



Is the social media creating an anxious youth?—international call for action

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In our previous article (1) we have examined the damaging effects of social media on the mental health of children and teenagers, as shown by the evidence provided by numerous studies recently reported by experts in the field (2-9).

Our interest in this matter has then been further substantiated by the appearance of similarly alarming messages about the health of teenagers, appearing across the world, in various circumstances and collected by different types of platforms.

The sources of these declarations were individuals in different institutional affiliations and roles, such as personalities of the sport or entertaining, professionals involved in education and teaching, writers, members of health committees.

We therefore decided to systematically collect, analyze and report the most significant of these positions taken, to further justify our alarm towards this phenomenon not always acknowledged by the community, and particularly by the families potentially involved.

One of the most important declarations on this matter came from the book recently published by Jonathan Haidt: "The Anxious Generation" (10). The author observed a sudden increase in mental illness among youth, with the rise showing up in change in behavior as well, including self-harm and suicide. The incidence of anxiety increased 134% from 2010 to 2018, and depression 106% in the same period, affecting all young ages: Gen Z (those born after 1995) has been hit hardest (increase of 139%), although

Millennials (born 1981–1995) haven't been entirely spared (increase of 103%) (10).

To be fair, we also recognize that the most sensitive indicator of mental health problems in youth, the suicide rate, has not gone up in all countries. There are many countries in which it has stayed steady or gone down despite the rise of social media and internet use, but the interpretation of these statistics requires more deep analysis.

This increase in anxiety, depression, and self-harm, internationally observed, has been reported not only in all of the countries of anglosaxon culture, but in many other European countries as well, confirming that this broad phenomenon is present in the entire developed Western world (10). Jonathan Haidt very wisely understood that the effect of social media on young people, who were the "canaries in the coal mine", were early signaling that something was going wrong. When the social lives of the adolescents are concentrated in smartphones and platforms of social media, inevitably anxiety and depression among them are rising. But the author didn't limit his analysis to this observation, which is exactly the same made in our first article, where we quoted several scientific reports of health issues in youth correlated with uncontrolled exposure to the social media (1). In his book he offered an explanation divided in two parts.

The first was about the decline of the "play-based childhood", began in the 1980s and accelerated in the '90s. All mammals need free play, and lots of it, to wire up their

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brains during childhood to prepare them for adulthood. But many parents in Anglosphere countries began to reduce children's access to unsupervised outdoor free play out of media-fueled fears for their safety, even though the real world was becoming increasingly safe in the 1990s. The loss of free play and the rise of continual adult supervision deprived children of what they needed most to overcome the normal fears and anxieties of childhood: the chance to explore, test and expand their limits, build close friendships through shared adventure, and learn how to judge risks for themselves.

The second part was about the rise of the "phone-based childhood", began in the late 2000s and accelerated in the early 2010s. In this period the adolescents traded in their flip phones for smartphones, loaded with social media platforms supported by the new high-speed internet and unlimited data plans (1,10).

Jonathan Haidt called the confluence of these two stories in the years between 2010 and 2015 the "Great rewiring of childhood" (10). Few people understood what was happening in children's virtual worlds, and as a result they have not been protected from tech companies designing their products to be addictive.

For this reason, we ended up overprotecting children in the real world while underprotecting them in the virtual world (10).

The interpretation of the above analysis, quite clear a posteriori, has been repeated endless times by different sources in various environments (10).

Increasingly frequent observations in the clinical arena, backed up by powerful emerging evidence demonstrating not just a correlation but a causation between excessive screen time and social media, leading to an epidemic of mental health difficulties in children and young people, has led to the creation of a term called the "screen-demic".

It is also crucial to note that excessive screen time in early childhood is associated with delayed language development and has been associated with the advent of "non-verbal children", who have normal mobility and coordination, but have not learnt any language as they spend most of their hours in front of a screen.

Recently warnings have been circulated by governmental and non-governmental associations and committees across various countries, suggesting limitations of availability and access to smartphones, or even blockage to social media platforms, to children before a certain age starting from 18 or 14 years, accordingly with the intervening association and/or country.

We have summarized these warnings, collected by analyzing all sources related to health issues in the youth available on internet, educational sites of universities, sources in the major medical associations, in different categories below, to reflect the mounting alarm and concern in the Western world.

International organizations:

- ❖ United Nations Educational, Scientific and Cultural Organization (UNESCO);
- ❖ Organisation for Economic Co-operation and Development (OECD) through their Programme for International Student Assessment (PISA) assessments;
- ❖ World Health Organization (WHO).

In the UK:

- ❖ Department for Digital Culture, Media and Sports;
- ❖ Department of Health and Social Care;
- ❖ Education Select Committee;
- ❖ National Cyber Security Centre;
- ❖ National Society for the Prevention of Cruelty to Children;
- ❖ Nursing & Midwifery Council;
- ❖ Office of Communications;
- ❖ Online Safe Act;
- ❖ Royal Society of Public Health.

In the USA:

- ❖ American Privacy Rights Act;
- ❖ American Psychological Association;
- ❖ Kids Online Safety Act, by Kids Online Health and Safety Task Force, supported by Biden's administration;
- ❖ Protecting Kids on Social Media Act;
- ❖ Social Media Victims Law Center;
- ❖ Surgeon General (11);
- ❖ Megan Moreno, Co-Director of American Academy of Pediatrics Center of Excellence (12).

The Prime Ministers of France and UK, Emmanuel Macron and Rishi Sunak, have separately issued warnings about the danger of access to smartphones and social media for children in general, and initiated the discussions about considering limited access to them in the schools.

At the same time endless declarations have been made to media, such as TV and/or radio forecasters, newspapers and/or magazines, or social media themselves, by personalities belonging to different worlds.

(I) Sport:

- ❖ Anthony Edwards, NBA player;
- ❖ Brooks Koepka, professional US golf player;

- ❖ Emma Raducanu, professional UK tennis player;
 - ❖ Guido Petti, Argentina rugby team;
 - ❖ Jannik Sinner, world No. 1 ATP tennis player;
 - ❖ Joe Davis, NFA player;
 - ❖ Jordan Spieth, professional US golf player;
 - ❖ Lance Stroll, Formula 1 driver;
 - ❖ Marcus Rashford, Manchester United and England team football player;
 - ❖ Pablo Matera, captain of Argentina rugby team;
 - ❖ Phil Neville, NFA manager;
 - ❖ Pierre Gasly, Formula 1 driver;
 - ❖ Ricky Ellior, professional US golf player;
 - ❖ Rafael Leao, star football player, A.C. Milan;
 - ❖ Santiago Socino, Argentina rugby team;
 - ❖ Selena Gomez, professional tennis player;
 - ❖ Stephanie Rice, Australian Olympic swimmer.
- (II) Entertainment industry:
- ❖ Megan Markle, Duchess of Sussex;
 - ❖ Olivia Rodrigo, singer.
- (III) Media forecasters:
- ❖ Laura Kuenssberg, BBC News Commentator;
 - ❖ Sanjay Gupta, CNN Chief Medical Correspondent.
- (IV) Education leaders:
- ❖ Adam Kovacevich, Chamber of Progress;
 - ❖ Eric Adams, Mayor of New York City, NY, USA;
 - ❖ Prof Joseph Turow, Annenberg School Communication, Los Angeles, CA, USA.
- (V) Members of health committees:
- ❖ Agnes Zsila, Institute of Psychology, Budapest, Hungary;
 - ❖ Dame Sally Davies, Chief Medical Officer;
 - ❖ Eagle View Behavioral Health, Bettendorf, Iowa, USA;
 - ❖ Marc Eric S Reyes, Institute of Psychology, Budapest, Hungaria;
 - ❖ Sandhya Pruthi, Chief Medical Editor, Mayo Clinic, Rochester, MN, USA;
 - ❖ Vivek Murthy, Surgeon General Advisor on Social Media and Youth Mental Health, NHS.

In conclusion, in addition to the mounting scientific evidence linking excessive social media use to a host of mental health challenges we previously reported (1), the damaging effects of social media on the mental health of children and teenagers have been object of public declarations and standings from various people and associations in different environments across the globe.

As we consider the role of the governments in regulating social media use by teenagers, it is important to consider

how to support the desire of adolescents for simultaneous independence and social interactions, in the same time protecting them from serious damages or witnessing their identities commodified by powerful technology companies (12).

In addition, the default protections of privacy are also indispensable. Young people often are contacted, against their desire, by unknown adults, typically marketers or random strangers, dubbed “randos”. As a result, the teenagers found the solution of teaching each other ways to try to remain safe, leading to widespread practices, not always effective (12).

There are not yet reliable methods to prevent or stop online children sexual exploitation, and proposed legislation should help by limiting the contacts of teenagers outside of their known protected social circles. Creating young users’ private by default could allow them to have safe online interactions only with approved friends and communities. It is therefore vital to support collaboration among different technology platforms to flag social media users posing a threat and identify questionable practices (12).

Finally, legislation should help advance age verification, to enhance the available protection for the adolescents, with the capability for all platforms to know the age of users. Age assurance and verification are complicated matters that researchers, policymakers and technology developers are investigating to find ways to accomplish it without privacy compromise.

We are not allowed anymore to ignore this reality, and we aim that this report will stimulate an international urgent action. As we are aware, ignorance becomes responsibility, and the consequences of inaction can be catastrophic. In addition to all stakeholders, families, and society at large, we, as active members of the medical community, must contribute with collaborative efforts creating mechanisms of sharing new and emerging evidence of the adverse impact of the social networking sites on the mental health of children and young people, regularly, with colleagues involved in the education, so that this can be disseminated to the parents in appropriate forums.

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