroom overnight:
  - 2016: 24%
  - 2017: 28%

Percent of parents responding “Yes” or “Strongly Agree”/“Agree”
Missing years are due to not all questions being asked each year.
Gr. 6-12 Parent Technology Response Summary
Survey Results 2012 - 2017

- I have wireless internet access at home with a filter that blocks inappropriate websites:
  - 2012: 41
  - 2014: 46
  - 2015: 49
  - 2016 (6-12): 46
  - 2017 (6-12): 49

- Communication from teachers and administrators regarding the iPad have helped our family to develop productive strategies for home use of the device:
  - 2012: 60
  - 2014: 59
  - 2015: 56
  - 2016 (6-12): 58

- My child has a cellphone with internet access WITH a filter that blocks inappropriate websites:
  - 2012: 30
  - 2014: 33
  - 2015: 32
  - 2016 (6-12): 56

- My child usually keeps an iPad/cell phone or personal technology device in their bedroom overnight:
  - 2012: 46
  - 2014: 49
  - 2015: 56
  - 2016 (6-12): 49
  - 2017 (6-12): 46

Percent of parents responding “Yes” or “Strongly Agree”/“Agree”
Missing years are due to not all questions being asked each year.
Parent Technology Response Summary
Survey Results 2016 - 2017

At what grade level do you think it is appropriate for students to first have a cell phone with internet access?

2016 2017

Grade 3 1 1
Grade 4 2 2
Grade 5 11 10
Grade 6 33 39
Grade 7 17 17
Grade 8 12 12
Grade 9 15 12
Grade 10 5 4
Grade 11 1 1
Grade 12 2 0
NONE 4 4
Parent Technology Response Summary
Survey Results 2016 - 2017

At what grade level do you think it is appropriate for students to begin using social media tools, like Instagram, Snapchat, and Twitter?

- 2016
- 2017

Grade Level: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, NONE

Number of Responses: 1, 1, 4, 4, 21, 19, 16, 17, 16, 18, 20, 22, 8, 8, 3, 2, 3, 2, 7, 6
Parent Technology Response Summary
Survey Results 2017

Comfortable with recreational screen time

<table>
<thead>
<tr>
<th>Year</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary 2016</td>
<td>5</td>
<td>16</td>
<td>23</td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>Elementary 2017</td>
<td>6</td>
<td>21</td>
<td>25</td>
<td>37</td>
<td>11</td>
</tr>
<tr>
<td>Middle 2016</td>
<td>8</td>
<td>25</td>
<td>24</td>
<td>30</td>
<td>13</td>
</tr>
<tr>
<td>Middle 2017</td>
<td>11</td>
<td>28</td>
<td>19</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>High School 2016</td>
<td>9</td>
<td>20</td>
<td>23</td>
<td>34</td>
<td>14</td>
</tr>
<tr>
<td>High School 2017</td>
<td>11</td>
<td>26</td>
<td>26</td>
<td>29</td>
<td>8</td>
</tr>
</tbody>
</table>

Percent of parents responding “Strongly Agree” or “Agree”
Parent Technology Response Summary
Survey Results 2017

Learning a Healthy Balance of Tech Use

- Elementary 2016
  - Strongly Disagree: 1
  - Disagree: 9
  - Neutral: 23
  - Agree: 42
  - Strongly Agree: 24

- Elementary 2017
  - Strongly Disagree: 3
  - Disagree: 15
  - Neutral: 21
  - Agree: 49
  - Strongly Agree: 12

- Middle 2016
  - Strongly Disagree: 5
  - Disagree: 8
  - Neutral: 23
  - Agree: 35
  - Strongly Agree: 22

- Middle 2017
  - Strongly Disagree: 4
  - Disagree: 15
  - Neutral: 24
  - Agree: 37
  - Strongly Agree: 20

- High School 2016
  - Strongly Disagree: 4
  - Disagree: 13
  - Neutral: 24
  - Agree: 35
  - Strongly Agree: 12

- High School 2017
  - Strongly Disagree: 8
  - Disagree: 16
  - Neutral: 24
  - Agree: 40
  - Strongly Agree: 12

Percent of parents responding “Strongly Agree” or “Agree”
Your Brain on Technology
Teen Brain
Teen Brain

Most of the activity in the adult brain takes place in the front lobe – thinking, reasoning, planning, long-term risk assessment, cause and effect.

Most of the activity in the adolescent brain takes place in center of the brain - in the pleasure and reward center.
As parents and caregivers we have two jobs:

1. To love our kids.

2. To be their pre-frontal cortex until they have their own.
Technology Impact on the Brain

• Early research suggests that a steady diet of technology is delaying the development of the prefrontal cortex.
• Also resulting in delay of reaching developmental milestones.
• Technology use limits creativity, imagination, and optimal development of motor functioning because it is used for majority of kids’ play.
• Because of overstimulation and chaos, paired with a sedentary lifestyle that accompanies technology use, kids are struggling with self-regulation.
• Lack of self-regulation can dramatically impact ability to learn.
Audience Participation
Google-ification of the Brain

• A 2011 study at Columbia University showed that Google is a detriment to our memory recall.

• When faced with difficult questions, our brains are evolving to think like computers—and because we expect to have future access to information, we have lower rates of recall.

• Instagram is causing the same phenomenon for image recall. Based on study by psychologist Linda Henkel, images that are photographed are much less remembered than those that are not.
ABC’s of healthy development

Autonomy
Control, Security

Belonging
Connectedness

Competence
Able to influence, and provide value
Factors for Healthy Development

• **Movement**: Kids require two to three hours of active play to achieve sensory stimulation.

• **Touch**: Critical for development of planned movement patterns.

• **Human Connection**: Activates parasympathetic system lowering cortisol, adrenaline, and anxiety.

• **Exposure to Nature**: Has calming influence on children, restores attention, and promotes learning.
Building Foundations

Sustainable
Optimal Development
Attends & Learns
Strong/Coordinated
Secure/Regulated
Calm/Focused
Vestibular/Proprioceptive
Tactile/Attachment
Parasympathetic
Move
Touch
Connect
Nature
Attachment & Relationships

- Implications of low/no Touch on development
- Belonging without being known
- Security but no intimacy
- Mirror Neurons – emotional experiences are co-created

“Digital connections... offer the illusion of companionship without the demands of friendship. Our networked lives allow us to hide from each other, even as we are tethered to each other.”

“Technology encourages this fantasy that [we] will never have to be alone, that [we] will never have to separate from parents and peers. But if you don’t learn to be alone, you will only know how to be lonely.” ~ from Alone Together

“I would never do this face to face, it’s too emotional” ~ from Reclaiming Conversation

~ Sherry Turkle
Mental Health on the MSS

About one in five students showed signs of depression in the previous two weeks, according to screening questions added to the survey in 2016.
Mental Health on the MSS

9th Graders Reporting Long-Term Mental Health, Behavioral or Emotional Problems (6 mo +)

- 2013: 12.5%
- 2016: 17.3%
Mental Health on the MSS

The percentage of 11th grade students who received mental or emotional health treatment in the past year rose from:

- 8.8% in 2013
- 13.2% in 2016

The percentage of 11th grade students who said they seriously considered committing suicide in the past year increased from:

- 9.7% in 2013
- 12.0% in 2016
Digital Façade

• Young people don’t realize their digital world is only a façade—a skewed picture and modified storyline of what’s actually happening in the lives of their friends and peers.

• The main goal is to get as many “likes” as possible. If a certain number of “likes” aren’t achieved, posts are removed and reality is distorted.

• Kids get instant feedback on things they might not ever have heard, such as whether someone likes their outfit.
There are 80 million photos posted on Instagram each day.

Facebook has 1.49 billion active users per month.

Twitter has 316 million active accounts.

Increasingly, more people are living two lives: one online, one off. And studies show that this makes us more vulnerable to depression, loneliness, and low self-worth. This is based on something psychologists are calling social comparison theory—and teenagers are most susceptible. FINSTAGRAM.
What’s On Your Mind?

- https://www.youtube.com/watch?v=QxVZYiJKI1Y
What is Addiction?

• Addiction is a behavior that is characterized by the inability to discontinue it despite the negative consequences which occur with excessive participation.

• The American Society of Addiction Medicine describes addiction as a primary chronic disease of the brain reward, motivation, memory and related circuitry.

• It is:
  • Progressive
  • Chronic
  • Potentially fatal
Wired for Addiction to Technology

• Operant Conditioning
  • Neg Reinforce:
    • Distracts from difficult feelings – anxiety, depression, poor relationships
  • Positive Reinforce:
    • Novel
    • High Intensity and Arousal
• The developing brain has a robust dopamine system
• Developing brains do not consider negative consequences
• Developing brains prefer high reward for low effort
Risk Factors

- Access
- Likely Genetic Factors
- Family Conflict
- Family Hx of Addiction
- Parents who are heavy users of Technology
- Parental Anxiety/Parent Guilt
- Trauma Hx ~ i.e. Bullying
- Grief and Loss
- Lack of differentiation from FOO

- Human Development/The Teen Brain
- Kids with “great potential”
- Anxiety
  - Social Anxiety
- Autism Spectrum
- Depression
- ADHD
- OCD
Other Resources

Online Gamers Anon
The Center for Internet Addiction w/ Screening tools
Wait Till 8th - waituntil8th.org
Family Technology Tune-up
Common Sense Media
NetSmartz
daveeisenmann.com
Join us next week for PART TWO

DATES
• October 17, 6:30 to 8:00 pm
• October 24, 6:30 to 8:00 pm

LOCATION
• Excelsior Elementary Auditorium
• 441 Oak St., Excelsior

Three-part series designed to guide parents to healthy technology use in the family. The final workshop will be a hands-on event to help families build a family media strategy.

Events are free.
Live Audience Poll

Name one easy thing we can do to help manage balance and communication around technology use and our families.

**Step 1:** Open text messages

**Step 2:** Open new text and enter **22333** in the “TO” line

**Step 3:** Enter **314769** in the message, **hit space**, and then your **response**

**Step 4:** Hit send
The easy thing we can do to help manage balance and communication technology use and our families?
• https://www.youtube.com/watch?v=9s0ukQGLXQ4