What’s Unique About Social Media Use Among Youth?

Mitch Prinstein, Ph.D.
Chief Science Officer
Overview

- The Human Brain
  - The adolescent human brain

- Social Media and Adolescent Brain/Psychological Development

- APA Health Advisory
60,000 years ago...

Early human-like species:

- Homosapiens (i.e., us!) In Africa/S. Europe
- Neanderthals, Northern Europe
- Denisovans, Asia
- Homo Floresiensis, Indonesia

Our primary advantage: Social connection
Social Experiences and the Human Brain
<table>
<thead>
<tr>
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<th>Feature</th>
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<td>1</td>
<td>Asynchronicity</td>
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<td>2</td>
<td>Permanence</td>
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<td>3</td>
<td>Publicness</td>
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<td>4</td>
<td>Availability</td>
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<td>5</td>
<td>Cue absence</td>
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<td>6</td>
<td>Quantifiability</td>
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<td>7</td>
<td>Visualness</td>
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<td>Algorithmic</td>
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Unique features of social media trigger these neural responses

The Adolescent Brain
• **Starting age 10:** Hypersensitive to peer feedback, attention, or punishments

• **Until age 25:** Underdeveloped self-control
Key Assumptions

- Social media is not a homogeneous experience
- Social media = content + platform functions (e.g., likes) + AI
- Adolescent development is gradual and continuous
- Racism and bias are built into platforms themselves
- Causal data are largely unavailable

- Under which conditions, and for which children may specific social media features or content be helpful or harmful to youth development?
1. What are the potential benefits of social media use?
2. What types of social media use may increase or decrease mental health risk?
3. Who may be most susceptible to potentially negative effects of tech/social media on mental health?
4. How might tech/social media content promote adaptive or maladaptive behavior?
5. Are teens more influenced by peers online?
6. Does digital media cause youth stress?
7. What are teens not doing when using tech/social media?
8. What is “problematic” social media use?
9. Is social media use related to brain development?
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1) Positive attributes

- Affinity/identity communities
- Potential for immediate social support/lower threshold
- Online only friends buffer effects of stress on suicidal behavior
- Social companionship during COVID-19 lockdown
- Great diversity among peer contacts
- Adolescents report they enjoy interactions online
- Civic engagement and activism

5) Peer influence

Exposure to Alcohol-related Posts

Perception of Peers’ Attitudes

Initiation of Heavy Episodic Drinking

Nesi, Rothenberg, Hussong, & Jackson, 2017
7) What Are Teens NOT Doing?

> 90% of studies, more screen time associated with poorer sleep health among children and adolescents

Telzer et al., 2015
8) Is Social Media Addictive?

- Do you ever feel like you spend more time on social media than you intended?
- Have you ever tried to spend time away from social media, but couldn't do it?
- Do you ever expend extra effort to make sure you will continue to have access to social media at times when you otherwise may not be able to use it?
- Do you ever have a craving or strong desire to use social media?
- Does social media use ever get in the way of things you are supposed to be doing (e.g., sleep, exercise, schoolwork)?
- Do you ever use social media even after you realized that it was getting in the way of what you thought was best for you?
- Have you ever been away from social media and felt like you were missing it too much to engage in normal day to day activities?
- Do you think you may be addicted to social media?
Addiction to Social Media

- Nearly all adolescents report spending more time on social media than they intended.
- Half of adolescents report that being away from social media results in experiencing difficulties in engaging with daily life activities.
- One-quarter perceive that they are “moderately” or “severely” addicted to social media.
9) Social Media and Brain Development
Social Media Checking and Brain Development

Grade 6

Grade 7

Grade 8

Grade 9
Social Media and Brain Development

Left Amygdala/ Posterior Insula/ Ventral Striatum

Maza, Fox et al., 2023 JAMA Pediatrics
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10 RECOMMENDATIONS
FOR PARENTS, PLATFORMS, AND POLICYMAKERS

1. Build and encourage use of functions that promote healthy socialization
2. Tailor platform design, functionality, and permissions to youths’ developmental capabilities
3. Monitor use for early adolescents (10-14 years old) to the extent possible
4. Remove content that depicts and minimize exposure to content that depicts illegal or psychologically maladaptive behavior—including self-harm, harm to others, and eating disordered behavior
5. Remove content that promotes and minimize exposure to content that promotes discrimination, prejudice, hate or cyberbullying—especially based on race, ethnicity, gender, sexual orientation, religion, or disability status
6. Routinely screen for signs of “problematic use” that can impair the ability to engage in daily life and routines
7. Limit use that interferes with sleep and physical activity
8. Limit use that encourages social comparison, particularly around beauty- or appearance-related content
9. Precede use with training teens in social media literacy
10. Provide resources for continued research on the positive and negative effects of social media on development
1) Question the accuracy/representativeness of content
2) Understand tactics used to spread mis-/disinformation
3) Limit “overgeneralization” and “misestimation” errors
4) Know the signs of problematic social media use
5) Learn how to build healthy online relationships

6) Understand how to solve conflicts on social media
7) Refrain from excessive social comparisons online
8) Recognize online structural racism and critique racist messages
9) Communicate safely about mental health online
10) Understand who benefits from kids using social media

https://www.apa.org/topics/social-media-internet/social-media-literacy-teens
Thank you.

mprinstein@apa.org
mitch.prinstein@unc.edu