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## **1** It is time to end phone-based childhoods!

We know that teen mental-health in the U.S. went off the rails in the 2010s (see <u>articles</u>). That was the decade when adolescents in rich countries traded in their flip phones for smartphones and moved much of their social lives onto social-media platforms specifically *designed for virality and addiction*. Rates of depression and anxiety in the U.S.—fairly stable in the 2000s—spiked by more than 50% in many studies from 2010 to 2019. **The suicide rate rose 48% for adolescents aged 10 to 19. For girls aged 10 to 14, it rose 131%,** according to the CDC. (See <u>articles</u>).

But there's more. **As the oldest members of Gen Z reach their 20s, their struggles are spilling over into adulthood.** Young adults are dating less, are having less sex, are more likely to live with their parents, and showing less interest in having children than previous generations (see *WILTW* February 15, 2024). They are shyer and more risk-averse and as a result **may be less ambitious.** Jonathan Haidt explores why this is happening in his new book, *The Anxious Generation: How The Great Rewiring Of Childhood Is Causing An Epidemic of Mental Illness.* 

His thesis is essentially this: with a portal in their pockets, kids are withdrawing from the real world into a darker and darker virtual one that offers them little in the way of real-world skills, be it in love or at work.

## 2

### "The Great Rewiring of Childhood." Why Gen Z has the worst mental health of any generation going back to World War II.

Since reading David Brooks' astonishing new book, *How To Know a Person: The Art of Seeing Others Deeply and Being Deeply Seen*, we have been studying the deeper meaning behind its troubling statistics (see <u>articles</u>). Why have rates of depression, self-harm, and anxiety surged among adolescents in the 21st-century? Why do so many people, including 61% of young adults in the U.S., feel lonely almost all of the time? Today, more than one in four American youth (aged 12-17) report having had a major depressive-episode in the last year, compared to one in ten in 2010, according to the CDC. Shockingly, almost a quarter of them have made a suicide plan. (See articles).

**Starting around 2012, teen mental-health in America collapsed.** In one of the most horrifying and unprecedented trends of the 21st century, young teenage girls were hospitalized for self-harm in 2020 at around *three times the rate* they were in 2010.

This deep distress is not just an American problem. It also shows up in <u>Britain</u>, <u>Canada and Australia</u>.

**Technology, not politics or markets, was what changed in all these countries around 2012.** That was the year that Facebook bought Instagram and the word "selfie" entered the popular lexicon. In 2009, fewer than 50% of eighth-grade girls reported near-daily use of what were then called "social-networking sites." By 2014, more than 80% did, according to Jean Twenge, author of the recent book "iGen."

Today, we are facing a public-health crisis of global proportions.

# **3** How does technology rewire the intricate circuitry of the teenage mind?

In an era dominated by digital advancements, the impact of smartphones and tablets on the developing brain has become a subject of intense concern. Neuroscience research in this area, still in its early stages, grapples with the uncertain long-term implications of increased technology use among young people. Nonetheless, existing studies have revealed a nuanced interplay between the digital landscape and neurodevelopment—providing insight into the profound ways technology has left its mark on the evolving brains of today's youth.

We have written at length on how the prevalence of portable technology and the ease of access it provides to social media platforms are associated with heightened levels of teen depression and anxiety. A new study conducted by Seoul's Hanyang University Medical Center analyzed CDC data on more than 50,000 American teens. It found that teens who use their smartphones excessively are 66% more likely to report substance use and 22% more likely to contemplate suicide than their peers. **Researchers have confirmed a direct correlation between smartphone use and worsening mental well-being.** 

Contrary to previously-held beliefs, abundant research has shown that the brain remains plastic beyond adolescence until the early- to mid-twenties. This is because the prefrontal cortex takes nearly two decades to fully mature. **It is during the gradual development of this brain region that the majority of mental illnesses emerge.** Yet, as kids start using devices at younger ages, the growth of the prefrontal cortex is impaired, exacerbating difficulties in emotion regulation.

Smartphone addiction is getting worse among younger demographics, but all of us have experienced attachment to a device no matter what age. This stems from the feedback loops that smartphone apps operate on—fueled by dopamine, or the "feel-good" neurotransmitter that powers pleasure systems. Dopamine feeds motivation, learning, and reward centers—prompting the repetition of previously-satisfying activities. Studies most notably conducted at Harvard and Stanford have demonstrated that social media and messaging notifications are equally if not more—effective at eliciting dopamine production as real-world interactions. The effortless replacement of real connections with virtual ones even concerns Chamath Palihapitiya, former Vice President of User Growth at Facebook. At a 2018 lecture at Stanford Graduate School of Business, Palihapitiya remarked, "I feel tremendous guilt... The short-term, dopaminedriven feedback loops that we created are destroying how society works." Essentially, the always-accessible social world that smartphones offer is chipping away at our humanity.

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