IS SOCIAL MEDIA HARMING MENTAL HEALTH?

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A steep rise in mental health problems among adolescents, particularly girls

By The New York Times | Source: Centers for Disease Control and Prevention High School Youth Risk Behavior Survey
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1st generation to go through puberty with a smartphone

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Why is technology so uniquely harmful to mental health? – the dark triad

- **Lack of safety**
  - Social contagion
  - Negative social comparisons

- **Social contagion**
  - Polarization, Emotions, Harassment, Hate speech

- **Negative social comparisons**
  - Social networks, Influencers, Algorithms
  - Psychological contagion, Psychogenic illness, Peer pressure, Emotion regulation,
Structure of social networks amplifies negative social comparisons

“On social media everyone seems like they are far better than me, which is stressful and makes me feel behind, unwanted and stupid.”
- teen girl

“I scroll through my Instagram and see models with perfect bodies and I feel horrible about myself.”
- teen girl

- Social comparison helps establish status within groups, helps groups coordinate, etc.

- Friendship paradox distorts social comparisons: A rare attribute in a social network (“perfect body”) is overrepresented within many social circles, feeding negative social comparisons.

- Influencers have an outsize and toxic effect

Blue is rare, yet all yellow nodes have majority of blue friends

Lack of safety: Polarization harms emotions

- Online interactions are often negative
- Polarization feeds negative emotions and reduces positive emotions
- Our study of over 90 Reddit communities shows that controversial comments shift the emotional tone of discussions
  - Increase negative emotions
  - Decrease positive emotions
Psychological contagion: Stressors spread online on a massive scale
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Rapid Onset Functional Tic-Like Behaviors

Mass psychogenic illness fueled by social media (TikTok & YouTube influencers)
Technology for human flourishing

- Develop AI tools to analyze social, language & biobehavioral data to understand human emotions, facilitate emotion regulation, promote wellbeing and resilience.
- Develop AI tools to strengthen online communities by facilitating healthy discourse, reducing toxicity and negative emotions, and promoting positive social interactions.
- Develop AI tools to analyze social media data in real-time and at scale to monitor the integrity of global information eco-systems, polarization in online conversations, detect misinformation and malicious manipulation.