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Teen attention problems not tied to gaming

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The digital revolution has become a vast, unplanned experiment – and children are its most exposed participants. As ADHD diagnoses rise around the world, a key question has emerged: could the growing use of digital devices be playing a role?



To explore this, we studied more than 8000 children, from when they were around 10 until they were 14 years of age. We asked them about their digital habits and grouped them into three categories: gaming, TV/video (YouTube, say) and social media.

The latter included apps such as TikTok, Instagram, Snapchat, X, Messenger and Facebook. We then analysed whether usage was associated with long-term change in the two core symptoms of ADHD: inattentiveness and hyperactivity.

Our main finding was that social media use was associated with a gradual increase in inattentiveness. Gaming or watching videos was not. These patterns remained the same even after accounting for children's genetic risk for ADHD and their families' income.

We also tested whether inattentiveness might cause children to use more social media instead. It didn't. The direction ran one way: social media use predicted later inattentiveness.

The mechanisms of how digital media affects attention are unknown. But the lack of negative effect of other screen activities means we can rule out any general, negative effect of screens as well as the popular notion that all digital media produces "dopamine hits", which then mess with children's attention.

As cognitive neuroscientists, we could make an educated guess about the mechanisms. Social media introduces constant distractions, preventing sustained attention to any task.

If it is not the messages themselves that distract, the mere thought of whether a message has arrived can act as a mental distraction. These distractions impair focus in the moment, and when they persist for months or years, they may also have long-term effects.

Gaming, on the other hand, takes place during limited sessions, not throughout the day, and involves a constant focus on one task at a time.

The effect of social media, using statistical measures, was not large. It was not enough to push a person with normal attention into ADHD territory. But if the entire population becomes more inattentive, many will cross the diagnostic border.

Theoretically, an increase of one hour of social media use in the entire population would increase the diagnoses by about 30%. This is admittedly a simplification, since diagnoses depend on many

factors, but it illustrates how even an effect that is small at the individual level can have a significant effect when it affects an entire population.

Alot of data suggests that we have seen at least one hour more per day of social media during the last decade or two. Twenty years ago, social media barely existed. Now, teenagers are online for about five hours per day, mostly with social media.

The percentage of teenagers who claim to be “constantly online” has increased from 24% in 2015 to 46% in 2023. Given that social media use has risen from essentially zero to around five hours per day, it may explain a substantial part of the increase in ADHD diagnoses during the past 15 years.

Some argue that the rise in the number of ADHD diagnoses reflects greater awareness and reduced stigma. That may be part of the story, but it doesn’t rule out a genuine increase in inattention.

Also, some studies that claim that the symptoms of inattention have not increased have often studied children who were probably too young to own a smartphone, or a period of years that mostly predates the avalanche in scrolling.

Social media probably increases inattention, and social media use has rocketed. What now?

The United States requires children to be at least 13 to create an account on most social platforms, but these restrictions are easy to outsmart.

Australia is currently going the furthest. From December 10, 2025, media companies will be required to ensure that users are 16 years or above, with high penalties for the companies that do not adhere. Let’s see what effect that legislation will have. Perhaps the rest of the world should follow the Australians.

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