

Digital Emotional Intelligence

Yuliia Maiorova

Lakehead University

Master of Education in Educational Studies

Final Portfolio

Dr. Michael Hoechsmann

August 2026

Dedication

I dedicate this portfolio to the memory of my dear friend Laura, who passed away from cancer during the first months of my Master of Education journey.

In the final months of her life, she encouraged me to pursue my ambitious journey. She reminded me that I should do what I wanted with my life and told me that, if I wanted, one day I could become a professor. Her courage and determination stayed with me throughout my degree. Whenever I questioned whether I belonged in the program, felt overwhelmed, or considered giving up, I thought of her. Having the health and opportunity to continue my education began to feel like something I should not take for granted. Completing this portfolio is, in a small way, my tribute to her memory.

Acknowledgments

I am grateful to the people who have contributed to the development of this portfolio, and I would especially like to thank Dr. Michael Hoechsmann for recognizing the potential of this project when I submitted a children's story as my final assignment in his media literacy course. At that point, I had written the story as a course assignment, and I could not imagine it could become something larger. His invitation to consider developing a portfolio with him came at a time when I was not yet certain that I had the ability to undertake something of this scale. I decided to take the chance, because his willingness to open that door made me wonder whether he saw something in my work that I had not yet learned to see in myself. It was an honour to have the opportunity to work with him through individual mentorship. Having his guidance meant that I could bring questions, try out ideas, rethink them, and continue developing my own project. For me, this was one of the most valuable parts of the MEd experience: being given the space to follow an idea further than I initially thought I could. For that, I am deeply grateful.

I would also like to thank Dr. Tanya Kaefer for agreeing to serve on the committee evaluating this portfolio. I was honoured to have her guidance, which largely influenced this portfolio to include a lot of psychological insight into the issue discussed. I was lucky to have previously worked with her as a Graduate Assistant, because psychology has long been a personal interest of mine, and now I was able to embody that in my final educational project.

Finally, I acknowledge my children, whose experiences and curiosity have influenced many of the questions that led me to this work. By truly engaging with Grandma's Story and asking for more, they also gave me ideas for improving the book's visuals and made valuable corrections.

Introduction

My first child was born almost ten years ago, and even before she was born, I watched my younger brother grow up, beginning in 1998. Even then, I realized how different his childhood was from mine. Being nine years apart, I was closely involved in my younger brother's upbringing as his older sister, which very much revolved around the stationary computer in our living room. I wouldn't say that this affected him in a negative way, but his childhood was definitely very different from how I spent my days from the age of six onward. At the same time, he was very active and involved in our street boys' squad, jumping from garages, climbing poles, and riding his bike across half the city. Building my approach to motherhood upon my previous experience as an older sibling was an exciting journey. I read extensively about children's psychology, and by 2015, there was already a growing body of international research and statistics on the pioneers of digital childhood. These children were now around my brother's age, and the findings made me want to be prepared to make a difference in my own children's lives and to take a more intentional approach to technology in childhood.

At the same time, something seemingly unrelated at first glance was happening in my homeland. Crimea, part of Ukrainian territory, was annexed by the Russian Federation, and my entire family had to adjust to living under a different legal system. Travelling became much harder for them as the territorial dispute continued and became increasingly dangerous. For me, travelling to see them increased from 14 hours door-to-door to 36 hours or more, including crossing the border on foot for about a kilometre because transportation from both sides was only allowed up to the border. Because the Crimean Peninsula is connected to the mainland by a very narrow strip of land, this was the only route available. I did this many times, in all seasons, travelling with a stroller, two children, and two suitcases. I physically experienced what it meant to navigate a changing environment without having control over the system. As much as I wanted to blame the circumstances that made it three times harder for my children and me to see our family, I had to find solutions, navigate a new system, protect my values, and find ways to work within its constraints. And I had to do it quickly—children do not stay children for long. I wanted

them to inherit and benefit from both cultures they belonged to, as well as from their grandparents' culture and language.

When the time came to make decisions about my children's media education, I realized that I had been here before. I had to navigate a system that I did not necessarily agree with; however, the process of finding ways to make things work within those conditions was familiar to me. In my personal experience, the first step was always to face the facts: I could not change the circumstances themselves, but I could decide how to navigate them while protecting the values that mattered to me. I began to see the same principle applying to children's media education. Media culture is already deeply embedded in children's lives; technology is widely used in schools, and children socialize in environments shaped by digital media and algorithms. We cannot simply wish these realities away, and I did not want my response to be limited to resisting them through measures such as banning social media. Instead, I wanted to understand the environment children are growing up in and explore how parents and educators can navigate it more intentionally. In both situations, I was confronted with a system larger than myself that I did not fully agree with, but that I could not simply ignore. My experience with my family's circumstances in Crimea did not directly lead me to Digital Literacy, but it shaped the way I approached it. I had already learned that rejecting a system does not make it disappear. Sometimes the more productive response is to understand the system, identify what can be changed, protect what matters, and learn how to navigate what cannot immediately be changed.

This approach is reflected in this M.Ed. portfolio made up of three components intended for three distinct (and sometimes overlapping) audiences. Each of the three parts of the portfolio offers a different entry point into the topic. First, is the literature review which is intended for an academic audience of educators. Here, I began the process of developing this portfolio by gathering and examining a representative sample of research from different perspectives that examines digital childhoods and digital literacy. Second, is a website intended for parents and teachers, where I translated some of this complex information into more accessible language while also providing a collection of resources for further exploration. I intentionally included different types of sources - research papers, books, and videos -

because I recognize that people approach information from different educational backgrounds, experiences, and learning preferences. Rather than presenting one definitive approach to the issues, I wanted to create a starting point that would allow parents and educators to explore the problems at hand at different levels of depth, develop their own understanding, and make more informed decisions about children and technology.

The third component is a fictional children's book called *How My Grandmother Fell Under Surveillance* that uses the story telling format to raise awareness through some cautionary and possibly humorous points. I chose to focus the narrative particularly on algorithms because they are one of the most difficult aspects of children's digital experiences to explain to kids and the adults in their lives. Focusing on the basics of how algorithms work and what are their impacts, I tried to make the underlying concepts understandable through a story. *Grandma's Story* was produced using scrollytelling software and for ease of access I have embedded it in the Web site, but it is intended as a distinct unit of this portfolio. The portfolio is the product of a learning journey for me, not only involving some research and reflection, but also the development of new digital skills which were essential to produce a Web site and a scrollytelling essay. Ultimately, this portfolio reflects who I am, the experiences that brought these issues to my attention, and the questions I believe are important for children, parents, and educators to consider.

Part 1. Digital Emotional Intelligence Literature Review

Smartphones are increasingly becoming a core element of young people's daily lives. While it is not a surprise that 96% of teenagers use the internet daily, it is alarming that 46% report being online almost constantly (ACT for Youth, 2024). Many teenagers recognize the problem, with nearly half saying they spend too much time on social media, and 44% reporting having cut back on their social media and smartphone use as a result. Almost every second teenager suffers from sleep loss because they try to stay awake to check notifications, with 40% reporting a noticeable drop in productivity during the day (Faverio, Anderson, & Park, 2025).

Today's teenagers are the first generation to grow up entirely within a digitally connected world, where online interactions, algorithmic content, and social media are deeply embedded in their daily lives (Twenge, 2017; boyd, 2014). However, growing up with technology does not automatically equip young people with the emotional and critical skills needed to navigate it in healthy and balanced ways. While adolescents' self-regulatory capacity matures slowly and is not fully developed until the mid-20s (Steinberg, 2008), critical media literacy skills can be learned (Buckingham, 2003) and may compensate for this. Digital competence helps young people cope with negative online experiences and supports their well-being (Vissenberg et al., 2022). Together, emotional and digital intelligence can help to build balanced use of media, these interdependent competencies form Digital Emotional Intelligence (DEQ) (Audrin and Audrin, 2023). Given how much of childhood now unfolds online, developing this blended competence is a foundational skill for a successful, well-regulated life in the world these children will live in.

If the purpose of education is to prepare young people for life beyond school, how should education respond to a society in which digital environments increasingly shape children's development, relationships, and future participation in it? In other words, how can we prepare children to thrive in an always-on digital culture? These questions are explored by a number of researchers in education, psychology and sociology. In this brief review, I will highlight some key contributions to literature about

media obsession, digital childhood, digital and media literacy, and digital emotional intelligence (DEQ). Given the limited scope of this portfolio study, my goal is to report on a representative sample of significant contributions, not provide an exhaustive overview.

Part 1: The Reception of *The Anxious Generation*

There is no doubt that Jonathan Haidt's best seller, *The Anxious Generation* (2024), has had a substantial impact on popular understanding and scholarly debate on growing up in a time of always-on media. Reading it, I wanted to jump to immediate practical solutions for my children: to ban technology at playdates, to transfer schoolwork from Google Classroom to paper, and to isolate them from technology as much as possible. As I tried to follow recommendations and build awareness within my community, my discussions with other parents revealed some realities. Some parents had previously allowed their children to use instant messaging to keep in touch with friends, regretting it because of compulsive checking and an overall attachment to notifications; others planned to delay any use of technology until the age of fifteen; and some were alarmed but had little confidence that setting limits would work. Yet we spent hours discussing our children's relationship with technology without once examining our own.

Problems Identified

Focusing on solving a problem at the level of a single family seems confusing without first understanding the scale of the change. The problems Haidt (2024) identifies did not appear suddenly, as Ontario's standardized test data shows that math scores had been declining steadily for a decade. The pandemic then accelerated an already existing trend: Grade 3 reading dropped from 77% meeting the provincial standard in 2018–19 to 73% by 2022, and writing fell from 72% to 65% in the same period (EQAO, 2022). Five years later, half of Grade 6 students and 42% of Grade 9 students in Ontario still do not meet the provincial standard in math (Globe and Mail, 2025). The Ontario government's own response confirms the scale: \$180 million invested in a "back to basics" strategy for 2023–24, with the

Minister of Education stating directly - “if we don’t intervene at the front end and course correct these challenges for these young kids, it can lead to long-term impacts” (Ontario Ministry of Education, 2023).

Academic decline is the most visible consequence, but Haidt (2024) argues it is only the surface. Underneath it, the problem most difficult to ignore is mental health: about 1 in 5 Canadian youth who rated their mental health as good or better in 2019 no longer felt that way by 2023, with girls more likely than boys to report declines (CIHI, 2025). Self-injury among Canadians under 24 increased by an average of 3.5% every year between 2000 and 2024, more than doubling over 25 years, with the trend accelerating specifically among girls (Saunders et al., 2026). Claims for mental health counselling in Canada reached \$730 million in 2023 - more than double the amount of four years prior (CIHI, 2025). Less visible, but equally serious, is what happens to identity: algorithmically driven content shapes how children understand themselves and others, producing polarization and social withdrawal in ways that no teacher or parent can easily undo.

Proposed Solutions

Delayed smartphone access, limited social media, and built community with like-minded parents in supervising children’s digital lives are Haidt’s (2024) recommendations for better childhood. It is remarkable to note how many governments around the world, led by Australia, are either following his suggestions or mirroring them. What stands out, however, is how much energy is spent on fixing children, while adults are equally susceptible, often more so because they have more accounts, more professional obligations tied to devices, and less social permission to admit the problem. This raises an important question about the lack of broader media regulation and the wild west of bro-tech firms developing and standardizing tools that are used by almost everyone.

Research on what is now termed “technoference” - parental phone use in the presence of a child - confirms what many parents already sense but rarely say aloud: 68% of parents report being distracted by their phones when spending time with their children, and over half admit they spend too much time on their smartphones (Pew Research Center, as cited in Auxier et al., 2020). When parents’ attention shifts to a device, they become less sensitive and responsive to their child - missing bids for connection, failing to

notice signs of emotional distress, and speaking less, all of which directly affects children's language development and emotional security (Chamam et al., 2024). The same parent who has not set foot in a gym in years will lecture their child about the importance of physical activity. I am guilty of staring at my phone when my children are talking to me, and I suspect most parents can relate. The problem is that adults themselves need digital literacy and skills to navigate the same attention economy as their children.

This is where Haidt's most practical recommendation lies, as phone-free family meals, no screens in children's bedrooms, and narrating your own technology choices out loud as "I am putting my phone away because I want to actually be here." The best part of these steps is that they cost nothing and require no community coordination, no school policy, no government intervention.

However, self-awareness alone cannot explain why presence became so difficult in the first place. Turkle (2016) argues that people turn to devices not only out of habit but because in-person interaction is demanding, and a phone offers an escape from the vulnerability.

A parent reaching for a phone at dinner is not simply distracted; they are often exhausted and overstimulated by the same systems that overstimulate their children. The smartphone did not displace family life, it moved into a space that was already emptying, a pattern boyd (2014) observed in teenagers specifically: young people did not abandon streets, parks, and gathering places by choice, their access to those spaces was progressively withdrawn, and screens filled the gap.

Part 2: Global Crises and Digital Childhood

Social challenges that humanity faces today are often blamed on screens, yet the communities, civic ties, and shared spaces that once held families together have been quietly eroding for decades. In *Bowling Alone*, a landmark study of community breakdown in the U.S., Robert Putnam (2000) identified and explored the impact of technology, suggesting that it is one of several forces driving the decline of social capital, but not the only one. Putnam (2000) argues that social ties were fraying based on other factors such as a decline in civic participation, suburban sprawl, and increased work pressures. The

COVID-19 pandemic seemed to mark a new period of social disintegration and growing screen use among children and adults. However, other factors such as global conflicts, economic insecurity, social polarization were present long before the COVID-19 pandemic. Though these outside factors may appear disconnected from the challenges of screen time in a single home; however, they are deeply connected to those challenges, shaping the conditions in which children develop and grow up. The following section moves beyond the question of screens toward a deeper examination of those conditions. By positioning media use within this broader ecosystem of social, environmental, and political pressures, the aim is to reveal long-term strategies rather than to target each problem in isolation.

2.1 Social Fragmentation and the Erosion of Social Capital

The Value of Social Capital.

Once thriving as a democratic society, America American communities have historically relied on strong networks of social connection and civic participation (Putnam, 2000). Churches, sports clubs, and non-profit organizations were the places that used to bring people together. Neighbours used to knock on a door when something seemed wrong, which made a parent feel safe letting a child walk to school and made the community rely on each other. Putnam's (2000) research demonstrated that this infrastructure has measurable consequences: in his study of regional governments in Italy, he found that identical institutional structures produced dramatically different impacts depending on the level of civic engagement. This is how it works: a parent lets a child walk to school because three neighbours on that street will notice if something is wrong; in a low-trust community, the same parent drives the child or keeps them inside. When social capital erodes, institutions have to work harder to produce the same outcomes (Putnam, 2000).

Women's roles in maintaining community bonds.

There is evidence that communal life mostly depended on the unpaid labour of middle-class women. Putnam (2000) documented this directly: membership in women's civic organizations was "virtually halved since the late 1960s." It was this layer of voluntary middle-class female labour that maintained the structures through which children participated in community life, such as the scouts,

church youth groups, and neighbourhood sports leagues. Over the past few decades, increasing financial pressures on working and middle classes in the era of neoliberal capitalism pushed many women into full-time work outside the home (Fraser, 2013). Statistics show that women's labour force participation in Canada rose from 24% in 1953 to 76% by 1990 (Statistics Canada, 2016). The financial crisis of 1973 made two incomes necessary and post-war credit expansion had already normalized debt, with homes, cars, and appliances available. It was tempting to own and "improve" one's life, making spending a cultural marker of belonging rather than being truly practical (Housel, 2020).

Consumerism as the new normal

Children today get used to hanging out in places where buying things is just part of fitting in (Cohen, 2003). Most of us would feel uncomfortable sending a child on a field trip to the zoo without spending money for a souvenir - it is almost expected, and nobody wants their child left out when everyone else is picking something out at the gift shop. Teenagers meet at the mall as part of socialization, but if they do not have money, where do they go? Especially since the 1950s, consumerism has become a cultural characteristic of North American society (Cohen, 2003). Today, industries operate within that same culture at an incomparably greater scale, dictating standards for belonging, identity, and social validation through technology and algorithms (Srnicsek, 2017). Civic participation is learned behaviour (Putnam, 2000), and so is financial behaviour (Housel, 2020) - children raised in households where debt and purchases on credit are normalized tend to absorb buying as belonging. Marketing and industry have deliberately associated identity systems with consumer products, accelerating the process through rapid changes in fashion, music, and entertainment (Cohen, 2003).

The impact of consumerism and individualism on mental health

Alongside consumerism, the collapse of community has also enhanced individualism. A number of studies have documented generational increases in individualism and materialism alongside declines in mental health, interpersonal trust, empathy, and civic orientation since the 1960s (Twenge & Campbell, 2013). The shift from collective to competitive behaviour has not contributed to well-being or life satisfaction (Putman, 2000). Communities that once functioned as a team, where a parent's problem was a

community's problem, became a stage for individual performance: owning more, earning more, appearing more successful. Children absorbed this behaviour and carried it online, where the same competition for attention and validation plays out through likes, followers, and curated identities rather than genuine reciprocal relationships.

2.2 Mental Health Strain in the Context of Overlapping Crises

Understanding children's mental health requires looking beyond individual experiences to the broader social and economic conditions in which children develop. National Canadian data show that youth in lower-income households report significantly higher rates of anxiety, depression, and emotional distress than their peers, while concerns about housing affordability and future employment contribute to feelings of hopelessness (Statistics Canada, 2023). These findings point to the ways economic insecurity can become part of children's emotional environments, extending beyond financial hardship itself to shape their sense of stability and future possibility.

Along with a broad global crisis and increased violence, complications in the economy are strongly correlated with a decline in youth mental health. National Canadian data show that youth in lower-income households report significantly higher rates of anxiety, depression, and emotional distress than their peers, and that concerns about housing affordability and job prospects contribute to pervasive hopelessness (Statistics Canada, 2023). Beyond the plain statistics, what it means for the future of this generation of middle- and low-income children, as their families fall into crisis, is the loss of hope for opportunities and a positive outlook for their future. Children and young people increasingly report feeling overwhelmed, disempowered, and uncertain about their futures in the face of global crises — a psychological pattern that reflects internalized insecurity about economic and structural forces beyond personal control, with 6 in 10 youth saying they feel overwhelmed by current events and only about half believing they have effective coping mechanisms (UNICEF, 2025).

The perspectives on higher education, self-actualization, and engagement with beauty through art and other creative pursuits are likely to be constrained for children growing up in chronic-stress, survival-focused environments. Consequently, these children may gravitate toward readily accessible sources of

stimulation, such as social media, short-form video clips, online shopping, and curated self-representation, which provide immediate gratification and emotional relief. With limited exposure to alternative creative or educational experiences in their formative years, they gravitate toward these low-effort sources of dopamine (Alter, 2018; Twenge, 2017).

2.3 Developmental Disruption

Free play and face-to-face interaction are crucial for children's development, as unstructured social and physical experiences support cognitive, emotional, and social growth (MediaSmarts, 2022). Studies have shown a correlation between increased technology use and declines in certain cognitive and attention skills, suggesting that time spent on screens can displace opportunities for development (Haidt, 2024). The biggest spike in technology use happened during the COVID-19 pandemic - along with reduced social interaction, health concerns, and a sharp increase in poverty - producing a significant shift in which digital technology became the only resource for education and social interaction, and a coping tool for many children and parents (Hedderson et al., 2023).

However, digital technology and the lack of free play during the COVID-19 pandemic were not the only reasons for developmental problems. Many children were confined at home with parents experiencing conflicts, yelling, and harsh discipline (Thomson et al., 2021), as well as parental stress related to substance and alcohol abuse (Ou et al., 2024). Financial instability and changes to household routine placed a significant level of psychological distress on families and generated negative parent-child interactions. This suggested that accumulated problems and toxic stress, amplified during the pandemic, contributed to children's developmental issues after the COVID-19 pandemic (Thomson et al., 2021).

UNICEF (2021) emphasizes that caregiver stress plays a central role in shaping children's development, as parents' emotional well-being, responsiveness, and capacity to provide nurturing care influence social, emotional, and cognitive growth. Stress can arise from economic insecurity, pandemic-related disruptions, work-life pressures, or environmental challenges that disrupt routines. When caregivers experience heightened stress, children receive less consistent supervision, reduced opportunities for guided play, and lower emotional support, all of which can delay self-regulation,

independence, and social skills. Clearly, the social and economic conditions that impact upon quality child care and guidance are an important factor in dysregulated childhoods, and there is no predictable pattern that will determine a particular child's circumstances, but these conditions are nonetheless in the background. Digital technologies have emerged over the past three decades (and media technologies before that) in the foreground of children's lives. One of the problems with books such as *The Anxious Generation* is that the general public does not read the fine print about broader social processes and just adopts it as a warning against digital technology in children's lives. Alongside warnings about the risks of digital technology, there is a need for an educational response. Buckingham (2003) distinguishes between protection and empowerment approaches to address this problem, advocating for protecting children from the worst elements of the Internet, addictive social media, and smartphones, and, in the long run, empowering the next generation to cope with the challenges they face.

Part 3: Digital Media Literacy

Digital media literacy is a necessary skill and competency today. While it is widely recognised that the internet is largely unregulated, parents continue to trust online sources to an extent that they give children technology for unsupervised use, as if they were babysitters, providing unlimited entertainment and education. Haidt (2024) describes this time as the "great rewiring of childhood," where unsupervised digital play has replaced outdoor and in-person interaction, creating risks for attention and mental health disorders, as well as social degradation.

Given that young people have developed mental disorders, in some cases even leading to suicide, where harmful media use is a significant contributing factor, it is crucial to extend this conversation to the broader spectrum, leading the public to explore nuances about digital media education. After reading *The Anxious Generation*, I can easily imagine that parents' first reaction might be to take the phone away or use other impulsive approaches if they do not have a clear strategy for teaching children about media literacy. Clearly, parents need to learn basic, age-appropriate strategies for validating information and

regulating screen time within healthy limits. The following summary of digital media literacy reflects key developmental stages, based on Jean Piaget's theory:

Infancy (0–3 years)

For decades, infancy has been understood as a stage centred on the development of sensory and motor skills through the child's own actions on the environment, as touching and manipulating objects was considered key to development (Scott & Cogburn, 2023). This account is largely confirmed by recent research on the role of screens in early development: when screen-based content is substituted for that direct, hands-on engagement, it has not been shown to offer any benefit (Christakis, 2009). If anything, the effect runs in the opposite direction, as time spent with gadgets has been shown to displace opportunities for the natural, direct learning this stage depends on (Christakis, 2009). There are also links to emotional reactivity: when gadgets are used as a calming technique, particularly with children who already have a more reactive temperament, this predicts increased emotional reactivity over time (Radesky et al., 2023). While researchers must account for age, sex, and individual sensitivity to screens, a "multiple-mechanism" explanation has been proposed for why children aged 0 to 3 gain no benefit from screen time and struggle to learn from it: the demands of dual representation, reduced social cues, the perceptual limits of two-dimensional images, and challenges in memory and retrieval all appear to combine. Furthermore, live and pre-recorded videos showed no significant overall difference, as both underperformed compared with in-person interaction (Strouse & Samson, 2021).

Early Childhood (3–6 years)

Piaget's preoperational stage is defined by the semiotic function represented through signs and symbols. This stage is characterized by five behaviours, including mental imagery (Scott & Cogburn, 2023). Modern research on screen time and mental imagery found that screens present children with ready-made images rather than requiring them to construct their own. Unlike books read aloud, which require children to construct images internally, transferring what they hear to what they know and thereby actively exercising their imagination, screens deposit the products of someone else's imagination. Even modest

daily screen time, such as an hour of television, or ten minutes of active media use, predicted measurably weaker mental imagery performance approximately ten months later (Suggate & Martzog, 2020).

Middle Childhood (6–9 years)

This is a significant stage in media literacy, as children begin engaging with online content as part of their social lives, and many get their first phones. Snapchat, YouTube, and Instant Messaging will all be available, all at once. The question is where to begin the journey into the wide open spaces of media before a child sends their first Snap or watches their first YouTube video. It is recommended for a parent to go through the settings together, turning off Snap Map location sharing, setting contacts to friends only, and disabling Autoplay on YouTube so that every video is a choice rather than an algorithmic suggestion (MediaSmarts, n.d.). The conversation about online safety establishes that every platform has settings, that settings are choices, and that the default settings are not designed with the child's best interest in mind.

Children begin to show critical thinking and recognise that not everything they see is true. People can hold false beliefs, and opinions can differ from facts (Weinstock et al., 2020). They also develop stronger needs for peer acceptance as they learn to interpret emotions (Cuciniello et al., 2025). At this age, they can practise identifying the intent of media makers and the emotional cues in digital communication (Rozendaal et al., 2011). A simple example: a pretty little girl excitedly shares her shopping haul on YouTube, showing everything she received. Asking your child some questions — where would you put this many clothes? Where do they go when you grow out of them? If everyone bought this much, where would all that waste end up? — makes the advertising visible by making it absurd. Questions like these do not require a child to understand marketing strategy; they simply follow the logic of the content to its natural conclusion, and that conclusion reveals the intention behind what seemed like an innocent and joyful video.

Adolescence (12+ years)

Teens develop the ability to form hypotheses, reflect on their own thinking, and challenge adult views. This marks a shift from following rules to forming personal standards - a shift that media literacy at this stage should work with, not against, by building two kinds of skill: emotional self-regulation, and concrete knowledge of how digital systems work.

Emotional self-regulation. Adolescents tend to overestimate the rewards of an action and underestimate its potential costs (MediaSmarts, n.d.). Because online consequences are often harder to undo than offline ones, it helps to reframe the question a teen asks themselves - not "what's the chance this goes wrong?" but "if it does go wrong, can it be undone?" - along with a habit of mentally expanding the audience before sending anything (Reyna & Farley, 2006). This same self-regulation skill extends to the quality of engagement itself. International research suggests the *nature* of digital engagement matters more than the amount: Finnish researchers found that adolescents who used technology actively and creatively showed significantly better academic and wellbeing outcomes than those who used it passively (Hietajärvi et al., 2022). A parent or teacher who asks not "how long were you online?" but "what did you make or learn today?" shifts the conversation toward purposeful use. Two further techniques support this: asking whether current use serves or undermines what a teen actually cares about - creativity, self-expression, genuine connection (Çolak et al., 2023) - and cognitive defusion, naming an impulse before acting on it, such as recognizing "I am having the thought that I need to check Instagram" rather than simply opening the app (Çolak et al., 2023). Alter (2018) calls a related technique behavioural substitution: replacing the automatic action with a deliberate, competing response that satisfies the physical impulse without reinforcing the habit loop.

Digital competency. Alongside self-regulation, teens need concrete knowledge of how digital systems actually work - knowledge that is technical, not emotional, but that only becomes protective once it is applied through emotional awareness. This includes understanding how content posted online can be persistent, visible to unintended audiences, and easily spread or searched long after the fact, in ways very different from an offline conversation. (MediaSmarts, n.d.) It includes recognizing embedded persuasive design - the techniques platforms use to hold attention - and having a basic awareness of how AI-driven

systems and chatbots can shape emotional responses. It also includes practical skill: managing privacy settings, recognizing scams and phishing attempts, and making deliberate choices about how to present oneself online (Audrin & Audrin, 2023).

Knowing how these systems work is not, by itself, protective. A teen who can name a platform's persuasive design but has no self-awareness of when it is working on them gains little; a teen who understands how content spreads but lacks the empathy to consider how their own words might land on someone else gains little either. It is the pairing of the two - technical understanding, applied through emotional self-regulation and awareness of others - that recent scholarship names *digital emotional intelligence (DEQ)*: a proposed integration of emotional intelligence and digital competence, in which the two are treated as interdependent rather than separable skills (Audrin & Audrin, 2023). Intervention research supports this pairing directly - a school-based literacy program that combined media literacy with emotional-awareness content produced stronger improvements in children's conflict-resolution skills and reduced aggression than programs addressing either skill alone. While the above information about developmental stages and an appropriate media literacy action plan can help parents at the beginning of their journey, everyone must find a solution that resonates with their child's situation. Having a teacher who is well versed in digital media literacy improves the situation immensely.

Part 4: Digital Emotional Intelligence and the Skills of the Future

More than ten years ago, during a professional development course, I remember asking a professor how one might learn emotional intelligence after he had explained that EQ accounts for a large portion of career success. It was not a straightforward answer: "You can't really teach someone to be more human." A decade later, I have discovered that being human is only possible through genuine interaction and life experiences. Children must learn these basic skills through face-to-face interactions, using all their undistracted attention the same serve-and-return exchange identified as essential to early development, something a screen cannot replicate (Christakis, 2009). This is why digital emotional intelligence cannot

be left to develop on its own: it has to be built in two stages, beginning with the undistracted, face-to-face empathy of early childhood and later made explicit and taught directly to teens, so that they grow into informed, responsible digital citizens rather than adults who, decades into using these platforms, still cannot navigate conflict online.

What can be said about children's prospects, then, when adults all over the world are still having a hard time navigating emotions, showing aggression and hostility online, often ruining families and lifelong friendships in the process. It is a serious challenge when online spaces are filled not just with misread emojis but with genuine moral outrage during conflict, crisis, or political division. The Russia-Ukraine war of 2022 offers a clear illustration of this dynamic. Bandura et al. (1996) term the underlying process moral disengagement: the way people detach their ordinary moral standards from their own conduct by convincing themselves that harm is justified by a higher cause. In the online conflict surrounding the war, this pattern was visible even among people with long-standing friendships across national lines, who appeared to convince themselves that cruelty toward "the other side" was justified by the cause. In this specific case the cause was The mechanism of empathy traps is explained by MediaSmarts, as the target is blamed, dehumanized, or deemed deserving (MediaSmarts, n.d.). Social media accelerates this process by design. boyd (2014) identifies four structural affordances of networked publics that can significantly change the nature and consequences of online conflict: persistence, visibility, spreadability, and searchability. These affordances do not necessarily create new forms of conflict; rather, they change the conditions under which ordinary social interactions occur by making online expressions more durable, accessible, and difficult to contain.

Persistence refers to the durability of online expressions and content. Unlike a spoken argument that may disappear once the interaction ends, online comments, posts, photographs, and messages can be recorded and remain accessible long after the original conflict has ended. As boyd explains, social media technologies are designed in ways that allow content to persist, meaning that an interaction that might have been temporary offline can continue to have consequences over time. For example, a hurtful comment made during an argument may remain visible through screenshots or archived posts even after

the people involved have reconciled. This means that online conflict can be repeatedly revisited rather than simply ending when the original interaction is over.

Visibility refers to the potential audience that can witness an online interaction. boyd emphasizes that networked publics can make communication visible to audiences far beyond those who were originally involved. In physical settings, a disagreement may be witnessed only by the people nearby, whereas online interactions can become visible to much larger and sometimes unintended audiences. Indeed, boyd argues that online interactions are often effectively “public by default, private through effort,” because users must actively take steps to restrict who can see their content. Consequently, a disagreement between two people can become a public performance involving friends, classmates, family members, or strangers. Spreadability describes the ease with which online content can be shared, copied, and redistributed. Social media platforms provide tools such as sharing, forwarding, reposting, and copying that allow content to move rapidly between people and across different online spaces. boyd notes that even when platforms do not provide explicit sharing tools, digital content can generally be downloaded, duplicated, and forwarded with relative ease. This is particularly significant for conflict because a single comment, photograph, or video can quickly circulate beyond its original context. For instance, a private argument captured in a screenshot could be shared with an entire peer group, transforming a two-person disagreement into a much larger social conflict.

Searchability refers to the ability to locate online content through search. Because online expressions are recorded and stored, they can potentially be retrieved long after they were originally posted. boyd points out that search engines make it possible for people to uncover messages and interactions that they were not originally present to witness. Importantly, searching can also remove content from its original context: people encountering an old post may not know why it was written, who the intended audience was, or what was happening at the time. This can contribute to what boyd calls **context collapse**, where different social contexts and audiences become intertwined.

Together, these affordances make online conflict more difficult to contain than many comparable offline conflicts. A disagreement can **persist over time, become visible to unintended audiences, spread**

beyond the original participants, and remain searchable long after the original event. Importantly, boyd does not argue that technology automatically causes harmful behaviour. Rather, the architecture of networked publics changes the social conditions in which familiar human behaviours—such as gossip, conflict, embarrassment, and reputation management—take place.

Cultivating Digital Emotional Intelligence (DEQ) becomes crucial for our future. As defined by Gurjar and Shekhar (2025), Digital EI incorporates traits such as self-awareness, emotional regulation, empathy, and adaptability. As these authors note, these are non-cognitive abilities and talents that influence how well an individual responds to environmental expectations. In other words, resilience in the digital age depends not only on technical skills and knowledge but also on the emotional competencies that enable young people to navigate the pressures of adapting to change and constant connectivity.

MediaSmarts' "Use, Understand and Engage" framework addresses the first two dimensions comprehensively - how to use digital platforms safely and how to understand the content, systems, and interests behind them (MediaSmarts, n.d.). What remains less developed is the third dimension: how to engage empathetically and ethically in digital spaces where the conditions for natural human empathy have been structurally removed. MediaSmarts' lesson plans on empathy and ethical online behaviour name the specific rationalisations children use to avoid accountability - "it was just a joke," "I just passed it on," "it wasn't that serious" - as well as providing steps for managing hot emotions online (MediaSmarts, n.d.). After such a lesson, a student can no longer claim they did not know that these behaviours cause harm. However, from experience, information alone rarely changes behaviour, particularly among students who are already disengaged or who find online conflict useful for their own social purposes. There is an emotional gap - information does not stick unless it is felt.

The following proposed lesson uses a well-known team-building exercise to spark that feeling, showing the mechanisms of conflict and how the human brain defaults to competition rather than cooperation when the conditions for empathy are removed. A powerful and emotionally engaging approach would begin not with rules but with a story, as an example, a family that stopped speaking

because of something said online, or a friendship of twenty years that ended over a political disagreement mediated entirely through text, never resolved because it was never moved to a real conversation.

The Red-Blue Exercise

One activity that could support this type of learning is the Red–Blue Exercise, a classic team-building simulation used to develop leadership and team skills, a variation of which can be easily adapted for children. Students are divided into two teams and play ten rounds. During each round, team members discuss and agree on whether to choose Red or Blue, but the teams make their decisions separately and do not know the other team’s choice before submitting their decision. After rounds four and eight, the teams are given an opportunity to communicate and negotiate before continuing. This structure creates a tension between competition and cooperation: each team is encouraged to maximise its own score, while the scoring system also makes mutually beneficial outcomes possible.

Points are awarded according to the following rules:

Team A	Team B	Team A Score	Team B Score
Red	Red	+3	+3
Red	Blue	-6	+6
Blue	Red	+6	-6
Blue	Blue	-3	-3

Table 1. *Red–Blue Exercise scoring rules.*

The stated objective is for each team to finish with the highest possible positive score. After rounds four and eight, teams may negotiate with one another before continuing. The final two rounds are worth double points. Although the exercise appears straightforward, participants commonly begin by trying to maximize their own advantage rather than considering how mutual cooperation could produce better long-term outcomes. The activity reveals how quickly people adopt an "us versus them" mindset, even when they have no personal conflict with the opposing team. This pattern was first identified in

Tajfel et al.'s (1971) classic minimal group studies, which showed that arbitrary, meaningless group assignment alone is enough to trigger favouritism toward one's own group and bias against another. The Red–Blue Exercise illustrates one of the central challenges of online empathy. Participants rarely stop to consider who the opposing team is, as they immediately begin calculating how to maximize their own outcome because the other group is psychologically distant. Placing the teams in separate rooms intensifies this effect: participants cannot see facial expressions, hear tone of voice, or observe emotional reactions, conditions that closely resemble many online interactions.

An especially powerful variation would be to place close friends on opposing teams. During the debrief, students often realize that they quickly adopted a competitive mindset, knowingly competing against someone they care about. This exercise demonstrates how easily social categorization replaces personal relationships once individuals become members of opposing groups. Tajfel (1971) explains that the minimal group paradigm shows that it is not dependent on real conflict or history between groups. *A* comparable pattern appears even in early childhood: when preschoolers are assigned to arbitrary colour-based groups — a structure close to the Red and Blue teams used here — they reliably prefer their own group and assume in-group members are more similar to themselves, based on nothing more than the shared label (Richter et al., 2016)

The Red–Blue Exercise illustrates one of the central challenges of online empathy. Participants rarely stop to consider who the opposing team actually consists of. Instead, they immediately begin calculating how to maximize their own outcome because the other group is psychologically distant. If the teams are placed in separate rooms, this effect becomes even stronger. Participants cannot see facial expressions, hear tone of voice, or observe emotional reactions—conditions that closely resemble many online interactions. Developing Digital Emotional Intelligence requires more than teaching students digital citizenship rules or warning them about online risks. Young people need opportunities to experience how easily people fall into patterns of competition, distancing, and disengagement when emotional feedback is removed. Activities such as the Red–Blue Exercise transform abstract concepts into

lived experiences, allowing students to recognize these tendencies within themselves before encountering them online.

Conclusion

Digital engagement is clearly a significant part of children's lives. However, it is only a fraction of what is causing concern about their socialization, mental health, and worldview. Long before digital media became widespread, economic pressures, family dynamics, and the decline of social capital had already begun to reshape childhood. Networked publics reveal many of the underlying issues that had been building for decades.

Understanding these challenges as part of a broader social transformation highlights the importance of strengthening children's emotional development rather than focusing solely on technology. Before children can navigate complex digital relationships with empathy, self-regulation, and ethical judgment, they must first develop these capacities through authentic participation in supportive human relationships and communities. As opportunities for these experiences become increasingly constrained within an always-on digital culture, schools have an increasingly important role in intentionally cultivating emotional intelligence. Digital Emotional Intelligence therefore represents not a replacement for emotional intelligence, but its extension into the realities of contemporary digital life.

This perspective has important implications for curriculum. If the purpose of education is to prepare young people for life beyond school, curriculum cannot remain focused primarily on knowledge acquisition while assuming that students will naturally develop the emotional and ethical capacities required to navigate increasingly complex digital environments. Just as schools have historically adapted to major social transformations, today's educational systems must respond to the changing conditions of childhood by preparing students not only to use digital technologies effectively, but also to live well within them. Such preparation requires moving beyond teaching technical digital skills toward intentionally cultivating emotional competencies. By integrating these emotional capacities with digital

competence, schools can better prepare young people to navigate increasingly complex digital environments.

As technology continues to evolve more rapidly than curriculum can adapt, education cannot prepare students for every future platform or technological innovation. Instead, it must cultivate skills that enable young people to participate meaningfully in an increasingly digital society. While thoughtful limits and age-appropriate boundaries remain important during childhood, the broader goal of education is to develop the emotional, ethical, and digital competencies that prepare children not only to navigate technology, but to remain deeply and intentionally human within it. Technology will continue to evolve and remain a defining part of children's lives. As the social conditions of childhood continue to change, preparing young people for the future requires more than digital competence alone. Digital Emotional Intelligence offers a framework for helping children be emotionally prepared and flexible in a fast-paced digital society.

Part 2. Digital Emotional Intelligence Website

URL digital-eq.org

Part 3. Children's Book

URL <https://digital-eq.org/story>

References

- ACT for Youth. (2024). *Youth statistics: Internet and social media*. Cornell University, Bronfenbrenner Center for Translational Research.
<https://actforyouth.org/adolescence/demographics/internet.cfm>
- Alter, A. (2018). *Irresistible: The rise of addictive technology and the business of keeping us hooked*. Penguin Press.
- Audrin, C., & Audrin, B. (2023). More than just emotional intelligence online: Introducing "digital emotional intelligence." *Frontiers in Psychology*, 14, Article 1154355.
<https://doi.org/10.3389/fpsyg.2023.1154355>
- Auxier, B., Anderson, M., Perrin, A., & Turner, E. (2020). *Parenting children in the age of screens*. Pew Research Center.
<https://www.pewresearch.org/internet/2020/07/28/parenting-children-in-the-age-of-screens/>
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, 71(2), 364–374. <https://doi.org/10.1037/0022-3514.71.2.364>
- boyd, d. (2014). *It's complicated: The social lives of networked teens*. Yale University Press.
- Buckingham, D. (2003). *Media education: Literacy, learning, and contemporary culture*. Polity Press.
- Canadian Institute for Health Information. (2025). *Overall trends for child and youth mental health*. <https://www.cihi.ca/en/child-and-youth-mental-health/overall-trends-for-child-and-youth-mental-health>

- Chamam, S., Forcella, A., Musio, N., Quinodoz, F., & Dimitrova, N. (2024). Effects of digital and non-digital parental distraction on parent-child interaction and communication. *Frontiers in Child and Adolescent Psychiatry*, 3, Article 1330331. <https://doi.org/10.3389/frcha.2024.1330331>
- Christakis, D. A. (2009). The effects of infant media usage: What do we know and what should we learn? *Acta Paediatrica*, 98(1), 8–16. <https://doi.org/10.1111/j.1651-2227.2008.01027.x>
- Cohen, L. (2003). *A consumers' republic: The politics of mass consumption in postwar America*. Vintage Books.
- Çolak, M., Bingöl, O. S., & Dayı, A. (2023). Self-esteem and social media addiction level in adolescents: The mediating role of body image. *Indian Journal of Psychiatry*, 65(5), 595–600. https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_306_22
- Cuciniello, M., Amorese, T., Vogel, C., Cordasco, G., & Esposito, A. (2025). The development of emotion recognition skills from childhood to adolescence. *European Journal of Investigation in Health, Psychology and Education*, 15(4), 56. <https://doi.org/10.3390/ejihpe15040056>
- EQAO. (2022). *EQAO provincial report: Elementary—English-language schools 2021–22*. Education Quality and Accountability Office. <https://www.eqao.com>
- Faverio, M., Anderson, M., & Park, E. (2025, April 22). *Teens, social media and mental health*. Pew Research Center. <https://www.pewresearch.org/internet/2025/04/22/teens-social-media-and-mental-health/>
- Fraser, N. (2013). *Fortunes of feminism: From state-managed capitalism to neoliberal crisis*. Verso.

- Globe and Mail. (2025, December 5). Ontario students faring poorly in math, standardized tests reveal. *The Globe and Mail*. <https://www.theglobeandmail.com/canada/education/article-ontario-students-math-eqao-standardized-tests/>
- Gurjar, N., & Shekhar, M. (2025). Navigating the digital era with emotional intelligence. *Global Journal of Human-Social Science*.
<https://socialscienceresearch.org/index.php/GJHSS/article/download/104334/39290/55840>
- Haidt, J. (2024). *The anxious generation: How the great rewiring of childhood is causing an epidemic of mental illness*. Penguin Press.
- Hedderston, M. M., Bekelman, T. A., Li, M., Knapp, E. A., Palmore, M., Dong, Y., Elliott, A. J., Friedman, C., Galarce, M., Gilbert-Diamond, D., Glueck, D., Hockett, C. W., Lucchini, M., McDonald, J., Sauder, K., Zhu, Y., Karagas, M. R., Dabelea, D., & Ferrara, A. (2023). Trends in screen time use among children during the COVID-19 pandemic, July 2019 through August 2021. *JAMA Network Open*, 6(2), e2256157.
<https://doi.org/10.1001/jamanetworkopen.2022.56157>
- Hietajärvi, L., Maksniemi, E., & Salmela-Aro, K. (2022). Digital engagement and academic functioning. *European Psychologist*, 27(2), 102–115. <https://doi.org/10.1027/1016-9040/a000480>
- Housel, M. (2020). *The psychology of money: Timeless lessons on wealth, greed, and happiness*. Harriman House.
- MediaSmarts. (2022). *Young Canadians in a wireless world, phase IV: Encountering and coping with social media pressure*. https://mediasmarts.ca/sites/default/files/publications/youth-online/yc-wireless-world-phase-iv-encountering-coping-social-media-pressure_0.pdf

- MediaSmarts. (n.d.-a). *Behaving ethically online: Ethics and empathy* [Lesson plan, Grades 4–6]. <https://mediasmarts.ca/teacher-resources/behaving-ethically-online-ethics-empathy>
- MediaSmarts. (n.d.-b). *Empathy*. <https://mediasmarts.ca/digital-media-literacy/digital-issues/online-ethics/empathy>
- MediaSmarts. (n.d.-c). *Use, understand & engage: A digital media literacy framework*. <https://mediasmarts.ca/teacher-resources/digital-literacy-framework/digital-literacy-framework-overview>
- Ontario Ministry of Education. (2023, September). *Letter to Ontario's parents from the Minister of Education: 2023–2024 school year*. Government of Ontario. <https://www.ontario.ca/document/letters-ontarios-parents-minister-education/2023-2024-school-year>
- Ou, C., Corby, K., Booth, K., & Ou, H.-H. (2024). Parental patterns of alcohol consumption during the COVID-19 pandemic: Scoping review. *Interactive Journal of Medical Research*, 13, Article e48339. <https://doi.org/10.2196/48339>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Radesky, J. S., Kaciroti, N., Weeks, H. M., Schaller, A., & Miller, A. L. (2023). Longitudinal associations between use of mobile devices for calming and emotional reactivity and executive functioning in children aged 3 to 5 years. *JAMA Pediatrics*, 177(1), 62–70. <https://doi.org/10.1001/jamapediatrics.2022.4793>
- Reyna, V. F., & Farley, F. (2006). Risk and rationality in adolescent decision making. *Psychological Science in the Public Interest*, 7(1), 1–44. <https://doi.org/10.1111/j.1529-1006.2006.00026.x>

- Richter, N., Over, H., & Dunham, Y. (2016). The effects of minimal group membership on young preschoolers' social preferences, estimates of similarity, and behavioral attribution. *Collabra: Psychology*, 2(1), Article 8. <https://doi.org/10.1525/collabra.44>
- Rozendaal, E., Buijzen, M., & Valkenburg, P. M. (2011). Children's understanding of the selling versus persuasive intent of junk food advertising: Implications for regulation. *Social Science & Medicine*, 72(6), 962–968. <https://doi.org/10.1016/j.socscimed.2011.01.018>
- Saunders, N. R., et al. (2026). Self-injury trends among children, adolescents and young adults: A systematic review. *JAMA Pediatrics*.
<https://www.sickkids.ca/en/news/archive/2026/sickkids-research-shows-sustained-rise-in-self-injury-among-youth-globally/>
- Scott, H. K., & Cogburn, M. (2023, January 9). Piaget. In *StatPearls*. StatPearls Publishing.
<https://www.ncbi.nlm.nih.gov/books/NBK448206/>
- Srnicek, N. (2017). *Platform capitalism*. Polity Press.
- Statistics Canada. (2016). *Women in Canada: A gender-based statistical report—The labour market* (Catalogue No. 89-503-X). <https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/14694-eng.htm>
- Statistics Canada. (2023). *Navigating socioeconomic obstacles: Impact on the well-being of Canadian youth*. Government of Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/230920/dq230920a-eng.htm>
- Steinberg, L. (2008). A social neuroscience perspective on adolescent risk-taking. *Developmental Review*, 28(1), 78–106. <https://doi.org/10.1016/j.dr.2007.08.002>

- Strouse, G. A., & Samson, J. E. (2021). Learning from video: A meta-analysis of the video deficit in children ages 0 to 6 years. *Child Development, 92*(1), e20–e38.
<https://doi.org/10.1111/cdev.13429>
- Suggate, S. P., & Martzog, P. (2020). Screen-time influences children’s mental imagery performance. *Developmental Science, 23*(6), Article e12978.
<https://doi.org/10.1111/desc.12978>
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology, 1*(2), 149–178.
<https://doi.org/10.1002/ejsp.2420010202>
- Thomson, K. C., Oberle, E., Gadermann, A. M., Guhn, M., Rowcliffe, P., & Schonert-Reichl, K. A. (2021). Promoting mental health and well-being in middle childhood: A longitudinal evaluation of the MindUP program. *Journal of Applied Developmental Psychology, 72*, Article 101209. <https://doi.org/10.1016/j.appdev.2020.101209>
- Turkle, S. (2016). *Reclaiming conversation: The power of talk in a digital age*. Penguin Books.
- Twenge, J. M. (2017). *iGen: Why today’s super-connected kids are growing up less rebellious, more tolerant, less happy—and completely unprepared for adulthood*. Atria Books.
- Twenge, J. M., & Campbell, W. K. (2013). The narcissism epidemic: Commentary on modernity and narcissistic personality disorder. *Emerging Adulthood, 1*(4), 258–263.
<https://doi.org/10.1177/2167696813484782>
- UNICEF. (2021). *The state of the world’s children 2021: On my mind—Promoting, protecting and caring for children’s mental health*. <https://www.unicef.org/reports/state-worlds-children-2021>

UNICEF. (2025, June 3). *Mental health study shows Gen Z overwhelmed but undeterred by unrelenting global crises*. UNICEF Partnerships.

<https://www.unicef.org/partnerships/mental-health-study-shows-gen-z-overwhelmed-undeterred-unrelenting-global-crises>

Vissenberg, J., D'Haenens, L., & Livingstone, S. (2022). Digital literacy and online resilience as facilitators of young people's well-being? A systematic review. *European Psychologist*, 27(2), 76–85. <https://doi.org/10.1027/1016-9040/a000478>

Weinstock, M., Israel, V., Fisher Cohen, H., Tabak, I., & Harari, Y. (2020). Young schoolchildren's epistemic development: A longitudinal qualitative study. *Frontiers in Psychology*, 11, Article 1475. <https://doi.org/10.3389/fpsyg.2020.01475>