

## VIEWPOINT

# Digital Media, Attention Fracking, and Youth Mental Health

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A seemingly intractable paradox haunts collective action on a health crisis facing young people around the world. On the one hand, we know that youth are experiencing a debilitating pandemic of psychological strain. Anxiety, depression, and the desocializing specters of isolation, alienation, and loneliness threaten the well-being of children and young adults worldwide. Between 2009 and 2019, US hospital admissions for mental health diagnoses among youth grew by 20%, and hospitalizations with attempted suicide or self-injury increased from 30% to 60% of mental health hospitalizations during this same period<sup>1</sup>; the suicide mortality rate for adolescents increased by 70%.<sup>2</sup>

Puzzlingly, however, the onset of the marked trend toward social and emotional anomie correlates quite exactly with the rise of the most extensive and intensive system of connectivity in the history of humanity—the emergence of ubiquitous societal-scale digital networks, which ensure that the young person of today is in more continuous contact with larger numbers of peers (and peer-group communities) than has been possible at any other moment in the history of *Homo sapiens*. The correspondence of increased social media and device usage with declines in youth mental health raises an important question: how can a globe-spanning crisis of psychosocial severing be the direct result of a historically unprecedented system of universal connection?

The answer to this puzzle, we contend, is both simple and important. It is hiding in plain sight. But until health practitioners, parents, teachers, and (ultimately) legislators get clear on the underlying dynamics of the problem, it will be impossible to achieve the collective responses necessary to confront one of the most serious threats to global well-being in the present century.

## The Problem

Stated concisely, the problem is neither smartphones nor social media, but a novel and largely unregulated business model at the heart of a revolution in the technology industries: a data-intensive, artificial intelligence–driven project that involves the wholesale commodification of the essential dynamics of personhood (our ability to care and to be interested, engaged, and curious)—in short, our capacity for *attention* to the world, each other, and ourselves. We call it *attention fracking*.<sup>3,4</sup>

In attention fracking, high-pressure, high-volume content is pumped into the eyes and minds of the user, fracturing the durational coherence of sensation and cognition—and forcing a monetizable slurry of attention to the surface, where it can be aggregated and auctioned to the highest bidder in the continuous advertising market that powers the online economy. Whereas petroleum fracking compromises air, water, and the biotic ecosystem, attention fracking compromises users' relations with themselves and the world around them, affecting psychological well-being, social ties,

and the perception of the world itself, as their reality is increasingly shaped by the algorithms designed to maintain, at all costs, their online attention.

The smartphone functions as an intimate social-cognitive prosthetic that permits human fracking systems continuously to maximize psychosensory engagement for profit. The laissez-faire operation of such systems on human populations—particularly children, whose basic personality structures and cognitions are still developing—is like lead in gasoline, a widely dispersed toxic contaminant that poses a threat to human well-being on a societal scale.

It would not be an exaggeration to describe the emergence of this new enterprise as equivalent in scope, ambition, and greed to the first era of global empire in which a small number of self-aggrandizing actors, newly outfitted with powerful technologies, unilaterally declared the majority of the earth a *terra nullius* (“land belonging to no one”) and then implemented a terrestrial land grab at planetary scale. The present undertaking effects a parallel operation, but the *terra nullius* in question is neither Africa nor the Americas. It is human consciousness.

A thought experiment will underscore the importance of centering critical analysis on the underlying business model of the attention economy to avoid being waylaid by imprecise conversations about smartphones or social media that divert us from the source of the mental health epidemic. If our cellphones had been designed by a consortium of grandparents commissioned to run a network for strengthening intergenerational relationships, we might well have a much smaller total wireless communications system, but it stands to reason that whatever those grandparent-designed devices looked like, they would not have been tuned to maximize time on device as pure return on investment. To push the point still further, if our social media platforms had been programmed by a hackathon of noncommercial artists and mindfulness advocates, the resulting applications might or might not be as popular, but it is unlikely that the resulting creations would be generating the adverse psychological externalities currently observed in the platforms produced and tended by Meta and Alphabet.

It is not complicated: the problem is the business model, not the smartphone and not social media itself.

## The Solution

There has never been a quick fix to very large and historically unprecedented threats to global well-being. We propose a set of strategies pediatricians and parents can apply to address attention fracking.

Strengthen the media research community. Focus on identifying the specific aspects of algorithm design that affect mental health (eg, dark patterns, or interfaces designed to trick users).

Educate parents and children. Medical practitioners and therapists can provide immensely valuable contextual understanding of

the scope and character of the underlying problem (eg, present excessive screentime not as a personal failing, but as exploitation by the attention-fracking corporate behemoth).

Advocate for attention sanctuaries. Mounting evidence suggests that attention activism (eg, opt-in community guidelines for the development and management of protected attentional spaces and times) can be a powerful tool for those seeking respite from attention fracking.<sup>3,4</sup> Existing institutions (eg, libraries, museums, sports programs) may be actively reframed in this way, and pediatricians should develop and test strategies to help parents create and maintain attention sanctuaries capable of affording respite from relentless attentional exploitation and extraction.

Organize to influence corporate behavior and effect change. When corporations have a successful business model, they resist change. Broad consensus on the harms of smoking antedates 1960; however, the industry still produces about 5 trillion cigarettes per year.<sup>5</sup> Social media companies, like their tobacco industry forebears, have been shown to veil and marginalize research on the harms of their products.<sup>6</sup> Similarly, Big Tech lobbies heavily to avoid

regulation (Meta was the single largest lobbying spender in 2024, at \$24 million).<sup>7</sup> But direct, coordinated action by citizens can effect change.<sup>8</sup> History can be a guide. The early industrial revolution was characterized by brutal labor conditions and nugatory investment in worker welfare. Workers gained bargaining power through unions, forcing employers to limit the worst abuses, including enacting limits on child labor. Parallel efforts at collective action in online spaces are difficult, but they are not impossible to imagine.

Lobby policymakers and politicians. Meaningful regulation is urgently needed in this important area. The European Union's approach represents a good start.<sup>9</sup> Australia, too, has moved quickly in this area. Tax the companies to support the necessary government apparatus to regulate them, and evaluate their response. Require companies to support randomized interventions conducted within social media applications. Demand transparency. Exact punishments on companies that fail to respond.

These must be the aims of our ongoing work as we address the radical challenges of our moment and the special needs of young people in the world of pervasively monetized human attention.

#### ARTICLE INFORMATION

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