

How Misinformation Spreads Online

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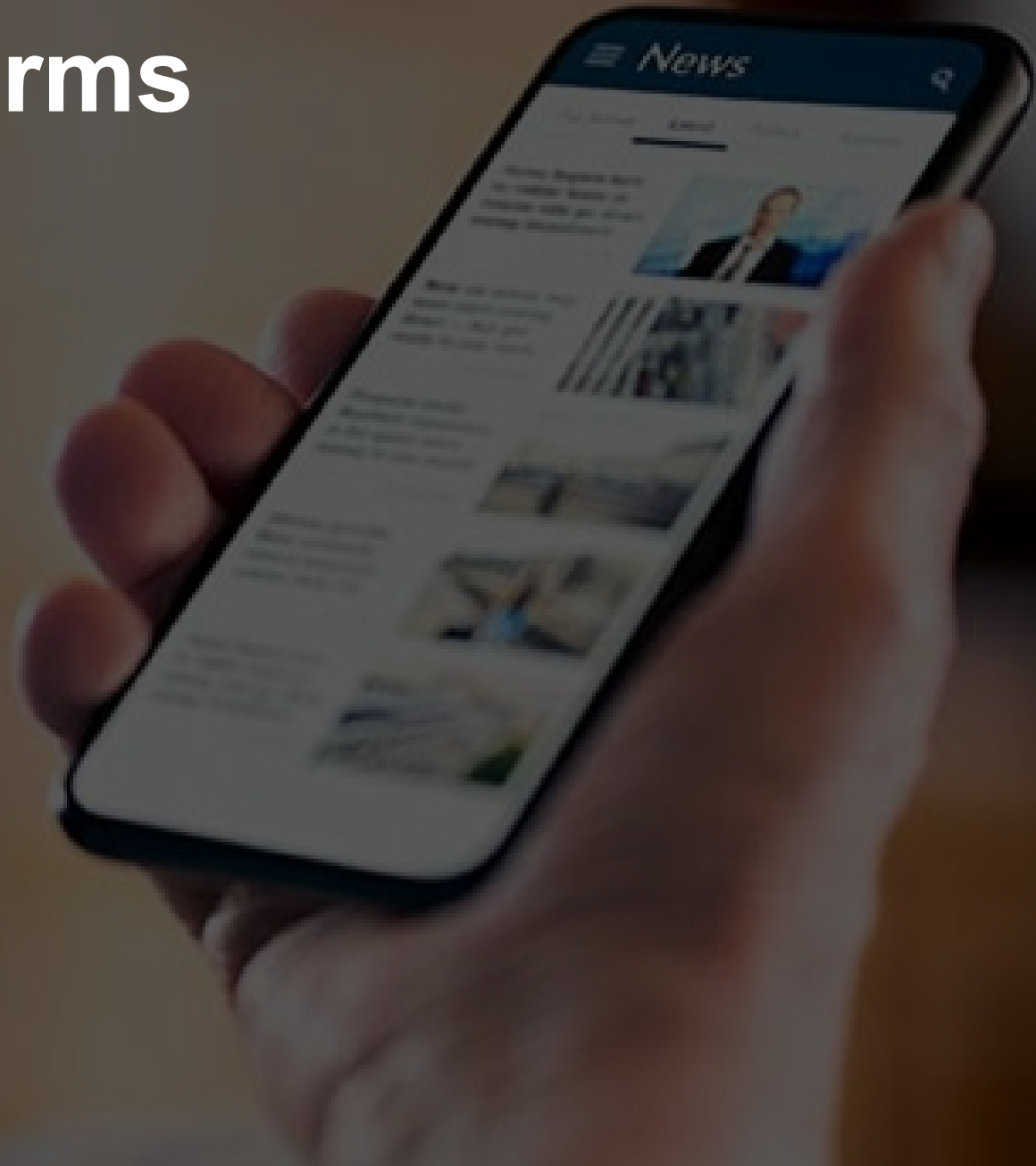
American Psychological Association

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Definitions of terms

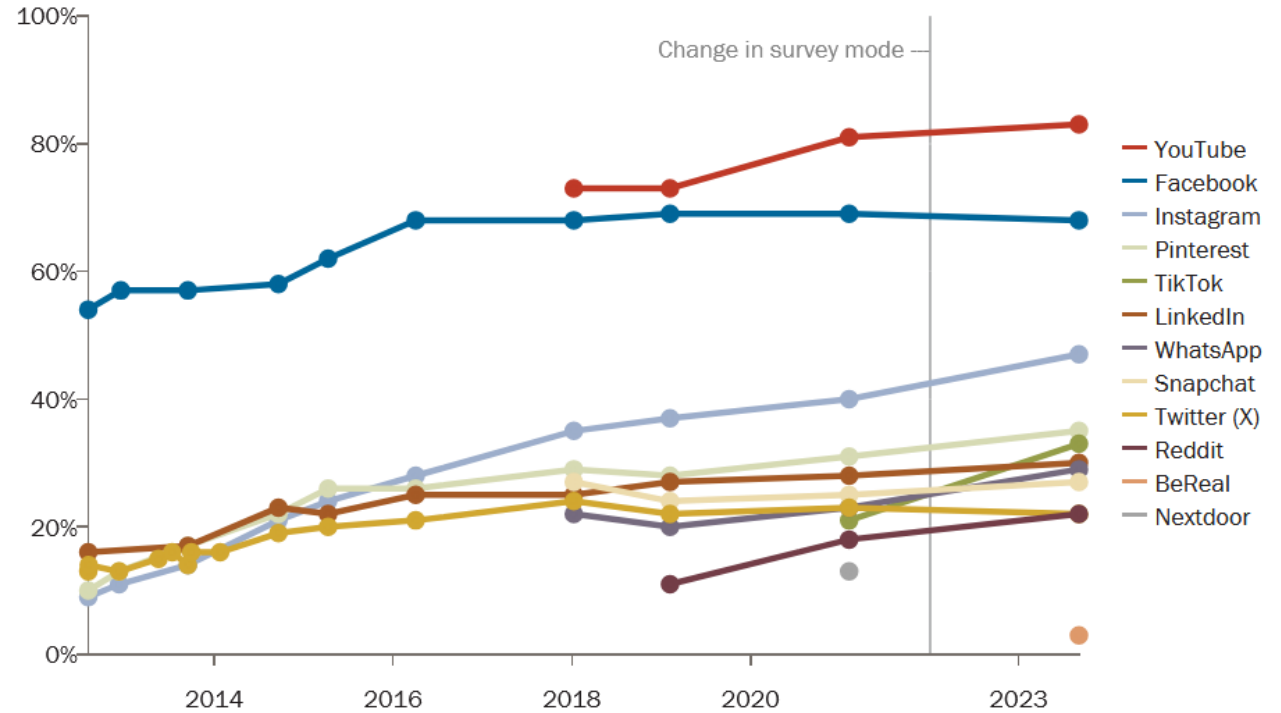
- Misinformation
- Disinformation
- Propaganda
- Fake news
- Deep Fakes



What is social media?

Which social media platforms are most popular

% of U.S. adults who say they ever use ...



Note: The vertical line indicates a change in mode. Polls from 2012-2021 were conducted via phone. In 2023, the poll was conducted via web and mail. For more details on this shift, please [read our Q&A](#). Refer to the topline for more information on how question wording varied over the years. Pre-2018 data is not available for YouTube, Snapchat or WhatsApp; pre-2019 data is not available for Reddit; pre-2021 data is not available for TikTok; pre-2023 data is not available for BeReal. Respondents who did not give an answer are not shown. Source: Surveys of U.S. adults conducted 2012-2023.

Mis- and disinformation on the Dark Web

- Not searchable by traditional search engines such as Google or Bing
- Accessible by certain software such as Tor
- Privacy, anonymity make illegal uses common
- Also used for private messages (Slack, WhatsApp)

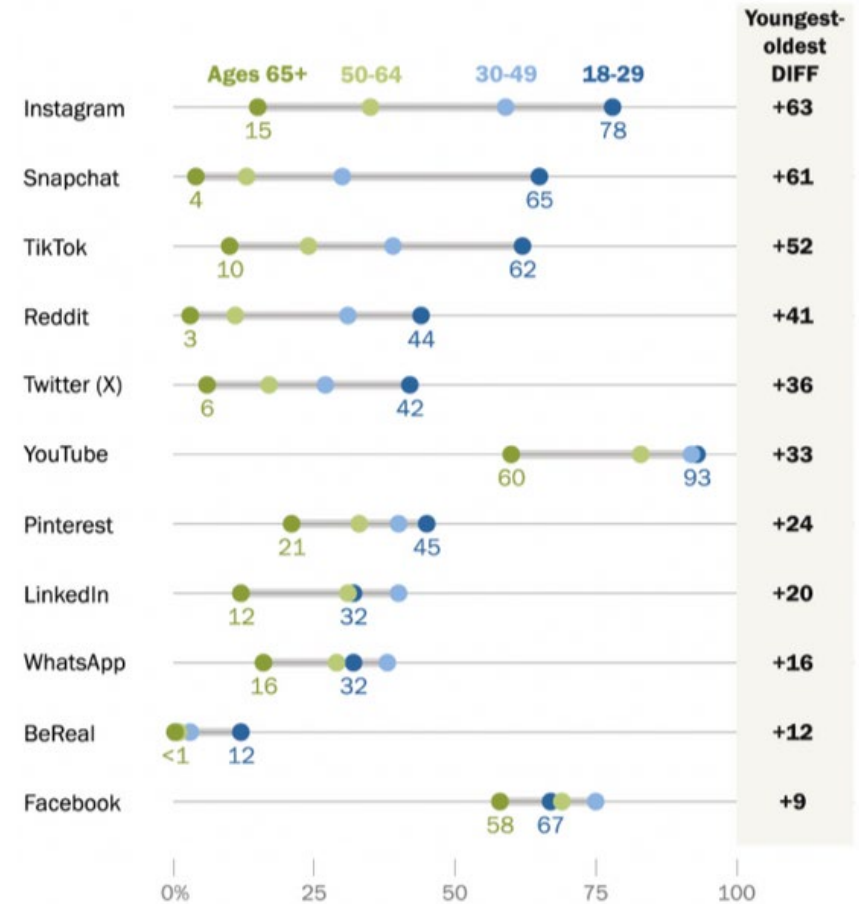
**Social media
neither
inherently
harmful nor
beneficial**

- Powerful opportunities to connect, socialize
- Some harmful effects – e.g., hate speech, cyberbullying
- Can Interfere with other life functions

Who uses each social media platform?

The youngest U.S. adults are far more likely to use Instagram, Snapchat and TikTok; age differences are less pronounced for Facebook

% of U.S. adults who say they *ever* use ...



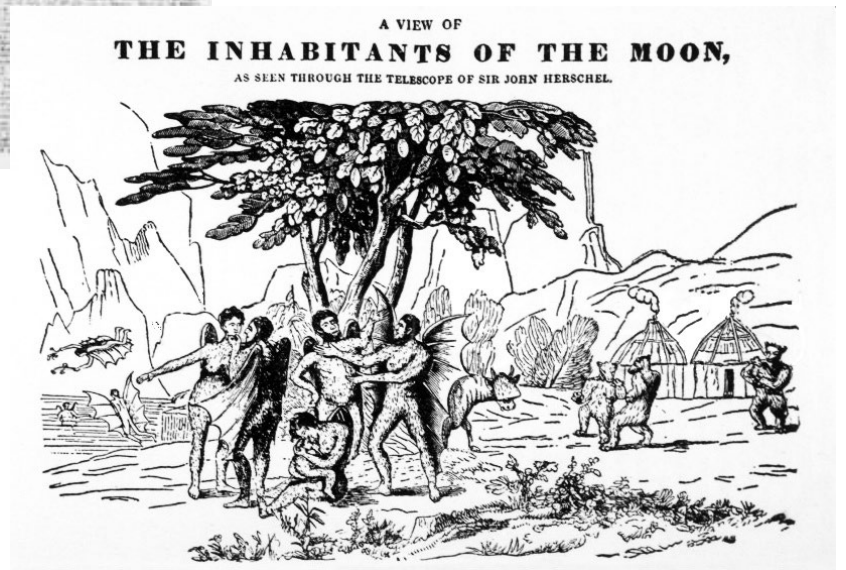
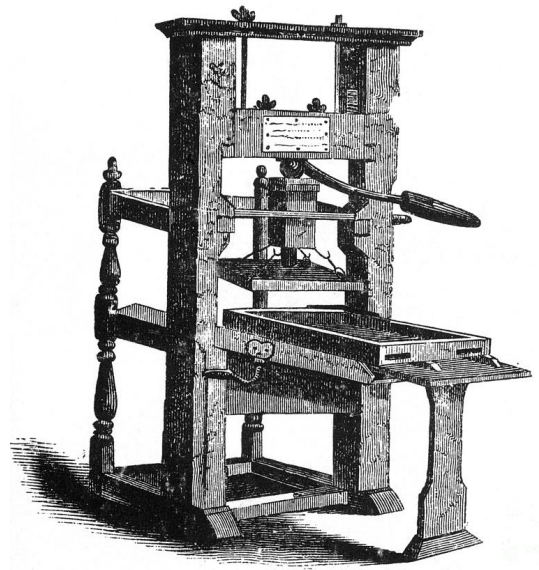
Note: All differences shown in DIFF column are statistically significant. The DIFF values shown are based on subtracting the rounded values in the chart. Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted May 19-Sept. 5, 2023.

"Americans' Social Media Use"

PEW RESEARCH CENTER

Mis/disinformation and fake news are not new



Mis/disinformation adapts to media



The New York Times.

NEW YORK, MONDAY, OCTOBER 31, 1938.

Radio Listeners in Panic, Taking War Drama as Fact

Many Flee Homes to Escape 'Gas Raid From Mars'—Phone Calls Swamp Police at Broadcast of Wells Fantasy

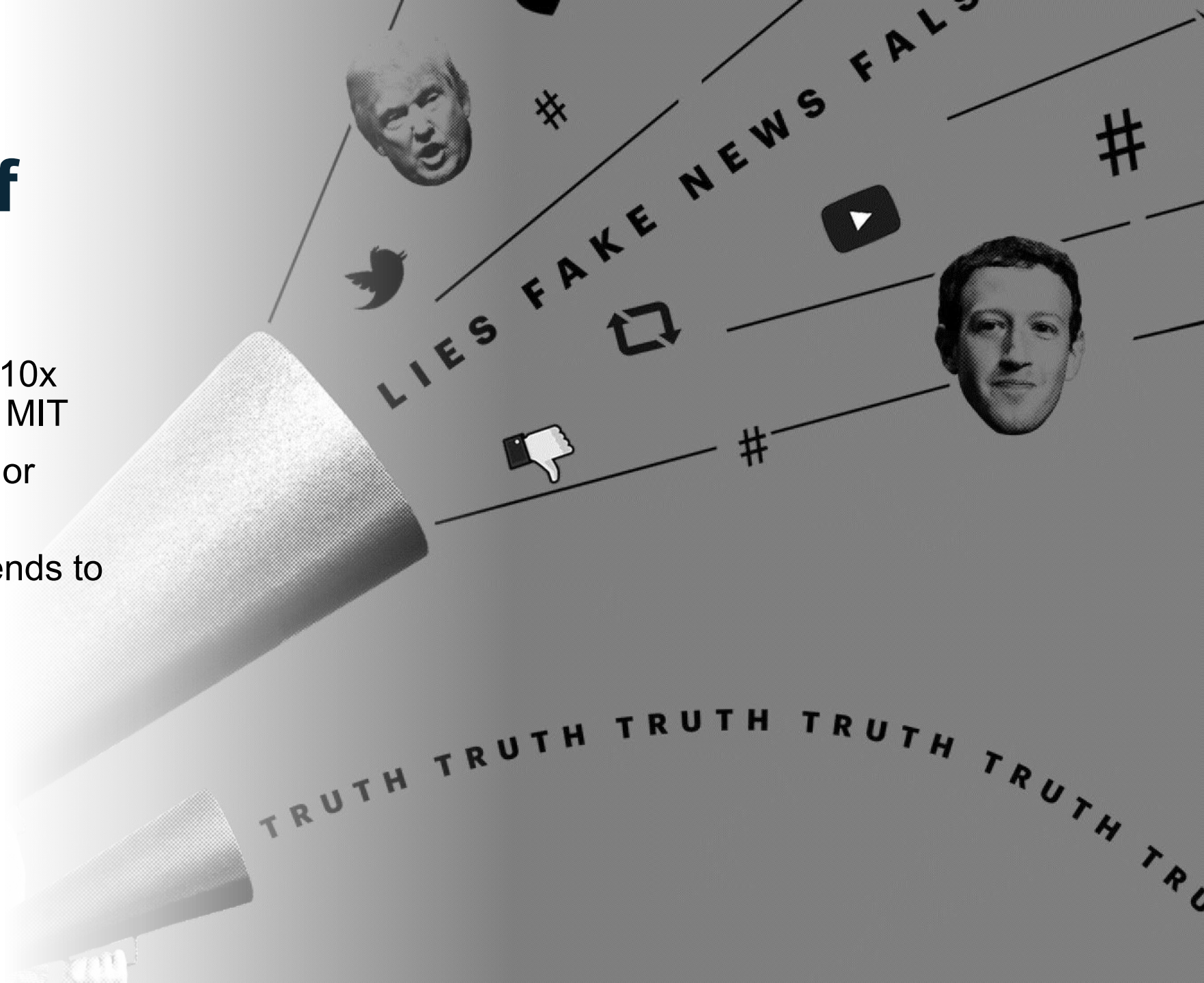
A wave of mass hysteria seized thousands of radio listeners throughout the nation between 8:15 and 9:20 o'clock last night when a broadcast of a dramatization of H. G. Wells's fantasy, "The War of the Worlds," led thousands to believe that an interplanetary conflict had started with invading Martians spreading wide death and destruction in New Jersey and New York.

and radio, stations here and in other cities of the United States and Canada seeking advice on protective measures against the raids. The program was produced by Mr. Walter and the Mercury Theatre on the Air over station WABC and the Columbia Broadcasting System's coast-to-coast network, from 8 to 9 o'clock. The radio play, as presented, was to simulate a regular radio pro-



Faster than the speed of light

- Fake news can spread 10x faster than legit news – MIT
- Corrections not viewed or believed
- False but outrageous tends to stick



The role of confirmation bias

- Three types
 - Biased attention – selective focus
 - Biased interpretation – conscious
 - Biased memory - selective



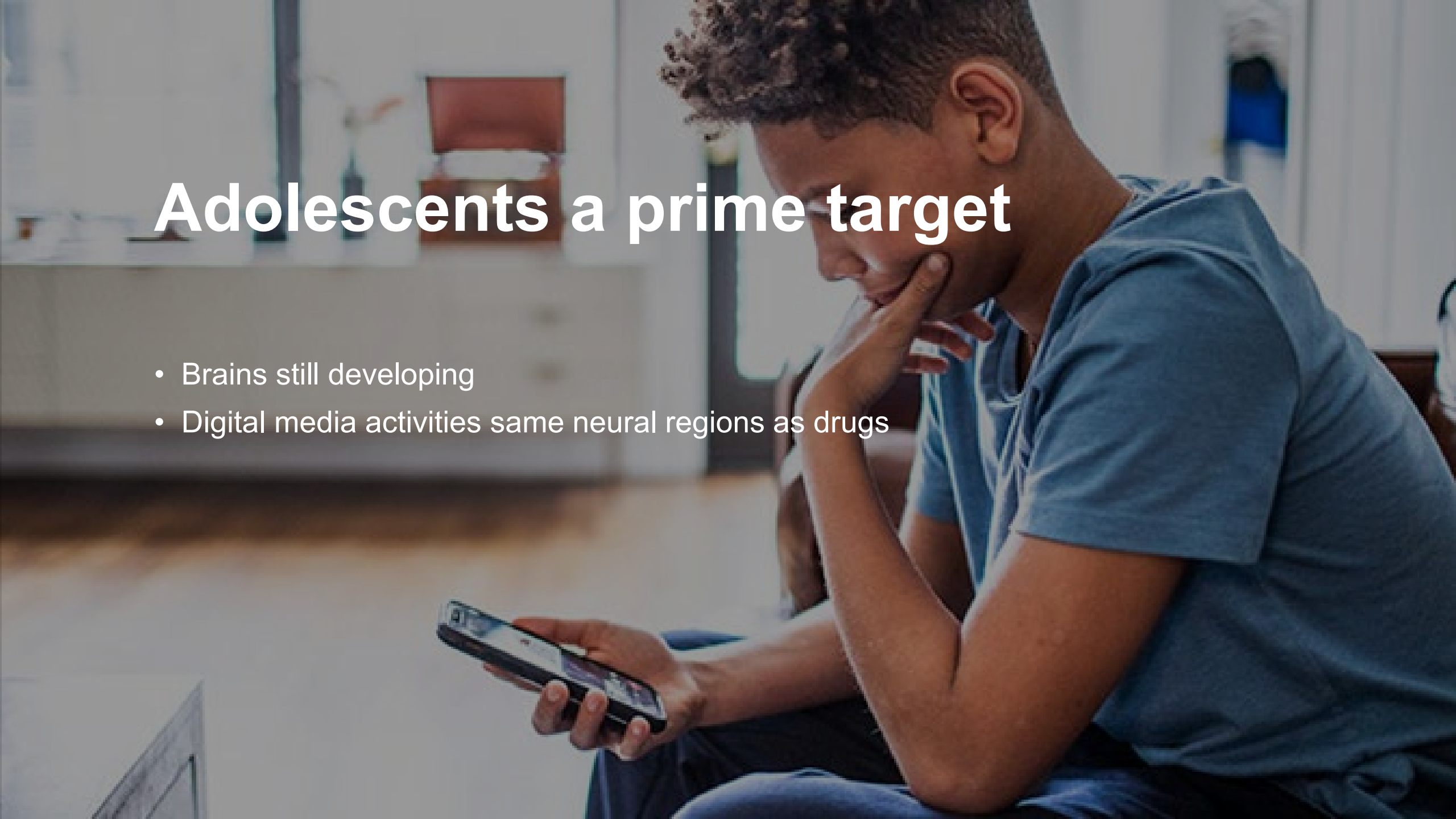
**Social media
stickiness/
“addiction”**

- No official diagnosis
- Addictive qualities

Revelations from TikTok lawsuit

- Designed to “addict” young people
- Habit formed after 260 video views
- 35 minutes

Adolescents a prime target

A young man with curly hair, wearing a blue t-shirt, is sitting on the floor. He is looking down at a smartphone in his right hand. His left hand is resting against his chin, suggesting he is thinking or listening intently. The background is a blurred indoor setting with a white wall and some furniture.

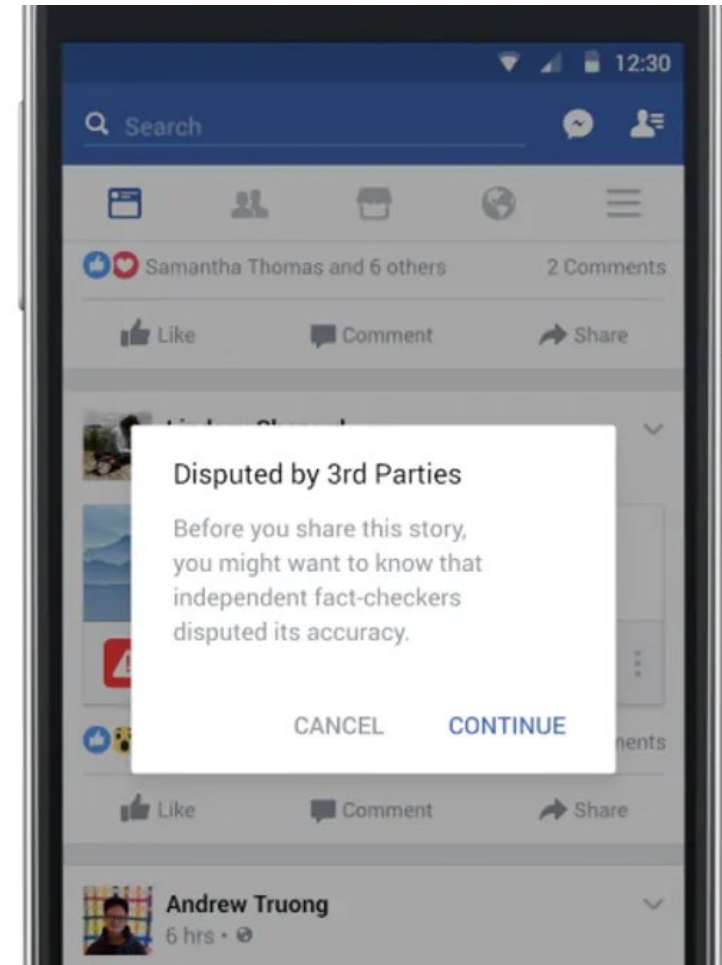
- Brains still developing
- Digital media activities same neural regions as drugs

Everyone is susceptible to believing mis/disinformation

- Exposure and repetition are key
- Believing is not necessary
- People share information they know is false

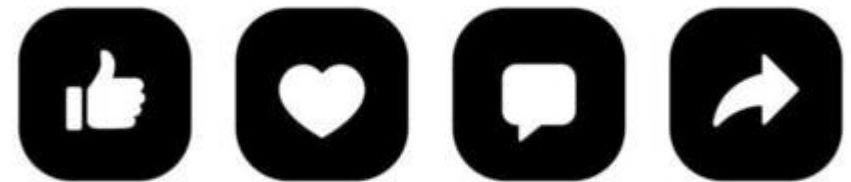
Why people spread mis/disinformation

- Signals political position
- Disparages perceived opponents
- Accrues social rewards



Psychological factors behind sharing

- Aligns with personal identity/social norms
- Novelty
- Elicits strong emotions



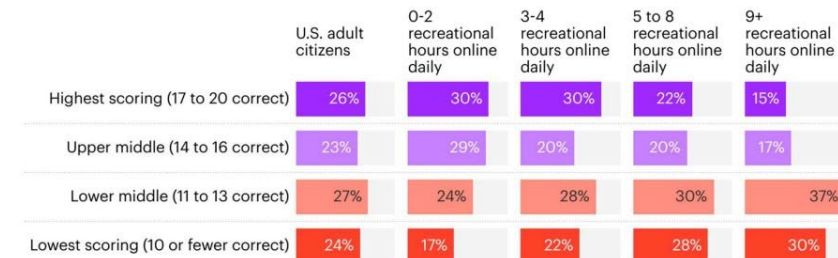
Who is most susceptible?

- **No standardized way of defining or measuring people's susceptibility to misinformation**
- **Many online tests, few psychometrically validated**
- **Older adults better at recognizing false info, but also likelier to spread it**

MIST: The Misinformation Susceptibility Test

- Discernment
- Real news detection
- Fake news detection
- Judgment bias

People who spend less recreational time online each day perform better on the Misinformation Susceptibility Test



Note: YouGov showed U.S. adult citizens a randomized set of 20 headlines — 10 of which were real headlines and 10 of which were fake — and asked people to say whether they believed each headline was real or fake. This survey design comes from The Misinformation Susceptibility Test: (<https://doi.org/10.3758/s13428-023-02124-2>). Recreational hours online daily are based on responses to the question, "On average, how much recreational time (non-work) do you spend online per day?"

How misinformation spreads

- Rapid publication/peer-to-peer sharing
- Algorithms track user engagement
- Susceptibility varies

The illusory truth effect

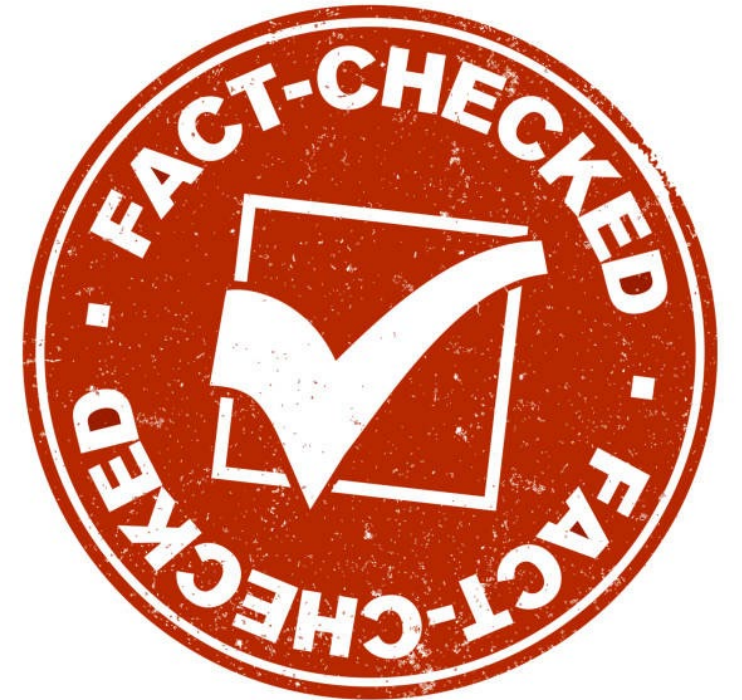
- People are more likely to believe repeated information
- Educational attainment, analytical reasoning, numeracy skills can increase resistance

How to stop the spread

- System-level approaches – e.g., legislation, technology standards
- Individual-level interventions focused on changing individual behaviors

Individual approaches

- Debunking
- Prebunking
- Nudging
- Literacy training



APA's recommendations

- Avoid repeating misinformation without including correction
- Use misinformation correction strategies with proven tools
- Leverage trusted sources to counter misinformation and provide accurate health information.
- Debunk misinformation often and repeatedly using evidence-based methods.
- Prebunk misinformation to inoculate susceptible audiences

APA's actions

- Collaborating with social media companies to understand and reduce the spread of harmful misinformation
- Demanding data access and transparency from social media companies
- Called on Congress to fund research into the psychology of health misinformation



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Thank you!

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