Social media and adolescent mental health

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Co-medical director : Center of Excellence on Social Media and Youth Mental Health

Roadmap

- Social media
  - The current narrative
  - How did we get here?
- Mental health and social media
  - 3 hypotheses
  - A new narrative
- The 5 Cs of healthy media use

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By Dr. Nicholas Kardaras

September 17, 2022 | 8:11am | Updated

Seeking validation from mental-illness groups on social media ha
Contagions," with alarming rates of addiction, depression, suicide

“You’re rotting your brain!”

“It’s bad”

“It’s bad”

“You are totally addicted!”

“It’s bad”

“It’s bad”

“It’s bad”

“It’s bad”

“I know its so bad but…”

“It’s bad”

“It’s bad”

“It’s bad”

“It’s bad”

"You're rotting your brain!"
"I'm bad"
"I'm bad"
You are totally addicted!"
"I'm bad"
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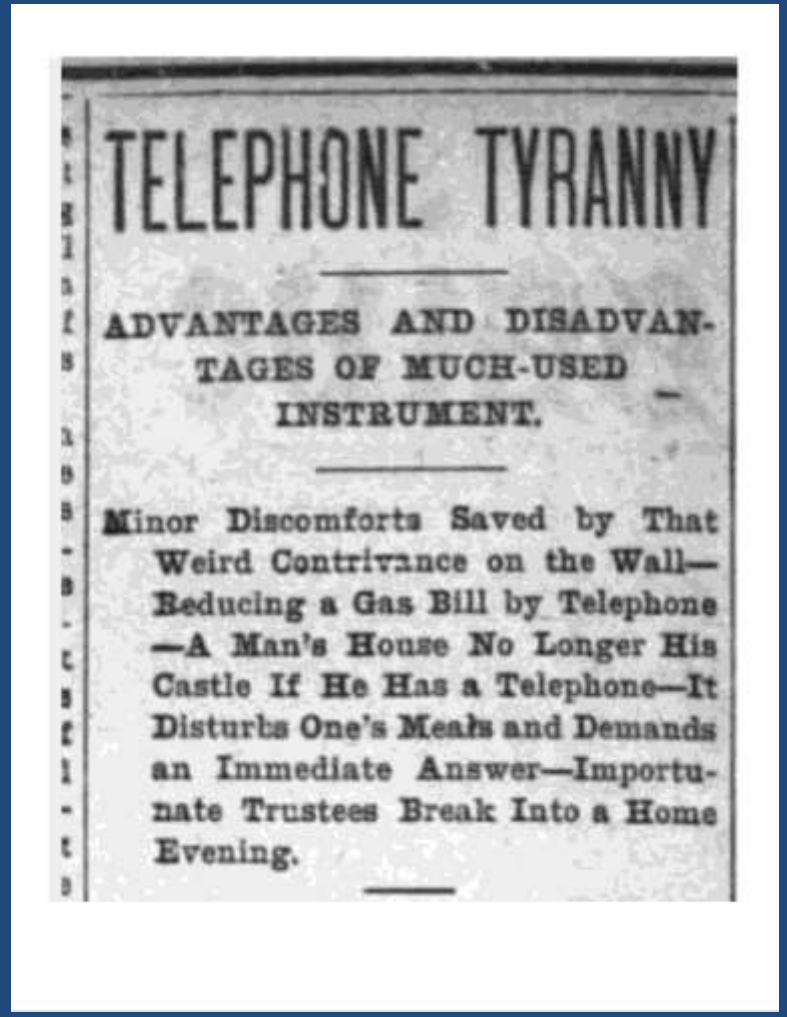
"I know its so bad but…"
"I'm bad"
"I'm bad"
"I'm bad"
"I'm bad"

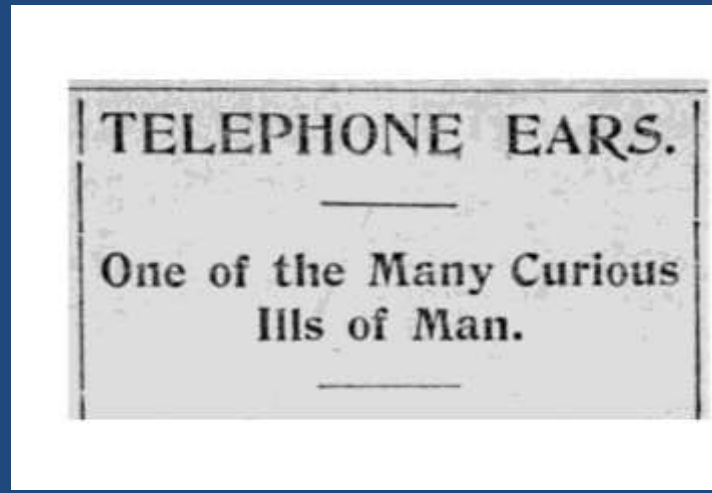
How did we get here?



TELEPHONE TYRANNY

ADVANTAGES AND DISADVANTAGES OF MUCH-USED INSTRUMENT.

Minor Discomforts Saved by That Weird Contrivance on the Wall—Reducing a Gas Bill by Telephone—A Man's House No Longer His Castle If He Has a Telephone—It Disturbs One's Meals and Demands an Immediate Answer—Importunate Trustees Break Into a Home Evening.



TELEPHONE EARS.

One of the Many Curious Ills of Man.

TV, drug addiction similar: psychiatrist

COLUMBIA, Md. [UPI]—A child psychiatrist says parents should try to prevent their children's addiction to television by placing sets in inconspicuous places—preferably closets.

Dr. Gordon S. Livingston, 39, said Sunday that curing children of TV addiction is like treating a drug addict.

Trying to break a child's TV habit is "like dealing with people coming off drugs. The kid becomes agitated and nervous and does not know how to fill his time," Livingston said.

FANTASY EXPERIENCES

Children's Addiction To TV Presents Serious Problem

Children's addiction to TV has become an alarming problem. This first of four articles gives the remarks of the psychoanalyst Dr. Isidore Ziferstein, made to a Valley audience recently and reported in the Valley Times. They are presented as a public service. The materials represent the views of Dr. Ziferstein and do not necessarily constitute a statement of policy of the Valley Times.

SAVE BOYS AND GIRLS FROM EVILS OF JAZZ

CHICAGO SCHOOL BOARD MAKES APPEAL TO PARENTS.

Jazz Is Taboo School Board Says

BRADFORD, Nov. 18.—The wave of reform that is sweeping the country since the advent of the flapper in the

Orleans School Board Puts Ban on Jazz Dancing

Jazz Upsets School Board

The craze for jazz has become so acute that the Monroe Township Board of Education has sent a formal protest against anything of the kind at Glassboro, N.J., high school. The principal says that dancing there is

SCHOOLS TOP

Blair also orders ban on calculators

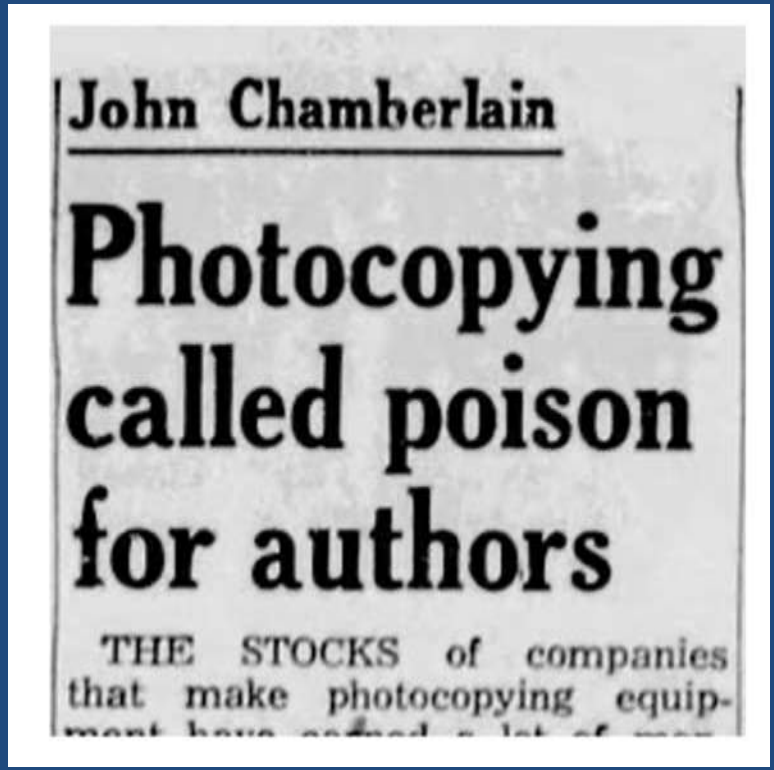
Blunkett bar calculators fo pupils under

Calculators banned in school maths shake-up

Calculators banned fro maths clas

Ban on calculator for the under-8s

CAN OPENER AND TELEPHONE BLAMED FOR LOST ART OF BAKING IN HOMES



John Chamberlain

Photocopying called poison for authors

THE STOCKS of companies that make photocopying equip-

In Romania, typewriter called 'dangerous weapon'

BUCHAREST, Romania (AP) — Romanians now must seek police permission for owning a potentially dangerous weapon — the typewriter.

The law, signed by President Nicolae Ceausescu last month and put into effect this week, apparently is designed to curb clandestine leaflets critical of his Communist government.

The typewriter decree has not been announced in the state-controlled media. As a result, most Bucharest residents seemed unaware of the heavy fines prescribed for illicit use of the keyboard, although a district police official confirmed it has taken effect.

State-owned resale stores did a brisk business as usual Thursday on used typewriters. Prewar Ger-

—Typewriters will be denied to people who have a criminal record or pose "a danger to public order or state security."

—Police must be notified within 24 hours of the loss or theft of a typewriter, and their rental or use outside the registered owner's homes is forbidden.

—Penalty for failure to comply with the law is $240 and confiscation of offenders' typewriters.

There are no official figures on how many typewriters there are in this East bloc country of 22 million. A rough estimate put the number at less than 1 million, counting those belonging to state institutions. About 300,000 are thought to be in private use.

Typewriters were subject to registration and con-

What do we know

Benefits

- Social connection
- Learning
- Creative expression
- Civic engagement
- Identity development

Risks

- Competition/FOMO
- Problematic use
- Wasted time
- Disturbing/inaccurate content
- Bullying/harassment/hate speech
- Predation

What do we know

Benefits

- Social connection
- Learning
- Creative expression
- Civic engagement
- Identity development

All of these benefits align with tasks of adolescent development

Risks

- Competition/FOMO
- Problematic use
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What do we know

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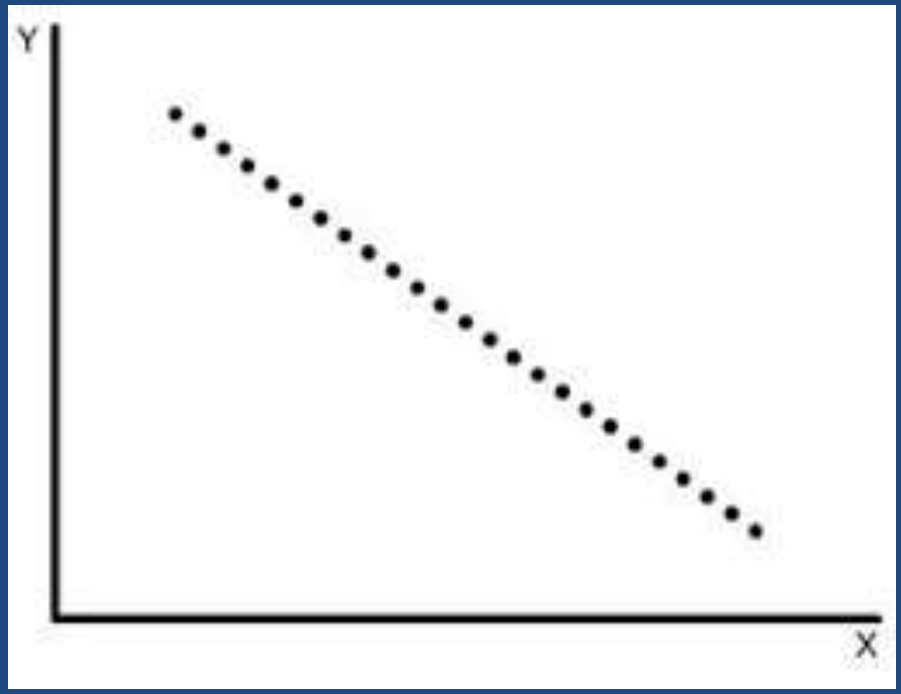
All of these risks exist in other aspects of teen's online and offline lives

Mental health and social media

Consider 3 hypotheses

- Negative linear
- No relationship
- It’s complicated

Hypothesis 1: Negative linear



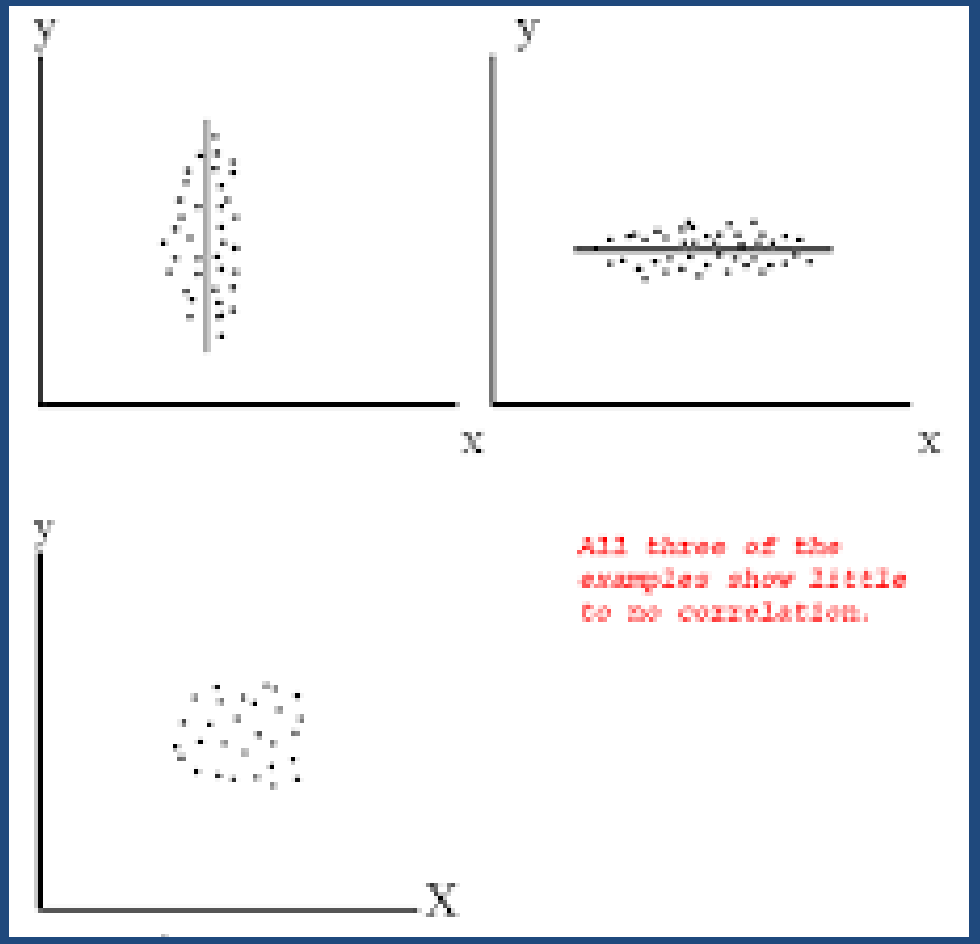
Hypothesis 1

- Twenge 2018: Examined measures of mental health and measures of social media/technology use over time
  - Several large datasets, some variation in measures
- *“The happiest adolescents were those who spent a small amount of time on electronic communication”*
- “*Adolescents’ psychological well-being suddenly decreased after 2012, possibly due to their spending more time on electronic communication”*

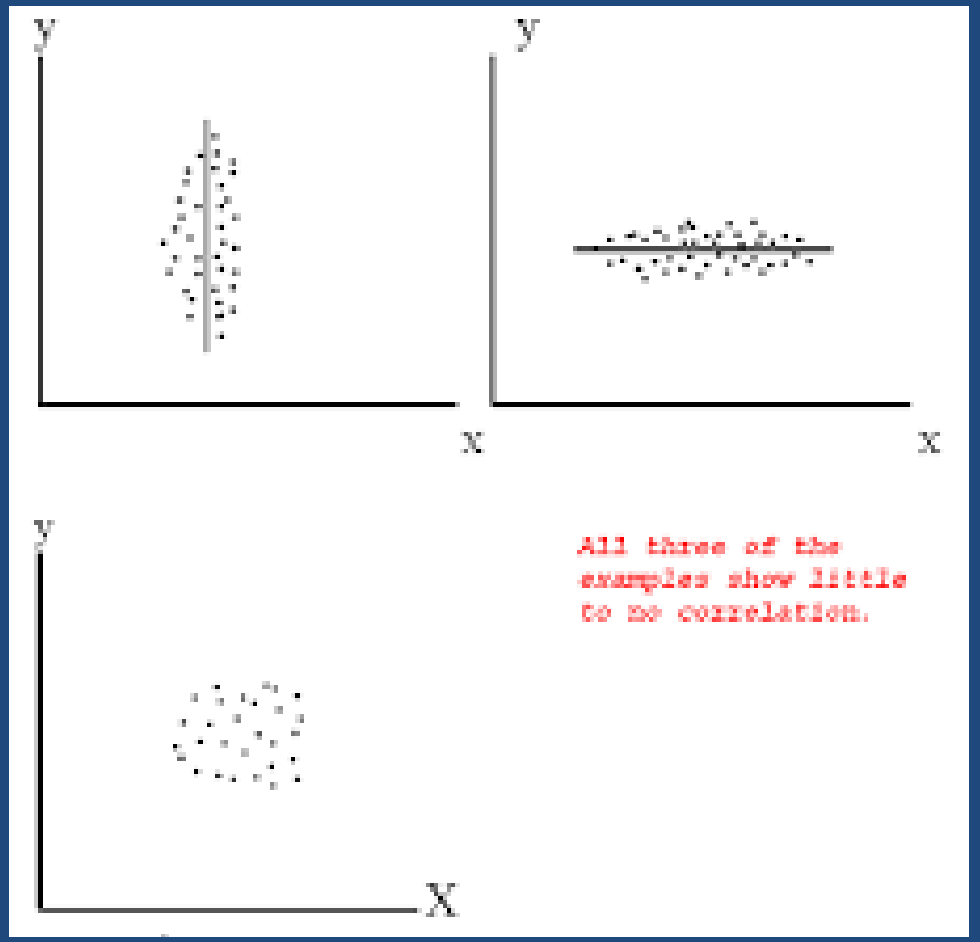
Twenge et al. Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the risk of smartphone technology. Emotion. 2018

Hypothesis 1

Hypothesis 2: No relationship



Hypothesis 2: No *clinically significant causal* relationship *on populations*



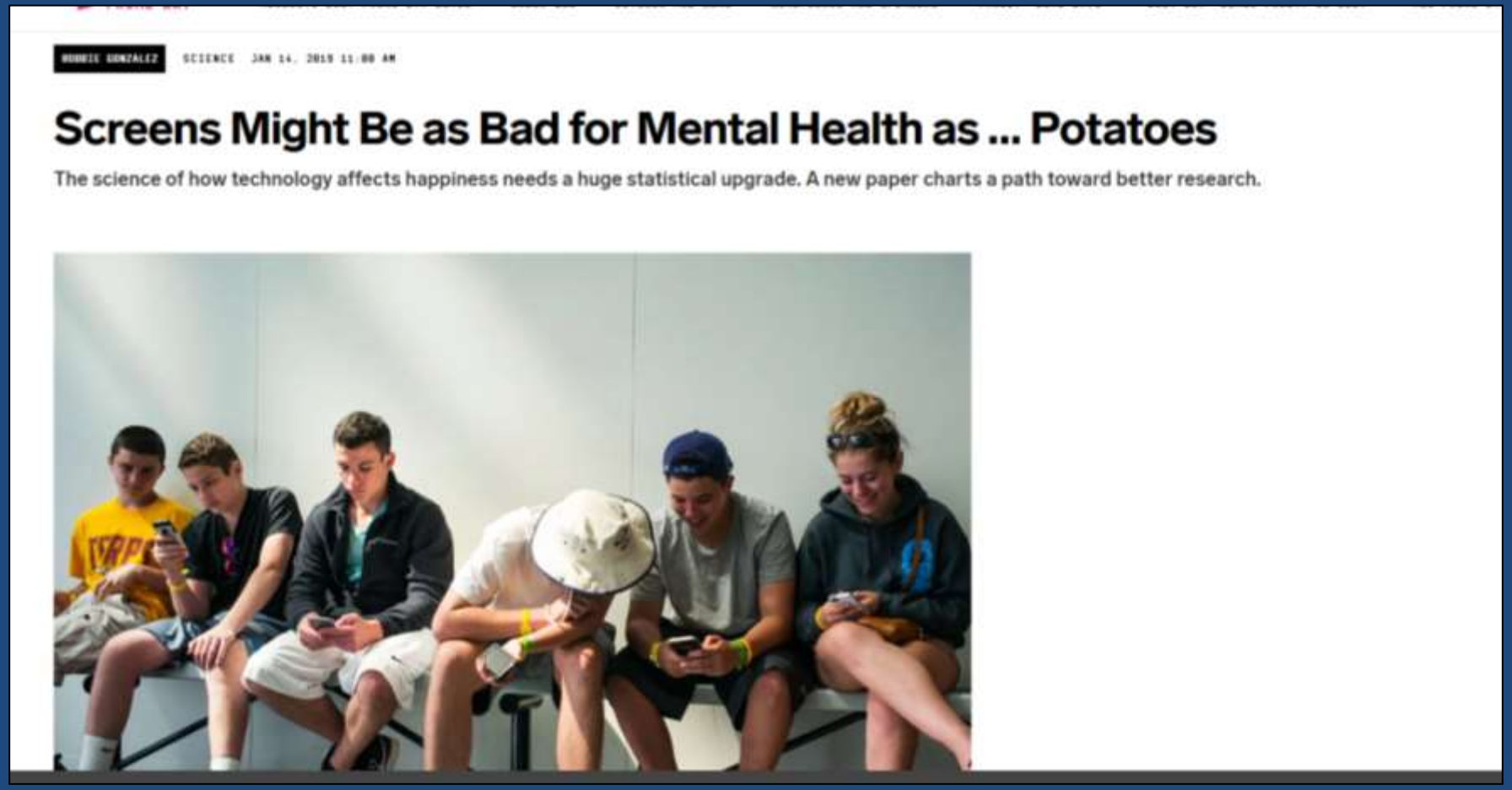
Hypothesis 2

- Przbylski 2017: One of the largest studies so far looked at more than 120,000 UK adolescents
- No association between mental well-being and “moderate” use of digital technology,

  and reported measurable, “albeit small” negative associations for people who had “high levels” of engagement

Przbylski A et al. A Large-Scale Test of the Goldilocks Hypothesis. Psychol Sci. 2017

Hypothesis 2: No relationship



ROBBIE GONZALEZ SCIENCE JAN 14, 2019 11:00 AM

Screens Might Be as Bad for Mental Health as ... Potatoes

The science of how technology affects happiness needs a huge statistical upgrade. A new paper charts a path toward better research.

Meta analysis

- Odgers 2020 paper synthesized data from **reviews** and **meta-analyses** between 2014 and 2019
  - cohort studies, longitudinal and real-time use studies
- Concluded that most research has been
  - Correlational (cannot show cause and effect)
  - Used poor measurements
  - Led to mix of conflicting results

Odgers and Jensen. Annual Research Review: Adolescent Mental Health in the digital age: facts, fears and future directions. Journal of Child Psychology and Psychiatry. 2020.

National reports

- National Academies of Sciences, Engineering and Medicine
  - 2023 report: Assessment of the Impact of Social Media on the Health and Wellbeing of Adolescents and Children
  - Most research is cross sectional, cannot establish cause and effect
    - One meta-analysis found small associations between social use and anxiety/depression; however, it also found small associations between social media use and social connection
- US Surgeon General's Advisory
  - 2023: Social media and youth mental health
  - *The relationship between social media and youth mental health is complex and potentially bidirectional*

https://www.nationalacademies.org/our-work/assessment-of-the-impact-of-social-media-on-the-health-and-wellbeing-of-adolescents-and-children
/https://www.hhs.gov/sites/default/files/sg-youth-mental-health-social-media-advisory.pdf

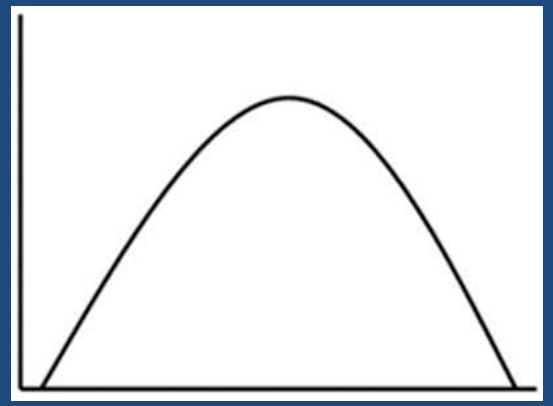
Hypothesis 3: Its complicated

Hypothesis 3: Its complicated

- Relationship may not be linear
- **Quantity** of time may not be the right (or only) measurement

Hypothesis 3: Its complicated

- Relationship may not be linear
  - Some studies have shown poor mental health with either no use or very high use



This relationship has also been found in previous studies of ‘internet use’ and depression

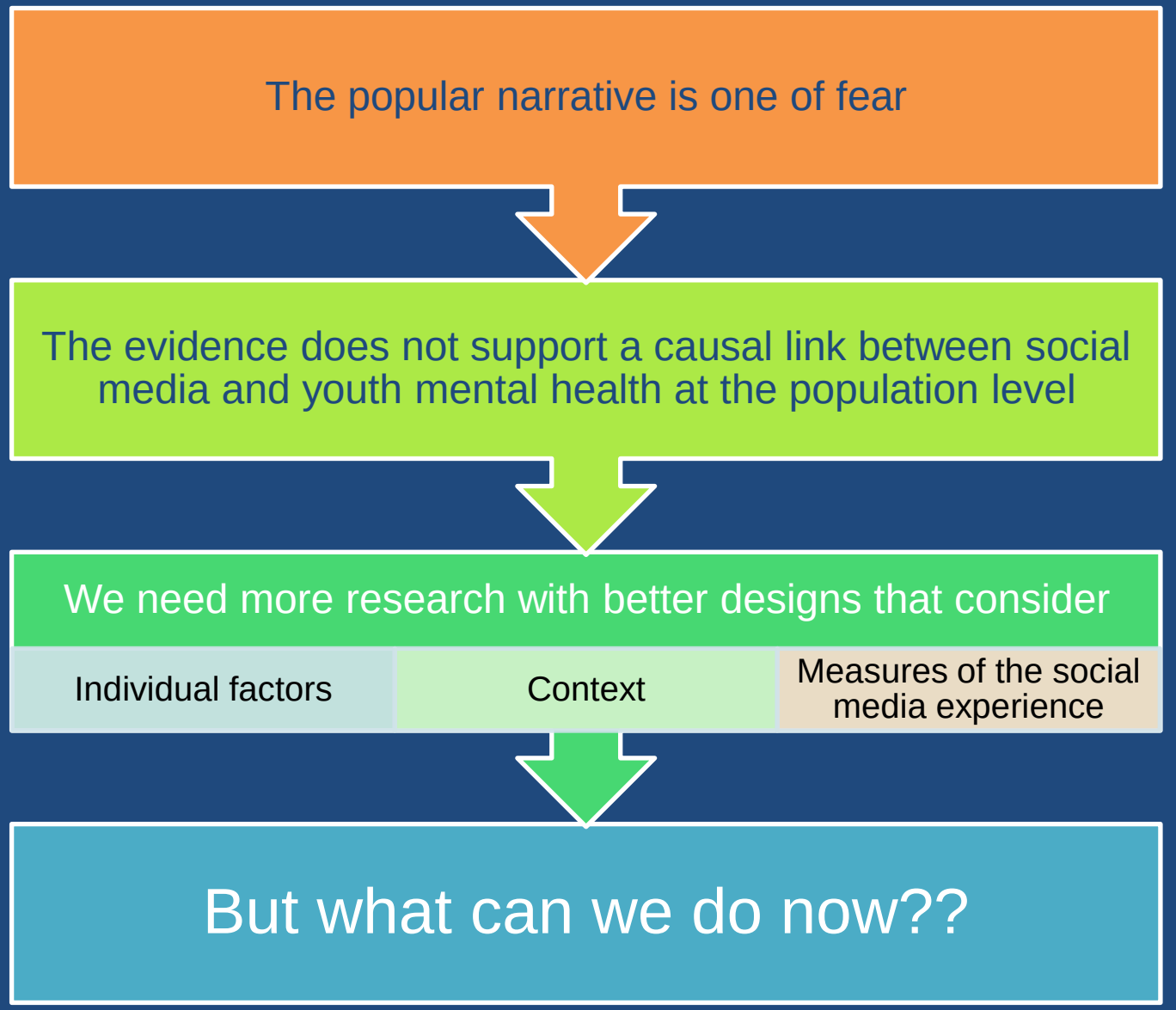
Hypothesis 3: Its complicated

- **Quality of use** may be more important than quantity
- Kross 2013: Ecological momentary assessment and well-being
  - "Passive" use was associated with negative outcomes
  - Active use and interaction with others was not associated with negative outcomes

Kross E et al. Facebook use predicts declines in subjective well being in young adults. PLOS one. 2013.

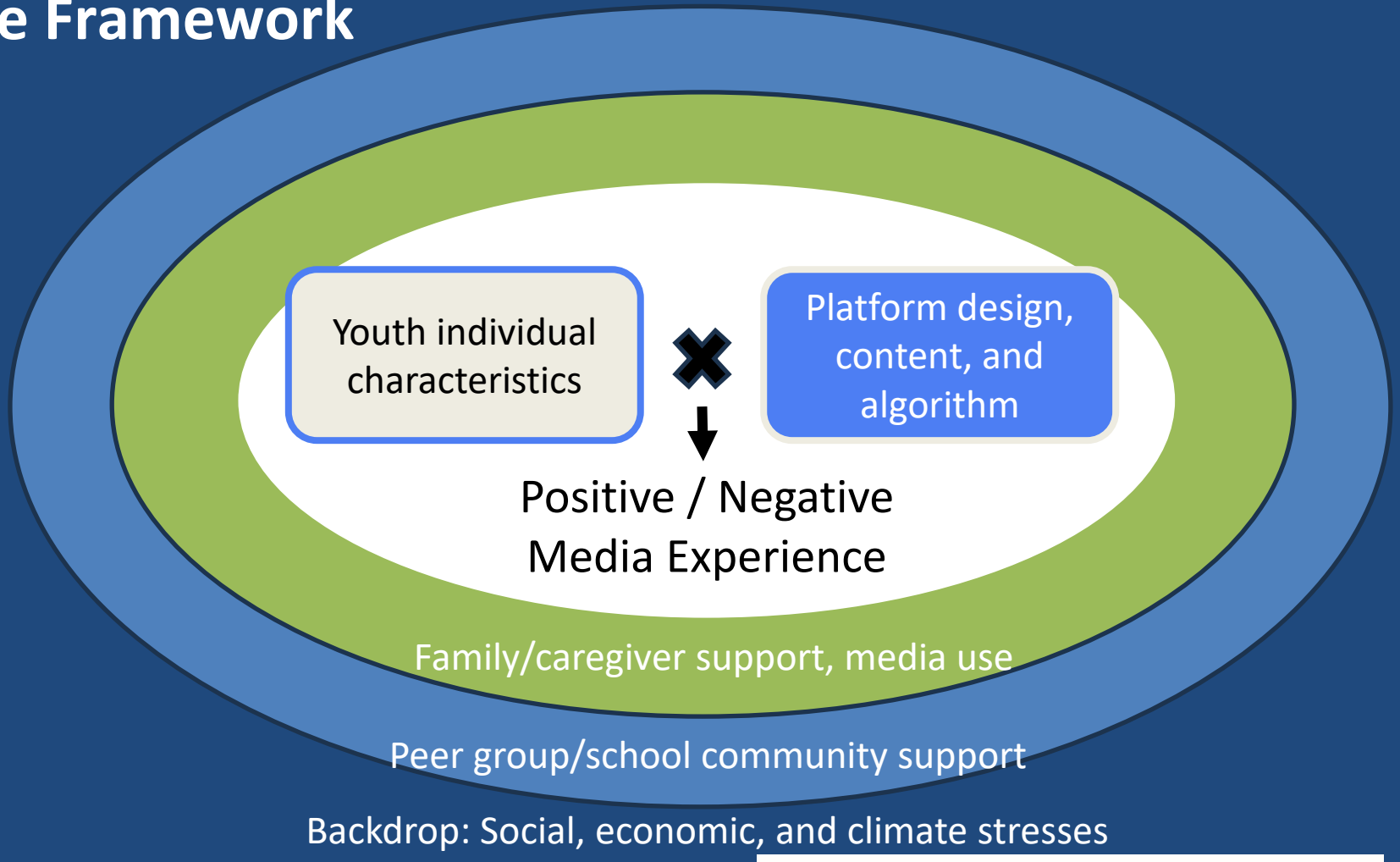
Where are we now?

Where are we now?



A new narrative:
The Center of Excellence Framework

1. Centering on the child/adolescent
2. Individual differences
3. Importance of context
4. Developmental lens
5. Digital ecosystem design



CENTER OF EXCELLENCE Social Media and Youth Mental Health
FROM THE AMERICAN ACADEMY OF PEDIATRICS

SAMHSA
Substance Abuse and Mental Health Services Administration

5 Cs of healthy media use

1. Child
2. Content
3. Calm
4. Crowding out
5. Communication

C=Child

Teens use media for many reasons and in many ways

- Social: Communicating with friends, building larger networks based on interests (e.g., fandoms), maintaining relationships
- Emotional: Seeking support, relieving stress
- Functional: Planning events, engaging around assignments
- Identity: Exploring sense of self, seeing reactions from others, finding communities and learning about others' identities
- Civic: Getting involved in activism and local community

C=Child

- Media use varies
  - Between individuals
  - Within individuals

C=Child: Questions to ask

What is your media use like these days?

Do you ever worry about any aspects of your media use? Can we talk through some of your concerns?

C=Child: Resource to consider

- Family Media Plan

C=Child: Resource to consider

- Family Media Plan

C=Content

- Developmentally appropriate for teens to be curious and seek out different types of content
- May lead to intentional or unintentional exposure to inappropriate, false or scary content
- Content can include visual, video and audio
- Algorithms may get teens stuck in a ‘content loop’

C=Content: Questions to ask

Tell me about some of the media content you've been enjoying lately

Have you seen any content that you'd like to check in on, like content that seemed inaccurate, or that made you feel worried or scared?

C=Content: Resource to consider

- Commonsense media
  - Ratings for apps, games, movies, television, movies
- Recommend co-viewing or co-playing with family members

C=Calm

- Very common for teens to use social media as a distraction or for emotional regulation
- Is this helpful?
  - Curated content can help with calm
  - But…..social media can always deliver a surprise

C=Calm

- Many teens aware of apps to help with calm
  - RCT of college students
  - 12 week study
  - Intervention: App use 10 minutes/day
  - Found improvements in stress, mindfulness and self-compassion
  - Effect size ranged moderate to large

Huberty J, Green J, Glissmann C, Larkey L, Puzia M, Lee C.
Efficacy of the Mindfulness Meditation Mobile App "Calm" to Reduce Stress Among College Students: Randomized Controlled Trial.
JMIR Mhealth Uhealth. 2019 Jun 25;7(6).

C=Calm

- Want teens to have a toolbox to help them calm and regulate emotions
  - Media, electronics, games, social media
  - Offline too
    - Music, reading, art, walks, outside, connection

C=Calm: Questions to ask

I know media can be a useful tool when you're feeling stressed, and its normal to use media as a distraction at times. I'd like to be sure you have a few options at hand, kind of like a calm toolbox. What other options do you have to calm yourself down that don't involve media?

What ideas would you like to try to add to your calm toolbox?

C=Crowd out

- Essential aspects of health
  - Physical activity
  - Sleep

C=Crowd out

- Meet teens where they are
- Avoid assumptions and too simple of solutions
  - Many teens use their phone as their alarm
  - Not all teens have private spaces outside their room to use their devices
  - Many teens acknowledge they struggle with sleep and want to talk about it
- How can tech be a tool
  - Physical activity: exercise videos, logging days, new ideas
  - Sleep: settings, sleep podcasts, listening to music, ASMR

C=Crowd out: Questions to ask

Let’s talk about how to be sure your devices aren’t having a negative impact on your sleep

- Settings
- Device placement
- Sleep routines and behaviors

How are you feeling about where your physical activity is these days?

- Do you feel like your media use is helping or harming your goals?

C=Crowd out: Resource to consider

- Family Media Plan: focus on physical activity and sleep

C=Communication

- Parent-child communication is critical across many domains of adolescent health
  - Parent-child communication about sex associated with increased prevention behaviors by teens
  - Parent-child communication about alcohol associated with delayed initiation and more protective behavioral strategies
- **Early and often is better than a single perfectly delivered monologue**

Widman L, Choukas-Bradly S, Noar S, Nesi J, Garrett K. Parent-Adolescent Sexual Communication and Adolescent Safer Sex Behavior: : A Meta Analysis. JAMA Peds. 2016 Jan; 170(1):52-61.
Kuntsche S, Kuntsche E. Parent-based interventions for preventing or reducing adolescent substance use - A systematic literature review. Clin Psychol Rev. 2016 Apr; 45:89-101.

C=Communication

What makes this tricky: Parent are using devices and social media too…

- Teens with positive media behaviors and wellbeing outcomes
  - More likely to have positive parent-child relationship
  - More likely to report low rates of social media use by parents
- Parent technology use
  - Associated with internalizing and externalizing problems
  - Negatively correlated with self-concept and social-emotional competence

Moreno M, Binger K, Zhao Q, Eickhoff J, Minich M, Uhls Y. Digital Technology and Media Use by Adolescents: Latent Class Analysis. JMIR Peds Parent. 2022 May 4;5(2).
Zhang J, Dong C, Jiang Y, Zhang Q, Li H, Li Y. Parental Phubbing and Child Social-Emotional Adustment: A Meta Analysis. Psychol Res Behav Manag. 2023 Oct 19;16:4267-4285.

C=Communication recommendations

- Check in early and often
- Parents: acknowledge you are working on this too
- Encourage parents to use sign-post language
  - “It looks like your grandma is calling and I’m worried about her health, so I’m going to answer this”
  - “I’m driving now so I’m setting my phone out of reach”
  - “Wow, I got carried away scrolling through that. I’m going to set an alarm next time.”

C=Communication recommendations

- Communication cards and activities
  - 10 and younger
  - Teens

C=Communication recommendations

- Center of Excellence
  - Q&A portal

How does a parent begin to set limitations on tech time where there are none? How does a parent deal with a spike in aggressive, tantrum behaviors due to new limitations?

08/01/2023

It's never too late to set some boundaries around technology with the goal of having more time for family, sleep, or other activities. With so much technology out there competing for your family's attention, if you don't create any boundaries, it's perfectly expected that screens would dominate your day...

I am looking for resources around social media to support middle school students at a public school. Could you make any recommendations please?

07/13/2023

5 Cs of healthy media use

- Child
- Content
- Calm
- Crowd out
- Communication

Learn more!

- Submit a question to our portal
- Consider joining as an ambassador
- Refer your patients to resources

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The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, SAMHSA/HHS or the US

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