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Paul W. Bennett

WEAPONS OF MASS DISTRACTION

Curbing social media addiction and reclaiming the smartphone generation





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Contents

Executive summary sommaire	4
Growing up in a phone-based world	8
Social media obsession: teens, tweens, and total dependence	13
Making the connection: phones and the mental health epidemic	16
Contested policy terrain: reclaiming the phone-based generation	19
Global and Canadian education policy responses: holes and loopholes	26
Which way ahead? A cross-sector approach	33
About the author	39
References	40

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Executive summary | sommaire

Social psychologist Jonathan Haidt's international bestseller, *The Anxious Generation* (2024), alerted the public to the rise of "phone-based childhood" and its role as a prime contributor to the mental health crisis facing our children and youth.

What was, until recently, a battle waged by education authorities and schools to limit, control, or eliminate cellphones in schools has been recast as one of the most urgent social issues of our time. U.S. Surgeon General Vivek M. Murthy has weighed in and identified social media as addictive and proposing health risk warning labels on its purveyors (Murthy 2024). This paper provides a short companion study looking more closely at social media addiction among Canadian children and youth and its broader implications for policy makers in the health, education, and social sectors.

Classroom cellphone bans have been debated for fifteen years but previous policy initiatives in Canada and elsewhere have either stalled or fallen short in implementation. Dire warnings since the mid-1980s about the impact of computer screen technology on children's developing minds, and particularly on their critical thinking and reading capabilities, have also failed to make change.

What is different this time around is that governments are approaching cellphone use as a public health issue, preparing to close the loopholes in previous policy initiatives. The pioneering research of Haidt and American psychologist Jean M. Twenge demonstrates that cellphone use precipitates a surge in anxiety, loneliness, and depression. Pandemic school shutdowns, learning loss and the associated collateral damage made matters far worse for children and teens (Bennett 2023, 2024a).

Classroom teachers need support in reclaiming children's minds and fostering "habits of attention" essential to learning. Provincial child and youth advocates, such as Kelly Lamrock of New Brunswick, are now on side, calling for schools to be "cellphone-free-zones" (Alam 2024). Policy-makers in the United Kingdom view classroom disruptions and cellphones as intimately connected and may be showing the way by casting the initiative as an extension of a much broader "student behaviour" policy committed to ensuring calmer, safer and more productive classrooms.

Pediatric and mental health interventions and support will play a role in rescuing children and youth suffering the most from the addictive effects and lingering mental health issues.

A broader, multi-sector approach is warranted because of the urgency of excessive social media use affecting our children and youth. Banning cellphones in classrooms is little more than a band-aid solution. Smartphones have become as addictive for teens as cigarettes were until two decades ago (Els, Kunyk, and Selby 2012, 4–5).

Changing the trajectory will require a concerted, integrated effort comparable to successful public health initiatives to eliminate smoking in public places and curb the spread of infectious diseases. It's in everyone's interest to embrace "cessation" policies to ensure that the rising generation goes on to lead healthier, more active, and productive lives. MLI

The Anxious Generation (2024), le livre à succès international du psychologue social Jonathan Haidt, a causé un réel choc en alertant le grand public du rôle critique des « téléphones de l'enfance » dans la crise de santé mentale des enfants et des adolescents d'aujourd'hui. La bataille des autorités scolaires pour restreindre, contrôler ou interdire les téléphones portables dans les écoles est devenue l'une des questions sociales les plus pressantes de notre temps. Le directeur du Service de santé publique des États-Unis, Vivek M. Murthy, a examiné la question et déclaré que les médias sociaux constituent une forme de dépendance. Il a proposé d'apposer des étiquettes de mise en garde sur les produits des fournisseurs (2024). Dans ce commentaire de recherche, on propose une brève étude complémentaire pour approfondir la question de la dépendance aux médias sociaux des enfants et des adolescents canadiens, ainsi que ses implications générales pour les responsables de la santé, de l'éducation et des affaires sociales.

Les discussions sur l'interdiction des téléphones portables se poursuivent depuis quinze ans, mais les initiatives politiques, au Canada et ailleurs, sont restées sans suite ou ont été abandonnées. C'est aussi le cas des préoccupations alarmistes depuis le milieu des années 1980 quant à l'effet des écrans d'ordinateur sur le cerveau des enfants, notamment l'esprit critique et les aptitudes en lecture. Ce qui est nouveau cette fois, c'est que les gouvernements commencent à y voir un problème de santé publique et se préparent à combler les lacunes des politiques antérieures. Son rôle dans la montée de l'anxiété, de la solitude et de la dépression apparaît dans les travaux pionniers de Haidt et de la psychologue américaine Jean M. Twenge. Selon Bennett (2023, 2024a), la fermeture des écoles pendant la pandémie, les difficultés d'apprentissage qui en ont découlé et leurs conséquences ont aggravé la situation des enfants et des adolescents. Il n'est tout simplement plus possible de négliger ce problème maintenant qu'il est à l'ordre du jour des politiques publiques.

Il importe d'aider les enseignants à se réapproprier l'attention des enfants et promouvoir les habitudes indispensables à l'apprentissage des élèves. Les défenseurs des enfants et des jeunes au palier provincial comme Kelly Lamrock, au Nouveau-Brunswick, sont maintenant d'accord pour faire des écoles des « zones sans téléphone portable » (Alam, 2024). Les décideurs politiques du Royaume-Uni considèrent que l'indiscipline et la présence des téléphones portables en classe sont concomitantes et pourraient donc dicter la voie à suivre pour lancer un programme dans le cadre d'une politique bien plus vaste sur la « conduite des élèves » qui aurait pour but d'assurer des classes calmes, sûres et performantes. Les actions et l'accompagnement en pédiatrie et en santé mentale contribueront à secourir les enfants et les jeunes les plus touchés par la dépendance et les problèmes persistants de santé mentale.

Il faut adopter une approche multisectorielle élargie en raison de l'urgence que pose l'utilisation excessive des médias sociaux par nos enfants et nos jeunes. Interdire les téléphones portables dans les salles de classe n'est guère plus qu'un expédient. Selon Els, Kunyk et Selby (2012, 4-5), ces téléphones sont devenus aussi addictifs pour les adolescents que les cigarettes il y a seulement deux décennies. Pour remédier à la situation, un effort concerté et intégré sera nécessaire, comme lors des campagnes de santé publique qui ont contribué à l'élimination du tabagisme dans les lieux publics et freiné les maladies infectieuses dans le monde. Il est dans l'intérêt de tous d'adopter des politiques de « cessation » afin de garantir que la génération montante mène une vie saine, active et productive. MLI

"More comfortable online than partying, post Millennials, Generation Z, are safer, physically, than adolescents have ever been, but they're on the brink of a mental health crisis."

Jean M. Twenge

"Have Smartphones Destroyed a Generation?" *The Atlantic*, September 15, 2017

"This is everything you'll ever need in the palm of your hands. Why would you ever be off of it? They have the sum of the world's entire knowledge and all of your closest people instantly available to talk to."

- Noah Schmick

The "iPhone Baby," born June 29, 2007, in "The iPhone Generation: An Inside Look at the 15-year Journey," Wall Street Journal, June 29, 2022

"Mobile phones are an integral part of our lives. We need to be teaching children about appropriate use of phones, rather than simply banning them. This will help students learn how to use their phones safely and responsibly at school, at home, and beyond."

Marilyn Campbell and Elizabeth J. Edwards
 The Conversation, March 11, 2024

"Something went suddenly and horribly wrong for adolescents in the early 2010s The decline in mental health is just one of the signs that something went awry... PISA, the major measure of educational trends, shows that declines in math, reading, and science happened globally, also beginning in the early 2010s... We didn't know what we were doing in the early 2010s. Now we do. It's time to end the phone-based childhood."

Jonathan Haidt
 "End the Phone Based Childhood Now,"
 The Atlantic, March 13, 2024

Growing up in a phone-based world

North America's most widely known "iPhone Baby," Noah Schmick, born in Madison, Wisconsin, on June 29, 2007, is now 17 years old and finishing high school. The white, upper-middle-class teenager who entered this world on the same day the revolutionary first-generation smartphone was launched was made famous two years ago in a video feature produced by Johanna Stern for the *Wall Street Journal* with an alluring title, "The iPhone Generation: An Inside Look at a 15-Year Journey" (Stern 2022). In that short video, we are reminded that Noah and his generation live a life totally immersed in cyberspace. Trying to remember life before the iPhone is next-to-impossible. The vast majority of "iGen" or Generation Z, born after 1995, are the first cohort of what American social critic Jonathan Haidt has aptly termed "phone-based childhood" (Haidt 2024a, 7).

Since the advent of the iPhone, phone-based childhood has come to subsume play-based child rearing with profound implications. Growing up in a phone-based world bred a dependence upon the tiny metal devices and the constant stream of social media. The *Wall Street Journal* video put it best: "Noah's generation is the most extreme example of that dependence because they have never known life without it. It's a generation that fears being disconnected." Just like millions of other families, Apple's invention and a succession of more affordable clone "smartphone" machines made Lauren and Jason Schmick's son and his younger twin sisters "more connected and disconnected in ways that no one anticipated" (Stern 2022). America's foremost expert on generational change, San Diego State University social psychologist Jean M. Twenge goes much further. She claims that changes in technologies affecting childhood – from radio to television to smartphones – contributed to a "mental health crisis" most acutely exemplified in today's adolescents and children (Twenge 2017 and 2023).

Earlier warnings about the potential adverse impact of computer technology on elementary school students went largely unheeded in North American K–12 education. One of the pioneers, Jane M. Healy, registered her deep concerns in two mostly forgotten books, *Endangered Minds: Why Children Don't Think and What We Can Do About It* (1987) and *Failure to Connect: How Computers Affect Our Children's Minds – For Better and Worse* (1997). The American educational psychologist challenged the prevailing "techno-optimism" of the mid-1980s, pointing out its adverse effects on young, developing minds, and specifically on critical thinking capacities and reading skills. Dire warnings were later echoed in *Screen Schooled* (2018) by two veteran teachers, Joe Clement and Matt Miles, fierce critics of technology incursions who claimed that technology "overexposure" was "making students dumber" in today's classrooms. None of this really penetrated public consciousness until smartphones proliferated and it became impossible to ignore in school, outside of school, and even in public washrooms.

Canada's smartphone generation is ripe for comparative analysis. Some 5.7 million students were enrolled in our elementary and secondary schools in Canada in 2021-22, about 5.2 million (91.2 percent) of whom attended publicly funded schools (Table 1). Since the advent of the iPhone, an estimated 6.5 million children have been born in our country, from coast to coast (Figure 2). Total public school enrolment actually dipped from 4.9 million in 2006-7 to 4.7 million 2011-12, moved sharply upward from 2014-15 to 2019-20 when COVID-19 hit, and has now recovered to exceed previous levels (Figure 1). Out of an estimated population of 38.9 million in January 2024, some 18.6 percent, or almost 1 in 5 Canadians, might be classified as members of the 'smartphone generation' (Kemp 2024a). Based upon global trends in April 2024, the vast majority of the 16 to 24 age group (over 95 percent) use the internet for social networks and apps for chat and messaging. It is likely that 4 out of 5 internet users (83 percent) in this age group used a search engine like Google in the past month, higher than the 64.1 percent who accessed the most popular social media sites, led by TikTok, YouTube and Snapchat (Kemp 2024b).

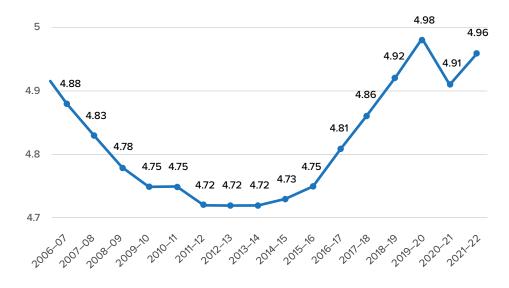
Social media penetration is now far more advanced in Canada than it was a decade ago. In January 2015 the global digital monitoring firm, Kepios, reported that 16.2 million Canadians had unique social media accounts, representing 45 percent of the total population (Kemp 2015). Today it is estimated that 31.9

TABLE 1: School population: Elementary and secondary school enrolment, Canada, 2021–2022

School type	Program type	Enrolment (2021–2022)
Public schools	Total	5,230,002 (91.14%)
	Regular programs for youth	4,960,410
	General programs for adults	149.259
	Vocational programs	120,330
Private/independent schools	Total	441,171 (7.68%)
	Regular programs for youth	434,373
	General programs for adults	141
	Vocational programs	6,657
Homeschooling	Total	67,008 (1.17%)
	Regular programs for youth	67,008
	General & Vocational programs	-
All types of schools	Regular programs for youth	5,461,794 (95.18%)
	General programs for adults	149,400
	Vocational programs	126,987
TOTAL	All types	5.738,181 (100.00%)

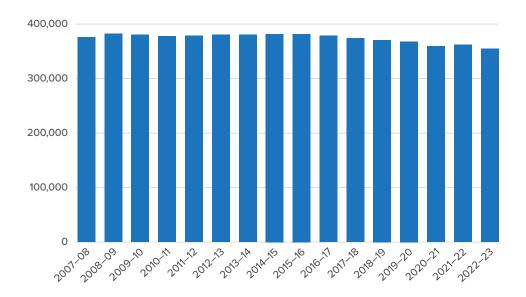
Source: Statistics Canada – Table 37-10-0109-01. Release date: 2023-10-12 (Revised with percentages)

FIGURE 1: Enrolment in public elementary and secondary schools, Canada, 2006 to 2022, millions of students



Source: Statista 2024.

FIGURE 2: The Smartphone Generation - Number of births in Canada from 2006 to 2023

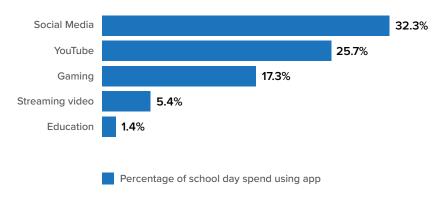


Source: Statista 2024.

million Canadians, or 81.9 percent of the population, are social media users, averaging much higher among school-age children and teens. Young women between 16 and 24, according to global data, spend the greatest amount of time using social media, averaging 3 hours a day (Kemp 2024a). According to American surveys, some 97 percent of students report that they use social media during the school day, but rarely (1.4 percent) for educational purposes (Common Sense Media 2022). Indeed, classroom teachers featured in a recent *Slate* magazine article expressed concerns about a cohort of students "tethered to their home" through devices, communicating constantly by FaceTime and texting with over-protective parents (Shulman 2024).

What happened to Gen Z is now coming into sharper relief. Mobile phones and tablets quickly replaced television as a means of entertaining or 'babysitting' very young children. In 2011, Comon Sense Media surveys found 38 percent of children up to age 8 used mobile devices, but, by 2013, it had jumped to 72 percent (Common Sense Media 2013). One survey of 250 toddlers conducted in October and November of 2014 at a Philadelphia child care centre painted a troubling picture of the pattern in urban, lower-income, and minority communities. Almost all children (96.6 percent) were already

FIGURE 3: Student use of media during classroom time, United States, 2022–23



Source: Radesky, Jenny S. et al. 2023/Common Sense Media

using mobile phones and most started using them before age 1. By ages 3 and 4, researchers reported in *Pediatrics*, that kids were using mobile devices without help, with one-third engaging in activities with applications such as YouTube and Netflix (Fox 2015; McCarthy 2015). Spotting the trend, the American Academy of Pediatrics weighed in, recommending limiting screen time for young children (Brown, Shifrin, and Hill 2015).

The oldest members of this generation born after 1995 began to enter puberty in 2009 when several profound technological shifts converged: the rapid spread of high-speed broadband networks, the invention of the iPhone, and the explosion of hyper-viral and addictive social media (Haidt 2024a, 6). The proliferation of "like" and "share" or "retweet" buttons initially had positive influences and allowed children and teens to "connect" and share experiences with their friends, epitomized in the early iterations of MySpace and Facebook.

Taking selfies with front-facing phone cameras and posting them on social media added to its popularity but exposed a darker side of such platforms. Posting self-images was particularly hard on young girls and led to periodic waves of body-shaming and the circulation of sexually explicit and pornographic images (Haidt 2024a, 6).

Recent analyses such as Haidt's *The Anxious Generation* identify significant changes in the nature and form of childhood associated with the proliferation of mobile devices and the social media explosion. Going through adolescence with a portal in their pocket drew teens away from family and

those nearby and plunged many into the alternative universe of cyberworlds that, while exciting, proved to be addictive, unhealthy, and injurious to their mental health (Bozzola 2022). Increasingly, children and teens turned away from play-based childhood and became totally absorbed in a "phone-based childhood" that was, in the words of Haidt, "hostile to human development" (Haidt 2024a and 2024b).

Social media obsession: teens, tweens, and total dependence

Today's parents and teachers are facing an uphill battle to change the trajectory and reclaim children's minds. Screen time for children in Canada, the United States, and elsewhere spiked during the COVID-19 pandemic from March 2020 until the end of 2021. A Canadian study published in April 2023 *JAMA Pediatrics* found that children's screen time, defined in the study as any screens used for non-school purposes, indicated that youth have become more dependent upon the internet. Based upon a cohort of nearly 1,300 children who were 13 and 14 years old in 2022–23, researchers reported that, at the start of the pandemic, recreational screen time during the week jumped from an average of 1.77 hours to 3.12 hours a day. While that peak subsided, the study found that after lockdowns ended and in-person learning resumed, weekday screen time remained higher with youth (outside of the school day) spending an average of 2.15 hours a day on screens (Plamondon et al. 2023).

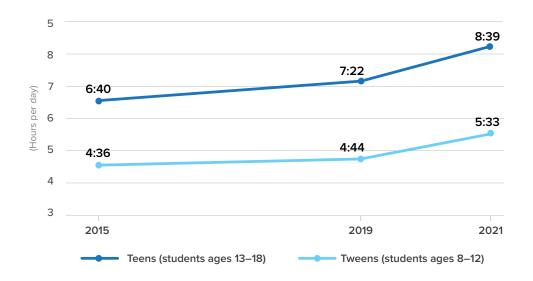
Parents on the front lines at home, left on their own, have resorted to extraordinary measures to curb children's and teens' mobile phone use. John Turpin, who lives with his wife and children in Oshawa, Ontario, installed a small safe with a timer in his living room in March 2024 to lock-up the phones of his 14-year-old son and 16-year-old daughter. "We have this discussion regularly about the kind of addiction that it creates," he told the *Globe and Mail*, and about "how it leads you down this road of continuous distraction" (McGinn 2024). Torn between staying in touch with their teens and concern over cellphone addiction, parents are turning to locked

boxes, flip phones, and blocking apps. The Canadian Paediatric Society responded in November 2022 by updating its screen-time guidelines (CPS 2022), providing fresh impetus for school authorities to clamp down on uncontrolled or surreptitious use in schools.

Public opinion in Canada hardened in the wake of the pandemic. A national opinion survey, conducted by Narrative Research in January 2024, reported that 8 out of 10 Canadians supported a ban on cellphones in public school classrooms. Across the country, support was highest in Quebec (88 percent) and lowest in British Columbia (74 percent). Support increased with age, with Gen Z residents being much less likely to support such measures (49 percent) compared with Millennials (71 percent), Gen X (81 percent) or Boomers (90 percent). Those with children in school are equally likely to support a ban as those without kids in school (both 80 percent), and only 15 percent of respondents completely opposed such a ban (Narrative 2024). More recently, a Leger survey produced for Second Street (published on May 14, 2024) confirmed that 55 percent of Canadians opposed cellphones in classrooms and only 1 in 20 (5 percent) felt students should be allowed to use phones in class (Leger Opinion Survey 2024).

Social media use among American teens and tweens has grown dramatically since the 2010s. Surveys conducted by Twenge and her independent research institute, Common Sense Media, based mostly upon self-reporting, track average daily entertainment screen use, including cellphones, tablets, and laptops. Since 2015 the time US teens (ages 13 to 18) are spending on social media has jumped from 6:40 hours a day to 8:39 hours per day in the most recent year, 2021, roughly double the time students attend school. For tweens, ages 8 to 12, the time has risen from 4:36 hours a day to 5:33 hours (Common Sense Media 2022; Twenge 2023). Media use grew faster from 2020 to 2021 than it did in the four years prior to the COIVID-19 pandemic. Overall, the survey results show boys reportedly use more screen media than girls. Black and Hispanic/Latino children use screens more than White children. And children in higher-income households use screens for entertainment less than children in middle- and lower-income households (Common Sense Media 2022). It was this alarming trend that precipitated the U.S. Surgeon General to issue a May 2023 advisory recommending parents set limits on phone use and ultimately convinced him to call for warning labels on social media platforms (Barry and Kang 2024).

FIGURE 4: The explosion of social media use among adolescents and pre-adolescents, United States, 2015–2021



Source: Common Sense Media, 2022.

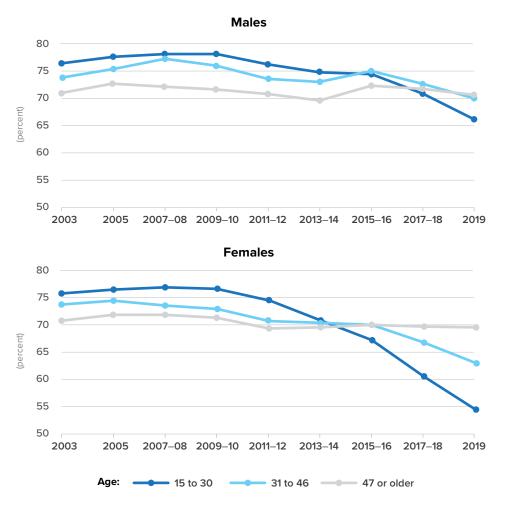
Most of the research on social media addiction focuses on the impact upon American teens and children, but it is safe to assume that similar pattens prevail in Canada as well as in comparable advanced Western nations such as the United Kingdom, Australia, and the Nordic countries. The Canadian Centre for Addiction and Mental Health (CAMH) focuses mostly on gambling and gaming when it comes to the use and abuse of technology but has identified excessive social media use as an "area of emerging research." Initial research into smartphones and social media use, according to CAMH (2021), can and should include young people up to 24 years of age, so as to include university- and college-age youth. While mental health authorities are careful not to label social media dependence as a clinical form of "addiction," it is increasingly recognized as a widespread generational problem (CAMH 2021; Olson et al. 2023). Most recently, the Ontario government cited the 2021 CAMH report in announcing its extended ban on cellphones in classrooms (Ontario Government 2024). The U.S. Surgeon General's June 2024 declaration will likely nudge Canadian health agencies to review their official position (Murthy 2024).

Making the connection: phones and the mental health epidemic

Adolescents in North America are in the midst of "a full-blown mental health crisis." That's no longer just conjecture, but the general claim made by Twenge (2017, 2023) and fully explained in Haidt's latest book (Haidt 2024a, 23-32). Starting in the 2010s, something did go wrong in the lives of teens. Rates of depression, self-harm and suicide began to rise among North American teens (Twenge et al. 2019; Mercado et al. 2017; Hedegaard, Curtin, and Warner 2018). Between 2011 and 2019, depression rates doubled among US teens in the National Survey of Drug Use and Health. According to the 2021 "Ontario Student Drug Use and Health Survey," 47 percent of students in Grades 7 to 12 reported experiencing a moderate-to-serious level of psychological distress, while 18 percent of students admitted they had "seriously contemplated suicide in the past year" (Centre for Addiction and Mental Health 2021a). The increases in reported depression and anxiety only grew larger as the years went on and mushroomed during the pandemic. It's now begun to surface among US millennials or young adults in their 30s. Signs are also appearing of increased demand for mental health services and decreased work productivity (Twenge 2023b). Those alarming findings bearing directly on the state of mental health are now registering and moving the needle in three public policy sectors medicine, education, and social services (Murthy 2024).

One early sign of trouble, identified in a 2021 Statistics Canada study, the "Health of Youth in Canada," was the steep decline from 2011 to 2019 in the proportion of young Canadian women (ages 15 to 30) who report good to excellent mental health. The troubling findings demonstrate a 29 percent decline since 2009, suggesting that almost half of girls and women reported mental health concerns before the onset of the pandemic. A majority of youth aged 15 to 34 also reported (in April and May of 2020) that their mental health had deteriorated since the outbreak of COVID-19 and the beginning of social distancing measures (Garriguet 2021, Table 5, and text, 8). Severe mental distress, exemplified by teen suicide attempts and emergency pediatric hospital visits, also spiked, especially for girls, during the pandemic school shutdowns (Madigan et al. 2023). The landmark August 2021 Royal Society of Canada report, *Children and Schools During COVID-19 and Beyond*, produced by Tracy

FIGURE 5: Excellent or very good mental health by sex and age groups, 2003–2019.

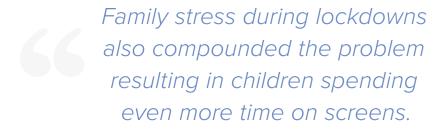


Source: Statistics Canada 2021

Vaillancourt and a research team, provided guidance and recommendations for the youth care sector and proposed actions aimed at improving youth mental health in Canada (Vaillancourt 2021a, 2021b).

Too much screen time is now proving to be harmful to the current generation. Children and teens who spend hours on their phones scrolling through social media are showing more aggression, depression, and impulsivity, according to a Western University study of teens' parents conducted by Emma Duerden, Canada Research Chair in neuroscience and learning. Screen time hit a record 13 hours a day for six-to-12-year-olds in the early months of COVID-19, and has fallen back somewhat, but remains higher that in prepandemic years. Closing schools during COVID-19 added to parental stress and contributed to increased screen-time for school-age children (Bennett,

2024a). In the 2021 Western University study, parents reported more mental health concerns in children such as worrying, anxiety about upcoming events, and stress in social situations. Family stress during lockdowns also compounded the problem resulting in children spending even more time on screens (Seguin, Keunzel, Morton, and Duerden 2021).



Regional health studies are appearing post-pandemic that confirm the claim that the use of social media by youth is associated with increasing mental health issues such as anxiety and depression. A New Brunswick Student Wellness Survey, completed in late 2022 by some 68,000 students in grades 4 to 12, found that youths' capacity for resilience was declining, while more students were reportedly struggling with their mental health. In 2022-23, 3 out of 5 youths (61.5 percent) reported spending 3 hours or more per day on personal social media, up from 47.7 percent in 2021-22. From 2015-16 to 2022–23, the proportion of youth with a high or moderate level of resilience (the ability to adapt to challenges) declined to 65.2 percent from 73.0 percent seven years earlier. During that same period the percentage of youth with a high level of mental fitness (with their basic psychological needs met by family, friends and school) dropped to 19.5 percent, five points lower than in 2015-16. More concerning, the proportion of youth having symptoms of anxiety and depression in the past twelve months rose from 39.5 percent in 2015–16 to 55.8 percent in 2022-23. In that province, social media use was clearly identified as "an emerging risk factor" for declining mental health among children and teens (NB Health Council 2023).

The recent TikTok craze is not only the latest example of the pervasive impact of mobile phone culture but demonstrates how today's kids can get hooked on continuous social media feeds. Peering inside the "TikTok Brain," American neuroscientists have shown that "the dopamine rush of endless

short videos" makes it hard for young viewers to switch their focus to slow-er-moving, teacher-guided activities. "We've made kids live in a candy store," was how it was described in a recent issue of the *Wall Street Journal* (Jargon 2022; Bennett 2022).

Screen time is crowding out teaching and learning in schools, most notable in declining reading proficiency. Spending so much time on mobile phones, even without social media, adversely affects attention and concentration skills, making it harder to focus fully on any task and maintain that focus (Lemov 2022). When students are simply unable to focus or pay attention, learning to read through systematic literacy programs or tackling more rigorous academic tasks in higher grades becomes doubly difficult for teachers in today's classrooms.

Neuroscience research is helping to explain the deterioration in attentiveness and concentration among the smartphone generation. Using brain imaging, Duerden and her Western University research team detected changes directly related to the impact of social media on children's brains. It's a serious public health issue for all children, according to Duerden, and now affecting youth in undergraduate courses up to age 24. "They can't focus on exams," says Ph.D. student Michaela Kent, "because they are so used to scrolling in TikTok or looking through their phone. They're so used to having that constant stimulation that when it comes to focus, they really struggle" (Zafar 2023).

Contested policy terrain: reclaiming the phone-based generation

Confronting the growing challenges posed by rampant social media use among children and teens is not exclusively an educational policy matter but will involve a broader and more comprehensive approach. Banning cellphones in classrooms is turning out to be a short-term fix, and it is by no means certain that current school system policies will stick. What has emerged is a critical public policy issue, extending far beyond the education sector – the seriousness of the emerging mental health crisis.

Public policy analysts and academic researchers have identified the scope of the problem and a number of social harms affecting, most acutely, the smartphone generation:

Social media obsession and addiction

Medical science research has begun to analyze and classify "social media obsession" as an addictive form of neurological behaviour much like gaming and fixation with video games (CAMH 2021). Brain imaging and neuroscience studies have documented the impact of excessive social media use on the brain of children and adolescents (Hmidan, Seguin, and Duerden 2023). Her research found links between screen time and "negative internalizing behaviours" that can lead to stress and anxiety in children. Students sitting in classrooms are constantly getting notifications and constantly checking their devices, triggering dopamine rushes, but contributing to fear and anxiety for many teens. It was also becoming a new form of addiction with a legacy of anxiety, depression, and social isolation (Hmidan et al. 2023).

New research is beginning to focus directly on the connection between social media use and addictive behaviour.

New research is beginning to focus directly on the connection between social media use and addictive behaviour. One January 2023 study of secondary school students (Ciacchini et al. 2023) found that the 11 percent of the 250 participants were significantly addicted to social media, mostly females (59 percent). Hours spent on social media, checking mobile phones, and playing video games corresponded with low assessment scores, self-esteem issues, and anxiety. Problematic internet use was increasingly identified worldwide during the COVID-19 period and classified as Internet Addiction Disorder (IAD), as distinct from Internet Gaming Disorder (IGD), a condition recognized by Canadian Mental Health Association in Canada (Moretta et al. 2022; CMHA 2021).

Popularized by the term "TikTok Brain," the phenomenon was described in 2022 by Pew Research as accessing one or more social media sites or texting "almost constantly" over the entire day, in school or outside of school. For heavy users, estimated to be 11 to 15 percent of the population, sleep is interrupted and nearly every waking hour is an hour absorbed, in whole or in part, on their devices (Haidt 2023b, 13). Class interruptions and signs of social media addiction were so pronounced by March 2024 that four Ontario school boards announced plans to launch a lawsuit seeking \$4.5 billion in damages from Snapchat, TikTok, and Meta, the owner of both Facebook and Instagram, claiming that the corporations produced products that allegedly caused "widespread disruption to the education system" (Alphonso 2024).

Social isolation, loneliness, and loss of confidence

Virtual interactions on social media ranging from video links to texting to posting images are no real substitute for face-to-face personal interaction and human relationships. Up until 2010, American young people (ages 15 to 24) spent an average of two hours a day (outside of school) interacting with friends. By 2019, on the eve of the pandemic, young people's time with friends had shrunk to 67 minutes a day, comparable to older generations (Haidt 2023b, 14). School shutdowns during COVID-19, by all accounts, further reduced

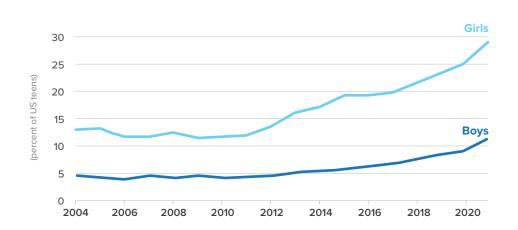
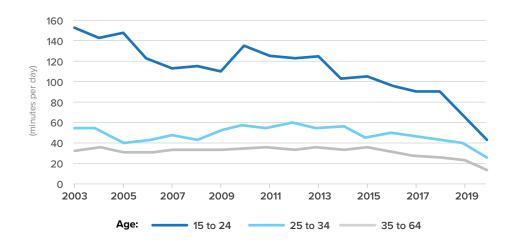


FIGURE 6: Major depression among teens (ages 12-18), United States, 2004 to present.

Source: Haidt, Jonathan. 2024a, 24.

FIGURE 7: Daily time with friends, by age group, United States, 2003 to 2022 (American Time Use Study, 2022).



Source: Haidt, Jonathan. 2024a, 121

the incidence of in-person interactions with friends. (Figure 7) Children and youth lost out on the social benefits of real time interactions, reading body language, assessing social situations, and one-on-one communications. (Figure 6) While connected online, a surge in loneliness and friendlessness was detected and documented from 2012 onward, reversing previous trends (Twenge et al. 2021).

Unhealthy, sedentary lifestyle

Children and teens evolved, in stages, from a natural play-based world into today's phone-based world. Outdoor play, socializing, and natural exploration gradually gave way from the 1970s onward into a prolonged and more protective childhood of organized programs and parent-supervised activities. While children once played unsupervised outdoors from age 6 up and sometimes after dinner in the neighbourhood, the amount of free, unsupervised play shrank to the point where "free-range kids" parenting was under threat. By 2015, the Pew Research Center found that parents, on average, believed that children should be 10 years of age to play unsupervised in front of their residence and 14 years-of-age before being permitted to go to a public park (Haidt 2023a 88–92).

Excessive screen time, video gaming, and social media fixation compounded the growing problem of children and teens falling into a house-bound, largely sedentary lifestyle. Using a large data set of 51,922 Grade 6 to 12 students (2008–09), two Ontario health researchers analyzed three activities associated with screen time behaviours: cigarette smoking, weekly spending money, and self-esteem. Some 50.9 percent spent more than 2 hours per day in screen-based behaviours and the average daily screen time was already high at $7.8 \, (\pm 2.3)$ hours. Males and current smokers were more inclined to watching TV and videos or playing video games, while students in higher grades and those with more spending money were more engaged in playing or surfing on a computer. Those with lower self-esteem spent more time on screens (Leatherdale and Ahmed 2011).

With the introduction of the iPhone (2007), the App Store (2008), high-speed internet, and the explosion of social media and gaming, adolescents came to spend much more of their days on devices and indoors, far from outdoor play spaces (Mougharbel and Goldfield 2020). In the period from 2010 to 2015, childhood was "rewired" for millions of adolescents who spent the vast majority of their personal time in a "phone-based childhood" that Haidt aptly described as a "more sedentary, solitary, virtual, and incompatible with human development" (Haidt 2023b, 11)

Fragmented attention, disrupted learning

Staying on task while scrolling on a smartphone is fraught with challenges, particularly for children and teens. While sitting in class or working on homework, focusing can be a problem if only because of their less developed prefrontal cortex and the instant appeal of the latest app with its dancing graphics, rolling images, and entertainment value. A well-publicized 2022 Common Sense Media survey revealed that students are continually online during school time, the vast majority of that time absorbed with social media and apps with no defined educational purpose (Figure 1). Teenagers' phones are pinging constantly, and one study found that the typical adolescent gets 237 notifications a day, or about 15 every hour. About a quarter (23 percent) of notifications arrived during school hours, and about 5 percent during school night hours. The most popular app, TikTok, was found to be "irresistible, offering bite-size pleasure and low-friction interaction that quickly adapts to the user's interests or mood" (Radesky et al. 2023, 6–7).

Mobile phones are widely dubbed as "weapons of mass distraction" and increasingly viewed by classroom teachers as "little boxes of kryptonite" sapping their energies. When students have access to phones during class time, they use them for texting and checking messages, and their learning and test scores suffer (Bennett 2022, 2023). There is also a likely correlation between declines in international test scores from 2010 to 2019, before pandemic school shutdowns led to worse results (Haidt 2023b, 17). Loss of focus, regular disruptions, and students struggling in their classes were all evidence that social media was adversely affecting learning in Ontario and elsewhere (Alphonso 2023). Declines in reading capabilities among youth ages 14 to 24 and their willingness to read texts in post-secondary institutions are attributable to the proliferation of social media and the erosion of skills among the current generation of students (McMurtrie 2024).

Erosion of knowledge and loss of meaning

Socializing of children and teens for adulthood is increasingly shifting from adults to the purveyors of social media, driven by pre-adolescent and adolescent preoccupations and tastes. Teens have long been a "tribe apart" in contemporary North American culture, but the dominance of social media has widened the gulf and weakened further the cultural bridges linking generations (Hersch 1999). Today's smartphone generation, to a considerable extent, is cut off from not only national culture, but the "accumulated wisdom of humankind," including knowledge about how to lead a flourishing life. Coming of age in today's world is like navigating a rapidly changing world that is, in Haidt's words, "a confusing, placeless, ahistorical maelstrom of 30-second stories curated by algorithms" designed to "mesmerize" children and youth (Haidt 2023b, 19–20).

Without moral guideposts, sound knowledge of the past, or socially responsible mediating institutions, it is increasingly difficult to distinguish good ideas from bad ones – a process that takes generations. This leaves young people vulnerable and susceptible to terrible ideas and outright falsehoods circulating in cyberspace. When public life becomes fragmented, ephemeral and impossible to fathom, it is a recipe for what French sociologist Emile Durheim termed "anomie," or nothingness. That is what happened to Gen Z. From 1990 to 2019, the number of American high school graduation year

students agreeing (on reliable surveys) that "life feels meaningless" has grown by 70 percent, to more than one in five students (Haidt 2023b, 19–20; Haidt 2023a, 195).

Alienation and unhappiness

The 2008 global financial crisis, global warming, school shootings, the opioid epidemic, and the COVID-19 pandemic have all contributed to a contemporary malaise affecting everyone in Canada, the United States, and elsewhere. While all these global concerns have played a role, none of them falls so squarely on Gen Z as the explosion of social media and its harmful effects. That is most evident in the alarming rates of depression, anxiety, and loneliness experienced by girls and young women, who are objectified and shamed on most social media platforms (Twenge 2023a). Social media, surveys reveal, carries girls and women off to unhealthy places. Twenty-four-year-old British writer Freya India put it best: "We were the first to have our vulnerabilities and insecurities fed into the machine that magnified and refracted them back at us, all the time, before we had any sense of who we were. We didn't just grow up with algorithms, they raised us. They rearranged our faces. Shaped our identities. Convinced us we were weak" (Haidt 2023b, 21).

Spending up to nine hours a day absorbed in a "screen-time doom loop" bred both alienation and unhappiness. Major depression among girls, ages 12–17, identified as a risk factor in Lukianoff and Haidt (2018), skyrocketed during the pandemic years. Alienation in school among teens age 15 across the world surfaced in student data on the incidence of loneliness collected during the 2018 round of the OECD PISA student assessments (Haidt 2018; Twenge et al. 2021). Provincial child advocates in Canada, following the lead of New Brunswick's Kelly Lamrock, are now weighing-in and recommending school cellphone bans as part of a coordinated response from mental health, education, and child care authorities (Brown 2024).

Social media was, and continues to be, a fundamental contributor to the current uptick in reported mental health issues among teenagers. While skeptics like quantitative and developmental psychologist Candice Odgers and others have called into question Haidt and Twenge's claim that social media "caused" the "rewiring of children's brains" and precipitated the "epidemic of mental illness," the difference of interpretation turns mainly on the degree to

which it is responsible for the upsurge in teen depression, anxiety, and loneliness (Odgers 2024; Twenge 2024).

Some critics of the global "ban the cellphones" movement are uneasy about entrusting this all to government. Most recently, American economist and online culture commentator Tyler Cowen challenged Jon Haidt in a popular podcast to defend his position on banning cellphones (Cowen 2024). Haidt's response: the internet is good, it's social media that's bad for minors because it has completely disrupted childhood development. "Social media is a distorting mirror" with serious adverse effects where kids get lost and "washed out to sea" trapped in a "phone-based childhood." In short, it's reached a crisis point and now a matter of child protection requiring "collective action" and regulation in some form.

Not every research study is conclusive, but the evidence is mountingthat the explosion in social media use, compounded by the global pandemic disruption, can no longer be ignored and requires concerted, collective policy action in a variety of policy fronts (Burn-Murdoch 2023, Buck 2024).

Global and Canadian education policy responses: holes and loopholes

The global public debate over banning cellphones hit a tipping point in July 2023 when the United Nations Educational, Scientific and Cultural Organization (UNESCO)'s report on "Technology in Education" called for schools around the world to ban cellphones from classrooms. The UN agency overseeing economic and social development weighed in, supporting the claim that "even being close to a smartphone has been linked with students being distracted in the classroom, which in turn causes poorer student performance." It also warned against the "overuse of technology like smartphones and computers in education" and reporting that "the benefits they bring disappear when they're used in classrooms without the guidance of a teacher" (Carbonaro 2023).

The Director General of UNESCO Audrey Azoulay spelled it out in the accompanying media release: "The digital revolution holds immeasurable potential but, just as warnings have been voiced for how it should be regulated in society, similar attention must be paid to the way it is used in education." Then came an important qualifier: "Its use must be for enhanced learning experiences and for the well-being of students and teachers, not to their detriment" (UNESCO 2023).

Global policy scan: banning smartphones in classrooms

The July 2023 UNESCO global monitoring report found that in 14 different countries smartphones were distracting students and having a negative impact on learning, but fewer than 1 in 4 nations across the world had moved to ban smartphone use in schools (Carbonero 2023). Large scale student assessment data, such as the Organisation for Economic Co-Operation and Development (OECD)'s Program of International Student Assessment, proved decisive because it showed a clear link between "excessive ICT use and student performance" in the critical skills of reading, mathematics, and science. Students across all OECD countries who spent up to one hour a day at school on digital devices for leisure, according to the 2022 PISA Insights report, scored 49 points higher in mathematics than students whose eyes were absorbed on screens for between five and seven hours per day (Figure 8).

One European country ahead of the curve was France. Attuned to the early signs of "phone-addicted children," French Education Minister Jean-Michel Blanquer was the first to entirely ban cellphones from schools for children as old as 15 in 2018. School authorities in France saw banning cellphones as a "detox measure" to combat widespread classroom distractions, sharing of pornographic images, and cyberbullying (Bennett 2019). Over the past six years, France has managed to eliminate phones in elementary grades, but they have proven more difficult to banish from secondary schools. In a parallel move, France also banned sales of Apple's iPhone 12 in 2023, citing scientific evidence that the device breached European radiation exposure limits (Rigby and Coulter 2023).

UNESCO identified four countries leading the way in curtailing or ending the regular use of smartphones in the classroom: the first Western nation to ban the phones, France (2018), Italy, and then the Netherlands and Finland, which are now implementing restrictive measures. No mention was made of China, which was the pioneer in restricting use of social media in the schools. National

500 490 (mean score in mathematics) 480 470 460 450 440 430 420 Up to 1 hour More than More than More than More than More than None 1 hour and 2 hours and 3 hours and 5 hours and up to 2 hours up to 3 hours up to 5 hours up to 7 hours Learning Leisure

FIGURE 8: Time spent on digital devices in school and mathematics performance.

Source: OECD/PISA 2022.

reports for two countries with decentralized education governance, Canada and Australia, are a bit misleading because they are classified in 2022–23 as restriction free and committed to the long-standing Bring Your Own Device (BYOD) policies of the early 2000s (UNESCO, Country Reports 2023). In the case of Australia, five states – New South Wales, Victoria, Western Australia, Tasmania and South Australia – were implementing blanket bans in 2023–24 in all state schools, with Queensland to follow in 2024 (Dickson 2023). The trend is clearly in the direction of embracing "cellphone-free schools" in the early grades.

Canadian provincial policy scan

Surveying Canadian education policy remains a significant challenge when it comes to education technology, social media use, or restrictions on cellphones in schools. The 2023 UNESCO report repeats a familiar refrain – education is under the exclusive jurisdiction of each of the 13 provinces and territories, since Canada, virtually alone among the principal OECD states, has no national department of education. Provincial and territorial ministers of education do maintain an intergovernmental forum, known as the Council of Ministers of Education Canada (CMEC), with a small office in Toronto. Policy coordination is either loose or non-existent and UNESCO reports that

Canada has "no pan-Canadian definition for ICT or Education Technology," leaving provinces to develop their own policies, laws, plans, and regulations (UNECO, Country Report/Canada 2023).

Seven provinces have adopted, or are in the process of adopting, policies that seek to ban or restrict cellphones in public school classrooms.

Seven provinces have adopted, or are in the process of adopting, policies that seek to ban or restrict cellphones in public school classrooms – Ontario, Quebec, British Columbia, New Brunswick, Nova Scotia, Manitoba, and Alberta. While Ontario announced a partial ban in 2019–20, UNESCO identified its fundamental contradictions. Personal mobile devices were "restricted" in 2019–20 during instructional time, however, "most schools" continued to "encourage Bring Your Own Devices (BYOD) in some way for learning purposes." Prince Edward Island's policy, Ministerial Directive No. MD 2021–03, is more typical, tilting in a different direction, allowing students to "make use of Personally-Owned Mobile Devices" subject only to signing a responsible use agreement (UNESCO Report/Canada 13).

Ontario

Cellphone policy gyrations in Ontario exemplify what tends to go wrong in implementing broad directives in K–12 education. The Toronto District School Board, the largest in Canada, reacted to the smartphone surge in social media usage by introducing a system-wide ban in April 2007 – only to reverse it four years later. The undermining of that partial "ban" was aided and abetted by Bring Your Own Device (BYOD) policies, which formally recognized cellphones as tools for learning. Adopted for reasons of cost-efficiency, BYOD proved to aggravate the "digital divide" of inequities and schools themselves proved unable to curtail the technological tide or properly regulate the use of such devices. The Elementary Teachers Federation of Ontario recognized the problem and passed a 2013 resolution proposing that cellphones be "turned-

off and stored during school hours" unless authorized for use by a teacher (Bennett 2019). Provincial school board officials, and particularly the Ontario Public School Boards Association (OPSBA), actively resisted and undercut provincial directives (OPSBA 2016), with the tacit support of the Ontario Secondary School Teachers' Federation (OSSTF), the largest provincial high school teachers' union. No actual policy was implemented until the Doug Ford Progressive Conservative government took office (Robertson, Muirhead, and Corrigan 2020).

Provincial cellphone guidelines were eventually introduced in 2019–20 with the adoption of the first iteration of Ontario PPM 128 (November 2019). Student use was restricted during instructional time, but exceptions were permitted provided phones were to be used for strictly educational purposes, for health purposes or for special needs. It was left up to boards and schools to implement, and simply did not work (Robertson, Muirhead, and Corrigan 2020; Campbell and Edwards 2024).

Following the UNESCO report, Ontario adopted tougher regulations in April 2024 banning cellphones in all elementary schools (up to Grade 6) and during class time for middle and high school students from grades 7 to 12. Along with a crackdown on student vaping, the province required all 77 school boards to remove access to social media websites from their networks. Student report cards will be updated to include comments on students' distraction levels. Unless teachers authorize the use of devices for learning or exceptional needs, phones will be banished from classrooms, starting in 2024–25 (Ontario Government 2023).

Quebec

The Quebec initiative was first announced in August 2023, a few short weeks after UNESCO recommended restricting smartphones, citing their disruptive effect on classrooms and impact upon student learning. In the provincial directive, issued in October 2023, Education Minister Bernard Drainville entrusted regional education centres (school districts) with the responsibility of banning the use of cellphones, headsets, and other personal mobile devices by students on school premises. Some exceptions were allowed, mirroring the Ontario approach, for specific educational purposes or to accommodate students' medical conditions or intellectual disabilities (Macdonald 2023). It

took effect in January 2024, but has encountered implementation challenges, particularly at the secondary level from grade 7 to 11 (Drimonis 2024). By early May 2024, Quebec Premier François Legault was already musing about cracking down further with a blanket approach like that adopted in France (CTV News Montreal 2024).

British Columbia

Stricter cellphone policy in British Columbia sprung from different origins. The province where cyberbullying victim Amanda Todd of Port Coquitlam took her own life in October 2012 is far more attuned to ever-present online dangers. That explained, in large part, why New Democratic Party Premier David Eby presented his response as an initiative aimed at protecting children and teens from online harms. As the parent of a nine-year-old son, Eby's January 2024 policy pronouncement made particular reference to "online safety" and the dangers of "unregulated internet access" for children that age. While the BC premier followed other provinces in registering concern over "social media platforms with addictive algorithms," it was coupled with a move to curb online predators preying on kids and teens (Crawford and DeRosa 2024). The BC strategy encompassed two new and related initiatives - a service to remove intimate images from the internet and "pursue predators" and legislation aimed at holding social media companies responsible for harms associated with use of their products. All public schools in BC would also be required, by September 2024, to have regulations in place to restrict cellphone use in classrooms (Chiang 2024).

The BC response took an approach markedly different than other provinces. Conscious of divisions in teacher opinion and consistent with NDP policy preoccupations, Eby took dead aim at the "social media giants" like Facebook and Instagram's parent company Meta, which he claimed used algorithms to ensnare kids and addict them with harmful online content. Suing them in the courts would deter the corporations from feeding kids "a constant stream of more and more extreme content" linked to a whole array of mental and physical health problems, such as anorexia, anxiety, and depression, as well as addictive and obsessive behaviours" (Crawford and DeRosa 2024). One BC high school, Chatelech Secondary School on the Sunshine Coast, reported that, since banning phones in January 2023, teens showed improved

mental health, improved social skills, and increased academic success. (Shen 2023). No mention was made of the potential academic gains in the recent BC announcement.

New Brunswick

Cellphone restrictions are being introduced in New Brunswick, largely in response to the public advocacy of the provincial Child and Youth Advocate and concerns expressed by classroom teachers and parents. Speaking in February 2020 before a New Brunswick legislative committee, Kelly Lamrock expressed alarm over social media impacts and proposed that schools be "cellphone-free zones." The proliferation of mobile devices, he reported, were contributing to deteriorating teen mental health and adversely affecting students' ability to concentrate, analyze text, and formulate detailed arguments, most evident in high school debates. Over the previous five years, Lamrock reported that the number of children seeking urgent medical care for depression, anxiety, and suicidal ideation had risen between 28 and 40 percent. It was linked, he claimed, to unregulated exposure to "terrifying and worrisome world events" and sources who "may not be good-faith actors" (Alam 2024). That essentially put social media and cellphones on the provincial policy agenda (Brown 2024).

When NB Education Minister Bill Hogan announced the introduction of stricter cellphone policy, in early May 2024, it came in the form of a proposed revision to NB Policy 311, giving more authority to teachers to crack down on excessive mobile phone use in classrooms. It essentially mimicked Ontario's 2019 regulations by establishing sanctions but allowing teacher discretion and making exceptions for educational or identified medical or developmental student needs (NB EECD 2024; Waugh 2024).

Late converts to cellphone restrictions: Nova Scotia, Manitoba, and Alberta

With a new school year on the horizon, in June 2024 the movement to restrict cellphone use in classrooms gained further traction. On June 6, 2024, Nova Scotia Education Minister Becky Druhan issued a Provincial Directive silencing cellphones in all Primary to Grade 6 schools and tightening restrictions in junior highs and secondary schools (Gorman and Laroche 2024). Francophone school districts were first out of the gate in Manitoba, introducing stricter rules for

2023–24, and plans are underway to expand the practice to all public schools (Buffie 2024). In the West, the Alberta Teachers Associations (ATA) came onside with classroom restrictions and urged Education Minister Demetrios Nicolaides to introduce a province-wide policy (French 2024). The Alberta Ministerial Directive, announced on June 17, 2024, imposed restrictions on use during instructional time, but left implementation up to school districts (Johnson 2024). Most of these cellphone regulation initiatives set minimum standards, focusing on classroom use, much like the Ontario model.

Which way ahead? A cross-sector approach

Social media addiction and the fixation with mobile devices is now ingrained in contemporary life and next-to-impossible to stamp out though school-based bans or one form or another. It will take a broader public policy initiative cutting across the entire social policy domain right across Canada. If there's a hopeful sign, it lies in the growing support among adults - principals, teachers, mental health professionals, and parents who now favour a severe restriction or an outright ban on the so-called "weapons of mass distraction." Overly protective parents who hover over their children's schools are still active, but the social ills associated with social media obsession have tilted the balance in favour of enforceable restrictions. However, in order to achieve a bigger breakthrough, the movement to curb social media addiction will require declarations by global health authorities and mental health agencies that excessive use poses serious risks warranting "cessation" measures and support programs (Freeman 2012; Warnica 2024). In light of alarming new findings on the surge in anxiety, depression, and attempted suicides, particularly among girls (Vaillancourt 2021b), it should also be integrated into calls for a national child and youth mental health strategy in the wake of the pandemic (Vaillancourt et al. 2023).

Going back to the invention of the iPhone in June of 2007, a whole series of initiatives have been launched to restrict use of the devices by children in schools, with mixed success. Fourteen countries around the world, according to UNESCO (2023) have followed the lead of France, China, and the Netherlands

in adopting restrictions on the use of mobile devices. With September 2024 on the horizon, four Canadian provinces – Ontario, Quebec, British Columbia, and New Brunswick – are in various stages of implementing tighter restrictions on the use of mobile phones in the classroom. After surveying the schools, Quebec is actively considering expanding its ban on cellphones, building upon the experience of France over the past six years.

Banning or severely restricting cellphones in classrooms is a quick fix, but only the beginning.

Banning or severely restricting cellphones in classrooms is a quick fix, but only the beginning in the post-pandemic struggle to reclaim the minds of the smartphone generation and to curtail the adverse effects on the mental wellbeing of children and youth. Smartphones are essentially the new cigarettes albeit without the frightening and immediate health risks (Warnica 2024; Deneault, Madigan, and Vaillancourt 2024). Changing a contemporary culture dominated by mobile devices and social media is a daunting challenge and one that extends far beyond the purview and capacities of school systems. It begins at birth and needs to encompass every stage of human development affecting toddlers, tweens, teens, and youth up to 24 years of age (considered prolonged adolescence and covering the first phase of post-secondary education).

Haidt's *The Anxious Generation* has put the critical issue on the larger public policy agenda in Canada, the United States, and the Anglosphere. It's now virtually impossible to ignore, but – to date – the proposed prescriptions do not fully address the need for a broad cross-sectoral change encompassing public health, education, and social and community services. It will take a mobilization of change forces comparable to that committed to stamping out smoking in public spaces (Els, Kunya, and Selby 2012) and cessation of tobacco use among teens (Freeman 2012).

U.S. Surgeon General Vivek Murthy's June 2024 declaration may well be a tipping point. Utilizing a Guest Opinion Essay in the *New York Times*, he identified social media addiction among teens as a mental health emergency and called upon Congress to introduce legislation authorizing a "warning label" for

social media platforms (Murthy 2024). His recommended plan of action went far beyond anything contemplated up until that point. It would encompass federal legislation to "shield" children and youth from "online harassment, abuse, and exploitation," federal and state regulations to require social media companies to share data on health effects and be subject to independent safety audits, and the adoption of mutually supportive policies in the schools and public health domains.

A comprehensive, cross-sector change agenda is urgently needed to improve teen mental health and reclaim student attentiveness. Curbing the detrimental influence of social media is the priority, but it must be achieved without cutting off access to the internet for older, more mature students. It will require federal public health leadership and should be built upon a child development framework, embrace evidence-based and age-appropriate research in key fields. Based upon this report's findings, the most effective nationwide strategy would encompass the following approach, setting out a proposed federal plan of action and some sound, implementable age-appropriate guidelines:

Overall strategic approach: public health policy leadership

- Commission a comprehensive public health study to fully investigate social media addiction and its severity among the school-age smartphone generation across Canada.
- Review the emerging research on social media and its harmful effects on children and adolescents, examining the extent of the mental health crisis.
- Study the urgent calls to action, including the U.S. Surgeon General's June 2024 declaration (Deneault, Madigan, and Vaillancourt 2024).
- Urge Canada's Chief Medical Officer of Health and Health Canada, in collaboration with provincial public health authorities, to identify social media addiction as an urgent mental health problem and consider the introduction of "warning labels" on social media platforms.
- Support a longer-term Pan-Canadian initiative aimed at mounting a legal case against social media conglomerates seeking damages for the harmful mental and physical effects on children and teens.

Child and youth development initiatives

Early childhood (birth to 5 years)

- No smartphones or social media for toddlers and very young children in the early years of life.
- Embrace and support the guidance of the Canadian Paediatric Society (CPS 2022 and U.S. Surgeon General 2023) on family cellphone use and exposure to social media, reaffirming that there is "no evidence to support introducing technology at an early age."
 - Screen time for children younger than 2 years is not recommended (except for video-chatting with caring adults);
 - For children 2 to 5 years, limit routine or sedentary screen time to about 1 hour or less per day.
 - Ensure that sedentary screen time is not a routine part of childcare for children younger than 5 years.
 - Maintain daily screen-free times, especially for family meals and book-sharing.
 - Avoid screens for at least 1 hour before bedtime, given the potential for stimulating and melatonin-suppressing effects.
- Gradually introduce young children to play, indoors and outdoors, in unsupervised settings.
- Introduce parent education programs alerting new mothers and families with young children to the risks of screen exposure and the addictive effects of early mobile phone use, birth to 5 years of age (McCarthy 2015).

Childhood (6 to 12 years)

- Phone-free schools up to Grade 6 except in exceptional cases supported by documentation from a medical professional (Murthy 2024).
- Develop and implement evidence-based pedagogy and curricula informed by best practice in "creating a culture" of positive student behaviour (Bennett 2017) and teaching "habits of attention," beginning the early grades (Lemov 2022).
- Introduce the concept of online safety and include sessions and activities properly equipping children to cope with, and safeguard

- themselves, from threatening or illicit online influences.
- Parental guidance: Restrict access to social media during leisure time to demonstrate consistency with school policies. Be flexible in introducing children to safer personal communications devices, such as flip phones, basic phones, or phone watches.
- Safeguards: Make use of technological tools to restrict and eliminate sources of information unhealthy or potentially damaging for children (i.e., TikTok, pornographic sites, and sexting).
- Introduce free-play sessions demonstrating the many advantages and sheer enjoyment of properly scheduled unsupervised play.
- Support the establishment of "Cellphone Reduction and Cessation" programs, to be offered by public health offices and delivered by properly licensed mental health professionals.

Adolescence (13 to 17 years)

- Phone-free classrooms for middle schools and high schools (Grades 7 to 12). Strict limits on cellphone access and use on school premises and immediate vicinity of schools.
- Mobile phone management and control: System-wide, schoolenforced lock-up system, including hallway phone lockers, classroom boxes, or Yondr pouches for the entire school day, 8:00 a.m. to 4:00 p.m.
- Scheduled physical and health education, including leisure recreation, ideally once a day during the school week.
- Integrate teen mental health programs into the core curriculum from grades 7 to 10 in schools (Kutcher, Wei, and Morgan 2015).
- Expand counselling services with sufficient human resources to provide interventions and ongoing social therapeutic support and referral to mental health professionals (Vaillancourt 2021, 2022).
- Support the development of "Cellphone Reduction and Cessation" programs designed for adolescents, as a supplement to current "Online Safety" sessions offered in many Grades 7 to 12 schools.
- Integrate reduction in excessive mobile device use and social media addiction into any plans for a post-pandemic national child and youth mental health strategy for Canada.

Extended adolescence (18 to 24 years)

- Establish, publish, and implement responsible use guidelines or policies governing the use of mobile devices and social media in all education sessions, lecture halls, and classrooms.
- Investigate the impact of excessive social media use on the preparedness of post-secondary students, particularly their capacities and motivation to read longer texts (McMurtrie 2024).
- Introduce and practice a new set of social norms privilege personal, face-to-face communications, seek a consensus on mobile phone etiquette, and establish meaningful sanctions for repeat offenders who violate minimum community standards.
- Establish university, college, and community support programs in response to social media addiction and related mental health disorders (Vaillancourt 2022).
- Ensure that universities, colleges, and workplaces have protocols in place for referring those affected by social media addiction to properly accredited mental health professionals. MLI

About the author



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- Cited by five present and former Canadian Prime Ministers, as well as by David Cameron, then British Prime Minister.
- Hill Times says Brian Lee Crowley is one of the 100 most influential people in Ottawa.
- Wall Street Journal, Economist, Foreign Policy, Globe and Mail, National Post and many other leading publications have quoted the Institute's work.

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MLI has been active in the field of indigenous public policy, building a fine tradition of working with indigenous organizations, promoting indigenous thinkers and encouraging innovative, indigenous-led solutions to the challenges of 21st century Canada.

- The Honourable Jody Wilson-Raybould

I commend Brian Crowley and the team at **MLI** for your laudable work as one of the leading policy think tanks in our nation's capital. The Institute has distinguished itself as a thoughtful, empirically based and non-partisan contributor to our national public discourse.

- The Right Honourable Stephen Harper

May I congratulate **MLI** for a decade of exemplary leadership on national and international issues. Through high-quality research and analysis, **MLI** has made a significant contribution to Canadian public discourse and policy development. With the global resurgence of authoritarianism and illiberal populism, such work is as timely as it is important. I wish you continued success in the years to come.

- The Honourable Irwin Cotler

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