SOCIAL, EMOTIONAL AND COGNITIVE IMPACT OF DIGITAL DEVICES ON MINORS' HEALTH

ALBERTO PELLAI – MD Ph.D, Developmental Age Psychotherapist

Medical School at Milano State University

THE PROBLEM FROM A PARENT'S PERSPECTIVE

Life as a mother has become a war since digital devices have entered the children's lives. I would never have wanted them before 3, but we were unable to resist our pre-teen son's demands for approval. The day became a marathon, between mobile phones and PC's, parental control and family links. A back-and-forth between changing limits to search for school, scheming to increase exposure time... it feels like living with a drug addict, and this hurts me a lot, as well as a growing anger towards the outside world and towards a society I am beginning to detest. We parents are alone while our children are continuously violated before our eyes... These manipulated rules, strategies and deceitfulness is exhausting for everyone... psychological support is needed for the whole family because sometimes there are children in the home who struggle more than others and are more prone to addiction... unfortunately this is what it is all about, digital drugs, and we should talk about it in these terms without hiding... we have withdrawal crises and violent outbursts of rage at times.... how do we do it? It becomes a huge task to manage... excuse the outburst of a mother who has been struggling and seeking advice and solutions for three years, trying everything... I often regret the day when mobile phones, consoles, and PCs came into the house for my children.... with the experience I have today I would resist it with all my heart.

Online activity putting the child at risk....

- Sexting,
- Internet Gaming Disorder
- Online Sex and Porn Abuse and Addiction
- Hating online
- Grooming Online
- Revenge Porn

We empower parents to say yes to waiting for the smartphone.

TEN GOOD REASONS TO WAIT UNTIL 14

DOES NOT RESPOND TO THE PRINCIPLE OF STAGE SPECIFICITY

REDUCES THE LIKELIHOOD OF ACADEMIC SUCCESS

INTERFERES WITH THE NORMAL DEVELOPMENT OF THE MIND

IMPACTS ON HEALTH

REDUCES EMPATHIC SKILLS

PROMOTES EMOTIONAL DYSREGULATION

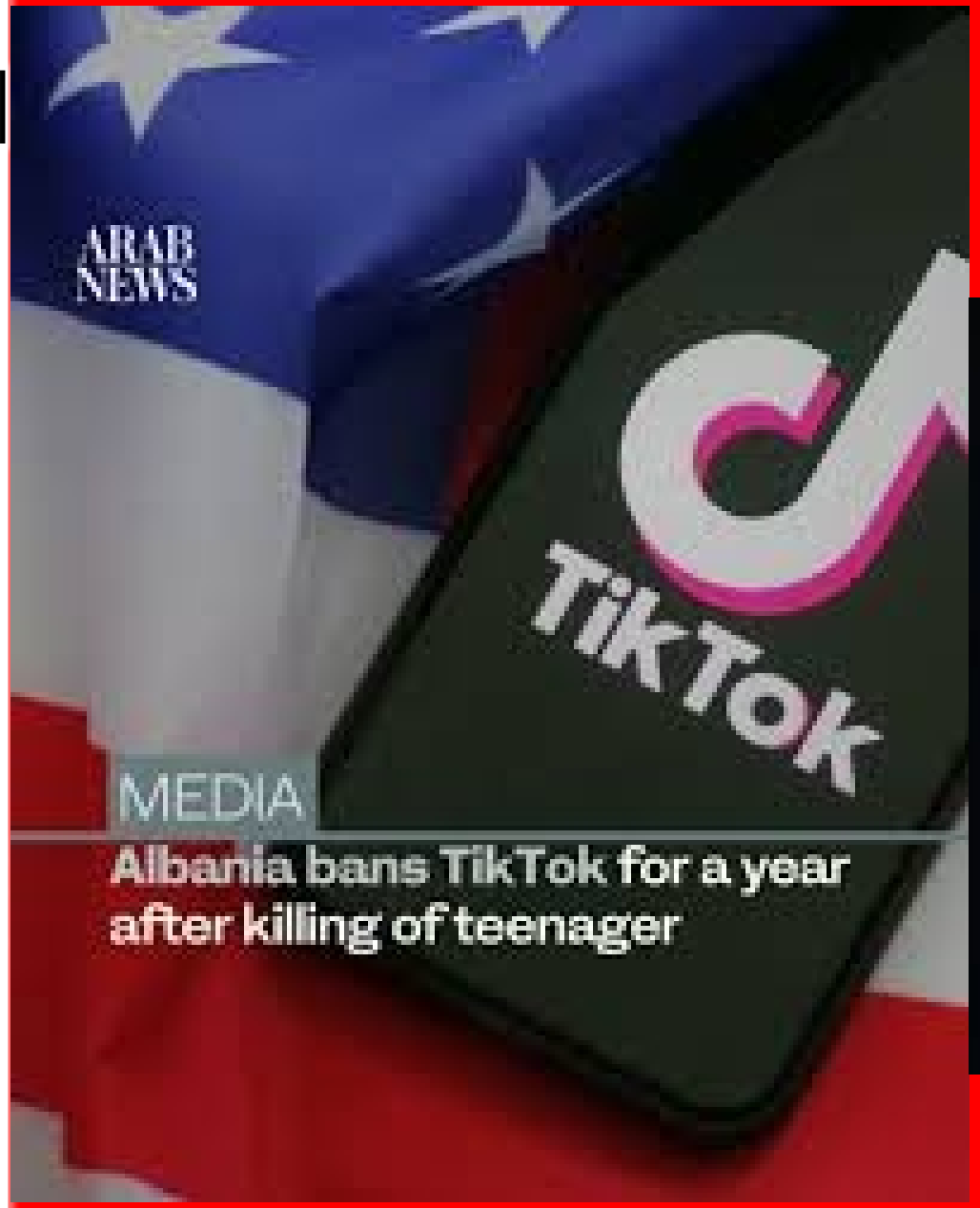
CREATES ANXIETY AND ADDICTION

GENERATES SEXUAL DISEDUCATION

INTERFERES WITH THE NEED FOR SLEEP

DOES NOT INCREASE THE SENSE OF PROTECTION

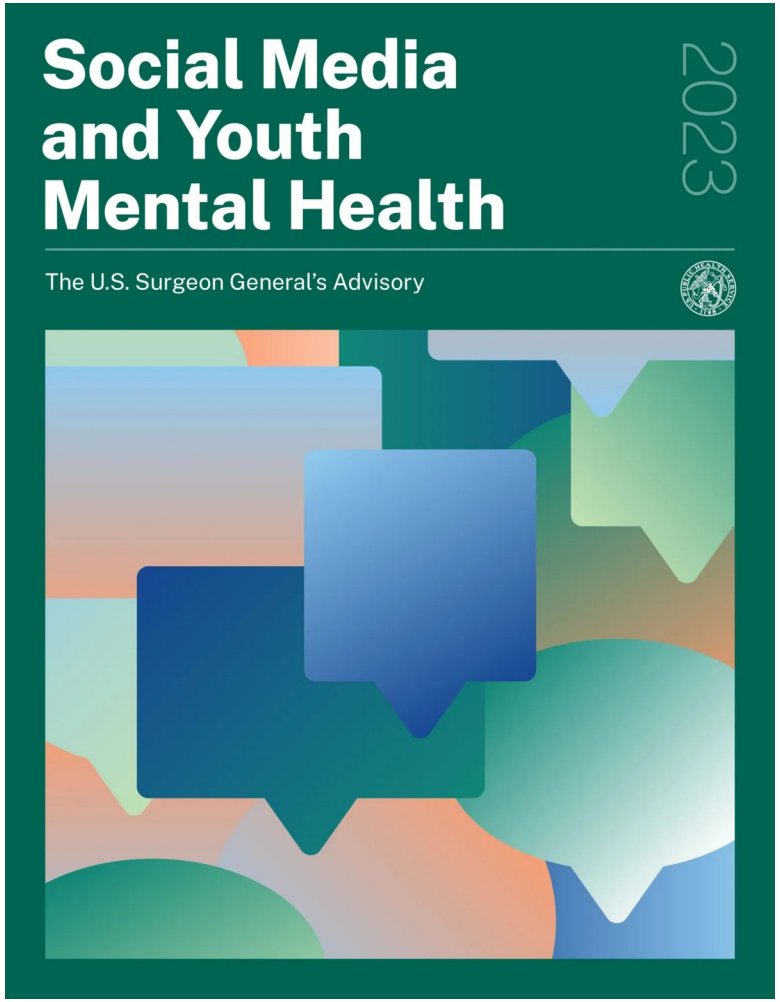

FRANCE 24
1 IN 5 AUSTRALIANS CYBERBULLIED
AUSTRALIA
A new law to ban children under 16 from social media


ARAB NEWS
TikTok
MEDIA
Albania bans TikTok for a year after killing of teenager


VOA
Albanian PM says TikTok ban was not 'rushed reaction to a single incident'

A PUBLIC HEALTH ISSUE

This document is a public statement drawing the attention of the American people to an urgent public health problem and providing recommendations on how to address it'.



WHO IS THE GENERAL SURGEON? He is the head of the Public Health Service and spokesman for public health issues within the federal government.

THE 4 POINTS OF THE GENERAL SURGEON ADVISORY

- The use of social media in the adolescent population is now almost universal
- While social media also provides benefits to the lives of those growing up, it presents a significant risk of harm to the health of adolescents
- We cannot claim that social media is a safe environment for the health of minors
- Immediate action must be taken to make social media a safer territory for those growing up.

THE EVIDENCE IN THE REPORT

The most recent epidemiological studies show that teenagers spend an average of 3.5 hours a day on social media and when asked what impact social media has on their lives, 45% of 13-17 year olds say it makes them feel worse about their body image.

WHAT’ S DRIVING THE GROWING CONCERNS

- Social media may perpetuate body dissatisfaction, disordered eating behaviors, social comparison, and low self-esteem, especially among adolescent girls.
- When asked about the impact of social media on their body image: 46% of adolescents aged 13-17 said social media makes them feel worse, 40% said it makes them feel neither better nor worse, and only 14% said it makes them feel better.
- Roughly two-thirds (64%) of adolescents are “often” or “sometimes” exposed to hate-based content.
- Some social media platforms show suicide- and self-harm-related content including even live depictions of self-harm acts, content which, in certain tragic cases, has been linked to childhood deaths.

THE BRAIN IN DEVELOPMENTAL AGE

WHAT HAPPENS TO THE MIND OF A PRE-ADOLESCENT?

WHAT HAPPENS IN THE MIND OF A PRE-ADOLESCENT?

HOW DO THESE 'MENTAL' PROCESSES CONDITION THE EDUCATIONAL RELATIONSHIP?

The brain

Neuroscience has shed light on the structure of the brain and its development during growth and how these developmental changes profoundly affect behaviour.

Imagine that the brain is like a three-storey house.

0

GROUND FLOOR

Here we find all the functions associated with survival: a kind of control unit that is activated whenever survival is at risk.

1 

First Floor

Here the emotional brain is found, where all the information related to what we 'feel' is processed: pain and pleasure, joy and sadness, anger and fear are all regulated in this area.

2 

Second Floor

Here we find the cognitive functions, i.e. the ability to produce thought, to reflect on actions, to predict the consequences of what we do or might do.

THE CONTRIBUTION OF NEUROSCIENCE: WHY REGULATING ONLINE BEHAVIOURS IS VERY DIFFICULT FOR PRE-TEENS AND YOUNG TEENS

With the support of neuroscientists who - thanks to neuro-imaging - have discovered what happens to the human brain during childhood and adolescence, we now understand why especially in pre-adolescence and early adolescence, young people indulge in “sensation seeking behaviors” such as those available online.

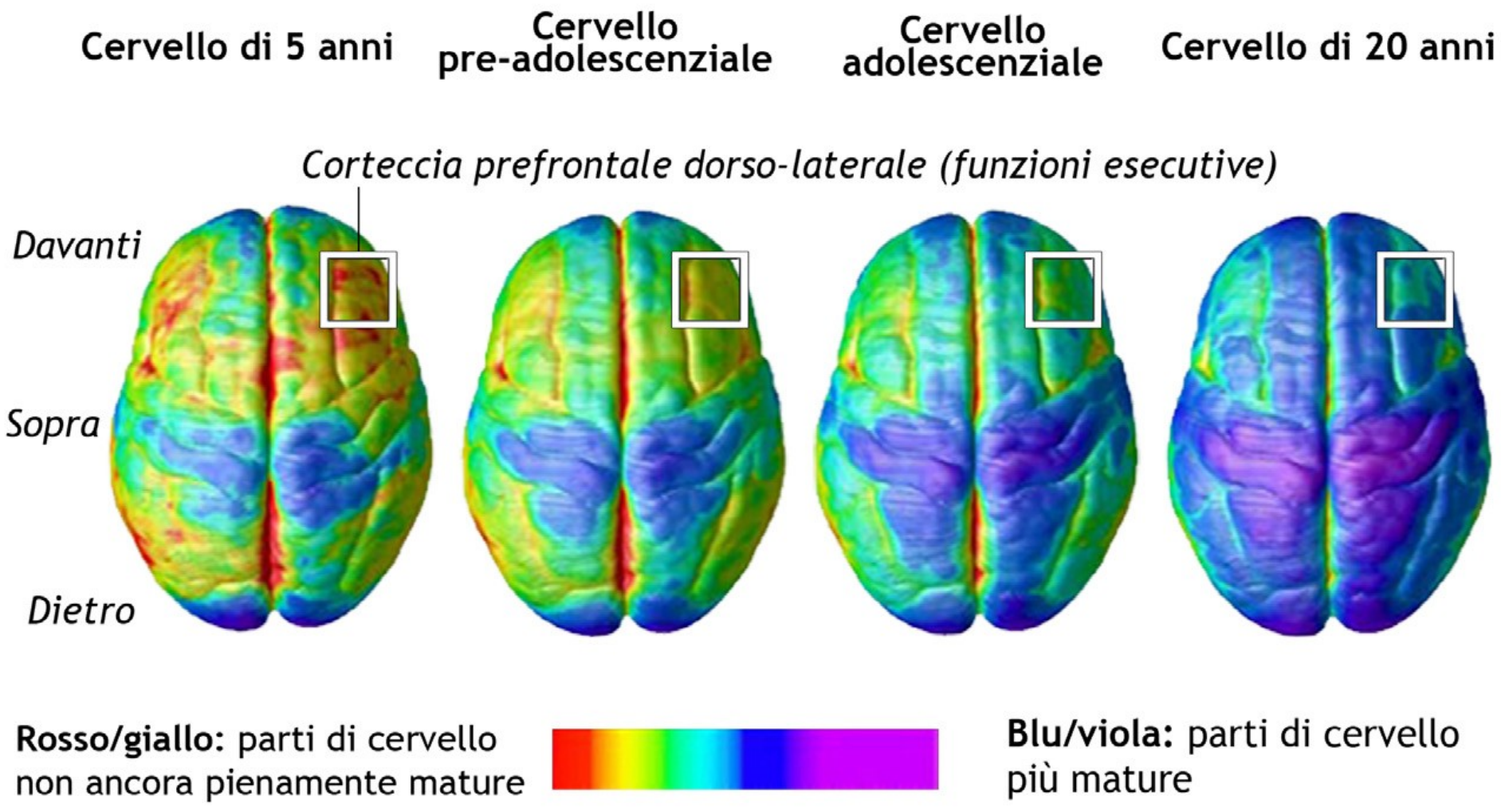
THE CONTRIBUTION OF NEUROSCIENCES

During childhood, pre-adolescence and adolescence the brain is much more developed in its limbic area, while it is still immature in its PFC area. Consequently, often among minors, the emotional brain takes control of the situation leaving the individual unable to act with the mediation and regulation role played by the PFC cognitive processes.

THE CONTRIBUTION OF NEUROSCIENCES

The prefrontal cortex is the decision-making part of the brain, responsible for your child's ability to plan and think about the consequences of actions, solve problems and control impulses. Changes in this part of the brain continue into early adulthood.

Because the prefrontal cortex is still developing, teenagers might rely on a part of the brain called the amygdala to make decisions and solve problems more than adults do. The amygdala is associated with emotions, impulses, aggression and instinctive behaviour.


Cervello di 5 anni
Cervello pre-adolescenziale
Cervello adolescenziale
Cervello di 20 anni
Corteccia prefrontale dorso-laterale (funzioni esecutive)
Davanti
Sopra
Dietro
Rosso/giallo: parti di cervello non ancora pienamente mature
Blu/viola: parti di cervello più mature

THE CONTRIBUTION OF NEUROSCIENCES

The child's and adolescent's brain finds it very difficult to integrate messages coming from its limbic area that is very sensitive to social and emotional stimuli - such as those dealing with sexuality, excitement and arousal with those coming from the prefrontal cortex(PFC), where most of the cognitive processes occur, aiming at decision making, problem solving and critical thinking (skills needed to be able to assess risk and prevent it).

THE CONTRIBUTION OF NEUROSCIENCES

Prevention must provide young people with the skills to use and integrate both sides of the brain (emotional and cognitive) in a cooperative and pro-active way. This must occur in all situations where there is a great need for problem solving – where the emotional brain tries to trap potentially defensive contributions from the cognitive brain and turn to what is nurturing its appetite for high sensation seeking.

SENSATION SEEKING

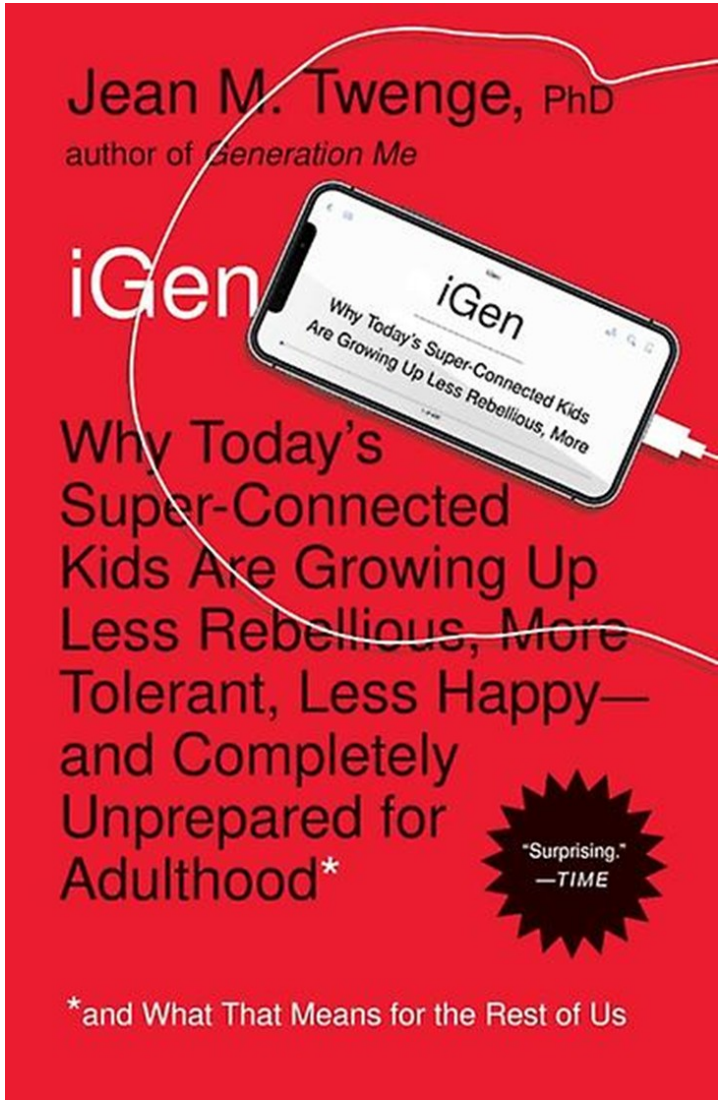
RISK TAKING


HAPPINESS CHEMICALS
and how to hack them
DOPAMINE
THE REWARD CHEMICAL
· Completing a task
· Doing self-care activities
· Eating food
· Celebrating little wins
OXYTOCIN
THE LOVE HORMONE
· Playing with a dog
· Playing with a baby
· Holding hand
· Hugging your family
· Give compliment
SEROTONIN
THE MOOD STABILIZER
· Meditating
· Running
· Sun exposure
· Walk in nature
· Swimming
· Cycling
ENDORPHIN
THE PAIN KILLER
· Laughter exercise
· Essential oils
· Watch a comedy
· Dark chocolate
· Exercising
| TheMindsJournal
MINDJOURNAL

PROVOCATIVE THOUGHTS

“If an activity involves a screen, it’s linked to less happiness and more depression.

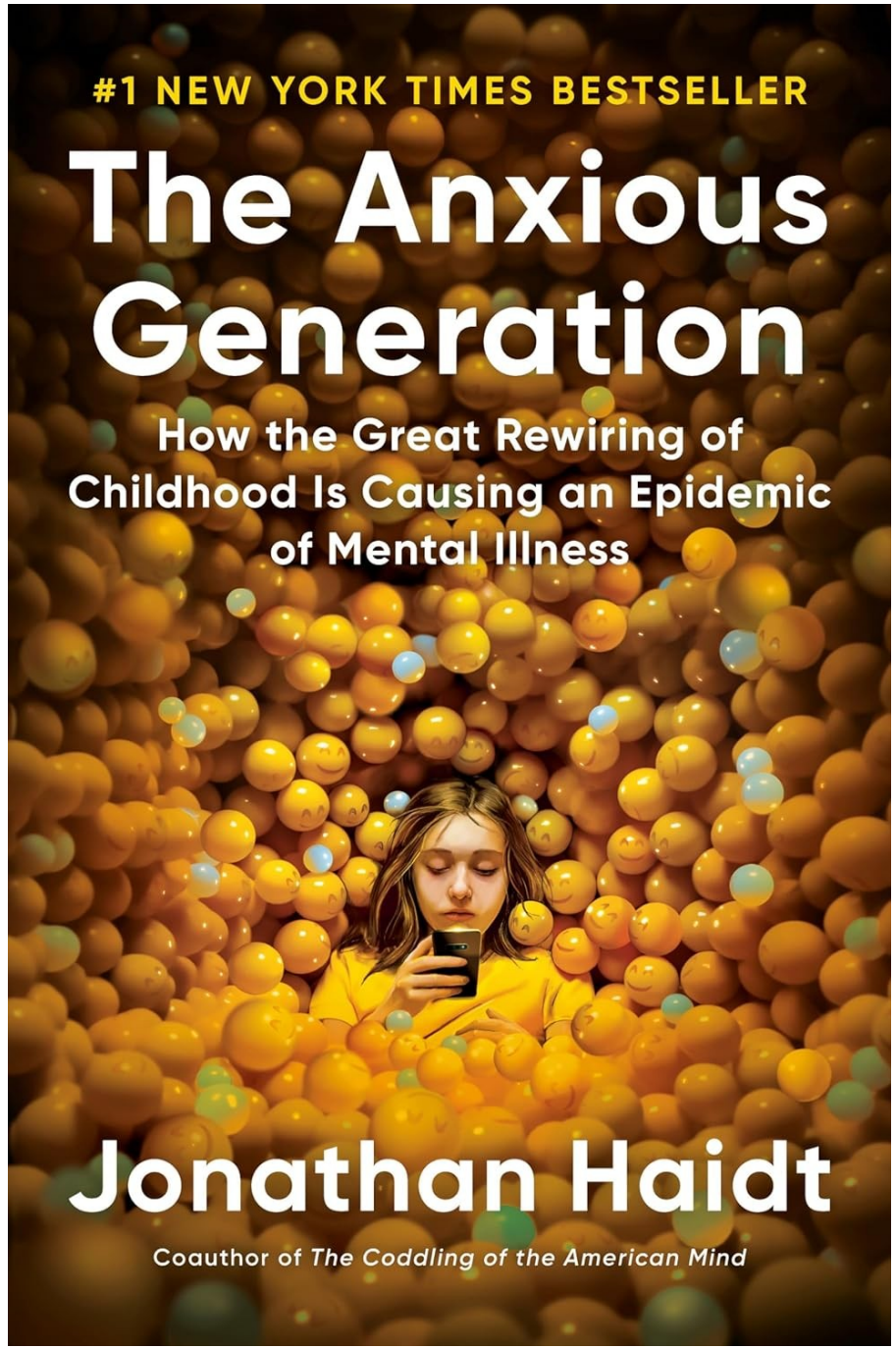
If it doesn’t—particularly if it involves in-person social interaction or exercise—it’s linked to more happiness and less depression.”



#1 NEW YORK TIMES BESTSELLER

The Anxious Generation

How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness



Jonathan Haidt

Coauthor of *The Coddling of the American Mind*

The Great Rewiring of childhood

Cell phones substituted by smartphones, I-phones with front facing cameras which made easier to take photos and videos of oneself, facebook leaving the place to Instagram. With so many exciting virtual activities available to them, many adolescents (and adults) lost the ability to be fully present with the people around them, which changed social life for everyone.
The period between 2010 and 2015 has been called by Jonathan Haidt the “Great Rewiring of childhod”. Social patterns, role models, emotions, physical activity and even sleep patterns were fundamentally recast for adolescents over the course of just five years. The daily lives, consciousness and social relationships of 13teens with I-Phones in 2013 were profoundly different from those of 13 ys old in 2007.

SOCIAL DEPRIVATION

- Teens who spend more time using social media are more likely to suffer from depression, anxiety and other disorders, while teens who spend more time with groups of young people in real life have better mental health

SLEEP DEPRIVATION

Sleep is vital for good performance in school and life, particularly during puberty, when the brain is rewiring itself even faster than it did in the years before puberty. Sleep deprived teens cannot concentrate, focus, or remember as well as teens who get sufficient sleep. Their grades and their learning suffer. Their reaction times, decision making and motor skills suffer which elevates their risk of accidents. They are more irritable and anxious throughout the day and also their relationships suffer. Long term sleep deprivation brings to aumented risk of wight gain, immune suppression and other health problems. (123).

ATTENTION FRAGMENTATION

Attention is a choice we make to stay on on one task, one line of thinking, one mental road, even as attractive off-range beckon. When we fail to make that choice and allow ourselves to be frequently sidetracked, we end up in the “confused, dazed, scatterbrained state” that is the opposite of attention.

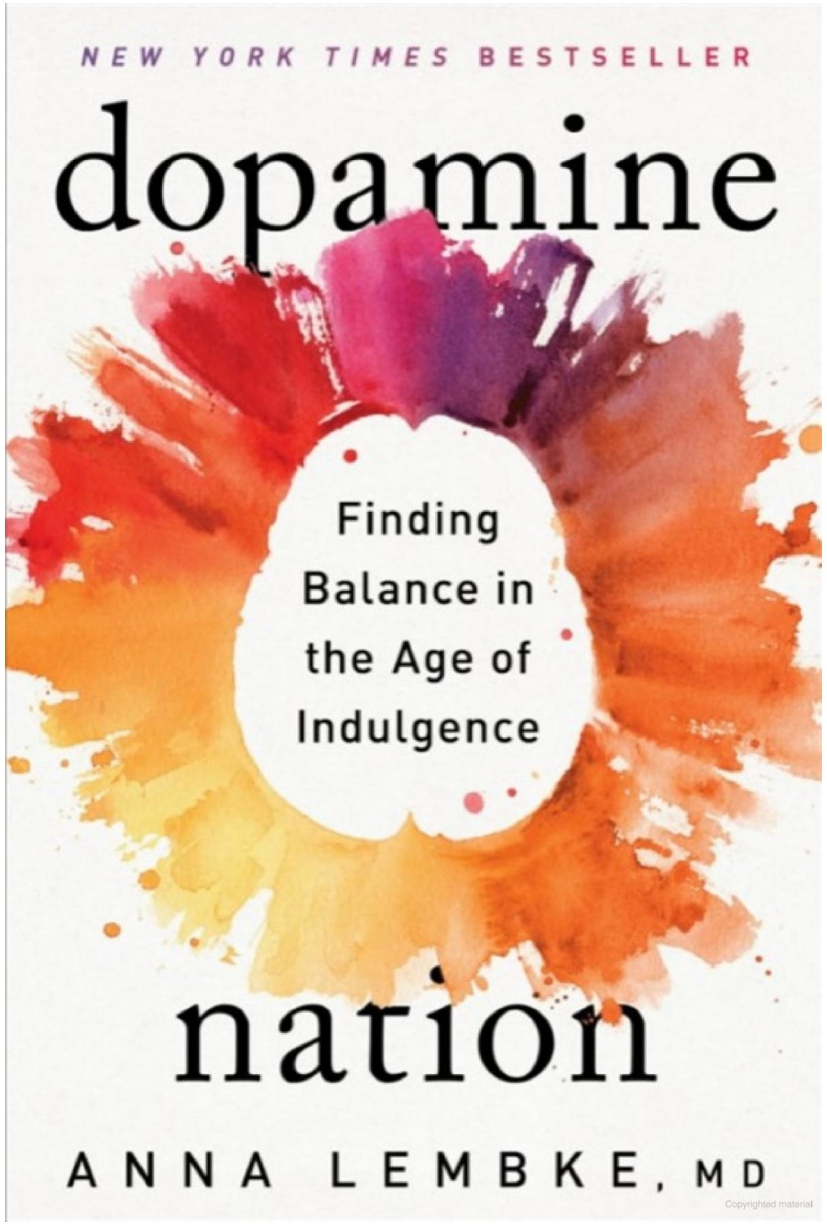
ATTENTION FRAGMENTATION

Even when students don't check their phones, the mere presence of a phone damages their ability to think. Researchers brought college students into the lab and randomly assigned them to:

- 1. Leave their bag and phone out in the entry room of the lab
- 2. Keep their phone with them in their pocket or bag
- 3. Put their phone on their dext next to them.

Then they had the students complete tasks testing their fluid intelligence and working memory capacity, such as by solving math problems while also remebering a string of letters. Performaces were best when phones were left in the other room, and worst when phones were visible. (128)


/the
social
dilemma



The problem of addiction

The dopamine era